

CASTEING THE NET: THE MAKING OF A LAGOON
AND THE EMERGENCE OF CASTE AS SOCIAL NETWORK

by

EIAL DUJOVNY

(Under the Direction of J. Peter Brosius)

ABSTRACT

Melding historical and social network approaches, this dissertation explores the formation of caste identities and social relations between fishers and non-fishers in the Chilika Lake basin. For over a quarter of a century, the lake has been at the epicenter of the “Blue Revolution” in India and is a major source of exported prawns. Unfortunately, the introduction of prawn aquaculture has resulted in rising tensions between the lake’s fisher and non-fisher communities as the latter have abandoned agriculture and longstanding caste prohibitions to enter the fishery.

This research investigates how the imposition of capitalist property rights under the colonial system of land revenue administration resulted in a strict division between rights to land and water that polarized the communities and solidified caste identities. At the same time, it reveals the historical undercurrents that spurred the non-fisher communities to embrace aquaculture as a means of reengaging with the lake’s “wastelands” – territories that, prior to the imposition of the Salt Monopoly, supported the local communities in the agricultural slack season.

Using Social Network Analysis to explore friendship networks, this study questions whether the increasing similarity between fishers and non-fishers has resulted in a breakdown in social taboos and increased interaction at the individual level. These findings suggest that although caste is socially and historically constructed on the one hand, and subject to political, economic and modernizing pressures on the other hand, it primarily functions as a social network that continues to structure people's social relations and access to resources.

While this dissertation argues that the historical approach is a necessary and long overdue corrective to the ahistorical and Orientalist writings on India that have depicted caste as a timeless and otherworldly phenomenon, it contends that this perspective has also diverted attention away from an exploration of how caste is actually lived today. By employing Social Network Analysis, this research proposes a new methodological and theoretical approach to the study of caste, one that lends itself to more grounded, political, and dynamic analyses that may be replicated throughout South Asia.

INDEX WORDS: Caste, social network analysis, India, Orissa, Chilika Lake, fishers, Kaibarta, Non-fishers, Khondayat, fishery, lease policy, prawn aquaculture, salt production, land revenue administration, lagoon fishing, friendship, Khurda Kingdom, subsistence convergence, egocentric networks, homophily, multiplexity

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For Henrika, Maya, Raphael and Yinon

The disadvantage of over-large projects is that one can sometimes enjoy the journey too much ever to reach the end. - Fernand Braudel

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People often ask me how I ended up in Chilika Lake; the truth is that it was an accident of geography. Back in 1998, I traveled to the Baltics to work for a Lithuanian environmental organization specializing in coastal zone management. Though I was interested in the problems and overlapping jurisdictions vying for control of this tiny stretch of coast (99 km long), I found that my attention kept being drawn back to the lagoon that lay directly behind it. As I soon learned, the Curonian lagoon, a beautiful expanse of placid water, is the largest brackish water lagoon in Europe. Although I never could have imagined the twists and turns (or the detours along the way), it is precisely this Lithuanian lagoon that eventually led me to the shores of the Bay of Bengal and Chilika Lake. For this unexpected turn of events, I must first express my gratitude to Ramunas Povilanskas of the European Union for Coastal Conservation – Baltic Office. Thanks to his suggestion, we co-wrote a grant proposal to “twin” Europe and Asia’s largest brackish water lagoons. Though we never did end up procuring any funds for this project, I can say with certainty that, had he not taken the initiative to search for Chilika Lake, I probably never would have found it.

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during my first visit in 2002. Through his extensive network of contacts, I was able to meet with fishers, non-fishers, government employees, and environmental activists who are tirelessly working to protect the lake and its fishery. Many thanks also to his wife Rina, their two sons, and the hard-working staff of Pallishree.

Sadly, since the construction of large, upstream dams, and the introduction of prawn aquaculture in the early 1980s, the lake and fishery has experienced steady declines in environmental quality. The fisher and non-fisher communities of the lake are confronted with a constant struggle to survive economically in the face of this rapidly diminishing natural resource. The Indian government has attempted to tackle this situation through feats of engineering and scientific studies that have largely failed to improve the lives of those most dependent on the lake. It is hardly surprising then, that when I first arrived, I was often greeted with the question “*Kana Mileba?*” (What have you brought?) and asked to explain exactly how my study would benefit the lake communities. Even though I had to admit that there really was little of substance that I could offer on my own, the people of Chilika never failed to share a cup of chai or *poida* (green coconut), and their incredible knowledge of the lake and its fishery. I would especially like to thank the residents of Bhalabhadrapur and Satapada Gada, who stoically submitted to my never-ending list of arcane and intrusive questions when they could have been doing far more important things like fixing their fishing nets. In addition, I would like to thank the residents of Aloopatna, Parala, Jaripada, Panchupathia, Barkul, Pathara, Noiry, Busundupur, Krushnaprasad Garh, Sipakhuda, Arakhakuda, Sanapatna, Gajapatnagar, Gombhari, Mirzapur, Gurubai, and the numerous places in between.

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CHAPTER 1

INTRODUCTION: CASTEING THE NET IN CHILIKA LAKE

Our early revenue officers in Puri district believed that the Chilká¹ had once been solid land. A native tradition relates how, about the year of our Lord 318, a strange race (*Yavanas*) came sailing across the sea, and cast anchor off the holy city of Puri, hoping to surprise the temple, with its store of jewels, and treasure-house of costly oblations. But the priests, having for days beforehand seen quantities of litter from the horses and elephants drifting ashore, fled with the precious image, and left an empty city to the invaders. The disappointed general, Red-arm (*Rakta Bahu*) by name, enraged at the tell tale tide, advanced in battle array to punish the ocean. The sea receded deceitfully for a couple of miles, and then suddenly surging in upon the presumptuous foreigners, swallowed them up. At the same time it flooded a great part of the Puri district, and formed the Chilká Lake. (Hunter 1872: 25)²

After dodging oncoming traffic, potholes and various types of livestock for two and a half hours – all while riding shotgun on an Enfield “Bullet” motorcycle – I arrived in the fishing village of Aloopatna and my first glimpse of Chilika Lake. I was traveling with Mayur,³ the teenage son of a local NGO director, who was billeted with me for the summer as my field assistant cum translator. As we approached our destination, we turned onto the dirt road that led to the village and were spotted by a group of children playing volleyball in a desiccated prawn pond. Putting their game on hold, the children sounded the alarm and chased after our

¹ When Hunter was writing his history of Orissa, it was part of the province of Bengal that included both Bihar and Orissa. In Bengali, the lake was and is still known as Chilka, while in Oriya, it is written and pronounced Chilika.

² According to Sahu (1956:6f) “Hunter takes this account from the Madala Panji, the Jagannath temple chronicle.” Santhanam (1969:458) relates that the Madala Panji was commissioned by the Bhoi Dynasty in the 16th century as a document, “which can be taken as an improvised gazetteer” and based on older temple records. Some scholars believe that the Madala Panji can be traced back to the reign of Chodaganga Dev (1078-1150), though most of the records were apparently destroyed during the *Kala Pahar* era of Afghan rule 1568-1592 (Kulke 2001b). It just as likely that Hunter was familiar with Stirling’s retelling of this tale (Stirling and Peggs 1846).

³ All names of individuals in this dissertation are pseudonyms.

motorcycle shouting, “*Gora! Nanda gora!*” (White man! Bald white man!)⁴ at the top of their lungs as we wended our way through the narrow byways of the village.

Before leaving Bhubaneswar I received the name of a primary school teacher I hoped would agree to be the first participant in my study. When we finally arrived at his home, I waited outside, smiling nervously at the assembled crowd of curious onlookers until Mayur emerged with Mr. Parida. Seeming pleasantly surprised by our unannounced visit, he quickly arranged for several of the white plastic chairs that were reserved for special guests and dispatched a young boy with a stick to fetch some green coconuts from a nearby palm tree. As we emptied the coconuts of water and meat, I talked with him about his community and asked him to describe the environmental and social changes that he had witnessed during his lifetime. Since his English was excellent, we agreed to conduct our discussion without a translator. Mayur joined the crowd to field the barrage of questions about me and my research. Focused as I was on my first “official” interview as an anthropologist, I did not even notice when he disappeared with some newfound friends. Once my interview was over and this rite of passage was under my belt, I thanked Mr. Parida for sharing his time and excused myself to explore the village.

Rather than search for Mayur, I figured I would look for the Outer Channel of the lake, the waterway which connected it to the Bay of Bengal. Since I knew that it must be located somewhere along the backside of the village, I headed out in that general direction (Figure 1.1). The time was around eleven o’clock in the morning and I could see the shoreline, dotted with some 40 flat-bottomed boats and several groups of men who were busy sorting the morning catch. To one side I noticed a small herd of water buffalo wallowing lazily up to their necks in

⁴ See Appendix A for Glossary

the muddy waters of a small pond. Bobbing up and down in the pond were two small, raft-like boats that looked as if they had been assembled from pieces of flotsam. Nearby, I spotted several children playing in the lake with a fine-meshed triangular “zero” net attached to a Y-shaped tree branch.



Figure 1.1 View of the Outer Channel of Chilika Lake.

From this vantage point I could see several backyards full of fishing gear located only steps away from the water’s edge. Domesticated ducks and chickens scurried about and pecked at the garbage strewn along the shoreline, as stray dogs toyed with the dead jellyfish that had washed up onto the beach. Several men sat nearby in the shade of a banyan tree fixing their nets; another group sat cross-legged and noisily played cards (Figure 1.2). The channel, which glimmered in shades of blue and silver, was bounded on one end by a narrow sand spit

separating it from the sea, while the near shore was occasionally pierced by rows of fixed gill nets directing unsuspecting fish into the awaiting box traps.



Figure 1.2 A Fisher prepares gill nets.

After a few minutes, someone came looking for me and I was led to the entrance of a thatched-roof building which consisted of a large hall carpeted from end to end with reed mats. The building was a youth club house, and inside I found Mayur hanging out with a group of young men. Though village club houses are typically segregated by age (and I clearly belonged to a different age set), they kindly invited me to join their group. On the front porch I could see some young men playing a hotly contested game of carom, while in the back some young men rested between shifts out on the lake.

As soon as I sat down, two young men took turns quizzing me in pidgin English. “What country you from?”, “How far your country?”, “You give some coins from your country?”, “Your religion is Christian?”, “How you like Orissa?” and “Your country and India, what difference is there?” This last question was immediately followed with the exclamation “India is best!”, though it came out sounding more like a question than a statement of fact. After about ten minutes of this back and forth, they inquired as to why I had come to their village. I did my best to explain and told them that I wanted to learn as much as possible about the history of Chilika and the impact of recent environmental changes on the lake’s communities.

The face of one of the young men lit up as I mentioned this and he asked if I was familiar with the story of Chilika’s formation. Though I had read Hunter’s account of a popular legend (quoted above) concerning the formation of Chilika, and was familiar with his assertion that, “at some period, infinitely remote as regards world history, yet still commemorated by a local proverb, and very recent if computed by the epochs of geology, the surf of the Bay used to lash against the foot of the hills” (Hunter 1872:22), I was excited by the prospect that this legend might still be echoed in some way by local lore. Instead, the young man proceeded to surprise me with a magical tale about a scatologically-induced earthquake.

According to this legend, the area where Chilika is presently located was once fertile farmland that supported numerous farming communities. As the land was in the grips of a severe drought, these communities decided to perform *Yajña* (fire sacrifice) to implore the gods for forgiveness and rain. Shortly after the *hotar* (officiating Brahmin priest) invoked the *pūja* (religious ceremony), a young child walked up to the fire pit, defecated, and ran off. Naturally, the worshippers recoiled from this act of desecration and trembled in fear from the gods’ wrath. Instead, the child’s turd was magically transformed into solid gold. Overcome with thoughts of

unimaginable riches and, losing all sense of propriety, the worshippers broke ranks and descended en masse to defecate over the fire pit. One after another, the people, and even the attending priests, lined up, defecated and walked away with the miraculous gold as the hotar looked on in disgust.

As word spread throughout the village, even the hotar's wife could not resist the lure of the magical gold. Although her husband pleaded with her not to follow the example of the crowd and told her that this was a grave crime against *dharma* (the underlying order of nature), his pleas fell on deaf ears. Distraught at his inability to dissuade even his own wife from *adharma* (opposing the laws of nature), and determined to cleanse himself of the impurity that he had just witnessed, the Brahmin headed to the ocean to take *snan* (ritual bath). At precisely the same moment that he entered the sea, his wife squatted over the sacred fire and the earth shook to its core. The ocean waters rose up to overtake the land and did not subside until the Brahmin's wife finished defecating and Chilika Lake was fully formed.



On the one hand a myth always refers to events alleged to have taken place long ago. But what gives the myth an operational value is that the specific pattern described is timeless; it explains the present and the past as well as the future. – Lévi-Strauss (1963: 209)

Dharma and Adharma

Though these legends clearly differ in most of their particulars, they present some intriguing structural and thematic overlap. Both the Rakta Bahu (RB) and Sacred fire (SF) stories can be read as cautionary tales that revolve around an affront to the gods that leads to a change in the natural order. In the RB legend, the affront is directed both against the temple in

Puri – the abode of Jagannath, Lord of the Universe⁵ – and the sea, which is also worshipped as the god *Varuna*. By forewarning the priests to the imminent assault on the temple, the sea is neither a passive observer nor a static force, but rather actively engages as the protector of the Jagannath temple and the cosmic order. As foreigners, the *Yavanas* who seek to besiege the temple are representative of the quintessential “other” in classic Indian thought⁶ and by definition constitute a threat to *Sanatana Dharma*⁷ (the eternal *dharma*) (Figure 1.3).

In the SF legend, the affront is similar, albeit a more general one against *dharma*, in the sense of, “the eternal Divine Law of the Lord,” by which all of, “creation is held together and sustained.” (Dharma 2008; c.f. Wilson 1968: 136-37). By following the masses and losing sight of their responsibility to fulfill their *dharma*, (in the sense of “duty”) to maintain the cosmic order, the priests in the SF legend bring destruction upon their communities and themselves. The gender undertones surrounding the inability of the presiding Brahmin to prevent even his own wife from desecrating the sacred fire can be seen as the dissolution of the final bonds maintaining that order, as well as an assault by a quintessential “other” against the cosmic order and *Sanatana dharma*.⁸ In both cases, the lure of easy riches proves to be too strong to resist and

⁵ The name Jagannath literally means *Jaga* (Lord) and *Natha* (Universe). The English word Juggernaut – meaning an unstoppable force, is a corruption of Jagannath and has to do with the yearly *Ratha Yatra* (Car festival) where huge chariots were pulled by the masses to transport the Jagannath *murti* (idol) and those of his brother and sister Bhalabhadra and Subhadra from the Jagannath *mandir* (temple) to Gundicha *mandir*. The English word and connotation is based on the fact that, on occasion, people would be crushed under the wheels of the chariots (Yule, et al. 1968 [1903]: 466). Although Bruton was not the first foreigner to write about Jagannath, he was the first British visitor to describe the deaths of pilgrims under the chariot’s wheels during his visit in 1633 (Bruton and Nair 1985: 70). For a British account shortly after the invasion of the province in 1802, see Dr. Claudius Buchanan (Bernier 1826: 269; cf. Tripathy 2003).

⁶ According to Basham (1954: 230) “While the term *Yavana* was often used vaguely, and from its original meaning of ‘a Greek’, came to be applied to any Westerner.” For example, “A story of the 6th or 7th century, tells of a merchant’s son who sailed to ‘the island of the Black *Yavanas*’, which must surely be Madagascar or Zanzibar” (Basham 1954: 227).

⁷ The eternal path or eternal law. This is the term traditionally used by Hindus to describe Hinduism.

⁸ This legend also echoes to some extent the story of Holika who sinned against Vishnu by agreeing to her father’s request to let her brother Prahalad sit on her lap while they sat in a fire. According to the legend, Holika was burned to death because Brahma had given her a fire-protecting shawl under the condition that she would not use it to harm

in both cases the final arbiter is the sea, which cleanses the earth and drowns the wicked. In effect, Chilika Lake is an enduring testament to hubris and greed, a symbolic reminder of the catastrophic consequences of upsetting the natural order (i.e. *adharna*).

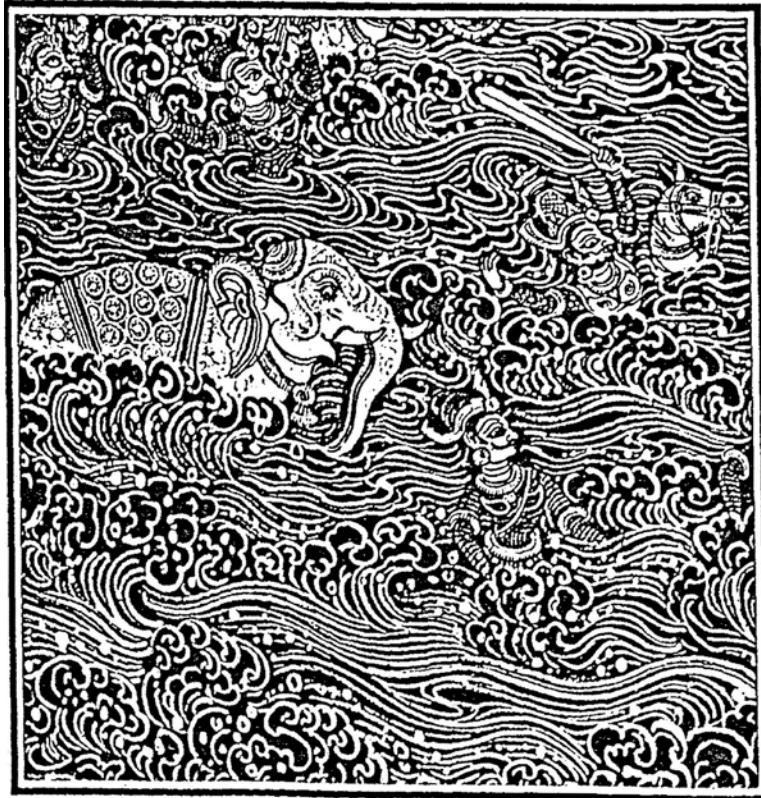


Figure 1.3 Engraving of the Rakta Bahu Story (Agarwal 2002: 264).

These myths continue to resonate to this day, as both the lake and the communities dependent on the lake for their livelihood are experiencing massive ecological and social upheaval. For over a quarter of a century, Chilika Lake has been at the epicenter of the “Blue Revolution” (Figure 1.4). Envisaged by its backers as a way to ensure a reliable supply of protein, aquaculture was touted as a logical extension to ongoing efforts to increase the

anyone. Note also the similarities to the Biblical Adam and Eve story where they are exiled from the Garden of Eden due to Eve’s sin of eating from the Tree of Knowledge.

biological and economic yields of fisheries and a complement to the “Green Revolution” in agriculture.



Figure 1.4 Location of Chilika Lake

This concept was embraced and actively promoted by the Indian government, which as early as 1956 established the Chilika Investigative Unit of the Central Ministry of Food and Agriculture with the express purpose of, “develop[ing] the fisheries of the lake to a level of optimum productivity” (Jhingran 1963). With the proliferation of new technologies in the early 1980s, the Orissa Fishery Department introduced prawn aquaculture on state owned wastelands as part of a supplemental income program for low-income families. To everyone’s astonishment, the participating families quickly discovered that they were able to earn more in

four months than the government-designated official poverty line (based on *annual* earnings). As these results became widely known, the program served as a model for other similar efforts throughout India and beyond.

Much to the consternation of the local fishing communities, the remarkable success of this program led to a massive influx of individuals from the local farming communities into the fishery. The rapid proliferation of *pokhori* (prawn ponds) along the lake shore and *gherries* (prawn enclosures) within the lake has been the source of communal tensions since they often infringe on the fishing grounds leased out by the fishing communities. At the same time, many of those who initially entered the lake because of prawn aquaculture, have taken up fishing as a profession and now also set traps in the lake. What began as a gold rush has become for many a subsistence shift as individuals and communities that were once solely dependent on agriculture have for the past quarter century been earning their primary livelihood through the lake's fishery. From the standpoint of social relations, this has resulted in communal tensions. The various *matsyajibi* (fisher) *jatis* (subcastes)⁹ that have been fishing the lake for generations have united under the banner of the *Chilika Matsyajibi Mahasangha* (Chilika Fisher Federation) to oppose the *ana-matsyajibi* (non-fishers) who have entered the fishery.¹⁰

From the perspective of the lake's fishing communities,¹¹ the entry of individuals from non-fishing castes into the fishery has upset long-standing social relations and is often cited as the root cause of the myriad problems that presently afflict the lake. To the average fisher, the

⁹ In this dissertation, unless noted otherwise, the English term "caste" refers to *jati* or "subcaste" since this is the accepted, functional unit of caste in South Asian society. When "caste" specifically refers to *varna*, or the four-part caste system, this will be pointed out in the text.

¹⁰ In the Chilika basin people commonly refer to one another as "fishermen" and "non-fishermen." For the purposes of this dissertation, I will use fisher and non-fisher except in the case of reported speech.

¹¹ By "fishing community," I mean people who are members of specific fishing *jatis* that traditionally earned their livelihood through fishing in Chilika Lake.

non-fisher, whether they are Brahmins or the more numerous *Khondayats* that make up the local farming communities, are the quintessential “others” against which they define themselves. The entry of these “non-fishers” into the fishery is felt by the fishers to be an existential threat to their way of life, and in ways reminiscent of the two myths, is routinely spoken of as stemming from a greed that is at odds with the natural order. Often when fishers discuss the loss of their traditional fishing grounds they remark that, “Even Brahmins are now fishing in Chilika.” And more often than not, this observation is followed by a lament about the decline of the fishery that hints at the loss of the fishing communities’ stewardship role. Like in both the RB and SF legends, the pursuit of riches and meddlesome foreigners play central roles in shaping the Chilika environment. Once again, “black gold,” which is ironically the local nickname for the lucrative Black Tiger Prawn (*Penaeus monodon*) species, imperils the future existence of the lake.

For their part, even though many non-fishers readily admit that fishing was not their primary source of livelihood in the past, they argue that they also live on the shores of the lake and should receive equal, if not proportional access. The agricultural communities that I visited, explained that they are dependent on one crop a year. In addition, the prevalence of highly saline or waterlogged soils and lack of irrigation makes farming in the Outer Channel region of the lake a particularly risky subsistence strategy. Moreover, they assert that since they have always fished in the lake for *tarkari* (meals),¹² they should also be recognized as having longstanding customary use rights.

The marginal nature of farming in large parts of the Chilika basin has meant that, in the past, the fishing communities could depend on a steady income from the lake fishery and, in

¹² Refers to fishing for meals, as opposed to fishing for livelihood.

comparison to the local farmers, were relatively well off. To the farming communities, which have historically been politically dominant and considered themselves to be superior to the fishers,¹³ this situation was felt to be an unbearable perversion of the natural order. As I was once told during an interview with a group of farmers from a community that has adopted prawn aquaculture, “When only the fishermen were fishing in Chilika, we were poor and they were rich. Now that we are fishing in the lake, we have money to send our children to school and they are suffering.” As such, they view the decision to enter the fishery not so much as an example of greed but rather as a way to address what they perceive as the *adharna* of long-standing social inequalities.

Aquaculture and Social Relations among Chilika’s Fishers and Non-Fishers

Initially, this study was conceived of as a multi-sited ethnography of various sectors of Chilika Lake to investigate the introduction of aquaculture and its impacts on social relations between fishers and non-fishers in the basin. Aquaculture, or the “Blue Revolution,” as it has been dubbed by its promoters, has been a growing area of interest to researchers in various fields. This is hardly surprising considering that in 2004 it was a US \$63.3 billion a year industry that accounted for 43% of the 106 million tons of fish supplied worldwide (Fisheries and Aquaculture Department 2007: 3). These figures are forecast to grow since aquaculture continues to expand “more rapidly than all other animal food-producing sectors, with an average annual growth rate of 8.8 percent per year since 1970” (Fisheries and Aquaculture Department 2007: 5). At 2,472,335 tons of produced fish worth \$715 million in exports in 2004, India is a major player in

¹³ This can be traced back to the hierarchical ranking of the *varna* caste system, and is attributed to the fact that fishermen deal with dead animals and are thus considered tainted by the pollution of death. In addition, in the pre-colonial era, the farming communities in this area were often granted the right to till the lands in return for their service as soldiers in the King’s militia (See Chapter 4).

this industry and second only to China in quantity of farm-raised fish (Fisheries and Aquaculture Department 2007: 18).

Since the early 1980s, Chilika Lake has been at the forefront of aquaculture development in India. While this business has been lucrative for some, it has also resulted in simmering tensions between the fishers and non-fishers of the lake that has, on occasion, erupted into violence. In 2002, I interviewed numerous people in eight villages scattered throughout the lake in order to get an idea of what lay at the root of these conflicts (Dujovny 2007). Based on this research and information received from the Chilika Development Authority, I learned that aquaculture was more prevalent in the Outer Channel sector of the lake than along its western shores. Primarily, this was because prawns thrive in brackish water with a salinity gradient of 15-25 ppt and the proximity of the Northern sector to the Daya and Luna river deltas results in lower salinities. Another factor favoring the Outer Channel sector of the lake is the fact that it is dissected by numerous creeks and channels. This makes aquaculture activities more cost-efficient to carry out since a smaller amount of netting and bamboo stakes are needed. Based on these facts, I initially planned to compare and contrast two villages: one along the western shore from Barkul to Busundupur, where there was no prawn aquaculture; and the other in the Outer Channel region, where there was open conflict between fishers and non-fishers over access to fishing grounds. The goal of the research was to explore communal relations to see if there was a positive relationship between areas with prawn aquaculture and conflictual relationships. Egocentric social networks were to be collected in order to see if there were more cross-caste ties in areas where there is no prawn aquaculture and lower levels of conflict.

When I returned to the lake for long-term ethnographic fieldwork in 2005, I began looking for possible field sites only to discover that, for numerous reasons, this project was not

practicable. To begin with, after the dredging of a new sea mouth by the Indian government in 2000, the lake experienced massive changes to its salinity regime that made prawn aquaculture feasible in all sectors of the lake. Secondly, I discovered that the western shore communities were actively engaged in prawn aquaculture even prior to the dredging of the sea mouth. Many of these villages had built earthen embankments in their nearshore waters and those that did not, either had gherries in the open waters of the lake, or commuted to the Outer Channel where they carried out prawn aquaculture. Since my research was predicated on this comparative study, I persisted until I eventually landed in a village that met all the criteria for my study. The reward for my efforts was a personal visit from an officer of the District Intelligence Bureau (DIB).¹⁴ As it turned out, I was permitted to conduct research in the village I had selected, but the nearshore waters of the village were gazette as part of the INS Chilika naval base and strictly off-limits. Not sure how I could live with fishers and conduct effective participant-observation without ever getting into a boat, I retreated.

Eventually, I decided to focus on the Outer Channel of the lake. This area was ground zero for large-scale prawn production and home to many fisher and non-fisher communities who live in close proximity to one another. After much searching, I settled on two Satapada Island villages that are strategically located at exactly the point where the Outer Channel meets the body of the lake (Figure 1.5). Though separated from one another by less than 100 meters, the villages are divided along jati lines (Figure 1.6). Bhalabhadrapur is a traditional fishing village where the vast majority of the inhabitants are of the Kaibarta fishing jati. Satapada Gada is a traditional agricultural village and its inhabitants are exclusively from the Khondayat agricultural caste. The primary source of income for the majority of the villagers of both communities is the

¹⁴ This is the Indian version of the United States Federal Bureau of Investigation (FBI).

capture and sale of fish from Chilika Lake – whether by setting traps, through prawn aquaculture or a combination of the two.



Figure 1.5 Map of Chilika Lake showing Satapada Island, which is strategically located between the outer channel and the main body of the lake. My field site is located at the southwestern tip of the island (Expedia Maps 2009).

Notwithstanding the increasing similarity between the two communities, especially with regard to subsistence strategies, I found it interesting that both sides insisted on referring to each other as *matsyajibi* and *ana-matsyajibi*. Interestingly, this was not because members of both communities live in complete isolation from one another. Rather, the two villages shared an elementary school, villagers were actively engaged in *deba-neba* (barter) relations, members of both communities served together on *gram panchayat* councils of locally elected officials, there

was a shared market, and all of them were dependent on the same natural resource for their economic survival. Yet, both sides spoke in disparaging tones of their neighbors, and at the personal level, I found that there was little, if any, interaction among individuals.



Figure 1.6 An aerial view of Bhalabhadrapur (L) and Satpada Gada (R). The yellow arrow between the two villages is exactly one hundred meters long (Google Maps 2009).

This general lack of social relations brought to mind many interesting questions. Was this separation indicative of underlying differences between the two groups? Since both groups maintained a similar economy for over a quarter of a century, what was the basis for the

differences between the groups? What accounted for their continued segregation? Was this simply a product of caste differences rooted in a religious ideology? If so, then how could one explain the fact that the non-fishers were actively engaged in something so adharmic and ritually polluting as fishing? How did this reconcile with their superior and aloof stance with respect to their fisher neighbors? More importantly, what did this say about non-fisher self-perception? Did non-fishers still see themselves as essentially farmers, as fishermen, or some combination of the two? How has this influenced longstanding caste prohibitions and were there any signs of closer ties at the individual level? In short, were individual's social networks reflective of changing subsistence strategies, and if so, how exactly?

Theoretical Framework and Methodology

To answer these questions, this research melds historical and social network research strategies. For over thirty years, the historical approach has dominated South Asian anthropology. This emerged as a reaction to and long overdue corrective to the ahistorical and Orientalist writings which preceded it (Mathur 2000). First pioneered by historians such as Eric Stokes (1959) and Ranajit Guha (1963), as well as the anthropologist Bernard Cohn (1960; 1962), this perspective sought to counter traditional depictions of India as a timeless and other-worldly space trapped by primeval notions of purity and impurity (e.g. Dumont 1970; Dumont and Pocock 1957). Rather, these works teased out how colonial interventions, or “colonialism and its forms of knowledge” (Cohn 1996) fundamentally reshaped Indian society at the same time that these interventions were ostensibly being undertaken to preserve Indian traditions.

This historical approach has allowed scholars such as Nicholas Dirks (1988; 2001), Susan Bayly (1999), Christopher Fuller (1977; 1993), Gloria Raheja (1988a), Ronald Inden (1986,

2000), and others to show the extent to which categories such as dharma, adharma, and caste are socially constructed. Perhaps more importantly, by arguing that these social constructions are historically contingent and contested, they have completely revolutionized our conception of Indian society and reasserted the vital role played by politics. Other scholars such as Sivaramakrishnan (1999), D'Souza (2006), Mosse (2003), and Reeves (1995), have taken a similar approach in their researches on the historical ecology of colonial rule in India. They demonstrate how “natural” categories such as forests, rivers, and fisheries emerged through assertions of state power (Sivaramakrishnan 1999) and the often unintended consequences of what Scott (1998) has termed “state-simplifications.”

Following this historical approach, I argue that, in the case of Chilika Lake, caste categories and cross-caste social relations are to a large degree the product of colonial interventions which defined the lake. These interventions, which manifested as a consequence of land revenue administration policies, redefined local land relations and did away with the pre-colonial “system of entitlements” by imposing capitalist property rights to land. Whereas, under the pre-colonial system, caste was often an attained status and land ownership was less important than a share of the grain heap, under British rule, title to land became the *sine qua non* of status in Oriya society. In effect, this established an agricultural class at the same time that other groups, such as fishers and tribals, became landless. The eventual development of a lease system for the lake’s fishing grounds not only completed the legal separation between land and water, but also separated fishers as a distinct category. Unfortunately, these strict divisions overlooked the multi-use nature of the lake and have resulted in much conflict between the respective communities.

This historical approach is undeniably critical to our understanding of the ways in which both caste and the environment are not *a priori* facts, but rather social constructs that developed over time. Nonetheless, I am concerned that focusing solely on the contingent nature of these phenomena entails some very real risks. To begin with, this emphasis threatens to divert our attention away from examining how caste is actually lived today. By not talking about the ways caste works in practice, it is effectively reified as an unproblematized category and the internal logic of the system remains undertheorized. In extreme cases, the historical approach invites interpretations that caste does not exist in any “real” sense and should, once and for all, be done away with as a meaningful category of analysis (cf. Dirks 1997). By concluding this dissertation with a social network analysis of social relations in my field site, I hope to show that caste continues to structure people’s everyday lives and hence has “real” world implications.

To better understand the role of caste in people’s interpersonal relations, I decided to collect egocentric friendship networks from fisher, non-fisher and dalit participants living in the two villages. Friendship, a dyadic tie which has been defined as “the relatively ‘unofficial’ bonds that people construct with one another that tend to be personal, affective, and often a matter of choice,” (Lavenda and Schultz 2008: 411) was selected as the rubric of analysis for two reasons. First of all, the entry of non-fishers into the fishery suggested a reduction in ritual concerns surrounding purity and impurity. Since such concerns have limited cross-caste interactions in the past, it was hypothesized that this process of de-ritualization would remove the impediments to friendship and manifest in individuals’ social networks networks. Secondly, the de-ritualization of caste implies a reduction in caste solidarity and hence greater individual agency that would be expected to manifest in an increase in voluntary relationships. It is precisely the fact that friendships are relations that are entered into as a consequence of

individual choices that distinguishes them from the other possible relations (e.g. political, barter, and economic) that could be modeled using social network analysis.

To test these hypotheses, I collected thirty-one egocentric networks from Bhalabhadrapur and Satapada Gada and used EgoNet (McCarty 2006), a freeware program I downloaded from the internet. Since the program allows for the collection of sociocentric data as well as detailed information on each alter (i.e. friend) (McCarty 2002), I was then able to analyze these networks in UCINet (Borgatti, et al. 2002) and NetDraw (Borgatti 2006) for structural measures such as degree, betweenness and closeness centrality (Hanneman and Riddle 2005). I also borrow such sociological methods of analysis as homophily (McPherson and Smith-Lovin 1987; McPherson, et al. 2001), multiplexity (Verbrugge 1978), heterogeneity (Blau 1974; Blau 1977a), the “strength of weak ties” (Granovetter 1973; Granovetter 1983), and Social Balance Theory (Cartwright and Harary 1956) to better understand the recent history of conflict and cooperation between fishers and non-fishers. Taken together with the descriptive attribute data that I collected on each individual alter in these social networks, these methods permit a detailed analysis by jati that provides a more grounded and dynamic window onto caste relations. It is my hope that, since this methodological approach easily lends itself to replication in different parts of India, it will contribute to a better understanding of the various ways in which caste is actually lived today.

Numerous other methodological techniques, including long-term ethnographic fieldwork and participant observation, interviews, census data, free-listing, pile sorts, photo-elicitation, and counter-mapping were also carried out over the twenty-two month period in which I conducted research. While not all of these methods are explicitly discussed in this dissertation, they have all contributed in some way to the conclusions in this work.

Structure of the Dissertation

This work is divided into three parts. The first part attempts to situate Chilika through a geographical history of the lake. Chapter Two begins by looking at the physical characteristics of the lake and how its unique geography accounts for the incredible diversity of this ecosystem. The chapter attempts to show the important role of geographic factors on the development of the lagoon fishery. The four sectors of the lake, as traditionally defined by limnologists, are described in detail and the various lake communities are briefly introduced. Chapter Three engages with classic texts from antiquity in a Braudelian *longue durée* approach that breaks new ground in our understanding of the lake's position as an important trading center. It seeks to explain why successive South Asian empires such as the Mauryas, Mughals, and the British have sought to control this stretch of the Orissa coastline in furtherance of their political and economic objectives.

The second part of the dissertation attempts to understand how colonial interventions in land revenue administration reconfigured social relations in the Chilika basin. Chapter Four reviews the pre-colonial "system of entitlements" and contrasts it to the system of capitalist property rights imposed following the British invasion of 1803. The chapter surveys the various land settlements of the nineteenth century, including *zamindari* and *ryotwari* rule. In particular, I focus on how the changing land relations resulted in the conversion of caste from an attained to an ascribed category in the Chilika basin. Chapter Five examines the process by which the lake water's were decoupled from the lands of the surrounding estates. Through primary sources such as colonial era correspondences, court cases, and Board of Revenue decisions uncovered during fieldwork, I demonstrate how the Chilika *hrada* (lake) was discursively reconfigured as an "arm of the sea." Through this redefinition, colonial authorities were able to justify their

claim of jurisdiction over the lucrative fishery. Based on this research, I argue that the lease system that they introduced in the fishery effectively created a category of “pani ryots” (“water peasants”) which lies at the root of such present-day divisions into matsyajibi and ana-matsyajibi.

Chapter Six completes this section by looking at the marginal areas of the lake that were officially designated as “wastelands.” I show that these areas, which were dry land in the summer and covered by several feet of water during the monsoon season, were, in actuality, multi-use areas that were critical to the local economy. Historically, these “wastelands” were known as *nunmati* (saltlands) and used by the Outer Channel communities for salt production in the agricultural slack season and as *jano* (enclosed) fisheries throughout the rest of the year. With the introduction of the Salt Monopoly the independent manufacture of salt was outlawed and the local communities were slowly pauperized. Using court records, I reveal that the entry of non-fishers into the Chilika fishery predated the introduction of aquaculture and likely began as an attempt to reengage with the *nunmati* ecological niche.

The third part of the dissertation explores the role of caste in the everyday lives of fishers and non-fishers in the Chilika basin. Chapter Seven employs census data from Bhalabhadrapur and Satapada Gada to reveal a “subsistence convergence” as both communities presently depend on the lake fishery as their primary source of livelihood. I argue that the de-ritualization and ethnicization of caste explains why concerns regarding purity and impurity that traditionally surrounded the fishing professions have been abandoned. While this ethnicization of caste categories in Orissa threatens to increase competition between various jatis, it also provides an opportunity for individuals to similarly set aside religious prohibitions regarding cross-caste friendships.

In Chapter Eight, I investigate thirty-one egocentric friendship networks from three communities to see if these ideological changes in caste are manifested in individuals' social networks. These data conclusively point to a positive relationship between friendship and caste affiliation and indicate that there are few cross-caste friendships in my field site. The only exception to this rule is the existence of ritualized friendships that were discovered during fieldwork. In addition to being the first time these types of friendships have been documented for coastal Orissa, they also suggest the existence of longstanding and ritually sanctioned approaches to circumvent caste prohibitions. Nevertheless, the continuing paucity of cross-caste relationships is theorized from a social network perspective and attributed to such social forces as homophily, multiplexity and Social Balance Theory.

In the conclusion, I argue that social network analysis provides a possible step forward in the study of caste that will help us to move beyond the historical approach of the last thirty years. Rather than continue the exploration of how caste (as it presently exists) is a product of historical events, this approach allows for an in-depth investigation of how caste is actually lived today. As a methodological approach, social network analysis is also attractive because it lends itself to replication and comparison across South Asia. This approach runs counter to the assertion that caste is purely a social construct that should be ignored and asserts, rather, that it continues to be an important factor in people's lives because it is perpetuated through their social networks.

CHAPTER 2

SITUATING CHILIKA

Your tender beauty fills the heart with happiness. Music is your constant companion, and your blue surface always echoes with music. Innumerable white birds float and sing in the swing of your waves, and they look like floating white palaces. When they fly over you in clouds their shadows make your blue deeper. There are other birds too – red, blue, yellow, black, and like ornaments they stick to your waves. Their musical noise is like the tinkling of bells of the water-goddess – so soft and low.

Bright and happy fish jump about in your water. Like a white sea-shell *bhekta* moves about. With a poisonous tail *sankucha* looks fearful. *Sisumar* plays sportively like a naughty child. With its black head *magar* shows off for a moment and vanishes. Millions of creatures live in you, O Chilika, and you give them food always, plentifully, and you are never finished. (From the poem Chilika (1892) by Radhanath Roy in George 1992: 889)

In the early morning hours the Bay of Bengal stretches to the horizon like an endless expanse of liquid sapphire. Up and down the coast, groups of fishers meet in darkness and silently guzzle down a last glass of chai in makeshift tea houses before heading out to the coast. Sitting barely out of reach of the crashing waves, their boats haphazardly line the wide sandy beaches like musical notes on a yellowed page. After a final, cursory inspection of their gear and the ship's stitched planking, two long, wooden poles are threaded through bowlines attached to the bulwark and laid out straight across the boat's hull. Muscles straining, the men hunker down and let out a cry in unison as they lift up the boat and make a beeline for the water. Once there, the five-member crew clambers into the boat as the oarsman takes his place in the stern and the wooden poles are removed and stowed away. The rest of the group returns to shore and some of the men are immediately beckoned to help another boat launch into the water. Nearby, several

men stand idly waiting to unfurl the beach seine known as *Bada Jal* (Great Net) while in the distance, a slight glint betrays the location of a mechanized trawler silently prowling the coast in search of its prey.

Bare-chested in multi-colored *lungis* (a type of sarong worn by men), taut muscles at ready to haul in the daily catch, this scene exudes an air of timelessness. An outsider observing spying from the sidelines might be excused for envying these fortunate few who spend their days by the sea and earning a living from this arena of limitless possibilities and abundance.

Unfortunately, closer inspection reveals this as one of those occasions when first impressions can be misleading. To begin with, the fact that these fishers are conversing with one another in Telugu and not in Oriya¹ is because they are relatively recent transplants who migrated up the coast from the neighboring state of Andhra Pradesh some two hundred years ago (Hunter 1872: 31; Mohanty, et al. 2002: 65; O'Malley 2007 [1908]: 181; Reddy, et al. 1995).²

When the ancestors of these Noliyas, as they are locally known, first reached these shores, they found the shoreline from just south of the Mahanadi River down to the Rushikulya largely uninhabited by fishers (Figure 2.1). The British, who arrived in Orissa at around the same time, were so confounded by the lack of a native Oriya sea fishing tradition on this section of the coast that they invited the Noliya community to settle this coast (Personal communication with leaders of the Noliya community in Arakhakuda and Puri). Indeed, during the series of

¹ This does not mean to imply that they always speak in Telugu or only speak in Telugu but rather that amongst themselves they tend to speak in Telugu, though there is a process of Oriyazation occurring (Mohanty, et al. 2002).

² According to Jones and Sujansingani (1954: 313), the Noliyas have been living in Chilika for 300 years. Since they list O'Malley (2007 [1908]) as their source for this assertion and O'Malley only refers to the provenance of "Nuliyas" and not how long they have been living in Orissa, this claim must remain unsubstantiated. The figure of 200 years cited by Mohanty, et al. (2002) is the same one that I heard during personal conversations with village elders in Arakhakuda. Kalavathy (1985: 62) speaks of, "Telugu fisherfolk, who had been invited in the second half of the 18th century by the ruler of Machogan, Basudev Mangaraj, to settle at the mouth of the Devi, to serve him as pirates."

devastating famines that plagued Orissa in the 19th century, this migration was actively encouraged by the authorities desperate to augment the food supply and alleviate hunger. Nonetheless, writing at the turn of the last century, O’Malley (2007 [1908]: 181) could still assert that there was, “no deep-sea fishing anywhere in Bengal except in Puri, which alone has got an open coast. Even there, fishing is of such a limited extent, and is carried on not by local Oriya fishers, but Telugu settlers from Ganjam.”³

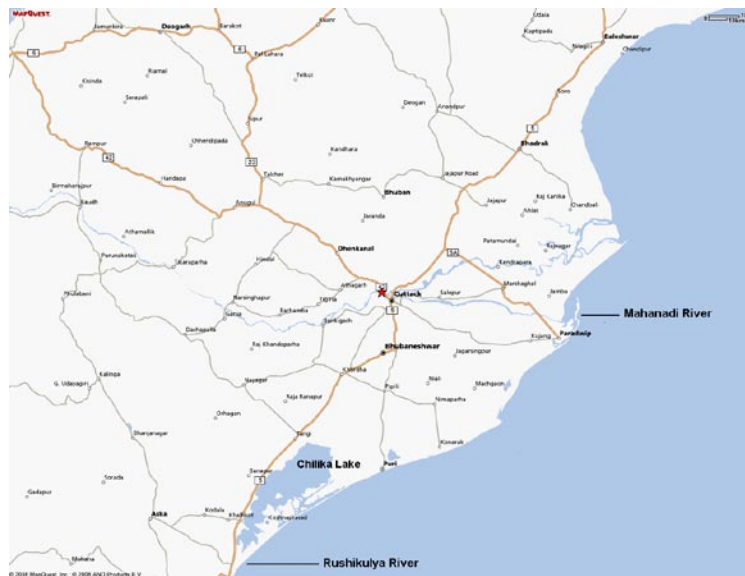


Figure 2.1 Orissa Coast from the Mahanadi to the Rushikulya River. This stretch of coastline represents the southern half of the Orissa coastline (Mapquest 2008).

Considering that Orissa has an extensive coastline, the obvious questions present themselves: Why did Oriyas not traditionally fish at sea? Why was it that the British had to

³ Though I agree with O’Malley’s assertion that this stretch of coast was not fished, it is hard to agree that the entire Orissa coast suffered from similar neglect. For example, the bight located in Northern Orissa between the Subarnarekha and Maipura rivers (i.e. the bay facing Balasore) has long had communities of fishermen who venture out to sea thanks in large part to the extended tidal shelf that, “allowed the use of traditional displacement craft in estuarine and coastal waters.” (cf. Mishra 2000: 622-23; Nayak 2008b: 22) Nonetheless, it bears noting that Kalavathy (1985: 62) claims that sea-fishing in North Orissa is a recent phenomenon. “Numerous castes have taken to sea fishing in Balasore and the northern part of Cuttack during the last few decades. Those who were originally practicing estuarine and inland fishing were the first ones.” Unlike the case of southern Orissa, this means that the groups now fishing in the open waters are local to the area.

import fishers from neighboring states? Was this because of the religious prohibitions regarding sojourns on the defiling *Kala pani* (black seas)? What does this tell us about the lagoon fishery when compared to the marine fishery? Is this a recent development or is this, as some authors have implied, an example of an inherent lack of entrepreneurship and adventurous spirit among Oriya fishers?⁴ To unravel the answer to these questions, it is necessary to first turn one's back to the sea to take a closer look at Chilika.

Physical Characteristics of Chilika Lake

A body of water does not a fishery make. Rather, a fishery is a complex ecosystem dependent on such factors as the contour of the coastline, depth of the continental shelf, distance from the equator, bottom sediments, impact of tides, proximity to rivers, size of the watershed, water temperature, clarity of the water, amount of dissolved oxygen, shoreline vegetation, surrounding soils, etc. Since it is actually quite rare for these factors to come together in the optimal proportions, it is a sad truism that productive fisheries are relatively rare.

The exception to this rule is coastal lagoons. These shallow bodies of water teem with fish that either live permanently in them or spend a part of their lives in their protective embrace. It is no coincidence that, “the great fisheries of the world are on the continental shelf and they are largely estuarine,” and of these, it is the, “rare salt water lagoons [that] produce commercial fishes in vast number” (Gunter 1969: 668, 63). If the coastal littoral is where tides ebb and flow, “always fluctuating, moving, changing, advancing and retreating” (Pearson 2003: 37); where “two titanic forces – one stationary and one in motion – engage in eternal dispute” (Lencek and

⁴ E.g. “The Oriya fishermen remain content with the exploitation of Chilika waters only, while their more adventurous Telugu brethren go out to sea as well for fishing whenever weather permits” (Jones and Sujansingani 1954: 316).

Bosker 1998: Quoted in Pearson (2003): 37), then coastal lagoons are a perpetual intertidal zone. They are the soft margin, where the transition between land and sea is in constant contention, interplay and ultimately, merger.

Chilika Lake, a pear-shaped body of water located on the Orissa littoral between latitudes 19° 28' and 19° 54' N and longitudes 85° 05' and 85° 38' E, is often touted as Asia's largest brackish water lagoon⁵ (Figure 2.2). Running along the coast of the Bay of Bengal from the southwest to the northeast, the lake is approximately 65 km/40 mi long and 20 km/12 mi at its widest (Campbell 1864:274, Khandelwal, et al. 2007). The size of the lake varies from a maximum average of 1165 km²/450 mi² during the monsoon to an average minimum of 906 km²/350 mi² in the summer months (CDA 2008a; Ghosh, et al. 2006).⁶ It is speculated that at one point the lake may have been an ancient bay of the sea born either out of cataclysm, or through the patient deposition of sand particles that rose up to form a wedge between the lake and sea.⁷ Properly speaking the *lake* is actually, “a classic tidal lagoon” (Biswas 1995: 2-3),⁸

⁵ While many locals and authors (including Malini et al. 1993:257, Biswas 1995:1, Pattnaik and Ghosh 2006, Khadelwal et al. 2007, Tripathi & Patnaik 2008:386) claim as fact Chilika's title as “largest lagoon in Asia,” I have been unable to find one example where this contention is corroborated in any way, nor have I been able to independently verify that this was true either in the past or at present.

⁶ According to Khandelwal et al. (2007), the lake is smaller, and averages only 868 km². It is not immediately clear if Biswas (1995:1), who claims that the lake was 906 km in 1915 and only 790 km² in 1986, is referring to average size or observed size during the dry season.

⁷ This has been the general consensus since Blanford (1859: 251; 1872: 61) first studied the geology of the lake. Annandale and Kemp (1915: 5) concurred with Blanford based on, “the occurrence on the rocks at the base of the Ghanta Sila of the remains of solitary corals, organisms which flourish only in pure sea water.” Geological studies by Venkatarathnam (1970) and Malini et al. (1993: 265) agree with this assessment and add that this process was the result of tectonic uplift. Recent palynological evidence (Khandelwal, et al. 2007) also suggests that the sea reached a high point around 5,000 years ago and began regressing approximately 2,700 years ago. However, since there are no examples of terraces at the base of the surrounding hills (as would be expected from tectonic uplift) and all the previous studies are based on a single carbon dating of one shell of *Ostrea virginiana* and a single sediment core, the possibility that the inundation of the Rakta Bahu and Sacred Fire legends (Chapter 1) are examples of authentic ethnohistories should not be discounted out of hand. For example, the Aitape lagoon of Papua New Guinea was formed as the result of a tsunami in 1907 (Monastersky 1998; Welsch 1998). When the lagoon was once again struck by a tsunami in 1998, studies confirmed the occurrence of subsidence (Davies, et al. 2003). Based on research conducted in lagoons in Crimea and Kamchatka, Zenkovitch (1969: 27) concluded that, “The classic

since it is connected to the Indian Ocean by a sea mouth, is brackish most of the year and is influenced by tidal fluxes⁹ (Barnes 1980; Zenkovitch 1969: 11). All of the above is consistent with Gunter's (1969: 664) definition that, "In general lagoons are shallow areas lying along larger bodies of water and separated from them by beach ridges or offshore bars which act as barriers, except for small connections – and sometimes even these small connections are intermittent. In a wider sense the word lagoon may be applied to arms of the sea."

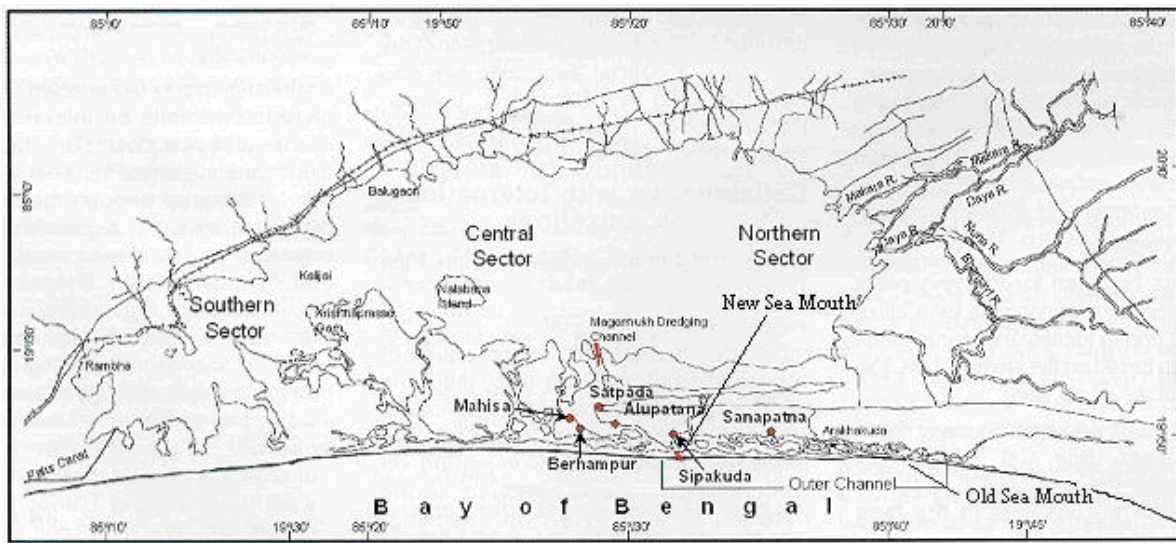


Figure 2.2 Chilika Lake, Orissa, India. The four sectors of the lake are listed on the map.

concept of geomorphologists is that lagoons are a common feature of shoreline emergence. ... However, later on it was established that the lagoons are not less frequently developed along the shores of submergence" (cf. Hemphill-Haley 1995). Interestingly, this was the prevailing opinion with regards to Chilika prior to Blanford's geologic survey. Stirling relates that, "the general opinion of Europeans, has been that it was formed by an irruption [sic] of the ocean..." (Stirling and Peggs 1846: 31). Finally, based on the existence of a red loamy soil that he found in Satapada, Taylor concluded that, "I think there can be no doubt that Dr. Hunter was wrong and the old tradition correct" (Taylor and Maddox 1899: 9).

⁸ Because it is known locally as a *hrada* (lake), the two words are used interchangeably in this study.

⁹ "... the tidal fluctuation in Chilika Lake is about 0.2 m during non-monsoon periods and up to 2 m during monsoon season, driven by a tide in the adjoining Bay of Bengal ranging from 0.9 m. to 2.4 m" (Biswas 1995: 3).

The lake's catchment basin is 4300 km²/1660 mi², which includes the lake itself and some 52 rivers and streams that flow into the lake (Ghosh and Pattnaik 2005: 116) (Figure 2.3). Among these are the Daya and Bhargavi¹⁰ Rivers, which are tributaries of the Mahanadi;¹¹ a river with a colossal watershed covering over 4% of Indian territory or approximately 145,816 km²/ 56,299 mi². This translates into an area slightly larger than Bangladesh (World Resources Institute 2003). (Figure 2.4) More importantly, these rivers and streams supply the lake with large amounts of freshwater during the rainy season¹² resulting in large seasonal fluctuations in salinity. The importance of this influx for the lake's ecosystem is twofold - it maintains the lake's brackish nature (5 – 20 ppt salinity) while also accounting for a variety of salinities throughout the lake. Indeed, the lake has traditionally been divided by scientists into four sectors – Northern, Central, Southern and Outer Channel – based on the following salinity gradients (respectively): 1. Freshwater dominated; 2. Brackish water; 3. Sea water dominated and; 4. Hyper-saline zones (Abbasi and Mishra 1997: 7; Biswas 1995: 12) (See Figure 2.4). However, locals traditionally divide the lake into two parts: 1. *Bada Chilika* (Big Chilika) or the main body of the lake and; 2. *Chhota Chilika* (Small Chilika) or the Outer Channel that includes the many small islands and channels around the island of Parikud (i.e. present-day Krushnaprasad Garh block).

¹⁰ It is interesting to note that stretches of the Bhargavi River actually acts as the catchment's watershed limit.

¹¹ The word Mahanadi literally means "Great River" in the Oriya language.

¹² Biswas (1995:7) estimates the amount of freshwater that flows into the lake at 375,000 cusecs.



Figure 2.3 Chilika Lake Catchment Basin (Ghosh, et al. 2006: 240).

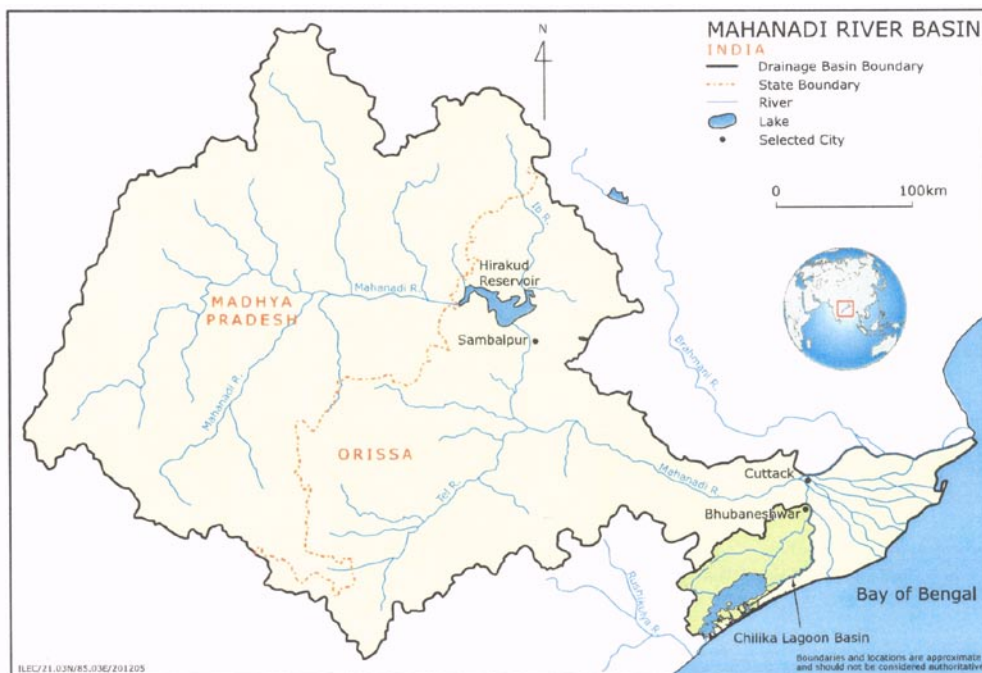


Figure 2.4 Chilika Lake Watershed (Ghosh, et al. 2006: 241).

The Four Lake Sectors

In order to account for the differences between these respective zones, it is necessary to first explore the lake's unique geography. The Northern sector of the lake is deltaic and dominated by the Daya and Luna Rivers as well as some minor tributaries and streams such as the Nuna and Mandakini. In this sector, the lake is shallow and flat and the surrounding lands are water-logged and prone to flooding. That this is a perennial problem is confirmed by the Chinese traveler Hien Tsang, who in the 7th century commented that the land in this area was "low and moist" (Xuanzang, et al. 1957: 412). As a result, the Northern sector has long been extensively cultivated as rice paddy due to the ready availability of water and the area is typified by large, mixed-caste villages where farmers and fishers live either side by side or in their respective *sahis* (neighborhoods or streets).

It is important to note that the rivers not only bring in large amounts of freshwater, but also large quantities of sediments. These sediments are essential to the fishery since they are the lagoon's primary source of nutrients and include, "fertilizer salts, organic materials, vitamins and possibly trace elements that act as chelating agents" (Gunter 1969: 666). The phytoplankton (such as algae and diatoms) that filter the lake's waters and form the base of its food web depend on this constant input of nutrients for their survival.¹³ Yet, ironically this is not the most productive sector of the Chilika fishery. Primarily this is because, being freshwater, it does not attract the diversity of fish species typical of the lake's other more saline sectors. Other factors that account for this difference include the Northern Sector's distance from the sea, high water turbidity, and a shoreline that is not particularly suitable for breeding. As such, the fishers from this region have traditionally fished locally using small *Khepa jala* (cast nets) and had their

¹³ For a complete list of the lake's phytoplankton, see Abbasi and Mishra (1997: 38-41).

fishing grounds on the other side of the lake near Nalabana Island (Abbasi and Mishra 1997: 99).¹⁴

Finally, it should be noted that, since this sector serves as the primary interface with the watershed, it has also long been the front line with respect to environmental and public health concerns. The area constitutes a part of the Orissa heartland and is situated less than 60 kilometers downstream from the twin cities of Bhubaneswar and Cuttack and their combined population of over 1.5 million people. Since neither of these cities have wastewater treatment facilities, raw sewage, toxic waste and agricultural pesticides are dumped directly into the rivers that flow into Chilika, with unascertained environmental consequences.¹⁵ Moreover, upstream deforestation, flood control measures and soil erosion associated with industrial agriculture have all greatly increased the lake's sediment load. As a result, studies show that the lake has been steadily shrinking at a rate of over 4 km² a year (Malini, et al. 1993: 267) for the period between 1929 and 1988 – primarily in the Northern sector of the lake.¹⁶ Although recent figures are not readily available, the fact that many villages which once abutted the lake are at present only tenuously connected by long, machine-excavated canals, suggests that this process has only accelerated over the past twenty years (Figure 2.5).

¹⁴ While only some 30 kilometers distant, in practice this meant that, especially during fishing seasons, they might stay out for weeks at a time.

¹⁵ Ghosh et al. (2006: 251) estimate that the discharge from Bhubaneswar alone is in the vicinity of 550 million liters per day.

¹⁶ Interestingly, Blanford (1872: 61), who surveyed the lake during colonial times, asserted that, "There can be but little doubt that the Chilka is gradually diminishing in size and in depth..."



Figure 2.5 Satellite image of the northern sector of Chilika that demonstrates how the lake is shrinking due to siltation. The channel on the right was dredged by the Indian government to maintain access to the Daya and Luna Rivers. The two channels on the left were dredged and are maintained by the local communities that fish in the lake.

Moreover, this process of land formation has been further exacerbated by the fact that freshwater is ideally suited for aquatic macrophytes such as tall reeds (*Phragmites karka*), which is known locally as *Nala*, pond weed (*Potamogeton sp*), and invasive species such as water hyacinth (*Eichornia crassipes*). These aquatic plants tend to grow in dense patches, slowing down the flow of water.¹⁷ Although the plants undoubtedly aid in filtering pollutants, they are a

¹⁷ According to Ghosh et al. (2006: 246) Potamogeton accounts for 78% of the aquatic macrophytes in the lake.

public health concern since the standing water is implicated in the spread of malaria.¹⁸ They also aid in trapping sediments which leads to land formation. In addition, the construction of large dams and barrages upstream has slowed the flow of water, thus aiding in sediment deposition and preventing the flushing action that seasonal floods accomplished. Indeed, if the *raison d'être* of lagoons is to be, “not so much settling basins as deceleration areas for the movement of sediment into the sea,” (Gunter 1969: 666) it could be argued that few changes have been more profound or potentially more damaging to the lake.

The brackish water zone comprises the body of the lake and is a zone of constant flux where the interplay of freshwater and saltwater takes place in earnest. A broad, shallow expanse, it is framed on one side by the Eastern Ghats and on the other by a peninsula and an archipelago of sandy islands. The *Mugger Mukh* (shark’s face) is the main artery connecting the body of the lake (Bada Chilika) to the Outer Channel (Chhota Chilika) and the sea. The waterway is crisscrossed by freshwater, brackish water, anadromous and catadromous fish species¹⁹ seeking out the moderate salinity of the Central Sector or heading out to the Indian Ocean. This sector of the lake has traditionally been heavily fished, particularly in the area surrounding Nalabana Island.

The island, which is named after the nala plant that grows around its shores, is a designated bird sanctuary that boasts a thriving fishery and has long been an important meeting point for fishers from all sectors of the lake. Over a century ago, O’Malley (2007 [1908]: 182) observed that, “the best fishing grounds are situated on the south side of the lake near the sea,

¹⁸ Because of environmental changes such as deforestation, seven mosquito species that are malaria vectors have become extirpated from this sector and there has been a reduction in malaria since the 1930s. Nonetheless, the area is still more prone to malaria when compared to other sectors of the lake (Dash, et al. 2000).

¹⁹ Anadromous fish swim upstream from the sea into rivers and catadromous swim down rivers to the sea to spawn.

around the numerous creeks and channels, and round the low uninhabited island known as Nalabana.” This is because the area benefits from its proximity to the creeks and channels that function as a nursery for several important commercial species such as mullet and prawn. Furthermore, the shallowness (averaging between 1-2 meters) and lack of strong currents in this sector of the lake is conducive to fishing since it is possible to stand in the lake while setting fixed gill nets and box traps. Finally, it should be noted that this sector also features some of the larger towns and godowns (warehouses) thanks to its prime location along the Chennai – Calcutta rail line.

To the south of Nalabana Island, on the dividing line between the Central and Southern sectors of the lake, is a rocky outcrop called Kalijai Island. The island, which is roughly a mile in circumference, is the spiritual center of the lake and contains a temple that is regularly frequented by those living around the lake as well as Oriyas from all over the state who make pilgrimage during the Makar Sankranti festival in January. During this festival, which will be discussed in greater detail in Chapter 8, cross-caste ritualized friendships are sanctified in the island’s small temple. The temple, which is dedicated to the goddess Kali, is tied to a sad story about a young woman named Kali-jai who “was newly wed and was being taken across the lake to her husband who lived in the Parikud-Malud islands in the eastern shore towards the sea. A sudden storm, which is common in the lake in spring, dashed the boat against a rock. Everybody was saved except the bride. Since then her ghost is said to haunt the island” (Senapati and Kuanr 1966: 743). Apart from a few caretakers and shopkeepers, the island is uninhabited save for a large number of goats that have been left there by worshippers as an offering to Kali Maa. According to local lore, these goats are known to mysteriously disappear at night when no one is watching.

The hypersaline southern sector of the lake stands on the sidelines as mute witness to the more dramatic interchanges that occur in the intertidal regions of the lake. Located in the shadow of the Harida Mulaghati mountain pass, it is a region of spectacular beauty where the marble and gneiss foothills of the Ghats descend directly into the lake. To one side of the pass there is a crescent-moon bay that boasts two islands (Barakuda and Sanakuda) that were tourist destinations in British times when they were advertised as Honeymoon and Breakfast Island (Law 1909: 91). Since this is the deepest part of the lake (3 meters deep in parts), and the furthest removed from both the rivers and the sea mouth, it is effectively a semi-enclosed sink (the deepest portions are referred to as *gohiras*) where the water has limited turnover and the longest residence time. The salinity of this sector has historically been in the 10-20 ppt range, well below the ocean salinity of 35 ppt, while well above the 1- 10 ppt range of the Northern sector (Abbasi and Mishra 1997: 13-16; Annandale and Kemp 1915: 415; Banerjee and Roychoudhury 1966: 401-05; Ramanadham and Murty 1964: 183-89; Sewell 1922: 682-83). In 1866 the Palur Canal, a 17km long channel connecting this sector to the Rushikulya River and the Bay of Bengal was dug, but it has largely silted up since then (Hunter 1872: 77).²⁰

Thanks to its depth and higher salinity, this sector is home to larger aquatic species – including *bhekti* (sea bass), *mugger* (sharks) and the *khera* (Irrawaddy dolphin). Based on recent estimates, it is believed that somewhere between 50 to 85 of these porpoise-sized dolphins reside in the lake – the southernmost colony of this endangered keystone species (Pattnaik, et al. 2007: 45; Sinha 2004: 244). From the perspective of the fishing communities, the deeper waters means that fixed nets are not feasible and in the past, many of the communities used drag nets with

²⁰ According to Annandale and Kemp (1915: 3) the canal was already silted up in 1915, “The Chilka-Ganjam canal is now, however, completely blocked up...”

large mesh sizes (i.e. such as the sturdy *Bhekti* and *Bhida Jalas*). Much like the fishers of the Northern sector, many of these communities traditionally fished and set traps in the area around Nalabana Island or in the bays and channels of the Parikud islands.

The Outer Channel sector, known locally as Chhota Chilika, is the zone that is most affected by the constant ebb and flow of the tides. If the Northern Sector can be described as the lake's constant provider, the Outer Channel could be described as the zone of give and take. Extending parallel along the Bay of Bengal for some 35 km, the Outer Channel has historically been connected to the bay on one side by a single sea mouth and on the other side to the brackish water sector by the Mugger Mukh. The channel is for most of its length only 1.5-2 km/1-1.25 mi wide and dotted with sand bars that emerge at times as islands only to disappear again with the rains. It is configured in such a way that, upon entering the lake, sea water is forced to make a ninety degree turn to the left until it reaches the Mugger Mukh where it makes another ninety degree turn to the right before entering the Central Sector. The Outer Channel actually continues past the Mugger Mukh, entering an archipelago of densely packed islands at the southern end of the lake.

Because this is the only way in and out of the lake, the communities in the Outer Channel have long benefited from a strategic location that afforded them with the first pick of the ocean's bounty. Aided by the sharp turns at the sea mouth and Mugger Mukh, which slow down and reduce the force of water entering and exiting the lake, the fishers typically fished using fixed gill nets (weirs) and box traps, though trawl nets were also occasionally used. The following description of the fishery by Hunter (1872: 45) still holds true, though nylon has replaced most of the natural materials:

... where the channel opens toward the sea, I came upon a region of endless shallows and stake fisheries ... The stakes form close wattle-fences, about five feet high, of which two thirds are under water. They are arranged as three sides of an oblong, or as two of a triangle, sometimes a mile in length, with narrow-mouthed baskets opening from their sides, like the pockets along a billiard table.

Based on personal observation, this region could be described as the fulcrum of the lake because of its juxtaposition vis à vis strategic choke points and its proximity to creeks and side channels that are used by fish as nursery grounds. That this is a structural feature is supported by O'Malley (2007 [1908]: 185) who wrote over a century ago that “the most valuable of ... [the lake's] fisheries are those round the island of Tua and Satpara on the eastern shore of the Chilka lake, where mixed fish and prawn are caught in large numbers.”

When the Mughals first arrived in Orissa in 1576 AD, the Parikud Island archipelago and a considerable portion of the lake were given over to Jadu Raj, who became the founder of a local dynasty (Allami 1965 [1871]: 552). According to Ghosha (1881: 449), this territory included, “zilla Banpur in Khordah; Killah Parikud, and Pargannahs Badgercote and Sathpara” but was reduced to only the Parikud islands after a conflict erupted with the Maharaja of Puri near the end of Maratha rule (late 18th century). This greatly diminished domain left the Parikud Raja in the unenviable position of ruler of an island kingdom lacking freshwater sources,²¹ located in the heart of a saltwater lake, with subjects who were expected to eke out a living from marginal soils. Hunter (1872: 30) reports that during the British invasion of Orissa in 1803, “not a single grain-selling village could be found along the high road [of Parikud], and the troops who had to pass that way were warned to bring everything for themselves, even down to a supply of

²¹ Hunter reports that, “There are no fresh-water streams nor any good tanks, and the husbandmen have to make up for their absence by well-irrigation, fresh water being found in plenty at the depth of twenty five feet, and in some places at fifteen.” (Hunter 1872: 31) I can report that based on refractometer readings conducted by myself, these wells had a salinity of 3 ppt and thus were not technically freshwater.

firewood...“ Some seventy years later the situation had not measurably improved and he noted that “Toward the sea the sandy ridges grow nothing. Toward the Chilka Lake the alluvial flats yield rich rice crops, if there is plenty of rain, and yet no floods. Otherwise there is more intense distress in Parikud than in any other part of Orissa. The people live perpetually on the verge of famine” (Hunter 1872: 31).

O'Malley corroborates this assessment, listing Parikud as the first place in the state to report hunger during the Great Famine of 1866 in which over 200,000 people starved to death (O'Malley 2007 [1908]: 161).²² While hunger has gratefully been eradicated from the scene, the farming communities of the Outer Channel remain marginal and are for the most part subsistence based and comparatively small. The structural opportunities and limitations of the Outer Channel sector undergird many of the recent historical developments and will be further explored in the following chapters.

In addition to the sectoral characteristics, there are also some important limnological features common to the entire lake. For example, the shallowness of the lake (average depth of 3 meters and maximum depth of 8 meters) means that the entire lake is well within the photic zone where photosynthesis occurs – a major factor contributing to the abundance of aquatic life that thrive on the abundant phytoplankton that form the base of the food web. Moreover, Chilika's location 400 km/250 mi south of the Tropic of Cancer also contributes to the lake's high productivity. This is because, “in the far north the rays of the sun do not strike directly enough to cause as much photosynthesis as they do in the more southernly climes ... [leading] to low productivity in Northern waters” (Gunter 1969: 667). In addition, productivity is high because,

²² Banerji (1980 [1930]-b: 326) and Jena (1968: 7) place the figure of those who perished from famine and disease at one million (Mohanty 1993; Mukherjee 1958). Hunter states that 57% of the population of Parikud and 66% of the adjacent parganas of Chaubiskud perished in the famine (Hunter, et al. 1875: 149).

“Coastal lagoons follow the temperature of the land rather closely and in south temperate, subtropical and tropical zones their temperatures are mild and photosynthesis goes on at a high rate during most of the year” (Gunter 1969: 667).

All these factors individually and collectively add up to an incredibly productive and diverse fishery with over 200 fish species reported, including such important food-fish species as: Striped Mullet (*Mugil cephalus*), Barramundi (*Lates calcarifer*), Threadfin (*Eleutheronema tetradactylum*), Black Tiger Prawn (*Penaeus monodon*), Hilsa Shad (*Hilsa ilisha*), and Rohu Carp (*Labeo rohita*) (Annandale and Kemp 1915; Hora 1923; Jhingran 1983; Jones and Sujansingani 1954; Mohapatra, et al. 2007). Not surprisingly, the lagoon is also a major flyway for over 20 million migratory birds (from 150-225 species),²³ many of which arrive from as far away as the Caspian Sea, Siberia, and Central Asia to feed while they overwinter (Balachandran and Rahmani 2005; Biswas 1995: 43). It is claimed that the lake is, “the second largest congregation of migration [sic] birds in the world after Lake Victoria in Africa” (Mahapatra 2003: 63). Many of these birds nest in the area on uninhabited islands such as the previously mentioned Nalabana Island, which is under the protection of the Forestry Department. In recognition of the lake’s biodiversity, the Indian government designated it a Ramsar site (Wetland of International Importance) in 1981.²⁴

Chilika Lake Communities

As the archaeological finds that will be discussed in the subsequent chapter suggest, humans have recognized the advantages of living on the shores of this tropical lagoon for

²³ According to Balachandran and Rahmani (2005: 6), the number of birds is 225 species and according to Biswas (1995:43) there are 150 species of birds.

²⁴ The lake was added to the Ramsar list on October 1, 1981 together with the Keoladeo National Park in Rajasthan.

millennia. According to official government estimates, 141 communities presently dot the lake's shore and some 33,000 fishers fish in the lake. When all associated industries and marketing operations are taken into consideration, it is believed that well over 150,000 people are dependent on the lake for their primary source of income (CDA 2002, based on the 1991 Census). Yet, these figures are undoubtedly conservative and woefully outdated. More importantly, they do not factor in the recent influx of individuals from agricultural communities that do not self-identify and are not counted as fishers.²⁵ During interviews with the leadership of the Chilika Matsyajibi Mahasangha²⁶ (Chilika Fisherman's Cooperative), these government estimates were disputed and it was suggested that the real number of people presently fishing in the lake was closer to 100,000 with well over 300,000 dependent on the lake for their livelihood once family members were factored into the equation. Even these figures are less than the figure of 150,000 (fishers and non-fishers) cited in the Orissa High Court ruling of *Kholamuhana Co-Operative Society vs State of Orissa* (§ 2)²⁷ nor does it take into account the countless people involved in the tourism sector and the booming fish-export trade.

Traditionally, the fisher communities of the lake were divided into various endogamous and hierarchically ranked sub-castes or jatis. As already noted, the Telugu fishers who venture to sea are known as Noliyas, and though they inhabit several villages around Chilika, they are

²⁵ Admittedly, the figures vary widely. On the (very) low end, Sahu (1988: 3) maintains that there are 60,000 fishermen living in the villages surrounding Chilika, but only, "seven thousand are actively engaged in fishing and about fourteen thousand of them are associated with fish trade" (cf. Malini, et al. 1993: 259). Others contend that there are 122 fishing villages, a total of 85,000 people of which 27,200 actively fish (Biswas 1995: 69; Chandrashekhar 1992: 66) or 132 villages, 100,000 fisherfolk and 27,000 active fishermen (Abbasi and Mishra 1997: 101). Most recently, Pattanaik (2008: 6) claims that, "the number of active fishermen in Chilika today is probably closer to 50,000 while the total population of fishermen is over 100,000."

²⁶ Interview with Balam Das, President of the Chilika Matsyajibi Mahasangha. September 18, 2005 in Pathara, Orissa.

²⁷ According to Report of the Fact Finding Committee on Chilka Fisheries (aka the Das Committee), there were a total of 71,244 non-fishers engaged in the fishery in 1993.

distinguished from their Oriya neighbors based on language, religious observance and provenance. The Noliyas that live in Chilika reside exclusively in the Outer Channel region and divide their time between the lake and the sea. The Oriya-speaking fishers were often distinguished from one another based on whether they fished with nets or traps (Abbasi and Mishra 1997: 101). For example:

Kaibartas, who are considered to belong to the higher strata of the fishing community, catch fish by operating nets only, never resorting to the less dignified traps which are meant solely for the lower classes of the community, namely the Tiors, Ghodeis and Kondras. The lower class fishermen have, therefore, a virtual monopoly on the catch of prawns and crabs. (Jones and Sujansingani 1954: 313)

Other fishing groups include Gokhas, who used drag nets and cast nets; Kartia, who operated bamboo screen traps; Khatia, who used box nets, trawl nets and purse nets, etc. (Abbasi and Mishra 1997: 101). The use of different nets and traps to target different fish species by the respective jatis recalls Gadgil and Malhotra' (1983) proposition that jatis may have originally developed on the lines of ecological niche. Although in all the villages that I visited various nets were readily exhibited upon request, with the introduction of synthetic fibers they are for the most part no longer in use and stored away as mementos of a storied past. As such, the suggestion that the proliferation of nets and traps is the key to understanding the formation of jatis in the distant past is impossible to assess at present.

Regardless of whether the existence of jati-specific fishing gear is evidence of ecological niche or, as Deb (1996) suggests, an example of memetic differentiation, the diversity of nets speaks volumes about the fishery. These nets and traps not only represent innovative adaptations to geographical obstacles such as depth and current, but were also designed to target specific fish species. For example, traps such as the bamboo *Dhaudi* were used to catch large prawn, while *Kankada Khadia* was a crab trap affixed to the lake bottom by a pole. Among nets, *Hilsa Jal* is a

gillnet designed specifically to capture Hilsa and “zero net” or *mosari jala* (literally a mosquito net) is used to catch prawn fingerlings.²⁸ The existence of so many nets in the past and the evidence that they were sometimes ritually limited to specific groups, suggests an unusually productive and diverse lake where the respective communities could subsist by targeting only a small range of the available fishery (Figures 2.6-2.9).



Figure 2.6 Fishers with bhekti jala (sea bass net). This sturdy net was used primarily in the deep waters of the southern sector of the lake.

²⁸ For a comprehensive list of all the different types of nets and traps used in the lake, see Biswas (1995: 59-67), Jones and Sujansingani (1954: 282-84) and Abbasi and Mishra (1997: 95-98). See Tietze (1985: 9-31) for a list of nets used in the marine fishery.



Figure 2.7 This *kankada khadia* (crab trap) was affixed to the bottom of the lake.



Figure 2.8 This *dhaudi* trap was used to capture prawn.



Figure 2.9 A box trap made of bamboo and synthetic fibers.

According to Dash (n.d.) there are eleven *jatis* of fishers of which the Kaibarta are the most numerous.²⁹ These include: Keuta or Kaibarta, Nairi, Karetia, Khatia or Katia, Kandara, Tiara, and Nolia. Kaibarta are further divided into five groups, namely Dewar Kaibarta, Hula Hania Keuta, Bilua Keuta, Chuduthia Keuta and Kaibarta. Based on my own research, it appears that he is conflating *jatis* and *gotras* (lineage or clan) in this classification of Keutas. Many of the fishing *jatis* are listed as scheduled castes³⁰ and all the groups self-identify as *shudras* (untouchables) within the four-part *varna* system and are also considered such by *dvijya* (“twice born” or “high-caste”) Hindus (Biswas 1995: 71; Dash n.d.). By far the largest caste group in the

²⁹ Since the question of caste affiliation has not been included since the 1930 census, it is impossible to know the exact percentages of the respective *jatis*. Nonetheless, it is widely believed that the Kaibarta are the largest fishing caste today. All those who have offered percentages appear to be basing their statistics on a 1957 State Fisheries Department survey. According to this survey, 67% of the fishermen were Keutas, 1.9% Nairi, 2.7% Kartia, .2% Gokha, 14.3% Kandara, 7% Tiara, 6.8% Nolia (Biswas 1995: 69; cf. Chandrashekhar 1992: 67).

³⁰ Groups recognized by the Indian constitution as being economically depressed classes eligible for “compensatory discrimination” or “reservations” with regard to work and education.

Chilika basin are Khondayats, a traditionally agricultural caste that has entered the fishery en masse over the past twenty five years (O'Malley 2007 [1908]: 78-79; Senapati and Kuanr 1966: 134).³¹

Lagoon Fishing vs. Fishing at Sea

This brings us back to our original question, which can now be modified slightly to read: Why is it that the same fishers who have made a science of fishing in Chilika never venture out beyond the lake's sand bar to fish? After all, as we will see in the next chapter, Oriyas have a long and distinguished history as mariners who sailed massive boats as far afield as Africa and Indonesia.³² It seems that the short answer to this question is simply that they did not have to. The lake's bounty has historically been more than sufficient for the survival and welfare of the fishing communities. In reality the answer is a little more complicated. As Braudel (1972b: 138) discerned with regards to the Mediterranean:

[Its] waters are hardly more productive than the land ... its fisheries provide only a modest yield, except in such rare spots as the lagoons of Comachio, the coasts of Tunis and of Andalusia ... [because it is] a deep sea formed by geologic collapse, has no shallow shelves, no continental platforms where submarine life could thrive down to a depth of 200 metres. Almost everywhere, a narrow ridge of rocks or sand leads straight from the shore to the deep gulfs of the open sea.

The same holds true for the Bay of Bengal, where the coastal shelf extends for only a short distance. For example, from Chilika, the fifteen meter depth line is only four and a half kilometers off the coast of Palur and twelve kilometers off the coast at Satpada (Biswas 1995: 3; Subrahmanyam, et al. 2006). Since "the continental shelf in the Indian Ocean is mostly much

³¹ The Khondayats, "formed the landed militia under the ancient Rajas of Orissa" and the word itself possibly means "swordsmen" from the root *khanda* (sword) (Senapati and Kuanr 1966: 134; cf. Stirling and Peggs 1846: 65).

³² *Dangas*, which are small craft used for fishing are suitable for individual fishers, but not suitable for areas with large surf. On the other hand, *boitas* were large ships with large crews that were designed for long-distance travel. The sheer size of these ships would make them unsuitable for artisanal fishing.

narrower than in other oceans,” this structural fact results in, “less area from which to take demersal fish.” (Pearson 2003: 56) The second reason is related to the first; the narrow shelf means that the Bay of Bengal is notorious for its pounding surf, which is a real threat to life and limb. In addition, sand bars such as those found in front of Chilika’s sea mouth, can make boating in these waters even more perilous. The first British accounts of the area provide sobering reading:

The 18 dicto³³ wee ankered in the rode of Manegapatan³⁴ being near about 20 leagues to the eastward of Calepar³⁵ and the plac where wee were conside to by our merchants that wee left there behind us. ... Here againe upon the first opportunity wee sent [our] shalop ashor, which one came well of againe; the second time [she] was cast away upon the bar and lost 4 men, but by [the help of the?] blackes shee was saved and brought ashor. Besides on [this bar?] was lost and split to pieces 3 or 4 of the contry boates about the sam time, with some other disastrous accidentes that happened unto us in this place ...
– Thomas Watts, Master of the *Hopewell*, at Bantam to the Company, January 2 [29], 1632. (Foster 1910: 189)

Watts further reported that during the same voyage, the ship’s merchants³⁶ were stranded ashore for, “full 12 dayes, most of this time hourly waighting to slack to geat aboard, and all this time our shippe riding in a very bad rode with much foul weather.” (Foster 1910: 189) The following year (1632) another attempt was made by the *Pearl* and, “Two men more drowned goeing over the barr of Manecapatam” (Foster 1910: 244).³⁷

³³ 18 August, 1631.

³⁴ The port of Manikapatna, which is located directly in front of Chilika’s sea mouth. Manikapatna and its role in the Indian Ocean trade networks is discussed in the following chapter.

³⁵ Based on its location, it is conjectured that this refers to Gopalpur by the Sea.

³⁶ In an interesting aside, Foster (1910: xxiii) relates that one of the company factors (i.e. representative) that accompanied the merchants was Richard Hudson, son of Sir Henry Hudson, the famed Arctic explorer who gave his name to Hudson Bay. In 1647 he became the English chief in the Bay of Bengal, only to die the following year.

³⁷ Pearson (2003: 26) provides another example of high surf from the 18th century. “The east coast of India, the Coromandel coast, has a perilous combination of more or less constant high surf and no harbors of any merit. Mrs. Kindersley in Chennai wrote to a friend in June 1765, ‘I am detained here by the tremendous surf, which for these two days has been mountains high; and it is extraordinary, that on this coast, even with very little wind, the surf is often so high that no boat dares venture through it; indeed, it is always high enough to be frightful.’”

In both cases, the British made the mistake of attempting this passage during the monsoon season when these coasts are especially treacherous.³⁸ Based on O'Malley's (2007 [1908]: 182) observation that "all deep-sea fishing practically ceases from about the middle of March to about the middle of September," it is clear that the Noliya community was well aware of these limitations. The fact that the Noliya communities are typically situated within close proximity of coastal cities such as Gopalpur, Puri and Konark or within the outer channel of Chilika Lake, hints at the fact that they are not solely dependent on the marine fishery.³⁹

This assessment does not mean to imply either a geographic determinism nor should it leave the impression that Oriyas traditionally shunned the sea. As the following discussion on maritime trade will conclusively demonstrate, Oriyas have long ventured into the Bay of Bengal as accomplished mariners. Rather, I am suggesting that the lack of an indigenous marine fishery along Orissa's southern coast is a testament to the richness of the Chilika Lake fishery. It is hardly surprising that, faced with a choice between abundant year-round fishing in Chilika's tranquil waters or risking life and limb for a seasonal catch, the local fishing communities made a rational decision to "fish without uncertainty and without risk" (Malinowski 1918: 90) and turned their backs to the sea.

³⁸ Bruton, who visited Orissa in 1634 commented that, "... the Gulfa call'd the Bengallian gulfe, which is a very dangerous one; for at some certaine times of the yeere it is very hazardable for Vessells to passe without shipwreck" (Bruton and Nair 1985: 72).

³⁹ Based on personal acquaintance with several members of the Noliya community in Puri, many of them survive the offseason by working as day laborers or rickshaw pullers. Some even seasonally migrate to the large urban centers where they often work in factories.

CHAPTER 3

ORISSA AND CHILIKA IN THE WORLD – A HISTORY OF TRADE

After spending several days in the outer channel of the lake, Mayur and I headed for the lake's Northern sector at the invitation of a local activist who offered to introduce me to an environmental NGO in his village. Physically distinct from the rest of the lake, the north shore of Chilika is deltaic and dominated by freshwater for most of the year. In the past, this area was prone to massive floods that would appear suddenly and last for days or weeks as, "thousands of miserable families floated about in canoes, on bamboo rafts, on trunks of trees, or on rice stacks, which threatened every moment to dissolve into fragments beneath them" (Hunter 1872: 67) Flooding was such a regular occurrence that houses were built with anchored roofs held up by bamboo stakes that were secured firmly in the ground. Many of the houses were even known to keep a small boat tied to a pole in their yards in case of a sudden deluge.

As it turned out, the environmental NGO was a woman's self-help group run by the widow of the former zamindar of this part of Chilika. Zamindars were landlords originally employed by the Mughals and British to collect taxes. Often they owned large estates and were given hereditary rights under the British as part of a strategy to foster a native, landed aristocracy that was loyal to the Crown. Based on interviews with locals and government officials, I was informed that in the past there were various zamindars and Rajas (minor kings) who staked a claim to Chilika and its fishery. Following independence in 1952, the Government of India abolished zamindar rule and took over these landed estates (See Chapter 4).

The widow, who was referred to respectfully as *Maa* (Mother), kindly offered us accommodations in her home for the duration of my fieldwork in the area. The family had obviously fallen on hard times and was reduced to renting out the servants quarters while only three rooms of what was once a well-apportioned mansion were still habitable. Maa lived there with her two daughters, octogenarian mother and a young lady who cooked and cleaned for them while ostensibly working for the women's self-help group. After her husband's death, Maa had clashed with her brother-in-law over the remnants of the family estate and had undeniably come out on the losing end of the settlement. Nonetheless, she maintained a certain aristocratic demeanor and bearing that spoke volumes about her life prior to the loss of her husband.

She felt that, since I was planning to do long-term research in and around Chilika, that it was only proper I discuss the matter with her brother-in-law, who now represented the interests of the former Zamindar estate. Since I was interested in learning as much as possible about the history of zamindar rule in Chilika, and out of deference to my host, I readily agreed and Maa arranged for us to meet. Before we left for his house, Mayur informed me that Mr. Raychaudhuri was a well-known former Member of the Legislative Assembly (MLA) from the Hindu Nationalist BJP party. I even gleaned from Maa that he had a daughter living in California. While it seemed unlikely that someone from this impoverished village was now living in California, I soon discovered that globalization often rears its head in the least likely places.

Though definitely "off the beaten track," the village was relatively large and divided into distinctive neighborhoods of fishers, non-fishers and *dalits* (the so-called "low" castes or "untouchables"). Mr. Raychaudhuri's home was located only a short walk from Maa's house in a gated compound that included a three-story tower which hovered like a crow's nest over the

huts of the adjacent dalit neighborhood. Thinking back, I can say with certainty that, aside from the former Raja's palace in Krushnaprasad Garh, this house remains the only three story structure I have seen in the villages surrounding Chilika. And in contrast to Maa's dilapidated house, it was well maintained with a beautiful garden lined with rows of potted plants and flowers.

A local schoolteacher and confidant of Maa met us at the gate to the compound. He knocked loudly on the metal door and we were invited in by a servant who escorted us through the courtyard to the verandah and directed us to sit on a bench. Directly in front of us, Mr. Raychaudhuri wated as he leaned forward on his divan, clutching a short, light-blue lectern that was situated strategically under an electric fan. A large, overweight man, he was wearing a white *khadi kurta pyjama* (traditional Indian long tunic and pants made of cotton) that has become the *de facto* uniform of the Indian political class. In Gandhi's time these *kurtas* were often homespun by those wearing them and represented idealism and simplicity – values that I suspect contemporary politicians are trying to conjure up when they don the costume. Unfortunately, it is a sad testament to the current state of Indian politics that nowadays people are more likely to associate such attire with venality and political corruption.

Mr. Raychaudhuri, who never rose from his perch, welcomed me to Chilika and immediately launched into what I gathered was his stump speech reserved for foreign guests – an eloquent denouncement of British rule in India and Orissa in particular. According to him, Orissa was the last bastion of the “true India,” since it was the last place invaded and annexed by the Muslims and the British. Consequently, in his opinion, both groups were fearful that they might lose their grip on the country and ruled it with an iron fist, leaving Oriya civilization in tatters. He railed against the phenomenon of Christian missionaries converting *Adivasis*

(Tribals) and lamented the wholesale destruction of Hindu values. Looking me directly in the eyes, he concluded by ruefully asserting that this history accounted for Orissa's dubious distinction as the poorest state in India and was the primary reason for its "backwardness" to this day.¹

On the face of it, I thought he raised some valid points, though overall I found it a bit ironic to be on the receiving end of a dressing down in the palatial home of the former zamindar – a scion of a British-imported, Bengali family, that came into their own by collecting taxes for the East India Company. Then again, I figured that it was probably not every day that he had this opportunity to share his impassioned critique of colonialism with a foreigner and, being neither a member of the Commonwealth nor a Christian, I did not really see the point in disputing him. Besides, I felt that it would be impolite on my part to deny him the frisson of scolding me in front of the servants and school teacher as I sipped on my chai. Instead, I opted to change the subject and inquired about his daughter in California.

Undeterred by my diversion, this question provided him with the launching pad he was looking for to recount how the New World (and California in particular) was first discovered by Oriyas. He felt that it was important that, as an anthropologist, I be educated on this matter – especially since Western history books systematically failed to mention the fact. As incontrovertible proof of this thesis, he pointed to the existence of totemism among Native American tribes and its similarity to the long-standing tradition of totemism among Adivasis in Orissa. He also opined that it was well-established that Oriyas were accomplished mariners who

¹ In India the term "backward" usually means "not developed" or "undeveloped." Mr. Raychaudhuri's assertion that Orissa is the poorest state in India is supported by the facts (Das 2008; Dhar 2007; Satpathy 2008). Bihar long held this dubious distinction, but with the administrative reshuffling that occurred around the formation of the states of Jharkhand and Chhattisgarh in 2000, Orissa emerged as the poorest state.

had frequented the four corners of the world since ancient times. Though I desperately wanted to ask him about his family's role in Chilika's zamindar era, I took my leave of him shortly after he launched into a lengthy explanation of the similarities between the lost island of Atlantis and the stories in the Vedas. From the little I gathered, it appears that the technological marvels that are known to have existed in Atlantis were confirmation of the veracity of the Vedic accounts of technological marvels.



Orissan Tropes

Though I have been unable to uncover much support for the Atlantis theory, it is worth noting that the diffusionist arguments presented by Mr. Raychaudhuri have a long pedigree in Oriya historiography and in the legends surrounding Chilika. No less prominent a figure than R.D. Banerji, the Indian archaeologist who discovered and excavated Mohenjo Daro, argued for a connection between Orissa and the Americas. A vociferous opponent of the Aryan Invasion Theory, he was eventually expelled from the Archaeological Survey of India for his unconventional views. In his two volume *History of Orissa*, he discerns “a long unbroken line” of Dravidian people from Crete and Lycia to the Indus Valley civilization through Orissa and beyond:

It would not be strange at all to find that the Chalcolithic civilisation of these people extended as far as the Easter Islands and perhaps to Peru and Mexico. In my opinion, the people of Kalinga, who have been proved to be the pioneer colonists of India, Indonesia and Oceania, are probably the very same people whom the modern barbarians of the Pacific and Indian Oceans regard with awe and wonder as people from the sky who civilized them and taught them the rudiments of culture. (Banerji 1980 [1930]-a: 108)

Basing his assertion on the 10th century *Brahmanda Purana*, Das (1964: 73) contends that Chilika was the most important sea port of Orissa in antiquity and that it, “could harbor thousands of large size ships bound for or come from various ports, foreign countries, seaports and harbours.” These ships not only found their way to the Americas, but according to him, “the Maya civilisation of America was a result of commercial enterprises of Kalinga or of India with that continent” (Das 1964: 84).

Most recently, this idea has been taken up by A.P. Patnaik, a retired civil servant who dedicated fifteen years to produce an exhaustive two-volume study of contacts between Orissa and the ancient world. This research is based on the premise that guilds of mariners branded their trading infrastructure with the names of their home ports, thereby accounting for the similarities between place names along the Orissa coast and names in other parts of the world. Though I was told on good authority by a former fisher who is presently writing a history of the lake that the name Chilika (Chilka) is derived from the Sanskrit *chilla* (eye-socket) or *chila* (sea eagle),² Patnaik contends that this name is found:

... in South America where it has been used for a small river, that flows into the sea, near Lima. This strange coincidence of names suggest that probably in the past, this lake as well as its surroundings were frequented by a people, who had migrated from the valley of Chilka in Peru and for their continued presence in the area, the lake acquired this name in a gradual process. (Patnaik 2003: 510)³

Of course, until an Oriya totem is unearthed in California or Peru, we can only say that all of the above theories are highly speculative. However, this should in no way detract from the very real accomplishments of Oriya mariners and traders. Rather, it is fair to say that Mr.

² In fact, the word for “blear-eyed” is listed in Monier-Williams as *chilla* and the “common kite or Pondicherry eagle” is listed as *chila* (Monier-Williams, et al. 1964 [1899]).

³ Notice that Patnaik replaces pole and metropole here by suggesting that it is the Incas who traversed the seas. For a recent article that similarly suggests contacts between India and Latin America see Johannessen (1998).

Raychaudhuri was giving expression to some central tropes in Oriya discourse. Among the most often heard of these is the assertion of the historical and geographic centrality of Orissa, importance of trade, and the existence of long-distance cultural contacts. To some degree, all three of these are intertwined and, as I hope to show, Chilika Lake and its communities are crucial to understanding how these themes have manifested throughout history.

In general, coastal zones have beckoned humans since time immemorial. Reade suggests that this is because “the sea has always offered our species a range of resources which, while sometimes seasonal, are more reliable, less vulnerable to such factors like drought and over-exploitation, than those available inland” (Quoted in Pearson 2003: 3). As discussed in the previous chapter, this was particularly true of Chilika, which remains an abundant and diverse fishery with year-round fishing. The proximity to the sea has also proven conducive to the development of trade. The ready availability of salt, which is an essential trade commodity, has been instrumental in the development of trade routes. As will be discussed in Chapter Six, Chilika was a major producer and exporter of *kurkutch* salt⁴ until the turn of the last century. Salt is also an essential ingredient in the drying and preserving of fish, which have been traded with inland communities since time immemorial. Sellers of dried fish are specifically referred to in the Rig Veda⁵ (Majumdar 1968: 337) and the export of fish (both dry and fresh) from the lake has only accelerated with the recent introduction of aquaculture. Finally, coastal areas lend

⁴ *Kurkutch* salt, “was obtained by evaporation by solar heat of brine obtained from the sea or from backwaters and lagoons communicating with the sea” (Aggarwal 1976).

⁵ The Rig Veda (10-15 century BCE) refers to the sea as Ratnakara, “or the treasure house of wealth” (Patel 2002: 125), suggesting that those who depended on it for their livelihood prospered by doing so (See Chapter 5).

themselves to sea-borne trade and long-distance contact; an archetypal zone of interaction with multicultural entrepôts where ships and crews congregate and mingle.

This chapter attempts an historical overview of Orissa's place in long-distance trade since antiquity and into the present. Long a major sea power in the Indian Ocean, the King of Kalinga (ancient Orissa) was dubbed *Mahodadhipati*, or "Lord of the Ocean" by the celebrated Gupta era Sanskrit poet and dramatist Kalidasa (ca 4th-5th century A.D.) (Tripathi and Patnaik 2008: 390). The *Aryamanjusrimulkalpa*, a Mahayana Buddhist text of the 7th- 8th century A.D. even makes reference to the Bay of Bengal as *Kalingodesru* or "Kalinga Sea" (Patra 1996: 20; Tripathi 2002b: 121). For centuries, Oriya mariners traversed the vast Indian Ocean to settle and trade in such far-flung places as Sri Lanka, China, the Philippines and Indonesia. This included everything from essential items such as fish and salt, to luxury items such as precious stones. Yet by the time the British invaded the territory in 1803, the sea had become identified with slavery in the popular imagination of Oriyas. As one British officer noted, "transportation across the sea [was] 'to be as much dreaded in Orissa as death'" (Hunter 1872: 63). During British rule, no effort was made to develop ports in the state and it is only recently (1966) that the Orissan coast has benefited from the construction of Paradip port, "the first major port in the East coast commissioned after independence" (Paradip Port Trust 2008: 1).

The literature on Indian Ocean trade has also suffered greatly from neglect. While the role of the Mediterranean in history has been literally plumbed to its depths, the Indian Ocean has received scant attention. As Pearson (2003: 3) observed, "European scholars often saw it as a passive region, part of the unchanging East, on which impacted exogenous Roman, Islamic and Western influences." Only recently, as scholars have undertaken to explore its history is the full picture of Indian trade coming into view. With it is the emerging realization that, "the Indian

Ocean is by far the oldest of the seas in history, in terms of being used and traversed by humans” (Pearson 2003: 3). Nonetheless, to date, most of the research has been conducted by classicists interested in the history of Greek and Roman interactions with India. While this research has benefitted from a diversity of classical sources, it has also marginalized India and its important role in ancient trade. It is therefore not surprising that the focus of much of Indian coastal archaeology has been skewed to a quest for Roman artifacts and the identification of Roman treaty ports. A spate of recent articles has called into question the significance of many of these earlier finds and the underlying Eurocentric focus. The following discussion will review these findings while attempting a broader historical perspective that focuses both on the centrality of South Asia and the multilateral nature of this trade. This is informed by the most up to date scholarship that proposes a broad “Interaction Sphere” (Gupta 2005) with long-distance trade, cultural interchange and economic interpenetration in a broad swathe from the Mediterranean Sea to the Korean peninsula.

The following review will also highlight the history of the Orissa coast and its role in the Indian Ocean trade networks. Although, this stretch of coastline has long been coveted by successive empires, it has been virtually ignored by historians, Tripathi (1991; 1992-93; 2002; 2008; 2006; 2005) being a notable exception. Drawing on a Braudelian perspective and his trademark “geography as submerged history” (Braudel 1972a: 16) approach, I explore whether any discernible underlying structural features help account for the long history of trade in Orissa. I also inquire into the historical causes for the decline of Orissa as a maritime power and discuss what if any lessons this holds for the future. Finally, based on Frank’s broad-based interpretation of World Systems, I explore past examples of long-distance trade and interpenetration of capital

to place the recent round of export-driven economic policies and their effects on the Chilika Lake communities into historical perspective.

Archaeological Record

It is impossible to say precisely when people first settled in the Chilika basin and began trading, though recent archaeological finds at Golbai Sasan (a village located in Orissa's Khurda District) are beginning to shed some light on this question. Situated on the left bank of the Mandakini River, a tributary of the Daya River, the excavation site is located some 20 km upstream from the present shoreline of Chilika Lake (Patra and Patra 2002: 108). The fact that the surrounding terrain is low-lying up to the lake seems to indicate Golbai Sasan was likely a coastal village that has been distanced from Chilika due to infilling⁶ (Patra and Patra 2002: 109).

Eight trenches were dug in Golbai Sasan in 1991-2 by the Archaeological Survey of India which uncovered cultural assemblages from the Neolithic (Stone Age) to the Iron Age. Although Chakrabarti (1999: 240) suggests that there is no reason to believe that the site was not continuously inhabited from "well back into the third millennium BC," radiocarbon results identified three distinct periods: Period I or Neolithic (2300-2100 BC); Period IIA or Osteo-Chalcolithic (2100-1100 BC); and Period IIB or Ferro-Chalcolithic (1100-900 BC) (Mishra 2000: 324). Importantly, Golbai Sasan fills some gaps in our knowledge, providing us with the first examples of a Chalcolithic (Copper Age) site in Orissa as well as the earliest example of iron use in Eastern India.

⁶ Malini et al. (1993: 266) provide a map that reconstructs the Chilika shoreline in the early Holocene as well as major recessions and shows the degree of infill during this period. According to their research, the shoreline was located directly behind Puri during this time period.

Among the finds from Period IIA are a large number of polished stone tools such as adzes, celts, chisels and edge sharpeners. This suggests the existence of a group of carpenters and may indicate that Golbai Sasan was a boat building center. Though no boats have been uncovered at the site, hardened bone implements such as barbed spear heads, single-row harpoons and a single copper fish hook suggests that fishing was a common subsistence activity (Tripathi and Vora 2005: 1176) (Figure 3.1). Numerous ornamental objects, including pendants and ear studs made of fish bones and pottery decorated with tortoise-shell impressions were also found. When viewed together with the two shark teeth uncovered at the site, this hints at the centrality of fishing to the Golbai economy and culture. These finds also suggest that the villagers fished in open waters and allude to the existence of a full-fledged fishery sector (Pradhan, et al. 2000: 346; Tripathi and Patnaik 2008: 386).

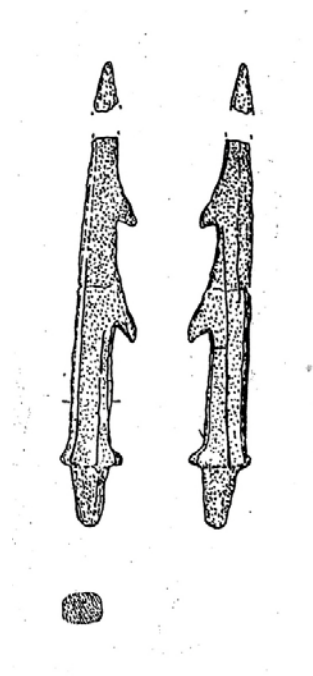


Figure 3.1 A bone harpoon from the osteo-chalcolithic period (ca 2100 to 1100 B.C.) discovered at Golbai Sasan (Sinha 2000: 335).

According to Gupta (2005: 22), the assemblages uncovered at Golbai Sasan correspond to “the material culture of Southeast Asia,” and the existence of “cord marked hand made pottery with rice husk used as temper,” is a clear indication of maritime links between eastern India and Southeast Asia in late pre-history. This view is consistent with the consensus that there was a, “fair amount of interchange and cross-fertilization” (Deloche 1996: 191) in the Indian Ocean (including the Bay of Bengal) from the Neolithic onwards (Gupta 2005: 21). According to Sinha (2000: 340-41), based on finds from Period IIA, Golbai witnesses the arrival of a new set of people of unknown provenance who introduced both agriculture (rice and *kulth*) and boat-building.

Pradhan dubs the new arrivals the “Earliest boat people of Orissa,” and muses that they “may well have laid the foundation for the famous and well known maritime activities of the Kalingas in the Bay of Bengal and the Indian Ocean in a later period” (Mishra 2000: 347). He even goes so far as to imply that this group may have carried the knowledge of iron smelting to the Ganges basin by ship (Mishra 2000: 347).⁷ Although recent evidence (Tewari 2003: 543) calls into question the assertion that iron celt found at Golbai Sasan provides the earliest evidence of smelted iron in India (Mishra 2000: 344, 47; Sinha 1992-3: 50), its existence is nonetheless suggestive of long-distance contacts and cultural interchange.⁸

Prehistoric archaeological evidence from other parts of the Chilika basin demonstrate that the patterns revealed at Golbai Sasan – namely international trade and cross-cultural exchanges, a developed fishery sector, the existence of specialized occupational communities and

⁷ This may be an attempt to call into the question the Aryan Invasion Theory, which is based in part on passages from the Rig Veda that suggest the use of iron. (Tewari 2003: 536)

⁸ The discovery of a furnace and “good number of crucibles” (Mishra 2000: 333) suggests that the metalworking was done on site. There is no reference in the literature as to whether or not these crucibles have been tested to see if the iron was smelted at Golbai Sasan.

technologically savvy artisans – are repeatedly encountered throughout prehistory and into the present. For example, monolithic pillars found on a hill near Rahunathpur just south of the lake on the Bay of Bengal⁹ and on the Western shores of the lake at Ghanta Sila hill appear to have served as lighthouses. Located directly below the Ghanta Sila pillar near the town of Rambha, Tripathi and Vora (2005: 386) report finding two submerged stone alignments 650-800 meters in length and up to nine meters deep that appear to have served as breakwaters in the distant past. The juxtaposition of breakwaters with the lighthouse and its location at the innermost part of the lake strongly suggests the existence of a paleo-harbor that served as a safe haven from rough seas. This point is further strengthened by the likelihood that Chilika was an open bay of the sea at that time (Abbasi and Mishra 1997: 2; Blanford 1859: 251; Hunter 1872: 22; Malini, et al. 1993: 257).

The noteworthy discovery of “a stamped boat motif” during initial survey work at Gourangapatna provides tantalizing evidence of what may have been a fishing or ship-building guild (Mishra 2000: 576). According to Basham (1954: 217), *Shreni* (guilds) played an important role in the economy of ancient India and he noted that in Vedic literature there was even “faint and uncertain references to some sort of guild organization.” Moreover, as Sir John Marshall observed, “the most striking fact revealed by the excavations at Mohenjo Daro and Harappa ... is the complete uniformity of their culture,” implying not only a high level of administrative control, but also, “clear evidence of a highly organized system of craft production ... and the presence of specialized groups” (Allchin and Allchin 1968: 268). Thapar notes that under the Maurya Empire, artisans were systematically organized and that “finished products

⁹ These pillars are located near Palur village and is presently worshipped as a Shiva linga (Patra and Patra 2002: 109).

were not only taxed immediately, but also stamped by a special officer with a particular stamp, in order to distinguish new goods from the old unsold goods” (Thapar 1997: 72). As such, it is possible that this boat motif represents the existence of a distinct community of fishers or ship-builders in Chilika in ancient times. The fact that the archaeological site is located in the shadow of the Rahunathpur monolith (Patra and Patra 2002: 109), and only a few kilometers from Palur – the site hypothesized to be the “*Apheterion* or port of departure for ships bound for Khryse [Sumatra]”¹⁰ (Casson 1989: 235-6; Gerini 1909: 743) and mentioned by Ptolemy in his *Geography* – adds further weight to this argument. However, until a detailed survey of these sites is undertaken, this must remain in the realm of speculation.

In general, the finds unearthed around Chilika are also relatively consistent with finds from the Indus Valley civilization and other parts of South Asia. Allchin and Allchin (1982: 65) report finding a copper fish hook in Budha Pushkar together with microliths that, “strongly suggests an overlap in time between the microlithic and certain semi-urban Chalcolithic cultures” (cf. Majumdar 1968: 23). This is reminiscent of Golbai Sassan, where Neolithic and Chalcolithic objects were found in close proximity. Tools from the Doab copper hoards include adzes and various harpoons and also similarly, “date from the last half of the third and the whole of the second millennia” (Allchin and Allchin 1982: 256). Several boat seals¹¹ (Figure 3.2) have also been discovered at Harappa and Mohenjo Daro (Allchin and Allchin 1982: 88; Fairservis 1971b: 277-78, 80) and there is indisputable evidence of long-distance sea trade with the Persian

¹⁰ Van der Meulen (1974) makes a convincing case that Chryse is Sumatra. This is consistent with our knowledge of Orissan (Kalingan) contact with Indonesia (Elphinstone 1843: 327; Mahalik 2004: 43).

¹¹ Fairservis (1971b: 277-78) believes that the topmost seal is of a river-going vessel since it appears to be “keelless and of shallow draft, like those ships of predynastic Egypt.” The Tigris, a reed boat which Heyerdahl (1981: 8) sailed from Basra to Karachi and then on to Djibouti, looks identical to the boat on this seal but was built based on Sumerian evidence.

Gulf region (Allchin and Allchin 1968: 269-73; Chakrabarti 1999: 193; Feuerstein, et al. 1995: 115-20; Majumdar 1968: 49).

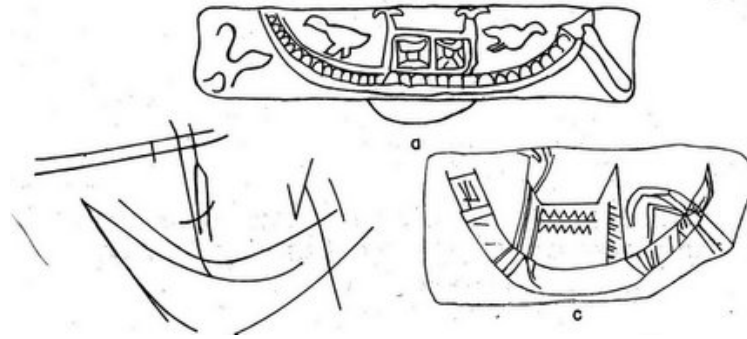


Figure 3.2 Baked Clay Amulet and Seal from Mohenjo Daro; Graffito on an Indus Potsherd (Clockwise) (Deloche 1996).

Buddhist and Mauryan Empire Period

Though the area of Orissa is referred to in Vedic literature, the historical era is inaugurated with the Kalinga War of 261 BC. The war was a famously blood-drenched affair centered on the Orissa coastal belt and the main battle was fought at Dhauligiri (the White Hill), which is located less than 30 km/18 mi north of Chilika and several miles upstream from Golbai Sasan on the banks of the Daya River. According to Ashoka Rock Edict XIII,¹² “One hundred fifty thousand were deported, a hundred thousand were killed and many times that number perished,” during the battle (Thapar 1997: 255). The edict goes on to say that, “On conquering Kalinga, the Beloved of the Gods [Ashoka] felt remorse,” and according to tradition, the Emperor, who had converted to Buddhism two years prior to the battle, fully embraced the tenet of *ahimsa* (non-violence) in the aftermath of the bloody battle. For scholars of Buddhism, this

¹² Following the Kalinga War, Emperor Ashoka had edicts inscribed on pillars, rocks and even cave walls to proclaim Buddhist beliefs and, advertise laws and to record important events. There are fourteen rock edicts, two kalinga edicts and three minor rock edicts as well as nine major and minor pillar edicts located throughout present day India and Pakistan.

decision to make it the official state religion of the Maurya Empire is as momentous and foundational as Roman Emperor Constantine's decision six hundred years later to embrace Christianity following the Battle of Milvian Bridge.

Two strategically located Ashokan Major Rock Edicts have been discovered in Orissa as eternal reminders of Mauryan rule. One is situated adjacent to the battlefield site at Dhauligiri, while the other was placed in the subsidiary Maurya headquarters of Samapa located in present day coastal Ganjam district and identified as Jaugada fort. (Figure 3.3) The Jaugada edict is situated in close proximity to the Rushikulya River just south of Chilika Lake and some 15 km/10 mi upstream from the aforementioned port city of Palur. Since the Maurya Empire long suffered from being landlocked, it has been suggested that what, “tempted Ashoka to invade Kalinga was his insatiable desire to acquire [the] flourishing ports of Kalinga,” (cf. Mishra 2000: 601; Patra 2007: 46) to “gain better control of the coastal trade routes” (Johnson 1996: 70). Located within such short reach of Chilika and being the only known edicts within a 350 mile radius,¹³ this strongly suggests that maintaining control of the lake area was a primary strategic goal of the Mauryan invaders.¹⁴ Furthermore, the *Arthashastra's*¹⁵ reference to a special officer to oversee shipping, the existence of ship-builders in the employ of the state, and the creation of an admiralty for naval warfare¹⁶ leaves little room to doubt that the region's proximity to the sea figured prominently in the decision to invade (Thapar 1997: 72, 89, 119).

¹³ The closest Ashokan edict is located 340 miles south as the crow flies in the Andhra Pradesh temple town of Amarvati. The closest edict to the north is located over 450 miles away in Bihar.

¹⁴ According to Majumdar (1968: 211), “Asoka's Kalinga lay between Dhauli near Bhuvaneswar and Jaugada in the Ganjam district, that is the heartland of Orissa...”

¹⁵ A study of statecraft and politics traditionally ascribed to Chanakya (aka Kautilya) written between the 2nd and 4th century B.C.

¹⁶ According to Trautmann (1982: 258), the purpose of the Mauryan admiralty, “was not to engage in naval warfare, but to supply the army by river.” While this may very well have been true during the period when the empire was

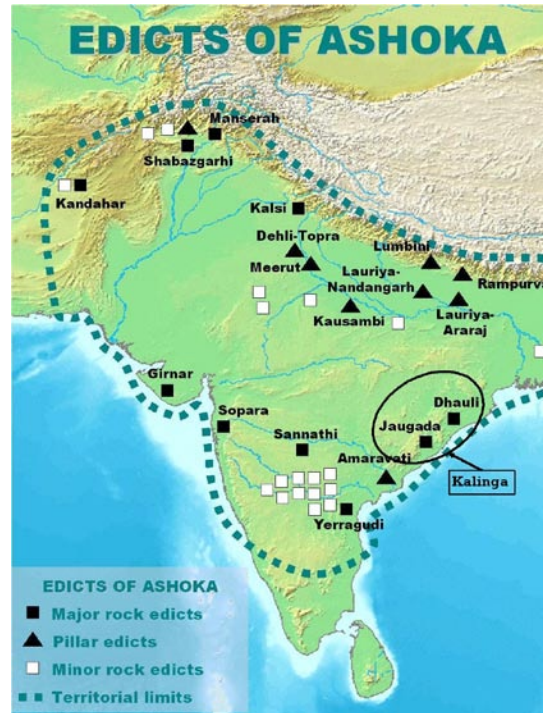


Figure 3.3 Map of all the known edicts of Ashoka. The two Kalinga Rock Edicts are circled to the right (Wikimedia 2008).

In addition, if as Sylvain Lévi (1975 [1929]) famously contended, the ancient port of Palur was none other than the famed temple town of Dantapura where the Buddha's tooth relic resided prior to its removal to Sri Lanka in 300 A.D., then it is likely that there were religious as well as commercial motivations to the Maurya invasion (O'Malley 2007 [1908]: 94).

Considering that, according to tradition, whoever controlled the temple of the tooth relic had the divine right to rule the land (Dhammakitti 1874: 38, 61), Dantapura was no doubt a military objective in its own right. In light of Ashoka's decision to send Buddhist emissaries to the four corners of the known world in the aftermath of the war, such a center of Buddhist learning would also undoubtedly take on particular significance. Though it must remain for now in the realm of

landlocked, it seems unlikely that this situation would have continued unchanged once access to the sea coasts was secured.

pure speculation to suggest that the lake and its communities played a pivotal role in the dissemination of Buddhist teachings throughout the Bay of Bengal (e.g. Sri Lanka, Southeast Asia, Indonesia and China), it is hard to overlook the existence of a world-class harbor and local familiarity with sea routes.

Post-Mauryan Era

Although archaeological and linguistic evidence provide intimations of sea-faring and economic contacts long before the Mauryas,¹⁷ it is the period following this invasion that truly ushers in the heyday of Orissan trade and trans-oceanic links. Referring to Oriyas as the “Indians who sailed boldly into the open sea,” Sir Montstuart Elphinstone noted in his pioneering *History of India* that “The histories of Java give a distinct account of a numerous body of Hindus from Clinga (Calinga),¹⁸ who landed on their island, civilized their inhabitants, and who fixed the date of their arrival by establishing the aera [sic] still subsisting, the first year of which fell in the seventy-fifth year before Christ” (Elphinstone 1843: 327). Kharosthi inscriptions found on pottery excavated in Bali and comparative studies of Buddhist art appear to confirm these legends. Further proof comes from Malaysia and other parts of Indonesia, where to this day Indians are known as *Orang Kling* or “people of Kalinga,” after the Kalinga settlers who once regularly frequented these shores (Yule, et al. 1968 [1903]: 487-88) on ships known locally as

¹⁷ According to the *Mahavamsa* (Geiger 1908), the oldest historical record of the Sinhalese people, King Vijaya Simha, the founder of Sri Lanka’s first dynasty, arrived on the island from Kalinga in 543 BC. Banished by his father for misconduct, Vijaya voyaged in large ships laden with horses, elephants and 700 of his followers (Patel 2002: 128; cf. Schlingloff 1999: 57). While the chronicle regularly intersperses legend with facts, the timeline it presents is generally accepted by historians as accurate and has long been used to fix chronologies for all of South Asia (Tripathi 2002b).

¹⁸ Tripathi and Patnaik (2008: 121) in an unattributed quote state that, “The early legends of Java mention ‘twenty thousand families were sent to Java by the Prince of Kling. These people prospered and multiplied.’”

Kling vessels (Milburn and Thornton 1825: 375).¹⁹ Similar expeditions and the establishment of colonies in other countries of Southeast Asia and China are also associated with this time period (Tripathi 2002b). It is unclear whether this reflects economic destabilization and outmigration following the Mauryan invasion or signifies a period of economic expansion and increased trade. Nonetheless, evidence of trade and cultural links with Southeast Asia demonstrate Orissa's prominent role in a broadly based Indian Ocean economic system.

To this day, communities throughout Orissa and around Chilika celebrate *Bali Yatra* (Bali festival) that commemorates these long-distance voyages. The celebrations are associated with the *Sadhaba*, or trading communities of Orissa²⁰ and are performed in the Hindu month of *Kartika*, which falls in late October and early November. During these celebrations, "ladies, young-girls and married women sail boats made of *shole* or bark of plantain tree (*Kadalipatua*) with lamp lighted up, guava, raw rice, betel leaves and different types of flower for safe-return of Sea Voyages" (Mahalik 2004: 43). Not coincidentally, it was during this time of the year that strong north-easterly winds "carried the ships swiftly till they reached Ceylon where their sail fitted with north-westerly trade wind and carried them to Suvarnadvip [Indonesia]" (Mahalik 2004: 43). This festival is also known locally as *Boita Utsav*, in reference to the large boats called Boitas that were used for the long sea journeys. Raut and Tripathi (1993: 52) report that Chilika ship builders "recall that their forefathers used to build sea going vessels called Boitas with prows decorated like duck, lion and tiger."

¹⁹ The Hobson Jobson glossary notes that "Throughout the book of Malay historical legends called the *Sijara Malayu* the word Kaling or Kling is used for India in general..." (Yule, et al. 1968 [1903]: 488). Due to linguistic drift, *Orang Kling* now refers primarily to Tamils in Malaysia, since they are the most recent immigrants from India.

²⁰ Pliny notes the *Calingae* are, "close upon the sea" and recognizes six classes of people including "one sort [who] export their own commodities to other countries, and bring foreign merchandise into their own" (Pliny 1847: 122-23).

During conversations in Bhalabhadrapur, I was also told that this type of boat was widely used by the Kaibarta fishing community to sail to “Suvarnavipa, Malaysia, Indonesia, all these places,” and that the ships were typically adorned with a painted goose on their prow. At present, a large celebration is regularly held on the lake in the market town of Balugaon and the Orissa government (through the Orissa Tourism Development Corporation) has constructed a scaled-down replica of a *boita* for use by tourists during the festival. From June to September the monsoon wind blowing from the Southwest helped sailors return to India and the return voyage is celebrated in the month of September in the festival of *Khudurukuni Osha*, “by unmarried girls of Orissa who used to wait for their brothers return with wealth and gifts” (Tripathi and Raut 2006: 870) (Figure 3.4).

It should be noted that Oriya mariners did not venture out to sea in outrigger canoes (cf. 1996: 181-83). Rather the typical vessels that traversed the oceans ranged from 350 to 500 tons and could carry up to 500 passengers, a fact that is supported by iconographic evidence of large boats that have been found in various places up and down the coast (Deloche 1996: 224).²¹ Although there are clearly differences in the vessels, it is quite striking to find that the 2nd century BC drawings in the Ajanta caves and a 10th – 11th century Orissa relief displayed in the Indian Museum in Calcutta both depict ships capable of transporting elephants on their top deck (Figure 3.5) & (Figure 3.6).

²¹ Based on the 11th century *Yuktikalpataru* of King Bhoja, ship building in India in this era was quite advanced (Chaudhuri 1976). For example, “the Samanyamanthara was prepared with the measurement of 120 cubits in length 60 cubits in width and 60 cubits in height” (Mohapatra 1997: 118).

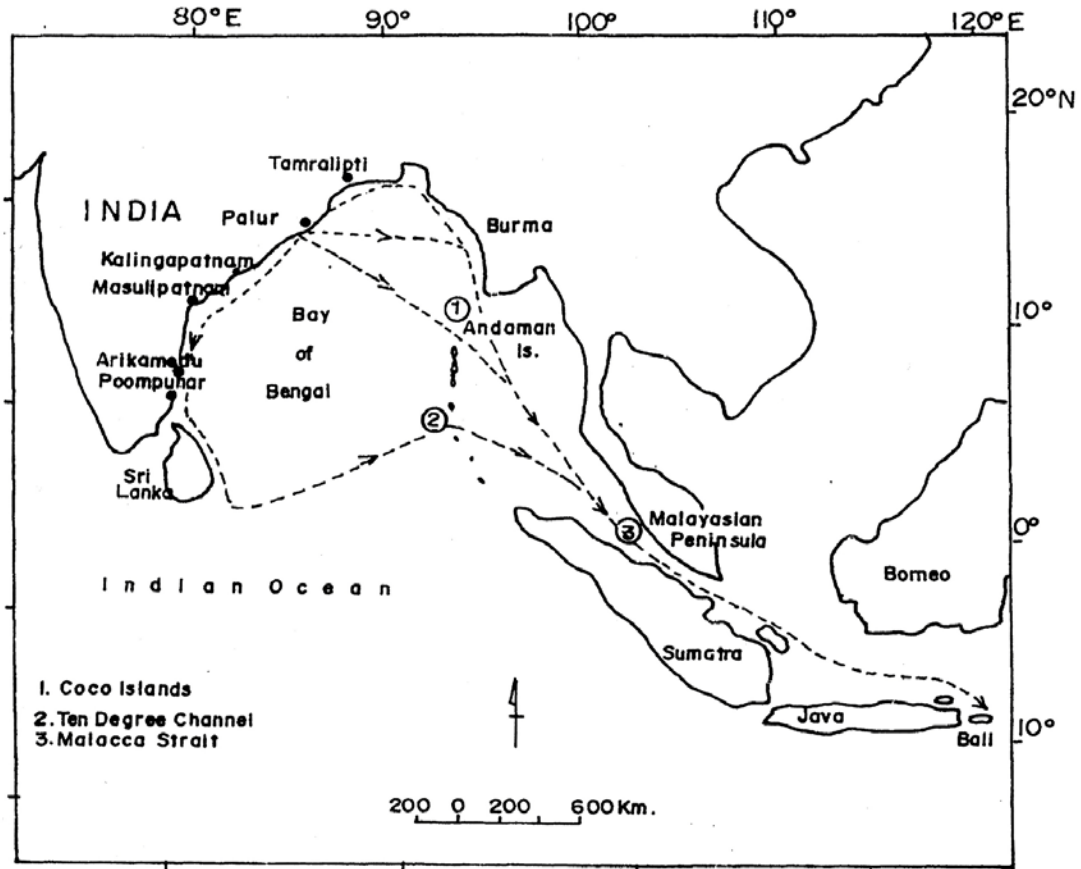


Figure 3.4 Sea Routes from Orissa to Southeast Asian Countries (Tripathi 2002: 122).

Further proof of the types of ships that plied the waters of the Indian Ocean can also be found on the 13th century Konark Sun Temple, which is located on the coast some 50 kilometers north of Chilika Lake. The temple famously contains a frieze depicting a giraffe – an African animal that could only have arrived by sea (Tripathi 2002b: 122) (Figure 3.7). Clearly, ships of the weight class necessary to transport such large animals, would need large and deep water ports in which to berth. Unfortunately, none of the archaeological sites along the Orissa coast that are suspected of being ports in antiquity have been fully excavated and, with the notable exception of Tripathi (1992-93), there has been almost no discussion of this subject in the literature.

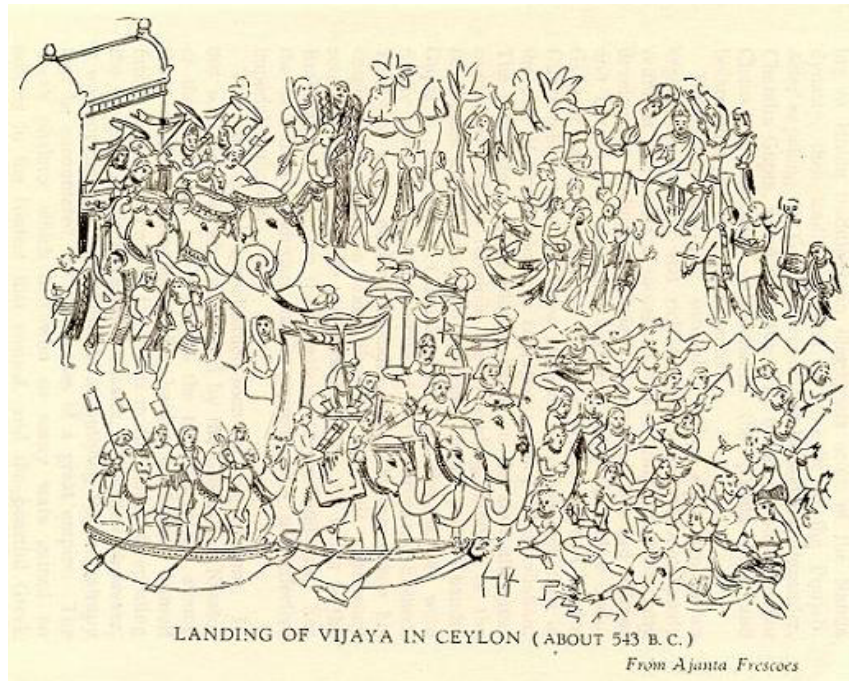


Figure 3.5 King Vijaya Landing in Sri Lanka. From the 2nd century B.C. Ajanta paintings. According to tradition, King Vijaya came to Sri Lanka from Kalinga. Notice the elephants on the ships at the bottom of the drawing (Wikipedia 2008).



Figure 3.6 Relief From Orissa (10th-11th c A.D.), Indian Museum, Calcutta. Note the elephant on the prow of the ship (Deloche 1996).



Figure 3.7 Giraffe (right side) on the 13th century A.D. Konark Sun Temple (History Speaks 2008).

Classical Period: Trade with the West

As Casson (1984: 247) wryly noted, “Even in ancient times, East was East and West was West – but the twain did keep meeting at the edges.” Indeed, by the time Alexander the Great began his long march across Eurasia, international trade routes between the Mediterranean and Asia had long been established and South Asia appears to have been the leading edge in this exchange. Phoenician traders, those inveterate travelers of the ancient world, are perhaps the earliest Western mariners who plied the waters of the Indian Ocean to enrich themselves through the lucrative spice trade (Robertson 1981 [1818]: 14). The Book of Exodus (30: 23-24), which is traditionally dated to the second millennium BC,²² even alludes to this commerce and mentions

²² According to Bible scholars, the Book of Exodus was redacted as late as 450 BC. Yet even this later date only implies that the book was finalized at that time and does not mean that the traditions were not much older.

Cinnamon and Cassia (plants native to South Asia and China) as two of the principal spices used in the Jewish temple service.

Recent excavations at Manikapatna, an outer channel village located not far from Chilika's old sea mouth, have unearthed rouletted ware pottery which may be evidence of early contacts with the Roman Empire²³ (Figure 3.8). The pottery, which closely matches finds from Arikamedu and Sisupalgarh, has undergone mineral pattern analysis that places it in the 2nd - 1st century BC (Mishra 2000: 482). Brandtner (2001: 204) further reports that, "some amphora sherds, clay bullae modeled on Roman designs and even a gold coin with a Kusana-type obverse and a Roman-styled reverse" were recovered from the site. Similar finds of rouletted ware pottery in Java, Bali, Vietnam, Sri Lanka and Bangladesh, suggest the existence of a wide and developed trade network of which the Orissa sea coast took part.²⁴

Although only two trial trenches have been sifted through so far, Manikapatna is significant for being "the only site from where varieties of ceramics have so far been reported," (Tripathi 2002b: 124) along the entire east coast of India. Among the pottery finds are, "a large quantity of Chinese celadon and porcelain ware sherds, egg-white Arabic glazed ware, black ware, red ware, etc.," (Tripathi and Patnaik 2008: 387) as well as a Ceylonese coin, two triangular Shah Alam coins, and a Chinese coin, all of which point to wide-ranging maritime relations (Mishra 2000: 488).²⁵

²³ Rouletted ware pottery is believed to be pottery made in India based on Roman designs. Recently there has been some backlash in the literature questioning whether rouletted ware pottery is in fact evidence of Roman contact (Begley 1991: 157; Meyer 2007: 60).

²⁴ Based on X-Ray diffraction analysis of rouletted ware shards found along the Coromandel Coast and in Southeast Asia, the mineralogical content suggests that the source was Bengal (Mishra 2000: 571).

²⁵ Recently there has been a reassessment of the use of coins (Roman or otherwise) as evidence of cultural contact. It is argued that these coins may represent a thriving trade in metals rather than conclusive evidence of contact (Chakrabarti 1999; Meyer 2007: 335).

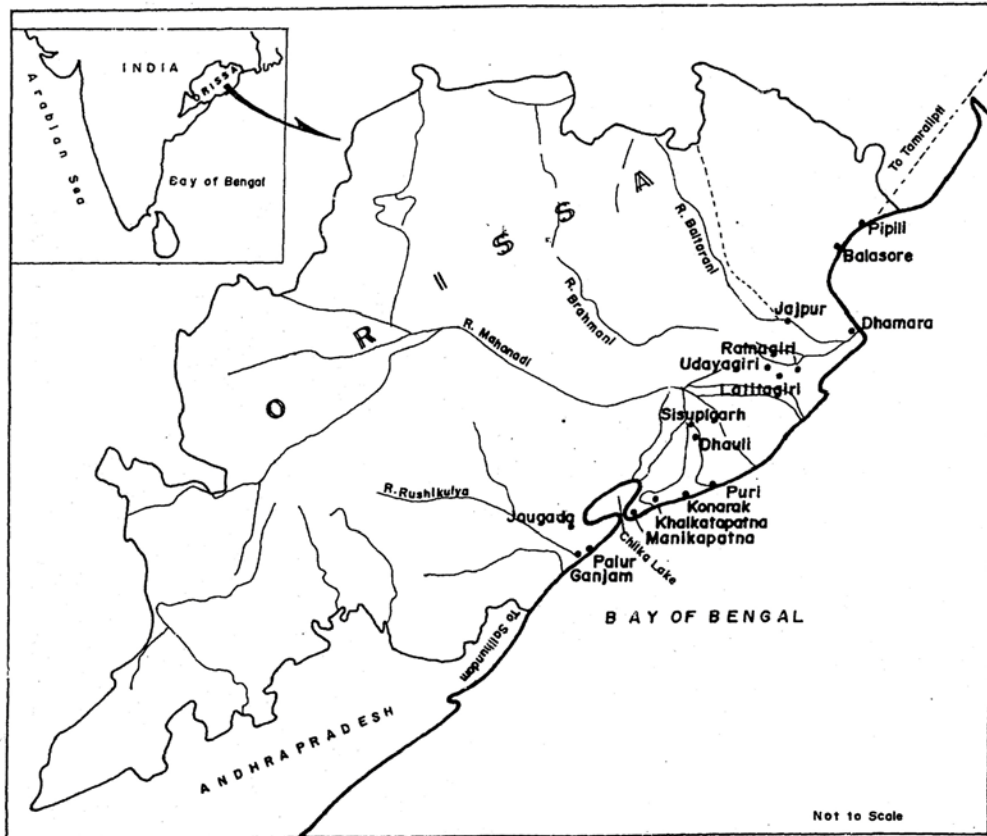


Figure 3.8 Orissan Ports in Antiquity. Manikapatna is located near the Chilika sea mouth and Palur is located to the south of the lake (Tripathi 2002: 118).

Though short-lived, the Greek foray into India was undeniably a watershed moment in ancient economic history that inaugurated the era of formal relations between South Asia and the Mediterranean.²⁶ Yet this East-West trade only truly flourished with the conquest of Egypt by Augustus in 31 A.D., the “discovery” of the monsoon wind by Hippalus in 45 A.D.,²⁷ and the

²⁶ Prior to the invasion, Greek writers such as Herodotus (484 c. – 425 BC) and Theophrastus (371-287 BC) were familiar with Indian products, but confused the middlemen for the suppliers and believed the Arabian Peninsula to be the source of most of these goods (Casson 1984: 233). After Alexander’s invasion of 326 BC, there was greater access to these goods, and writers such as Strabo (64 BC – 24 A.D.) and Pliny (23 – 79 A.D.) correctly identify their Indian provenance.

²⁷ The quotation marks around the word *discovery* are in deference to Tchernia’s well-reasoned article that contends that the discovery was not of the monsoon, but rather of the “location of the ports and shape of the sea” (Tchernia 1997: 253). Prior to Hippalus, geographers believed that India stretched West to East, whereas he realized that it was a peninsula stretching from north to south.

opening of Red Sea ports such as Berenice and Ormus. This route allowed the Romans to circumvent the Seleucid Empire and led to a peak in trade during the 1st and 2nd century A.D. Based on extant writings, Orissa and the Chilika region played a pivotal role in that commerce.

The first known mariner's handbook for Westerners interested in the India trade is the "seabreaking" *Periplus of the Erythraean Sea* (Ship Voyage of the Red Sea), which was anonymously written sometime in the middle of the 1st century A.D. The lengthy list of export items identified in the Periplus bears repeating because it reveals the sheer breadth of this trade in the first centuries A.D. This includes: "perfumes, medicinal herbs, pigments, pearls, precious stones like diamonds, sapphires, turquoise and lapis lazuli, iron, steel, copper, sandalwood, animal skins, cotton cloth, muslin, silk yarn, indigo, ivory, porcelain and tortoiseshell" (Majumdar 1968: 374). Equally important, the Periplus also provides a detailed description of the East coast of India up to the mouths of the Ganges and includes the Orissa coast, which it called "The Desarene region" – an area reached by a bay that was the source of *Bosare*, or black elephants (Casson 1989: 232-33). Pattanaik (2000: 606) muses that "The bay described here could be none other than Chilika, whose mouth was probably wide enough to make it a bay."

Thanks primarily to the classical sources and several centuries of archeological excavations in Europe and the Near East, we have the basic outlines of the trade networks that existed in the Western Indian Ocean and the Mediterranean Sea. However, it would be a mistake to focus solely on either contact with the West or the trade in luxury goods such as Indian spices and ivory. Rather, the Periplus attests to the multilateral nature of 1st century trade networks and contains detailed "lists of imports and exports to local ports around the Indian Ocean, which have nothing to do with Roman trade" (Bjørkelo, et al. 2007: 5). A case in point is the Periplus' mention of the land of *Chryse* – the "golden region" or "Eastern El Dorado" (Van der Meulen

1974: 1) that is believed by many scholars to be Malaysia or Indonesia – thus providing independent, European, confirmation of trade relations further afield in Southeast Asia.

Ptolemy, who credited the *Periplus* as the base map of his *Geography* (*Geographika Hyphegesis*), greatly expanded Western knowledge of India's east coast and Southeast Asia. Whereas there are lingering doubts as to whether or not the author of the *Periplus* actually visited the places he mentions along India's east coast, several authors contend that Ptolemy resided in India and may have even based himself in the Chilika port of Palur²⁸ (Lévi 1975 [1929]: 163; Mahalik 2004: 41-42). The *Geography* does specifically mention several Orissa ports and gives pride of place to Palur, the only *Apheterion* (i.e. harbor that served as a departure point or launching pad) for those continuing on to the land of *Chryse* (Southeast Asia).

Though it has not been conclusively established that the present-day coastal village of Palur is the same as the port mentioned by Ptolemy, from a geographical perspective Chilika is, in fact, the most logical place to make a crossing of the Bay of Bengal. With a safe harbor that could accommodate large ships at precisely the point where the coast turns to the Northwest, a crossing from this stretch of coast would be faster and more cost efficient. Primarily, this is because the Bay of Bengal narrows just to the south of Chilika. It is also far shorter than the coastal route with the added benefit of avoiding the treacherous shoals of the Mouths of the Ganges. From the Burmese Arakan coast, which is directly across the Bay of Bengal from Orissa, it is only a short distance to the Andaman and Nicobar islands and then less than 100 miles to Sumatra.

²⁸ There is no evidence that Ptolemy ever personally visited India or Malaya, as is asserted by Mahalik (2004) or Patel (2002: 127). It appears that several authors have taken this notion from Sylvain Lévi (1975 [1929]: 163), who wrote that "On the eastern coast of India, Ptolemy mentions a locality called Paloura (VII, i, 16) which he chooses as one of the bases for the preparation of his map" (cf. Patra 1996: 21).

Based on Roman archaeological finds that have been uncovered on the east and west coasts of India,²⁹ it appears that the greatest “concentration of Mediterranean artifacts [is] in the Krishna estuary and along the Orissa coast”³⁰ (Gupta 2005: 26). While this may seem counterintuitive at first glance, it does strongly suggest that Roman traders established forward bases for trade with Southeast Asia and the Far East.³¹ In addition, the East coast of India may have been preferred since it provides easy access to the Ganges and Brahmaputra rivers and thus to goods from the Indian interior and Tibetan plateau. Not coincidentally, the present location of the major port cities of Madras, Calcutta, and Dhaka attest to the fact that this commercial pattern was replicated in the Portuguese and British eras.³²

Middle Period: Trade with the East

The Western trade cycle reached its apogee during a period of over 150 years, but waned considerably after the 2nd century A.D. The sack of Rome (455 A.D.) and the demise of the Western Roman Empire (476 A.D.) greatly disrupted trade between the Mediterranean and the

²⁹ The most famous of these is Arikamedu, located on the outskirts of Pondicherry. Excavated in 1945 by Sir R. E. Mortimer Wheeler, the famed excavator of Mohenjo Daro and first Director General of the Archaeological Survey of India, large Roman coin hoards and rouletted ware pottery believed to be inspired by Roman designs were unearthed. Recent studies have questioned his identification of the site as one of the Roman treaty ports mentioned by Pliny. For a reassessment of Roman coins as evidence of a thriving trade in metals rather than conclusive evidence of contact see Chakrabarti (1999) and Meyer (2007: 335). For articles that question whether rouletted ware pottery is in fact evidence of Roman contact see Begley (1991: 157) and Meyer (2007: 60).

³⁰ In Orissa this includes such sites as Manikapatna and Sisupalgarh (Mishra 2000). It will be interesting to see if Palur yields rouletted ware once it is systematically excavated.

³¹ Francis (1991: 40) quoted in Frank (1993: 400) writes, “It is no longer adequate to think of it [Arikamedu] as an ‘Indo-Roman trading station’ or to assess its value only in terms of its interaction with the Mediterranean world. The data from other sites [in Sri Lanka, Vietnam, Thailand, and Malaysia and possibly Indonesia] show that Arikamedu looked east far more than it looked west.”

³² The first British settlement in India was at Masulipatam (Masulis of the Periplus) along the Coromandel Coast i.e. East coast of India in December, 1611. It was established in order to serve as, “a half-way house between Coromandel Coast and Bantam, where the company had gained a firm foothold in 1603” (Bruton and Nair 1985: 1). Bantam is located on the island of Java on the east side of the Sunda Strait, not far from Jakarta.

Indian Ocean. It has been suggested that the economic impacts were so great that this may have played a role in the subsequent fall of the Gupta Empire (530-550 A.D.). In any case, it is clear that the rise and spread of Islam under the Patriarchal Caliphate (ca 622-661) during this period meant that large swathes of the Silk Road, Arabia and North Africa were engulfed in warfare. Known as the Early Middle Period (500 - 1200 AD), this is generally characterized in North India as an era where “both trade and centralized power declined” (Morrison 1997: 97). Accounts of Chinese travelers to India as well as Chinese accounts of Indian travelers in China suggests that economic ties with countries in Southeast and East Asia were upgraded during this period (Tripathi 2002b: 124). Although much of this exchange centered on Buddhist networks,³³ the detailed discussion of trade items in the few surviving Chinese accounts leave little doubt that these pilgrims were not solely interested in spiritual pursuits.

For example, Hien Tsang (602-664 A.D.), a Buddhist monk who wrote an account of his seventeen years (629-646 A.D.) spent in Central Asia and India in search of rare manuscripts, describes in great detail the area of *Kong-u-t'o*, which has been positively identified as Kongoda, a 7th century kingdom comprising the parts of Ganjam and Khurda districts that encircle Chilika Lake (Banerji 1980 [1930]; Brandtner 2001: 187). He describes it as a, “country bordering on the sea [that] abounds in many rare and valuable articles. They use cowry shells and pearls in commercial transactions and the great greenish-blue [dark] elephant comes from this country”³⁴

³³ Morrison (Morrison 1997: 95) rightly cautions against reading too much into the difference between Buddhist and Hindu trade networks. “It is worth noting that British colonial scholarship on the Early Historic fixed on a notion of Buddhism as a (positive) alternative to a negatively portrayed Hinduism ... orientalist scholarship more generally blamed India’s ‘backwardness’ on Hinduism.”

³⁴ These sturdy war elephants were famed throughout the region and such an important commodity that it has been suggested that the Mauryan invasion sprung primarily from a desire to corner the market on these tanks of the early historical era (Johnson 1996: 70). In addition, the ivory of these elephants was prized for its strength (Trautmann 1982: 273-74). Roman desire for ivory was legendary and one of the main items of trade with India. It is said that Seneca had over 500 tripod tables made of Ivory while Caligula famously provided his horse Incitatus with an ivory

(Xuanzang, et al. 1957: 412). In addition, he mentions that Kongoda is situated, “on a bay (angle of the sea),” where, “The ranges of mountains are high and precipitous. The ground is low and moist” (Xuanzang, et al. 1957: 412).

Based on what we know of Kongoda, it would be difficult to mistake this great bay for anything other than Chilika Lake, most likely in the period before the sand spit completed the lagoon’s separation from the sea. Indeed, it is possible that Hien Tsang alludes to the existence of a lagoon in his use of the Chinese term *hai kiau* or “confluence of two seas.” Sylvain Lévi has discussed this terminology in great detail and (1975 [1929]: 172) opined that, “*kiau* regularly means ‘meeting point’; ‘exchange,’ ‘mixture,’ and the expression ‘situated at the meeting point of the seas’ very well renders the geographic conception which Ptolemy had adopted for *apheterium*.” While this interpretation cannot be ruled out, it seems to me just as likely that Hien Tsang’s use of the word *kiau* refers to the sea mouth of a lagoon, where fresh water from the rivers and salt water from the sea meet, exchange and intermix.

In his writings on Kongoda, Hien Tsang does refer to a port town he calls *Che-li-ta-lo* from whence, “merchants depart for distant countries, and strangers come and go and stop here on their way” (Xuanzang, et al. 1957: 411). Echoing Ptolemy’s *Apheterion* (“port of departure”), he denotes the town *Fa-hing* or “city of departure” (Xuanzang, et al. 1957: 411). Yet, based on its location and the likelihood that the port of Palur had silted up by that time, it does not seem likely that he is describing the ancient port. In either case, it is suggestive of a structural feature i.e. that the area around Chilika was a convenient point from which to cross the Bay of Bengal.

stable. According to Pliny, by the time of Tiberius (42 B.C. – 32 A.D.), “the supply of good ivories was failing, with the exception of those which were being brought from India” (Warmington 1974 [1928]: 164). To this day there is a sizable elephant population in Orissa. In 2008, the Indian Legislative Assembly debated compensation for 40 Orissan villages suffering from elephant attacks and crop damage (Anonymous 2008).

With this in mind, several authors have attempted to identify *Che-li-ta-lo* and various locations have been proposed over the years. Beal (Xuanzang, et al. 1957) averred that *Che-li-ta-lo* is a Chinese pronunciation of Charitra(pur) (cf. Mahalik 2004: 42). Others have advanced the notion that it is clearly a bastardization of Kshetra, which is another name for the temple town of Jagannath Puri (Tripathi 1992-93: 51). Recently, some authors have identified *Che-li-ta-lo* as Manikapatna (Mishra 2000: 603; Patel 2002: 127; Patra 1996: 20; Patra and Patra 2002: 111), though none of these articles share their rationale for this assertion.³⁵ As far as I can tell, no one has yet to claim that *Che-li-ta-lo* may, in fact, be the earliest extant mention of Chilika. While a *k* to *t* shift is less common than an *l* to *r* shift, Gerini (1909: 72) provides us with a regional example of such a shift in the name of the Burmese Taleng Kingdom,³⁶ which he claims was named after Kalinga. This raises the interesting possibility that the port was named after the lake (or vice versa). The recent discovery in Manikapatna of the remains of a 1.60 m wide khondalite (a garnet-sillimanite gneiss) wall (Mishra 2000: 480), further fits Hien Tsang's description of *Che-li-ta-lo* as an imposing walled city and lends credence to this assertion (Xuanzang, et al. 1957: 411). It is also around this time that the port of Manikapatna begins to be regularly mentioned by travelers, a fact that may be related to the infilling of the lake, the shifting of the Rushikulya River and the silting up of Palur port.

³⁵ To be fair, Patra (1999) has published an article titled "A New Light on the Identification of Che-li-ta-lo of Hiune Tsang – An Archaeological Study" that I was unable to obtain after several attempts. Pattanaik does a good job of discounting all the other locales that have been associated with *che-li-ta-lo*, yet is entirely unconvincing in his explanation as to why Manikapatna should be identified as this port. He muses that, "... as a port it had the potentiality to have been taken note of by Hieun Tsang ... [who] must have visited the spot" (Mishra 2000: 605).

³⁶ Although Telingana, a region of the Indian state of Andhra Pradesh is believed to be derived from the word Tri-Kalinga (e.g. Tri-Kalinga → Trilinga → Tilinga → Telinga → Telingana) (Yule, et al. 1968 [1903]: 489), it is possible that it is derived from Kalinga (e.g. Kalinga → Talinga → Telinga → Telingana). If so, then this would provide another example of a *k* to *t* shift in an adjacent geographical region. A shift from *Che-li-ta-lo* to Chilika is a shift in the opposite direction (i.e. *t* → *k*) and may represent a shift that already happened by Hsien Tsang's time from the original name of Chilika.

Bi-lateral trade and cultural links between Orissa and China continued to develop throughout the almost thousand years of Chinese economic expansion that typifies the period from the Tang (618-907) to the early part of the Ming Dynasty (1368-1644) (Mishra 2000: 574). Based on the *Chu-fan-chi* of Chau Ju-Kau written in 1225-26 A.D., the expansion in trade coincides with the extravagant reign of the Eastern Gangas (900-1200 A.D.), who constructed the impressive Jagannath and Konark temples. According to the Chinese account, two types of Kia-Ling (i.e. Kalinga) ships regularly plied the waters between Canton and Orissa. As late as 1433, Ma Huan mentions Orissa, which he calls Chieh-ling-ch'ieh (Kalinga), listing the capital Wu-li-she Ch'eng ("Orissa city" i.e. Cuttack) and referring to the Chilika port towns of Ku-pa-tan (Manikapatna); Kung-yü-t'o (Kongoda or Ganjam); and Wu-li-she T'a ("Orissa pagoda" i.e. Puri) (Huan, et al. 1970: 200-01, 26). As noted above, material evidence of this contact was uncovered at Manikapatna as well as 50 kilometers up the coast in Khalkattapatna, near the Konark Sun Temple, where Chinese blue porcelain and a Chinese copper coin dating to the 14th century were retrieved (Mishra 2000: 607).

Arab and European Period

By the 13th century, Arab traders began to monopolize the Indian Ocean trade with the result that the Bay of Bengal is eclipsed by the direct route from Oman to South India/Sri Lanka from whence the traders would continue on to Malaysia, Indonesia and China. Indeed, aside from an ambiguous reference by Ibn Khordadbeh to a port called Kanja (no doubt referring to Ganjam – which is 10 kilometers south of Chilika), existing Arab maritime texts of the period are silent regarding ports along the Orissa and Bengal coast (Patel 2002: 127; Schwartzberg, et al. 1992: 33). At around the same time, a period of turmoil and upheaval begins in North India.

The expansion of the Tughluq Dynasty (1321-1398), which spread as far as Harida Mulaghati pass along Chilika's southern shore (Schwartzberg, et al. 1992: 38), was followed shortly thereafter with the establishment of the Mughal Empire (1526-1857). At the same time, the spread of the Vijayanagara Empire (1336-1646) in the South unsettled trade patterns and opened the door to European traders, who arrived with Vasco de Gama in 1498 following his famous circumnavigation of the Cape of Good Hope. European dominance of the high seas followed the advent of the Portuguese and irrevocably altered the existing trade patterns.

It is worth noting that historians are in general agreement with Mr. Raychaudhury that Orissa was one of the last *Subahs* (provinces) to be incorporated into the Mughal Empire.³⁷ Majumdar (1968: 429) attributes this to the foresight of Narasimha I (1238-1264) who, "Instead of waiting for the inevitable Muslim aggression, he followed his father's policy in launching an expedition into Bengal. The result was that Orissa escaped the fate of other provinces of North India and fought on equal terms with the Sultans of Bengal till AD 1568." Strictly speaking, Orissa was under Afghan rule from 1568-1575, a dark period of extreme upheaval and devastation during which the temple in Puri was desecrated and the idols destroyed (Pattanaik 1979: 7-8). Akbar the Great's general Khan Jahan defeated the Afghans at Rajmahal in 1575 and a more enlightened rule ensued (Allami 1965 [1871]: 548), lasting until the Maratha's overran the province in 1751.

The first British incursion into Orissa was in 1633 by Ralph Cartwright and William Bruton who sought official permission to open trade with the state. Historians have long held this up as the initial British foray into the rich territory of Bengal – the proverbial "Jewel in the

³⁷ The province of Berar was incorporated in 1595. The Gond States were nominally incorporated into the Mughal Empire around the same time; however, this is largely a jungle tract and the Mughals never made a concerted effort to assert effective sovereignty.

Crown” of the Empire and capital of British India until 1912 (e.g. O'Malley 1925: 5-8).³⁸ Yet, while it is certainly true that Cartwright and Bruton were the first to obtain an official *parwana*³⁹ from the Mughal Nawab Mutakid Khan for the entire province of Orissa (Bruton and Nair 1985: 28), at least two earlier British attempts to establish trade centered on Chilika Lake.⁴⁰ As was briefly mentioned above in Chapter Two, both the Hopewell (1631) and the Pearl (1632) anchored in Calepara (probably Gopalpur) and near the Chilika port of Manikapatna where they dispatched merchants ashore to trade for goods before heading back to Masulipatam (Foster 1910: 188-90, 244).

According to Foster (1910: xxii), in Gopalpur the British received permission from Baqir Khan, the Subedar of Orissa, to trade in his province. Nair implies that the permission was only for trade in the Subah of Khurda, which might explain why the ships did not continue up the coast beyond Manikapatna (Bruton and Nair 1985: 18).⁴¹ Based on maps of the era,⁴²

³⁸ Until April 1, 1936, Orissa was a part of the Bengal Presidency and hence the British histories of Bengal that predate this separation cite Cartwright and Bruton’s mission as the first British foray into Bengal (cf. Bruton and Nair 1985). The first factory to be founded in what became the Bengal Presidency was in Hariharpur (now known as Jagatsinghpur) in present-day Orissa, which was founded by Ralph Cartwright in 1633 (O'Malley 1925: 7). The first factory founded in what is present-day West Bengal was Hugli, which was founded in 1650 (Banerji 1980 [1930]-b: 63).

³⁹ The *parwana* granted was an official agreement to allow the British, “to trade free of all customs or duties and to build houses or ships” (Foster 1910: xxxi).

⁴⁰ Neither O'Malley (1925: 5) nor Banerji (1980 [1930]-b: 61-63) mention these earlier attempts and begin instead with Cartwright and Bruton’s mission. Nair (Bruton and Nair 1985: 18) cites a seven page manuscript by Wilson (1903) that reaches the same conclusion. Oddly, Hunter (1956) is silent regarding either of these cases.

⁴¹ It may also be that they did not continue up the coast to Pipili as originally planned because of the rough seas and loss of men at Manikapatna.

⁴² The earliest appearance of Manikapatna in Western cartography that I have been able to unearth is from Linschoten’s famous 1598 map from his *Discours of Voyages Indies*. The town is also mentioned in Petrus Bertius map from *Tabularum Geographicarum Contractarum Libri Septem* of 1616. Later maps such as Joannes Blaeu’s 1667 map in Volume 11 of *Le Grande Atlas* and Guillaume de l’Isle’s 1733 *Atlas Nouveau* map also include the port town (Schwartzberg, et al. 1992: 51-52). The first English map of India by William Baffin, which was based on Sir Thomas Roe’s expedition (1615-19) was first published in 1625 and mentions Manicapatam. A 1632 edition of the map was reprinted in the *Scottish Geographical Magazine* (Cash 1902). It is odd that, despite Manikapatna’s location in the outer channel of Chilika, none of these maps depict Chilika Lake.

Manikapatna appears to have been a regularly visited and well-known port. If not for the dangerous sand bar, which likely silted up in the mid-17th century (Mohapatra 1997: 162), it is quite likely that a British factory⁴³ would have been established at that location.

The Coastal Land Route

In addition to the maritime trade, the land route that hugs the Western shore of Chilika can not be overlooked. This route ran along the foothills of the Eastern Ghats, a line of mountains that separate the coastal belt from the forested highlands that runs from West Bengal to Tamil Nadu. Except for such large river valleys as the Krishna, Godavari and Mahanadi, these mountains have few breaks and act as a structural impediment to travel and trade.⁴⁴ An exception to this rule exists along the southernmost shore of Chilika near the town of Rambha, where there is a mountain pass known as Harida Mulaghati which provides a convenient crossing point (Figure 3.9). Traditionally this pass was used by pilgrims headed to the Jagannath Temple in Puri and traders either headed north to Cuttack or south to Visakhapatnam, Chennai and Kancheepuram (Blanford 1859: 250; Rennell and Ambashthya 1975: 19).⁴⁵ The pass was also a major artery for armies as well as a natural boundary between North and South India – with the Sanskrit-derived Oriya language speakers on one side and the Dravidian-based Telugu speakers

⁴³ Factories were what the British East India Company called its trading posts.

⁴⁴ As Ambashthya notes, the mountains were also an impediment to British rule and, “The British possessions then in this quarter extended nowhere more than 50 British miles inland, and in some places not more than 20 miles, and between the Chilka Lake and the Godavari River, and between Godavari and the Krishna, by 70 to 75 miles. Thus the Northern Sarkars form a stretch of territory, bounded on one side by the sea, on the other probably by a ridge of mountains that runs nearly parallel to it” (Rennell and Ambashthya 1975: 19).

⁴⁵ According to Habib (1982: 51), the *Jahangir Nama* (an account of the reign of Shah Jahan, who is best known for commissioning the Taj Mahal) mentions the Chhatarduar Pass which, “is said to have on one side hills and on the other the Chihla-o-Darya, i.e. the Chihla and the Sea. Chihla is probably an error for Chilika.”

on the other.⁴⁶ As was previously noted, under the Mauryas this was for some time the frontier – a pattern that is repeated throughout history (e.g. it is the border between Utkal and Kalinga, Mughals and Golconda, British and Marathas).⁴⁷



Figure 3.9 A view of Chilika from the Harida Mulaghathi pass.

Travelling in 1870, Hunter describes taking the “the Great North Road” from which he observed the “distant background of peaked mountains, and clustering little colonies of hills.”

⁴⁶ In Schwartzberg’s (Schwartzberg, et al. 1992) magisterial *Historical Atlas of South Asia*, he designates this as the dividing line between the “Southern Indic Region” and the “Hindu Eastern Indic Region.”

⁴⁷ For a well researched article on Kalinga, Utkal and Odra and the shifting borders between them, see Brandtner (2001). For a map of the line between Kalinga and Utkal, see Schwartzberg (1992: 27). For a map showing the boundary between the Mughals and Golconda, see Habib (1982: Map 12 A) and see Johnson (1996: 134) for the British boundary of the Northern Circars in 1766.

As he reached the pass, it “grew narrower as it rose beyond the range of cultivation,” until, “at the top, the pass appeared to be little more than half a mile wide,” and he caught a glimpse of, “the reflection of the canoe lights flashing on the Chilká Lake below” (Hunter 1872: 18).

Alexander Hamilton, a British sea captain similarly recounts taking the land route from Ganjam to Balasore in 1708, and reported that:

About three miles to the Eastward of *Ganjam* is *Illure* [Palur], at the End of a Ridge of Mountains, that divide the ancient Kingdom of *Golconda* from *Orixa*. Its End runs within Pistol-shot of the Sea, and there were three or four Sentinels to demand a Tax on every Head that past out of, or into *Orixa*. I had seventeen Servants to carry my *Palanqueen* and Baggage, and all the Tax amounted to about three Shillings *Sterl.* [Italics and Caps in Original] (Hamilton, et al. 2001: 311)

The authorities took advantage of this natural boundary to tax people and goods crossing into and out of Orissa⁴⁸ and the revenues from these taxes must have been quite substantial.

Based on figures for the 1860s, Hunter calls the lake the, “great highway from the Madras Presidency to the holy city of Puri ... [since] the total number of passengers, according to official returns, exceeds 180,000 per annum” (Hunter 1872: 77). Once arrived at Rambha, pilgrims would take a ferry across the lake to catch the road to Puri and the Jagannath Temple.⁴⁹

According to Hunter, traders also took advantage of the lake to transport their goods by watercraft up the Daya and Luna Rivers to the markets in Cuttack and Bhubaneswar in excess of 1,000,000 tons per annum (Hunter 1872). At Cuttack these rivers join the Mahanadi (meaning “Great River” in Oriya), the primary waterway of Orissa, which stretches some 860 kilometers

⁴⁸ Pattanaik (1979: 73) reports that grains, salt and , “every piece of merchandize” that transited the Khurda kingdom was taxed. These duties were the main source of the kingdom’s revenues.

⁴⁹ Although he does not mention a boat ride, Hamilton’s next entry is from Manikapatna, which is located across the lake. From there he heads to Juggernaut (Puri) (Hamilton, et al. 2001: 311-12).

into the Orissa hinterland. Clearly, the lake was a quintessential “*échelles* where maritime trade met land-routes” (Barendse (2000), Quoted in Pearson 2003: 7).⁵⁰

Further evidence of the region’s importance as a source of government revenue and the existence of a flourishing trade network comes from the 8th-10th century Bhaumkara inscription which refers specifically to a *samudra kara bandha* (sea tax gate) on the banks of Chilika. Tripathi (2002b: 121) interprets this gate as the place “where taxes were collected from the sea traders of Orissa.”⁵¹ While it is entirely likely that Orissa traders were taxed by the government, this “gate” may be a reference to the mountain pass at the point of access to the sea or may have been something akin to Customs House that levied taxes on ships and merchandise that plied the coastal route. During my field work, I was taken by some friends to see the overgrown and sand-covered remains of a building that they referred to as *Kanchan dhaba* (The House of Turtles). They claimed that this structure was used in British times to spot ships going up and down the coast for the purposes of taxation. While this particular approach may have been a British innovation, it is clear that the indigenous rulers were similarly inclined to use geography to their financial advantage.

The Indian Ocean and the World System

In a recent and important work of synthesis, Warburton (2007) synchronizes Egyptian, Sumerian and Indus valley chronologies to reveal strong evidence for the existence of a world economic system that encompassed the Mediterranean Sea and Indian Ocean from the 3rd

⁵⁰ Several village elders reported that they had regularly travelled to Cuttack via the Daya and Bhargavi rivers in their youth in a journey that lasted three days each way.

⁵¹ In Tripathi and Vora (2005: 1177) they note that “Abul Fazal described Manikapatna as a seaport where taxes on salt are collected.”

millennium BC onwards. He contends that increases in the price of metals such as silver and copper led to a doubling of the value of grain which affected the price of labor and land, accounting perhaps for the introduction of African sorghum in India.⁵² This transport of grains and the existence of Indian zebu cattle in Africa (Bjørkelo, et al. 2007: 4) not only provides us with evidence of trade contacts, but also contradicts those such as Wallerstein (1974) who would label this trade peripheral or semi-peripheral.⁵³ From Wallerstein's perspective, limitations in the technology of transport means that trade transacted during this period was limited to luxury goods, and thus does not represent "interpenetrating accumulation" (Gills and Frank 1990: 27-28)⁵⁴ or evidence of a "World-System"⁵⁵ (Wallerstein 1991: 192).

I find Wallerstein's contention that the last 500 years represent a fundamental break with the previous 9,500 years to be a teleological argument for European exceptionalism. As Washbrook (1990: 492) observed, "The notion that capitalism is uniquely Western is closely associated with the notions that rationality, achievement, individualism, and 'history' are too; and that, by

⁵² To the modern mind accustomed to price fluctuations spurred by changes in supply and demand, there is nothing particularly jarring about this statement. Nonetheless, such price fluctuations are the essence of a market-based system as opposed to a trade network. Opposing camps of economic historians and anthropologists have argued for (Abu-Lughod 1989; Frank, et al. 1993) and against (Polanyi 1957b; Wallerstein 1991) the existence of market-based systems in antiquity.

⁵³ Wallerstein seems to be following his intellectual mentor Fernand Braudel, who drew, "a sharp distinction between capitalism and what he called 'market economies,'" with the former "down to earth" and the latter, "sophisticated and domineering" (McNeill 2001: 143-44). Perhaps this is what Wallerstein is referring to when he writes about, "*ceaseless* accumulation of capital" (Wallerstein 1991: 190 Italics in Original).

⁵⁴ Gills and Frank (Gills and Frank 1990) reject Wallerstein's contention and argue that "Trade in high value luxury items, not to mention precious metals in particular, may *contra* Wallerstein (1974), be even more important than lower-value staple trade in defining systemic relations. This is because high value "luxury" trade is essentially an inter-elite exchange. These commodities, besides serving elite consumption or accumulation, are typically also stores of value. They embody aspects of social relations of production, which reproduce the division of labor, the class structure, and the mode of accumulation."

⁵⁵ According to Wallerstein (1991: 192), "My 'world-system' is not a system 'in the world' or 'of the world'. It is a system 'that is a world.' Hence the hyphen."

definition, ‘the Orient was static and enervate, awaiting the coming of the West to ‘usher it into history’” (cf. Inden 1986).

More importantly, it does not stand up to the historical evidence. For example, as Warburton (2007) points out, the early second millennium BCE witnessed an increase in the cost of copper (i.e. not a luxury item) “as the centers in the periphery” (i.e. Egypt, Mesopotamia and the Indus Valley) competed for exports. Predictably, this led to innovations in the mining industry and a lowering of costs. It is during this period that the Omani copper market collapses and Cyprus (this name means copper) appears as the major exporter of the metal. While it is unclear what if any impact this had on Indus Valley de-urbanization, which begins around this time, it certainly suggests interpenetrating accumulation. As Frank and Gills (1993: 144) define it:

This means that surplus extraction and accumulation are “shared” or “interpenetrating” across otherwise discrete political boundaries. Thus their elites participate in each others’ system of exploitation vis-à-vis the producing classes. This participation may be through economic exchange relations via the market or through political relations (e.g. tribute), or through combinations of both. ... This interpenetrating accumulation thus creates a causal interdependence between political entities.

This also points to the existence of a trade-based Indian Ocean economy, where local events reverberate throughout the respective branches of a system that bears the hallmarks of an incipient globalization.⁵⁶

⁵⁶ The Persian Gulf and Red Sea arms of the Indian Ocean are among the best documented branches of this trade network cum economic system. Based on extensive archaeological finds at Dilmun and Ur, there is good reason to believe that colonies of Indian traders lived in Mesopotamia and even traded with the Anatolian and Iranian highlands (Allchin and Allchin 1968: 139-41; Feuerstein, et al. 1995: 117-19). Located at the entrance to the Red Sea, the island of Socotra, is believed to have been an Indian forward trading base and the island’s name is likely derived from the Sanskrit *Sukhatara Dvipa* or “Most pleasant island” (Basham 1954: 228). The nearby Axumite Kingdom (4th century BC – 7th century A.D.), which straddled the narrow Bab al Mandab straits rose to prominence in large part due to its strategic position at the entrance to the Red Sea (Bjørkelo, et al. 2007: 6). As the point of interface between the Mediterranean and Indian Ocean economic zones, the kingdom could depend on a steady revenue stream based on middleman fees and the surcharges it levied on ships passing through the straits (up to 25% ad valorem according to Bjørkelo, et al. (2007: 4).

From a structural perspective, South Asia's centrality and active participation in a vast maritime network can be best understood as stemming from its geographic location. Centrally situated vis-à-vis Africa, the Persian Gulf and the Red Sea (and hence the Mediterranean as well) on one side and Southeast Asia, the Indonesian archipelago and Southern China on the other and with Central Asia nearby to the North, this suggests a history of access to diverse markets. It is important to point out, however, that this observation is in no way meant as a revanchist and Hindu nationalist assertion of the "Indianization Paradigm" that portrays India as the ur-civilization and Southeast Asians as consumers of Indian culture and goods. Rather, it is meant to bring into focus the defining role of the Indian Ocean sea routes (and hence the Indian coastline)⁵⁷ in Indian economic history as well as the long-standing, indigenous maritime traditions that have been effaced by centuries of European control of the high seas. In addition, this is actually meant to highlight the multilateral trade and cultural contacts that have long been obscured by the "Indianization paradigm" on one side and a self-serving British insistence of the primacy of the classics (and their own role as inheritors of the Greeks and Romans) on the other side.

This perspective is informed by Gupta's recent proposition that the Bay of Bengal was the center of what he has termed an "Interaction Sphere" based on trade networks that existed from roughly 1000 BC to 500 A.D. Describing a "dynamic maritime area" that stretches from Korea to Egypt, he outlines an economic zone where "fundamental techno-cultural processes are observed: movement of ethno-linguistic communities, opening of land-sea routes and ports, innovations in boat building and navigational technologies and refining of foraging, agricultural

⁵⁷ India has the 14th longest coastline in the world at 7600 km (5495 km on the mainland and the rest represented by the Andaman, Nicobar and Lakshadweep island territories). The East coast of India is 3259 km long and the West coast is 2236 km long. The entire length of the coastline is roughly equal to that of Italy.

and fishing skills” (Gupta 2005: 21). Whether the cockpit of this Interaction Sphere lay in China/Southeast Asia (Frank 1998; Frank, et al. 1993: 392), Central Asia (Abu-Lughod 1989) or South Asia (as Gupta (2005) implies and I suspect (cf. Pearson 2003: 10)),⁵⁸

By the early Christian era these trade routes reached out to bring together the previously rather separate Southeast Asian exchange systems, linking them into a vast network stretching from Western Europe, via the Mediterranean basin, the Persian Gulf and the Red Sea, to India, Southeast Asia and China ... [in] what has been called the World System. (Glover (1991) quoted in Frank, et al. (1993: 400))

Most recently, Frank and Thompson (2005: 115) have summed up this world system as characterized by, “capital accumulation as a motor force, core-periphery divisions of labor, alternating periods of rivalry and hegemony, and economic periods of upswing and downswing.”

Orissa and the World System

The present scale of Orissa’s integration into global markets is unprecedented, yet as the above discussion has demonstrated, the history of Chilika is a history of trade and engagement with the world. The Chilika Lake communities dependent on the lake have been ultimately shaped by the ecology of the lake, its proximity to the sea and strategic geographic location. Situated between Sri Lanka and the Ganges River and ideally suited for a crossing of the Bay of Bengal, Orissa and the Chilika coast have long played a pivotal role in the Indian Ocean trade networks and the Bay of Bengal “Interaction Sphere.” Writing in the first century A.D., Pliny singled out the *Calingae* as being, “close upon the sea,” and identified six classes of people living in Kalinga, including, “one sort [who] export their own commodities to other countries, and bring foreign merchandise into their own” (Pliny 1847: 122-23). Of the principal

⁵⁸ Pearson (2003: 10) states that, “... in many important matters India was the fulcrum of the ocean around which all of the other areas swung.” He later states that there is an inherent irony due to the fact that India was self-sufficient so less outward looking than it would have otherwise been.

commodities obtained from India, he mentions spices (e.g. cinnamon, cassia, sandalwood and ginger); animal products (e.g. tortoiseshell and ivory); gemstones (e.g. cornelian, pearls and diamonds);⁵⁹ and objects (e.g. glassware and sand for cutting marble) – all of which are typically found in Orissa and many of which are exported to this day (Warmington 1974 [1928]).

Since the 1991 decision by the Indian government to promote trade liberalization and open the economy to foreign direct investment, the cornerstone of successive Orissa governments has been development through industrialization, resource extraction and export. While this economic approach has deep roots in Orissa's history and reflects a reengagement with world markets, it was instigated on the basis of advice from such economic bodies as the International Monetary Fund and the World Bank. Basing this trade optimism on the model of the Newly Industrializing Countries (NICs) of Southeast Asia (South Korea, Taiwan, Hong Kong, and Singapore) the World Bank encouraged developing nations to step up their exports in manufacturing and agriculture. In particular, developing countries were encouraged to abandon the goal of economic self-sufficiency (Todaro 2000: 519). Rather, it was recommended that they specialize on niche markets while focusing on their comparative advantages (Pattanaik 2006: 3). By 1980, "the World Bank redefined *development* as 'successful participation in the world market'" (McMichael 2004: 115. Italics in original)

In order to successfully participate with the world, it was first necessary to develop a gateway to the state. Paradip port was identified as instrumental to the Orissa economy and the revival of maritime trade. The port, which was inaugurated in 1966 with only one berth, was

⁵⁹ In *The Decline and Fall of the Roman Empire*, Gibbon states that "Rome was supplied with diamonds from the mine of Sumelpur in Bengal" (Gibbon 1914: 60, n 112). This is clearly referring to the diamond mine at Sambalpur that is presently in Orissa and readily accessible by the Mahanadi river. According to Patra (2005: 46), these diamonds "were much prized in Rome and sold at a high price in the Roman markets."

expanded to 13 berths – seven of which were built between 1995 and 2003 (Paradip Port Trust 2008: 3-4). Exports from Paradip increased from 4417 tons of goods in 1991 to 21,666 tons in 2004-05 (Government of India 2007). In the same time frame, it went from being the eighth largest to being the third largest Indian port in terms of tons exported. Whereas previously goods traveled by rail to Howrah in West Bengal or Vizakhapatnam in Andhra Pradesh, they could now be loaded and off-loaded within close proximity of the economic heartland of the state.

In 2005, the Korean-based company POSCO – the world’s third largest steelmaker – signed an agreement with the Orissa government to build a steel mill near Paradip. When completed, it will produce a staggering 12 million tons of steel annually and will be the largest steel mill in India. At a cost of over \$12 billion it will also be the largest Foreign Direct Investment in India’s history.⁶⁰ While this project is unprecedented in its scale, it is only one of 43 Memoranda of Understanding (MOUs) that the Orissa government has signed over the past five years with steelmakers and other mining companies. Considering that Orissa has 26% of the known iron ore, 70% of the bauxite, and 24% of the coal deposits in India this level of interest is likely to continue (Government of Orissa 2004: 1; Satapathy and Goswami 2006).

During personal conversations with fish exporters held at the Bhubaneswar office of the Marine Products Export Development Authority (MPEDA) in 2005, the existence of Paradip port was repeatedly cited as an important aspect of their decision to export prawn from Chilika to the international market. The port is connected by a rail spur to the main north-south line that passes Chilika at Balugaon. After local processing, the prawn (whether farmed or wild) are shipped in refrigerated cars to the port. The exporters noted that from Paradip port, it was only

⁶⁰ The project is not without its share of controversy and has been opposed by Adivasis (tribal groups) who claim the forest land that has been set aside for POSCO. On January 2, 2006, 12 Adivasis were shot dead at Kalinga Nagar by the police during an anti-mining protest (Dash and Samal 2008).

21 days to Los Angeles and from there another five days to New Orleans. One of the exporters made it a point to share the fact that his containers were equipped with GPS tracking devices so that he could track his shipments in real time on his laptop.

While the specific details surrounding government sponsorship of prawn aquaculture for export (and hard currency) will be further discussed in Chapter Six, this can be seen as the most recent manifestation of the transfer of resources (and hence interpenetrating accumulation) from periphery (Orissa) to core (USA, Europe and Japan). At present, it is too soon to tell whether the state's expansion of trade and reengagement with global markets will lead to overall benefits in the long run. However, the negative environmental and economic impacts of increased trade on Chilika Lake and the Orissa coastal belt are fast becoming clear. The introduction of prawn aquaculture is compromising the lake's ecological integrity and threatens the livelihood of those communities most dependent on the lake's fishery. In addition, the coastal communities that were active participants and beneficiaries of previous periods of increased trade have been largely sidelined by the recent trade expansion. The following two chapters will explore role of land and fishery rights during the colonial era and how this has defined the lake while shaping the identities of these fishing and farming communities.

CHAPTER 4

SETTLING THE LAND

Krushnaprasad Garh, the erstwhile capital of the Parikud Raja, is a *mofussil* town¹ where the herds of goats roaming freely on the sand-swept streets outnumber the town's residents two to one. The Raja's palace, an imposing square edifice built in 1798, is set back from the main road and large enough to be seen from across the lake on a clear day. The tall perimeter wall, which looks as if it is made of wattle and daub, is topped by a faux crenellated battlement that is punctured by a large archway leading into the inner courtyard (Figure 4.1 and 4.2). Carved onto the side of the archway, two bearded sepoy fusiliers surrounded by regal lions and elephant heads guard the entrance. The palace façade, colorful and intricately adorned, is supported by several rows of columned arches engraved with bucolic scenes of buxom women hauling pails of water on their heads.

The building itself is framed by two towers on either side and running between them is a broad rooftop porch from where the Raja could overlook the small courtyard to review his troops or officiate at local celebrations. Today the courtyard is silent and overshadowed by two mobile phone towers that help pay for the palace's upkeep. Since accession to India in 1947, princely states such as Parikud were forced to relinquish their political autonomy, thus losing their *raison d'être*. Yet, it was the abolishment of the Privy Purse² by Indira Gandhi in 1975 that effectively

¹ Originally this meant a "Subordinate or separate district" (Wilson 1968: 349), but in common usage today, this refers to the countryside as opposed to the city while at the same time intimating provinciality and a lack of sophistication.

² A grant of money given to the native princes of India upon their accession to the Republic of India.

ended their recognition as political entities and stripped them of the right to hereditary title. Though the palace is still owned by the descendants of the Parikud Raj, it has not been regularly inhabited for at least fifteen years and the family has relocated to the bustling market town of Balugaon, which is located directly across the lake.



Figure 4.1 The entrance to the Parikud Raj's palace.



Figure 4.2. Inner courtyard of the Parikud Raja's palace.

With a bit of advanced notice and a few hundred rupees, it is even possible to arrange a stay in the now crumbling residence. For much less, one can convince the groundskeeper to open the doors for a tour of the king's former quarters. Reached by a rickety, wrought iron, spiral staircase, the third floor suite of shuttered rooms reveal a scene from the halcyon days of the British Raj that is preserved as if in aspic (Figure 4.3.). The drawing room, decorated with photos of men and women decked out in the fashionable outfits of the 1930s, or men posing on horses as they warm up for a polo match, looks ever ready to receive guests for tea and tiffin (mid-afternoon snack). In the bedroom two large photographs of the Raja and Rani in formal

attire – him bedecked in an elaborate turban and her wrapped in a beautiful sari – hang over the royal bed and stare out across the vacant room. Although tiny Parikud never merited such exalted honors, a framed poster delineating the Raj era gun-salute system (and how many each prince was entitled to receive) hangs optimistically to one side.



Figure 4.3 Staircase leading to the King's quarters.

In 2002, during my first visit to Krushnaprasad Garh, I arrived to a shuttered ghost town. As I approached the palace to snap some photographs, I was joined by a small group of men who gently requested that I please refrain from tourism. “Sir, today is our sad day,” one of them explained, “our King is gone!” The group, which had only just returned from the cremation

grounds, looked dazed as they recounted the events surrounding the King's sudden demise. The previous night the Raja, who was staying at his Balugaon residence, suffered a massive stroke; before the ambulance could transport him to a hospital in Bhubaneswar, he died.

Hearing this news, I could not help but wonder to myself how my sudden and unexpected arrival on such a day would be received. The awkward situation immediately reminded me of W.W. Hunter's vivid account of the British army's experiences in Parikud during the invasion of 1803. According to Hunter, throughout the entire invasion route, only the Raja of Parikud held aloof from the invaders because, he had heard on good authority that "the invaders were people with pig faces, and huge drooping ears," who were none other than "an irruption of the legendary demon races of Southern India" (Hunter 1872: 30). I wondered whether the unanticipated appearance of a "Britisher" such as myself on this day might not be similarly interpreted as a bad omen, or whether I was being unnecessarily paranoid.

As it turned out, the men were gracious to a fault and immediately apologized for being so preoccupied with their loss that they could not offer me proper hospitality. Nonetheless, they kindly invited me to have some chai and sweets at the only tiffin house open for business. A ramshackle, fly infested place, with several rows of tables and benches, the tiffin house was filled with people who were gathered there to discuss the tragic news of the day. Some of the people had come from across the lake and were waiting for the ferry which would take them home. A local college lecturer from Balugaon, who had graduated with a Master's in History from Utkal University in Bhubaneswar, sat down beside me and proceeded to introduce himself in fluent English.

Though he did not share any specific examples of the king's beneficence, he eloquently eulogized the Raja as someone who had always taken an active interest in the welfare of his

“native place and people.” He noted with evident satisfaction that the King’s dynasty did not originate in Orissa, but rather came from a North Indian *Kshatriya* (warrior caste) family that had arrived in the area during Mughal times. Moreover, he asserted that the King had been a true patriot who had bravely stood up to both the Marathas and the British. When I informed him that I was researching Chilika and the different communities that lived along its shores, he kindly proceeded to share his historical knowledge of the area, describing in great detail the British invasion of 1803. He recounted how 3000 European and native troops left Ganjam and headed north while hugging the coast along the narrow sand strip that separates Chilika from the Bay of Bengal. He explained that this was meant not only to confuse the Maratha defenders waiting along Chilika’s western shore, but was also the most direct route to Puri and the Jagannath temple. Indeed, as Hunter confirms, this route was chosen because the British had been apprised in advance that, “the possession of the god had always given the dominion in Orissa” (Hunter 1956: 190).

The lecturer concluded his retelling by ruefully adding that, if not for, “the local traitor, Fateh Muhammed, the Britishers would never have been able to invade through Parikud.” Indeed, the first official act of British rule was to reward Mr. Muhammed for his treachery with the title of *Jagirdar* for the island of Parikud in a *sanad* (charter) for rent-free lands. During British times the Raja of Parikud paid 1600 Rs a year to Muhammed and his descendants,³ some of which are enjoying those lands to this day (Banerji 1980 [1930]-b: 294; Toynbee 2005 [1873]:

³ It appears that the British were following a Mughal tradition that, “If the emperor or the regional ruler granted a jagir to an officer, this sometimes meant that the individual or corporate body previously responsible for payment of revenue to the ruler paid it instead to the jagirdar” (Cohn 1987b: 349).

8).⁴ After finishing our tiffin of cold samosas, pyazi, and chena padho, I took leave of my new acquaintance and headed out with Mayur for the beachside resort town of Gopalpur-on-Sea where we planned to relax for two days. Reaching the outskirts of Krushnaprasad Garh, Mayur and I stopped at the cremation grounds where the burning embers of the King's funeral pyre still smoldered. Not a soul was there, so we stopped for a moment while I guiltily took a snapshot and we paid our respects to the last King of Parikud.⁵ From there we climbed back onto the motorbike and headed south along the road that traverses Fateh Muhammed's home town of Malud.



Orissa and the East India Company

After the victory at the Battle of Plassey (Polashir Juddho) in 1757, control of “Bengal, with its 40 millions of souls, and potential supremacy throughout the whole Indian Empire,” (Hunter 1956: 192) passed into British hands. Though it would take almost fifty years until Orissa would come under British rule, it was, as Banerji bluntly stated, an entirely predictable, “premeditated event, because Orissa was now between the British provinces of Madras and Bengal” (Banerji 1980 [1930]-b: 263). The numerous Anglo-Mysore and Anglo-Maratha wars of the late 18th century further hammered home the strategic importance of the province and it

⁴ According to Banerji (1980 [1930]-b: 294), “At the time of the British conquest a treacherous Musalman, named Fath Mahmūd, guided Colonel Harcourt's army across the Chilka and as a reward five *parganahs* including Parikud were given to him as *Jāgir*.”

⁵ The Parikud Raja's son and heir is considered by the locals to be their king, though his claim to nobility no longer carries any legal standing in India.

was resolved at the highest levels to take possession of it at the first practicable moment.⁶ Seizing the opportunity afforded by the outbreak of open warfare among several of the Maratha clans, the British invaded the province as part of the Second Anglo-Maratha War (1803-1805).⁷

Though the British project in India was ascendant long after this invasion it was in many ways a watershed moment in the history of British rule. For starters, it culminated a quarter century of rapid expansion initiated under the Governor Generals of the era – Warren Hastings (1774-1785); Charles, Marquess of Cornwallis (1786-1793); and Richard, Marquess of Wellesley (1797-1805). More importantly, it marked a turning point in Britain’s thinking with regard to its role in South Asia and what it should expect from its acquisitions. Whereas previously, expansionist policies were looked upon favorably, there was a growing realization of the costs associated with the maintenance of a far-flung empire. As such, the invasion of Orissa proved to be one of the last times that the East India Company (as distinguished from the British Raj) annexed and directly administered a part of the subcontinent.⁸

To underscore this policy reversal, in the aftermath of the war Wellesley was recalled home and the government undertook the unprecedented act of ceding the Orissan district of Sambalpur back to the defeated Marathas (Hunter 1887: 180; O'Malley 1925: 320). As Cornwallis remarked at the time, “It is physically impossible for Great Britain to maintain so vast and unwieldy an empire as India, which annually calls for reinforcements of men and

⁶ As early as 1766 negotiations for the purchase of the province were carried out between the British and the Marathas by Clive’s agent Motte (Banerji 1980 [1930]-b: 153-59; O'Malley 1925: 315). The negotiations foundered on the issue of British control of the Jagannath Temple (Jena 1968: 37). Both in 1781 and 1790, the British obtained transit rights for their army to pass through the Maratha province at an enormous cost equaling the entire Maratha assessment of the province for one year (Hunter 1956: 189; O'Malley 1925: 316).

⁷ Technically, the British were in parts of Orissa from 1766 with the annexation of the Northern Circars. The northernmost district of the Madras presidency (Gumsur) included part of the southern sector of Chilika.

⁸ There were future annexations, several of which were through the “doctrine of lapse,” wherein the death or incapacitation of a monarch under British paramountcy would be cause for annexation.

remittances of money, and which yields little other profit except brilliant gazettes” (O'Malley 1925: 319). In short, the East India Company was forcefully reminded by the British government that it was a revenue-maximizing commercial concern.

The motto of the age: “Dividends first and last” (Jena 1968: 1), best characterizes the shift in focus and the newfound zeal to secure revenue streams. In practice, this meant a renewed interest in land administration and taxation,⁹ power structures that would have profound long-term impacts on land rights, the economy and social relations (Baden-Powell 1972 [1892]; Banerjee and Iyer 2005; Cohn 1987b; Dutt 1874; Fuller 1977; Marx and Engels 1972; O'Malley 1925). Of these, perhaps the most profound and persistent impacts have been in relations between the land owning and landless classes. In a departure from the Hindu and Mughal-era systems based on usufructory rights and taxation of produce (the proverbial “grain heap”), the British in Orissa chose instead to develop a land regime based on capitalist principles with hereditary and transferable land rights. To accomplish this, they instituted a series of land reforms known as settlements which granted *patta* (titles to land), assessed taxation and installed a village-level landlord class (Cohn 1987b: 355).

Through these actions the British created what Scott (1998: 3) refers to as a more “legible” landscape while undoing complex tenurial arrangements in a process characterized by “state simplifications.” At the same time, as Mizushima (1996: 77) incisively noted, these decisions spilled over from their narrow bureaucratic focus since “relations in land could never be isolated from other relationships, and rights in land had been just one expression of those relations.” In particular, caste identities and social relations were intrinsically tied up with

⁹ By 1841, land revenue “constituted 60 percent of total British government revenue” (Banerjee and Iyer 2005: 1192).

relations in land and British interventions in land revenue administration profoundly restructured these spheres. The subsequent discussion will provide a historical review of land regimes in Orissa while focusing on the following question: How did colonial era innovations in land policy lead to the construction of caste and social identities in the Chilika basin?

Early Colonial Period

As Fateh Muhammed's grant of Jagirdar demonstrates, the British were involved in land reallocation and settlement activity from day one. This action reveals not only a desire to reward an informant who had been so instrumental to their cause but is indicative of a British policy to cultivate a landed aristocracy that would be loyal subjects and partners in their rule of the province. Known as Zamindar or landlord rule, this system of land tenure and governance was most often associated with British rule in Bengal. Since Zamindar rule promised a smaller initial investment with less oversight and fewer maintenance costs it was touted by the fiscal conservatives as the best way for the Company to obtain a quick return on its investment. In contrast, under Ryotwari or cultivator rule, which was prevalent in the Madras presidency,¹⁰ settlements were reached directly with individual cultivators (Mukherjee 1962). This necessitated detailed and costly cadastral surveys and the maintenance of a bureaucratic presence at the local level.¹¹ Under Zamindar rule the British could farm out revenue collection to intermediaries who would act as their tax collectors (Swain 1998: 69).

¹⁰ This was not a black and white situation and some zamindars were also granted rights in the Madras Presidency in 1801 based on the 1793 Act of Permanent Settlement (Ludden 1999: 160).

¹¹ Ludden (1999: 159-60) points out that Ryotwari rule was also presented by its backers as a revenue-maximizing approach. "Some influential Company officers also craved to enhance the revenue, eliminate revenue intermediaries, and extend state power into the the villages beyond what was possible under Permanent Settlement and zamindari property law. ... Munro fought for twenty-five years against the imposition of the Calcutta system..." When Munro became governor in 1820 he established Ryotwari rule in the Madras Presidency.

Cornwallis, the strongest backer of Zamindar rule, firmly believed in the enlightened self-interest of landlord farmers, whom he called, “the most frugal and thrifty class of people” (O'Malley 1925: 258). Especially in the aftermath of the French Revolution, the British were wary of any policy that might empower the peasantry and committed to creating and strengthening a landlord class whose loyalty could be nurtured through entitlements (Banerjee and Iyer 2005: 1196). In general, it was argued that Zamindar rule would place abandoned lands under cultivation, spur the economy, lead to investments in infrastructure and ultimately encourage industrialization. However, it appears that the British wrongly assumed that the pre-colonial land regime in Orissa was much like Bengal, where small landholders existed prior to their arrival (Jena 1968: 2; Sahoo 1997: 313). A closer look at the history of Orissa’s land regimes reveals that it diverged from Bengal’s in several important ways.

Pre-Colonial Land Regimes

During the period of Hindu rule that preceded the arrival of the Mughals in 1576,¹² the king was “the trustee of the cultivable lands,” (Swain 1998: 64) who granted individual cultivators the right to till the soil in exchange for service. Often this meant military service, though the granting of lands was at the discretion of the king and could be for such things as *debattār* (temple lands) or *brāhmattār* (lands donated to Brahmins) (Pattanaik 1979: 73). Taxes were levied on merchandise, as well as an expectation of *nazarana* (presents to the king on

¹² Though the Afghans were finally defeated in battle in 1576, they continued to wage guerrilla warfare for a generation. “Mughal rule can hardly be said to have begun during the life time of Akbar. From A.D. 1576 till his death in A.D. 1605 nearly thirty years were spent by Mughal officers of Bengal in trying to stamp out the rebellious spirit of the Afghans in that province and in Orissa” (Haque 1980: 77). Raja Man Singh only officially assumed charge of the government in 1592 and the first Subahdar for the province was only appointed in 1607 by Emperor Jahangir.

ceremonial occasions), *abwabs* (various cesses), and *bethi* (forced labor).¹³ Generally speaking, the land itself was not taxed, rather, the harvested produce was taxed. Although Cohn (1987b: 344) was referring to the Mughal era that followed Hindu rule, the principle he describes remained largely unchanged throughout the pre-colonial period:

Immediately prior to the eighteenth century in eastern and northern India, three distinct groups shared the product of the land. They were the cultivators who actually tilled the soil, the controllers of the cultivators (usually labeled zamindars or intermediaries), and the state. The three were in constant conflict and negotiation over rightful claim to the product of the soil and the results of the labor of the cultivator. In this system, legal title over land itself was irrelevant.

Padhans, who were the village leaders and responsible for tax collection, were granted one acre in twenty seer (tax free land) while the common ryot (cultivator) paid between $\frac{1}{4}$ and $\frac{1}{12}$ th of the gross produce of the land (Mohapatra 1997: 157) (Figure 4.4 - 4.6).¹⁴

This system benefitted the *ryots* because it liberated them from the vagaries of the weather and the fact of differential soil quality. If the monsoon rains did not arrive on time or there was a bad harvest this ensured that they would not be overly penalized. In Parikud, this system continued even into the 19th century. Hunter (1872: 38) relates that on the island, “They prefer to go on in the old fashion, dividing their crops by appraisalment at harvest-time; and they believe that by this plan they share the good fortunes or the mishaps of the agricultural year between landlord and tenant in the most equitable manner.”

¹³ An example of a cess is the homestead rent (*chándina*) for dwellings paid by cultivators in the Parikud kingdom (Hunter 1872: 34-35).

¹⁴ According to Jena (1968: 31), the Padhans received one acre in 12 as tax free land. With regard to the Parikud kingdom, Hunter (1872: 34) remarks that, “If the cultivator is a Brahman, or of either of the two other privileged classes, the rent is calculated at one-eighth of the produce. If he belongs to the common herd, the Raja’s share is estimated, as we have seen above, at one-half, and theoretically amounts to three-fifths.” Haque (1980: 259) concurs that the assessment was one-half, though he notes that it is listed as one-third in the *Ain-i-Akbari*. Pattanaik (1979: 73) places the king’s share at $\frac{1}{8}$ th.



Figure 4.4 Harvest time in the Chilika basin.



Figure 4.5 Women tying bales of rice during the harvest season.



Figure 4.6 Young girl helping to load bales onto ox carts.

Equally important, the lack of title to land did not tie the *ryots* to the land, which encouraged putting new lands under cultivation. It is has been speculated that this system may have developed due to the fact that, for the greater part of Indian history, India was *underpopulated* and cultivators were more important and in greater demand than land (Fuller 1977: 96).¹⁵ Due to famines, floods, banditry, there was often “barely half as many peasants as were required to cultivate the soil. Each Raja jealously watched over the husbandman on his domain, and each subordinate landholder as strictly guarded the portion of them attached to his estate. In those times the cultivators were as important property as the land itself” (Hunter 1872:

¹⁵ A local tour guidesuggested that the Konark Sun Temple, located a short distance up the coast from Chilika and famous for its erotic sculptures, was built in part to encourage people to procreate. Scott (1998: 285) describes a similar situation in Southeast Asia where there was an average of only five people per square kilometer in the 18th century. He relates that in Thailand, the peasants were often tattooed to prevent them from abandoning their lands.

55). As such, enterprising *padhans* were not above providing incentives to *ryots* (such as inexpensive land) to join their village and this afforded them with some degree of protection from government tyranny. “So long as the land on an estate continued to be twice as much as the hereditary peasantry could till, the resident husbandmen were of too much importance to be bullied or squeezed into discontent” (Hunter 1872: 58).¹⁶

When the Mughals arrived in Orissa they encountered a dominant settlement pattern based on a “fort area” consisting of a *gada* or *kila* (central fort) surrounded by *barapalli* (twelve villages). My field site of Satapada Gada was such a fort. Because of its location on a peninsula¹⁷ it appears to have only overseen seven villages, a fact alluded to by the name Satapada (literally “seven feet”). Often several of these fort areas were joined together to serve as the “basic constitutive units of polities – principalities and kingdoms” (Tanabe 2005: 350). Though the Mughals designated the coastal strip of Orissa *Mughalbandhi*,¹⁸ or crown lands under direct Mughal rule, the existing system was maintained and they were content to leave the native Rajas in place (Haque 1980: 260; Mohapatra 1997: 155; Pattanaik 1979: 72; Swain 1998: 66).¹⁹

¹⁶ However, Hunter adds that it was relatively uncommon for people to leave their land because they were attached to their homes and the little gardens that they had planted and did not relish the thought of being migratory peasants (*pahi ryots*) rather than local peasants (*thani ryots*). He observed that, “an Orissa peasant who left his village in the last century, found himself very nearly as uncomfortable for the rest of his life, as a Chesapeake Indian who abandoned his tribe” (Hunter 1872: 57).

¹⁷ Satapada Gada is well situated strategically on the mugger mukh to control all ingoing and outgoing traffic on Chilika Lake. It is also on slightly higher ground that would protect it from the annual floods.

¹⁸ The hilly tract of Orissa was designated Garhjat and was typified by zamindar rule, which was maintained under Mughal rule through the granting of *jagir* lands (Swain 1998: 66). Pattanaik (1979: 72) contends that this was not a Mughal innovation, but rather a continuation of the Suryavansi Gajapati division into *Desas* (crown lands) and *Samrajyas* (independent kingdoms). Mubayi (1999: 46) states that the Mughal purpose behind the imposition of *Mughalbandhi* was to demonstrate that the title of Gajapati was, “conferred by a higher military authority, not acquired through succession or conquest.”

¹⁹ Todar Mal, Akbar’s Revenue Minister arrived in 1582 for the express purpose of establishing a revenue system in Orissa (Mohapatra 1997: 155).

For a variety of reasons – including the prevalence of malaria and the difficulty of maintaining a cavalry in the tropical regions – the Mughal presence in Orissa was always sparse. As a result, the Mughals were extremely wary of granting anyone title to lands that might serve as a territorial base from which they could contest their rule in the province. Instead, they granted temporary (i.e. non-hereditary) jagirs (privileges) to intermediaries who were permitted to collect taxes from a particular area. Certain of these jagirdars were given *mansabs* (rank), which included a fixed rate of pay from the government for the provision of a specified number of troops in time of war as part of the *mansabdari* system (Mohapatra 1997: 158-59).²⁰

The Khurda Kingdom

A case in point is the Khurda kingdom, which was centered on Chilika Lake (Figure 4.7). Established in 1568 by Ramachandra Dev with the occupation of Orissa by the Afghan invaders, it is a prime example of how the Mughal rule in the Mughalbandi was implemented. Dev, who “was able to present himself as the successor to the tradition of the great Orissan empire by reinstating the idol of Lord Jagannath in the temple in Puri,” (Tanabe 2006a: 207) in the period following Afghan rule was recognized by Akbar as the Gajapati²¹ or paramount ruler of Orissa in 1592 (Kulke 1974: 64-65; Pattanaik 1979: 18-20, 64). Though he did not have any authority independent of his overlords, “from 1568 till the British conquest, the Khurda Kingdom, though small in size, functioned as the central locus for the cultural identity of [the] Oriya people” (Tanabe 1995: 225).

²⁰ A mansab was a “holder of office or dignity,” that was granted by the Mughal government to those “who had territory assigned to them, on condition of their supplying a certain number of horse, 500, 1000 or more” (Yule, et al. 1968 [1903]: 598).

²¹ Gajapati is an honorary title that literally means “lord of the elephants” (cf. Tanabe 2006a: 226).

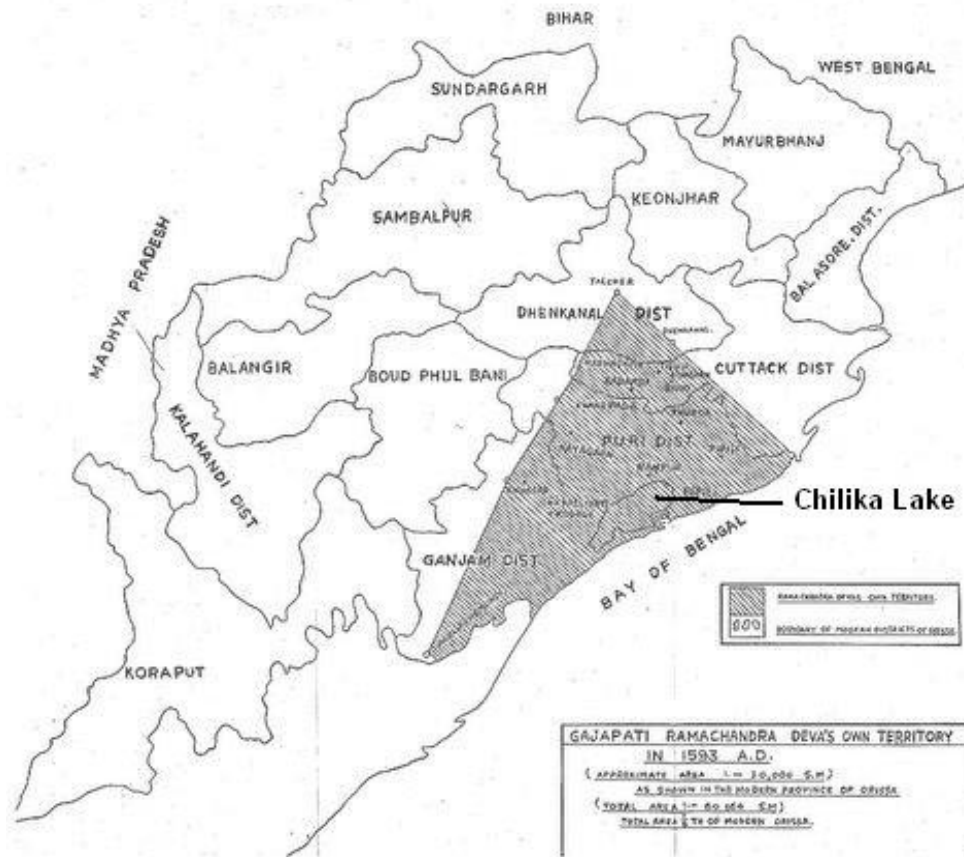


Figure 4.7 Khurda Kingdom in 1593 (shaded area) (Pattanaik 1979).

Throughout this period, the Khurda Rajas maintained *khamja*, an encompassing “system of entitlements”²² at the local level whereby, “everyone, from village functionaries to the state, was expected to perform certain roles in exchange for a share in the production” (Mizushima 2006: 196). Examples of entitlements include *debaha* (temple lands), *brahmana dana* (donation to Brahmins), *desa heta* (village service lands), and those for *gada sevaka* (fort servants) and *paika bartana* (payment for foot soldiers) (Tanabe 2005: 367). These entitlements were bestowed by the Khurda Raja as the “chief sacrificer” and “upholder of the social and cosmic order” (Lerche 1993: 261) in an all encompassing social system where every member of society

²² This terminology is borrowed from Tanabe (2005: 349). Mizushima (1996: 77) terms it a “share distribution system.”

had a set of responsibilities and obligations (Dirks 1988; Hocart 1950; Raheja 1988a; Raheja 1988b). The few extant records from the era reveal that the system was a Maussian, “‘total social fact’ and embraced every aspect of life,” that was open to everyone from the King on down to, “the so-called untouchables, tribals and Muslims [who] were all given places in the system of entitlements” (Tanabe 2005: 381).

From a political perspective, this indicates government penetration at the local level and suggests that the Khurda Raja and his representatives enjoyed a great degree of autonomy from the Mughals. More importantly, the lasting legacy of these entitlements was in the central role that they played in the local construction of caste and social identity. While some of the entitlements (e.g. for foot soldiers, accountants, and even chiefs) were *achieved* and even transferable positions, others were caste-based professions that were generally inherited and granted for service providers such as washermen and barbers or artisans such as carpenters, potters and blacksmiths. Since over time the *achieved* entitlements were roles that became hereditary and inalienable, they invariably became wrapped up with social status and identity.

Based on the different kinds of “land and modes of subsistence economy” (Tanabe 1998: 80), this involved far more than a caste designation, since it was wrapped up with the, “given roles in community rituals, ritual privileges and status, and titles according to the office” (Tanabe 1998: 82). This, “provided everyone in the period with a way of living, wealth, esteem, status and power. In this sense, it operated as the social grammar for people to express themselves in society” (Mizushima 2006: 179). Seeing as this system had the imprimatur of the King as chief sacrificer and upholder of the cosmic order, it encompassed both Dumontian (Dumont 1970) notions of the centrality of ideology and Hocartian (Hocart 1950) notions of temporal power and

kingship. In short, the system of entitlements was the crucible for the interplay of class and caste in the region during the pre-colonial era.

Colonial Era Land Tenure

When the British ousted the Marathas in 1803, they immediately set about implementing Zamindar rule by establishing rental agreements with the *malik-i-zamin* (“proprietors”) of the land. In a passage redolent of imperial hubris and sheer obliviousness, the inimitable Hunter (1956: 193) describes this process:

But with the end of the conquest our real troubles began. We had got the land but we could find no proprietors to engage for its rentals, and no peasantry to till its soil. ... The truth is, that at the time we took the Province, land had ceased to have any value in Orissa, further than the worth of the crop which might at the moment be actually standing on it. But a just and settled Government in an Indian Province raises the price of nothing so quickly as of land. No sooner did the proprietors find that they could make a visible appearance without being imprisoned and plundered than claimants sprung up as if by magic from the ground; and the difficulty became not to find landholders to engage for the rental, but to decide which among them had the right to receive the engagement.

One can only imagine the chaos unleashed in the Revenue offices as the initial caution and incredulousness of their new subjects turned into a land rush. The British were of the firm belief that they were instituting a regime of enlightened government that freed the province from “an organization of licensed plunder,” (O'Malley 1925: 321) that had inflicted a “half century of misery”²³ (Hunter 1956: 193). In reality, they rewarded precisely those individuals who had benefitted the most from Maratha rule. Unlike Bengal, where there were clear records and a

²³ To prove his point, Hunter goes on to discuss the practice of slavery in Orissa alluded to in Chapter Three. According to him, by 1794, “the slave trade from Bengal [i.e. Orissa] had reached as far as St. Helena” (Hunter 1956: 195).

class of landlords had developed organically over time, in Orissa they had risen from almost nothing in the span of half a century.²⁴

The Marathas, who wrested the province from the Mughals in 1751 (Haque 1980: 213-14),²⁵ maintained the outlines of the system of entitlements (which they termed the *mirasi* system of rights), while divesting themselves from the day-to-day running of the province.²⁶ Primarily interested in revenue collection, administrative positions from *Subedar* (provincial governor) down to *Muqqadam*²⁷ (village chief) were auctioned to the highest bidder (Swain 1998: 67). The result of this approach was that *achieved* positions became transferable and even hereditary. *Sarbarakars*²⁸ (village accountants) and *Thanadars* (local police officers) began to consolidate local authority separate from the local Rajas and were given free rein to plunder for their new overlords, thus undermining the system of entitlements. Jena (1968: 34) concluded that, the Marathas:

... were interested in collections alone and depended on the head-men and other officials. The *Muqqadams* and the *Sarbarakars* who were such officers became powerful under the Marathas and claimed ownership right over the land under their jurisdiction. The Marathas encouraged these claims and entertained many more such officers. As a result, those who were only officers of the state since the 17th century were bestowed with

²⁴ While their rise to power certainly took half a century or more, Toynbee (2005 [1873]: 39) asserts that their conversion into zamindars with hereditary rights happened almost overnight during the two years of unrest from 1801-1803, just prior to the British invasion.

²⁵ During the initial incursion of Marathas into Orissa in 1742, they were defeated by Nawaz Alivardi Khan and “ran into [the] Deccan by crossing Chilika on the southern boundary of Orissa in the month of December 1742” (Haque 1980: 212).

²⁶ Banerji (1980 [1930]-b: 117) notes that, “In the beginning the arrangements for the government of Orissa followed the celebrated Marathi adage, ‘do nothing new, do not change the old.’” However, “the shell of the government remained Mughal but the core was entirely changed.”

²⁷ Under the Mughal system *Padhans* became known as *Muqqadams* (Mohapatra 1997: 157).

²⁸ According to Mohapatra (1997: 157), wherever there were no *Padhans*, the Mughals placed Sabarkars and their position became hereditary over time. Mubayi however states that under the Mughals, “The actual task of revenue collection was entrusted to the highest bidders, the *sarbarakars*, who made their own arrangements with the village *muqqadams* and *qanungos* regarding the rate and means of protection” (Mubayi 1999: 47; cf. Stirling and Peggs 1846: 68).

proprietary right over land during the Maratha rule in Orissa. ... During the Maratha period, the cultivators as a class lost their customary privileges to a great extent and became just like laborers.

Village headman and revenue collectors who had been tasked with collecting revenue for the state suddenly styled themselves as zamindars or landlords. As Toynbee (1873: 27) caustically observed, “The Collectors, trained in Bengal, not finding in Orissa any person corresponding to the zamindar of that province, manufactured him out of the material which they found most ready to hand.” Nevertheless, this entire charade invariably led to tragedy as high hopes turned into bitter disappointment when over a third of the more than 100,000 petitions submitted were rejected as fictitious (Jena 1968: 135).

Although Raja Mukunda Deva II of Khurda had welcomed the British when they entered Orissa, only a year later he raised the banner of revolt. The Marathas had forced his ancestors to cede the four Chilika *parganas* (districts) of Lembai, Rahang, Serai and Chaubiskud (Trower 1961: 19-20) and he had reached an agreement with the British that he would receive these territories if he did not oppose their invasion.²⁹ However, the British administration decided to renege on this agreement out of a sense that it would undermine their expressed desire to link Bengal and Madras with a land corridor under their control (Pattanaik 1979: 126).³⁰

Naturally furious at this betrayal, the king waited for the British to withdraw most of their troops from the province and then led a raid on the Puri district town of Pipli. Fearing that the king had secretly joined forces with the Marathas, the British called for reinforcements and gave

²⁹ It was also agreed that Khurda would be administered as one of the *Garhjats* or tributary kingdoms that paid the British an annual tribute that was collected independently. This arrangement left the petty kingdoms with a great deal of autonomy.

³⁰ The British based their decision on the fact that they had taken these districts from the Marathas during the invasion (Toynbee 2005 [1873]: 14). In fairness to the British and the Marathas, it should be noted that according to Kulke (1974: 67) the Marathas only took over these parganas after the Khurda Raja had himself reneged on an agreement to pay 100,000 Rs to get them back.

chase. After retreating to his fort in Khurda,³¹ the Raja withstood a three week siege before escaping to a jungle hideout where he surrendered peacefully after several days.³² From there he was taken as prisoner to Medinipur in Bengal where he was jailed (Banerji 1980 [1930]-b: 269; O'Malley 1925: 318; Pattanaik 1979: 128-36; Toynbee 2005 [1873]: 14-16). This unexpected turn of events unnerved the British and after the rebellion was suppressed, the government decided to make an example of the Khurda Raj. On the one hand they showed mercy by releasing the king from jail after only three years, while on the other hand, he was deposed and his lands (together with the four disputed *parganas*) were placed under direct government control.³³

Removal of the King and Imposition of Khas Mahal

My field site was located in one of the *parganas* (Chaubiskud) that the Khurda Raja hoped to recover from the British and echoes of this conflict continue to reverberate there to this day. On several occasions, elders in my field site made a point of asserting that they were different from the people who live less than three kilometers across the *Mugger Mukh* channel from them, even though they are presently part of the same administrative division (i.e. Krushnaprasad Garh block). They explained that this was because during British times they were not subjects of the Parikud Raja, but rather under the “Khurda *Kashmal*.” Though it took

³¹ Tanabe (1995: 230) reports that “Oriya nationalist historians often stress that this fort was the last one in India to have held up against colonial forces before losing its independence.”

³² After several failed attempts to come to terms with the British, the Khurda Raja sent for Fateh Muhammed in the hopes that he could intercede on his behalf. Fateh Muhammed promptly gave away the king's hiding place to the British and the latter was captured. This time Mr. Muhammed was not granted lands, but rather a cash reward of Rs 3,000 (Pattanaik 1979: 135).

³³ He was appointed the Superintendent of the Jagannath Temple and prohibited from residing in his capital of Khurda. Subsequently, he and his descendants have been known as the Puri Raja.

me some time to register what they were saying, I eventually realized that they were referring to the “Khurda *Khas Mahal*,” which literally means “lands administered directly by the government” (Wilson 1968: 282). Perhaps due to its strategic position at the inner mouth of the lake, the British annexed Bhalabhadrapur Zilla (which included Satapada, Tua Dwarsuni and Gombhari) to the Khurda Estate.³⁴

In practice, khas mahal rule in Khurda meant that a fort-wise approach (known as *mahalwari* or *garhwari* rule) based on the previously mentioned fort areas was pursued. Settlement was arranged with the village *muqqadams* (chiefs) and *bhoi muls* (accountants) who effectively became sarbarakars (tax collectors) for the British. Some of these newly appointed collectors were able to convert these positions into zamindar status over time. Existing large landholders who were zamindars during Maratha rule paid revenue directly to the British government, while areas that had no zamindars were henceforth collected by government officers.³⁵

Ironically, the British were philosophically opposed to direct government administration of land, since “they apprehended that such a situation would lead to inefficiency and corruption” (Jena 1968: 126). This view stemmed partly from the simple realization that the Company had too few people on the ground and lacked sufficient information to make proper assessments.

³⁴ As will be discussed in the subsequent chapter, this not only removed the area from Chaubiskud, but also from the area under the control of the Parikud Raja.

³⁵ According to Lerche (1993: 257), “The land settlement of today’s four coastal districts followed the lines of the zamindari system, already introduced in Bengal.” In reality, the situation was more complicated, since large zamindar estates had developed in the four parganas during the period of Maratha rule. Whereas in the rest of the Khurda kingdom estates were granted by the king for service, the estates of the four parganas were acquired as a result of the aforementioned Maratha tendency to divest themselves of day-to-day management of the state. In addition, the proximity of Chaubiskud to the Jagannath Temple encouraged zamindar holdings, since government ministers desired to be in the vicinity. As a result, even when the four districts were added to the Khurda kingdom, they continued to be administered out of the Puri subdivision and not out of Khurda (Personal correspondence with Professor Akio Tanabe of Kyoto University, 2008).

Mostly this was because under khas mahal the ryots were only granted occupancy rights (as opposed to title) and the government officers responsible for rent collection could increase rents at their discretion. This inherent uncertainty led to a situation where the lands often suffered from neglect because “the tenants of the Khas Mahals took the least possible interest in the land and agriculture and shifted the responsibility to the government” (Jena 1968: 129). Indeed, Cornwallis, who was the greatest champion of zamindar rule, was unquestionably opposed to khas mahal and, “Unlike the modern socialist, he was persuaded that nothing could be so ruinous to the public interest as that the land should be retained as the property of the government” (O'Malley 1925: 259). Dutt ruefully remarked that the only “advantage” of this system was that it, “whittled away both land-lord’s right and tenants right [while making] ... an agricultural nation more dependent on the unfettered will of the Executive Officer” (Dutt 1874).

From the local perspective, the removal of the king completely undermined the system of entitlements and led to changes in the social structure and caste identities. As Tanabe (2006a: 219) discerned:

... the British policy of taking away politico-economic power from the colonized, but leaving their society, culture and religion intact ... [and] destroying the redistributive mechanism of the communal entitlement system through the introduction of individual proprietorship [and] land reforms ... had the effect of superficially retaining the pre-colonial power structure in the locality in terms of the distribution of wealth, but changed its context and meaning drastically ...

Based on the principle of the “rule of colonial difference” (Chatterjee 1993), the British mistakenly believed that by asserting their will in the political sphere, they would avoid interfering in, “matters of indigenous society and religion, which were to be entrusted to the colonized” (Tanabe 2006a: 206). In reality, such clear distinctions did not exist in pre-colonial Orissan society. Rather, the political, religious and economic spheres were inextricably linked.

The result of this rupture meant that the complex hierarchy that had existed from cultivator up through zamindar and to the king himself was severed. “Where there had previously been a complex hierarchy with many levels, now only its bottom half, the part within the village (the *jajmani* system) remained” (Fuller 1977: 105).

Unlike the system of entitlements, the *jajmani* system was based on dyadic patron-client relations that involved exchanges between two households (Kolenda 1963; Lerche 1993; Tanabe 2005: 349; Wiser, et al. 2000). Coming at the same time as the introduction of titles for land, the result of this change was that, “the unit of reproduction of social relations shifted from the local community to the household, and class relations according to households and caste were formed in the local society based on the amount of land owned” (Tanabe 2006a: 221). This naturally discriminated against the service and artisan castes that previously received produce from the land and was especially prejudicial to landless groups such as fishers. It also increased the importance of caste since, at the village level, “political power [was] distributed across caste lines to a much greater extent,” under the *jajmani* system, “than it was in the pre-British hierarchy” (Fuller 1977: 111). In effect, the separation of politics from religion created a situation where caste became defined as essentially religious and hence “traditional” and eternal.³⁶

From an administrative perspective, the ill-advisability of Khas Mahal designation also quickly became apparent. The initial settlement of the Khurda district conducted by Major Fletcher in 1805 was based on incomplete information and led to an overassessment of land

³⁶ It is one of history’s ironies that what anthropologists were prone to call “‘traditional India’ is in fact, British India” (Fuller 1977: 107).

revenue taxes (Toynbee 2005 [1873]: 72).³⁷ For example, whereas under the Marathas, the Khurda Raja was assessed 15,000 Rs annually, Fletcher declared an assessment of 100,000 Rs in 1805, which rose to 138,000 Rs in 1816 (Jena 1968: 136-37).³⁸ When a series of natural calamities ensued in close succession³⁹ and the British revenue collectors proved inflexible regarding collection, many estates fell into arrears.⁴⁰ These foreclosed estates went up for auction at greatly reduced prices in Calcutta making it difficult for locals to place bids and leading to the installation of a class of (largely absentee) Bengali zamindars in the Oriya countryside.

The first historical mention of my field site of Bhalabhadrapur that I have been able to uncover appears in Trower's 1817 letter to the Calcutta Board of Revenue and provides an egregious example of this phenomenon:

The Board will perhaps recollect the case of Prandhan Choudhury, proprietor of Talook Balbhudderpore which was sold in Calcutta in 1812 for a very trifling sum which was due on accounts of interest, though he had executed the usual engagements for the payment of the same at this office, as communicated by me to the Board in a letter under

³⁷ In his 1817 letter to the Board of Revenue, Trower disputes the notion that there was an overassessment and instead contends that, "previously to a permanent settlement Government have every right to expect a considerable increase in the *jumma* [assessment]." In addition, he was of the belief that, "proprietors entertained a hope that by pleading overassessment they would be allowed for the first year or two to resume their estates on the *Hustabood jumma* [assessment made on produce] ... which would then become permanent" (Trower 1961: 25).

³⁸ In principle, this assessment was supposed to be based on a ten year average from the Maratha period, but was based on incorrect information.

³⁹ During the 1806-7, the countryside suffered from a severe drought followed in 1807-8 with a year of severe flooding. Nonetheless, the Company officers were adamant that land taxes must be paid in full and on time. Toynbee notes that as a result, the position of the Oriya landholders "was worse under the English than it had been under the Marathas" (Toynbee 2005 [1873]: 122-24).

⁴⁰ Toynbee (2005 [1873]: 72) calculates that 1,219 estates (out of a total of 2,340) were auctioned by the government – many of them more than once in the same year. Trower recognized that from the Oriya perspective, the influx of Bengalis was a principal cause of discontentment. He calculated that 350 of the largest estates that were auctioned were taken over by Bengalis (Trower 1961: 23) and observed that, "the employment of Bengalees in all public situations under Government to the total exclusions (almost) of those who served under the former Government has naturally created disgust amongst that class of people, many of whom are I believe persons of respectability and qualified to hold situations of trust and responsibility." (Trower 1961: 34) Pattanaik (1979: 150) provides a comprehensive list of Bengalis employed by the British as settlement and police officers (cf. Mubayi 1999: 65).

date the 25th December 1812 with a recommendation that they would be pleased to take his case into their favourable consideration. Had Prandhan Choudhury had an agent or any friend in Calcutta, it is not probable they would have allowed a valuable Estate to be sold for so trifling a balance. (Trower 1961: 22)

In effect, “a new supportive strata of Bengali landlords was created replacing the previous landlords who had greater peasant allegiance” (Swain 1998: 72; cf. Toynbee 2005 [1873]: 72-75). It is likely that this was tacitly encouraged by the government because, being outsiders, these Bengali zamindars were dependent on government protection and thus more likely to support British rule in the province. In essence, Orissa suffered what I would term a “double colonialization.”⁴¹ Naturally, this was a destabilizing factor since, as Cohn’s Bihar research demonstrated, the former zamindars were not removed from the land, but only from their status⁴² – a set of circumstances ideally formulated to sow unrest in the countryside (Cohn 1987b: 409). O’Malley (1925: 323) aptly summarizes the revenue history of this period as, “an unfortunate record of assessment on insufficient inquiry and of the enforcement of inelastic rules for the realization of inequitable revenues.”

Paik Rebellion

By 1817, the Khurda region rose once again in open revolt against the British in what has been termed the Paik Rebellion (Mubayi 1999; O’Malley 1925; Pattanaik 1979).⁴³ The Paiks

⁴¹ Ewer, who served as the “Special Commissioner for Khurda Riots” [*Sic*], wrote in 1817 that, “Those whom the British regulations had created zemindars [*sic*], or at least acknowledged as such, appear either to have been reduced on the sale of their lands to the condition of common *ryots*, or as *gomashthas* or dependent *talookdars* to have been converted into instruments of extortion under the new proprietors” (Quoted in Mubayi 1999: 56).

sale of their lands to the condition of common *ryots*, or as *gomashthas* or dependent *talookdars* to have been converted into instruments of extortion under the new proprietors” (Quoted in Mubayi 1999: 56).

⁴³ Oriya nationalists contest this designation and prefer to call it the First Indian War of Independence (Pattanaik 2005). From the perspective of the Government of India, the Indian (Sepoy) Mutiny of 1857 is officially recognized as the First Indian War of Independence, though there have been court cases against this designation by Tamils who wish to see the Vellore Mutiny of 1806 and Punjabis who wish to see the First Anglo-Sikh War (1845-46) receive

were one of the *achieved* status castes that received land rights from the King under the system of entitlements. As the native peasant militia of Orissa,⁴⁴ these lands were granted for their services in times of war. Over time the paiks have become solely associated with the Khondayat agricultural community such as those residing in my field site of Satapada Gada. However, all accounts point to the heterogeneous origin of the paiks who “comprehend of all castes and classes, chiefly perhaps the chasa or cultivating tribe. Occasionally individuals of the lowest cast [sic] are found among them, as konduras, pans and bowris and the fashion has often prevailed of adopting into their own order some of the more savage inhabitants of remote hills, called khands, as also even musulmans and telingas” (Toynbee 2005 [1873]: 21) (Figure 4.8).⁴⁵

This example demonstrates the important role of the King in the formation of caste and identity. Through his role as chief sacrificer, he was able to circumvent fixed notions of varna (caste) and grant this *achieved* caste status to any member of society (Dirks 1988; Hocart 1950; Raheja 1988a). In the last century this process of various jatis identifying as Khondayats has actually intensified, as practically all the agricultural communities of coastal Orissa now claim Khondayat status.⁴⁶ Commenting on a paik martial arts competition that took place in Khurda,

this designation. It is interesting to note that the British who experienced the Rebellion felt that it was a broadly-based nationalist uprising designed to remove them from the land of Jagannath. Trower writes that, “the present unpleasant disturbance,” should be seen, “in light of a crusade, the object of which was to expel the English from all interference in the land of Poorsottum Chitter” (Trower 1961: 33).

⁴⁴ “In times of war the Khondayats or nobility of Orissa at the head of their respective contingents of this landed militia, ranged themselves under the standard of their sovereign, and formed the main part of his military array” (Stirling and Peggs 1846: 66).

⁴⁵ Indian kings, “had the power to promote or demote castes inhabiting his kingdom” (Srinivas 1995: 39). As to their origins, Stirling is of the opinion that Khondayats, “first received estates in the 12th century of the Christian era” (Stirling and Peggs 1846: 65).

⁴⁶ Aside from the desire to identify with the heroic paiks, this seems to represent a process of Kshatriyazation among the agricultural classes who wish to improve their position by claiming *dvijya* (twice-born) status. This is akin to the process of Sanskritization that Srinivas (1956) first introduced from his research among the Coorgs. Kulke (2001a: 90) observed that, “the Khurda Rajas encouraged Kshatriyazation, ‘from above’ by granting special rights and status symbols to khandaiat chiefs...”

Tanabe (1995: 227) found that, “It seems as if the whole peasant population, which are divided into a number of jatis are becoming one caste in name, all trying to claim their share in the heroic heritage of paikas.”⁴⁷



Figure 4.8 Paika soldier (Rath 2005: 205).

⁴⁷ Tanabe (1995: 227) further demonstrated that, “in 1891, the number of *Khandayats* in Puri district was only 8,193 (0.87% out of a total population of 944,998) and that of *Chasa* 277,715 (28.96%) (Census of Puri District 1891). By 1931, the number of *Khandayats* increased by more than ten times to 112,571 (10.87% out of a total population of 1,035,154) while the number of *Chasas* decreased to 231,021 (22.32%).” Lerche (1993: 256) also found that Chasas were being assimilated into the *Khondayat jati* in all of Orissa. Whereas 14% of the population was *Khondayat* in the 1901 census, this rose to a combined figure of 30% by 1931.

Toynbee (2005 [1873]: 22) candidly describes the British policy decisions following the declaration of khas mahal in the Khurda district that led to discontentment and revolt among the paiks:

... by a fatal and short-sighted policy Major Fletcher had been allowed to resume [i.e. tax] their service lands shortly after the confiscation of the Khurdha estate. Nor was this all. Deprived thus of the lands which they had enjoyed from time immemorial, they were subjected to the grossest extortion and oppression at the hands of the farmers, sarbarakars, and other underlings to whom our Government entrusted the collection of the revenue, and also to the tyrannies of a corrupt and venal police. In this state of affairs a leader was all that was required to fan the lurking embers into open flame.

Under these circumstances, the opportunity produced the man in the form of the Khurda Raja's former *Bakshi*⁴⁸ – Jagabandhu Bidyadhar Mohapatra Bhramarbar Rai. Jagabandhu, who had been reduced to beggary after the claim to his ancestral home of Kila Rorong was denied by the authorities, rallied the Paiks against their oppressors (Trower 1961: 20-21). This time the revolt proved much harder to suppress and threatened Company rule in the province as the British were forced to abandon Banpur, Khurda and Puri before the more numerous and well-organized Paiks. Martial law was declared and reinforcements sent to Khurda, which was soon captured by the government troops. Having learned from the previous uprising, the Paiks opted for guerilla warfare and melted into the jungle where bands of them kept the British engaged until 1826. After repeated attempts failed to capture Jagabandhu, he surrendered peacefully in 1825 with his followers on the promise of a pardon and the return of his jagir.

Permanent Settlement

The repercussions of these rebellions were felt far beyond the battlefields and politics of the day and fundamentally reshaped British land revenue policy in Orissa. Following the 1804

⁴⁸ Paymaster general of the armed forces. Second in rank to the King.

Rebellion, the Calcutta Revenue Board promulgated Regulation XII of 1805, which openly declared its intention of implementing Permanent Settlement in Orissa (Toynbee 2005 [1873]: 65). Under Permanent Settlement, which was established in Bengal in 1793, the Government of India agreed to set a fixed rate of taxation in perpetuity with the landholders. The reasoning behind this decision was that it would involve even less administration and interference on the part of the Company and reduce uncertainty, thus encouraging landlords to make long-term financial plans and hence investments in agriculture. The proponents of Permanent Settlement firmly believed that “cultivation would only extend if the landholders were allowed to reap the full benefit of improvements and the reclamation of waste land” (O'Malley 2007 [1908]: 259).

Nonetheless, all of these plans were necessarily put on hold by the 1804 Rebellion as the Company officials struggled to come to grips with their new role as zamindars of the Khurda khas mahal lands. Instead of Permanent Settlement, the chaotic events of the era meant that the locally-based revenue officers advocated for and received permission to institute a series of interim one to three year settlements.⁴⁹ This only worsened the situation, since zamindars were unable to predict how much their assessment would be under permanent settlement and chose to minimize their risk by holding out on making investments on their lands. In addition, a great many decided not to put their lands under cultivation so that those fields would not be assessed before a permanent settlement was reached. In short, these interim settlements proved disastrous and led to rapidly diminishing returns.⁵⁰ Jena (1968: 140) reports that the Khurda district lost

⁴⁹ The settlements were as follows: one year settlement of 1804-5; triennial settlement of 1805-6 through 1807-8; one year settlement of 1808-9; triennial settlement of 1809-10 to 1811-12; one year settlement of 1812-13; biennial assessment of 1813-14 through 1814-15; one year settlement of 1815-16; and the triennial settlement of 1816-17 through 1818-19 (Toynbee 2005 [1873]: 50-70).

⁵⁰ Trower rejects the notion that the interim settlements were inherently problematic. Rather, he believes that they became a problem only because the landholders had been promised a permanent settlement and were cautiously holding off on investing until it was clear what their assessment would be. In a self-congratulatory passage, he notes

over twenty percent of its population from 1805-1817 due to outmigration and records indicate that revenue collection suffered a precipitous drop from 94% in 1806-7 to only 27% by 1816-7, the year that ended with the Paik Rebellion (Toynbee 2005 [1873]: 62,70).

Writing to the Board of Revenue in the immediate aftermath of the Rebellion, William Trower, the Collector of Cuttack from 1812-1818 reflected that, “I can not think that the inhabitants would have risked their lives, property and families in so unequal a struggle unless they suffered extreme hardships and oppressions from the Government to which they were subject and felt, that any change that took place in their condition, must be for the better” (Trower 1961: 20-21). After looking into the matter, a special commission concluded that the populace did, in fact, have real grievances and that the system of administration was primarily at fault.

A chastened administration was enjoined to restructure while steps were taken so that, “arrears of revenue were cancelled, the sale of many estates were suspended and the assessments reduced” (O'Malley 1925: 326). Most importantly, though no further mention of a Permanent Settlement was made, a long term settlement, “after detailed investigation” was announced in 1822 (O'Malley 1925: 326). Starting in 1827, the Collector’s office undertook a detailed survey to map all of the mahals, a task which was only completed in 1836 (Pattanaik 1979: 224; Tanabe 2006a: 219). Based on this information, a thirty year settlement was declared in 1837, which was extended for another thirty years in 1867 due to the famine that was ravaging the countryside at the time.

that a, “system of annual settlements existed for 60 years under the Marhatta Government, [and] that these were not conducted with the same care and attention to the interests of the individuals concerned as the regulation of the English Government requires...” (Trower 1961: 23).

The “sixty years of thirty year settlements” were effective in stabilizing the situation and provided the zamindars with the breathing space they needed to accumulate wealth and define themselves as a class. For the first time, they were able to develop strategic financial plans that freed them of the uncertainties of the previous era. In a sign of the times, by 1840, only 29 estates were in arrears and put up for auction whereas by 1870 the sale of estates had almost completely stopped (Jena 1968: 89). The zamindars also benefitted from a period of political stability and significant infrastructure projects such as improvements in roads, canals and the introduction of the railroad that greatly boosted trade in the region. During this period, they were able to take advantage of these developments to consolidate their power at the local level while expanding their privileges with respect to the cultivators.

Ryot Rights

An inherent flaw of the Zamindar system was that it failed to provide any provisions to protect the ryots. Whereas at the turn of the 19th century the scarcity of tenants provided the cultivators with some protections, population growth and British policies led to increases in the peasant population. For example, the introduction of salt monopoly in 1814 forced many of those, “engaged in the salt trade and manufacture... to take up land as an occupation,” thereby increasing “pressure on the land and the land economy” (Jena 1968: 51; cf. Pattanaik 1979: 159). Much of this pressure was felt in coastal districts such as my field site, where by 1837 half of the cultivators were *pahi* (migrant) farmers with fewer rights than their *thani* (permanent) neighbors (Das 1976: 33-34; Hunter 1872: 59).

During this period, Bengal, Bihar and Orissa became synonymous with rack-rents that caused the ryots great distress and oftentimes led to the abandonment of their lands. In the case

of Khurda district, since it was under khas mahal, the government took the unprecedented step of granting the thani ryots⁵¹ *kali pata*, or title to land during the 1836 settlement at the fixed rate of eight *annas* ($\frac{1}{16}$ of a Rupee) per *bigha* ($\frac{1}{3}$ of an acre) (Jena 1968: 149; Sahoo 1997: 318).⁵² In essence, this created a kind of hybrid zamindari/ryotwari rule where the peasants⁵³ were settled by the government and the zamindars continued to collect revenue for the government while maintaining many of their privileges.

This type of hybrid system resulted in some unintended consequences. Since the overall settlement and the terms of payment for the ryots were fixed by the government, zamindars now had an incentive to find other ways to enrich themselves. Predictably, during this period we see a marked proliferation of abwabs for everything from the building of embankments to the holding of markets and even the celebration of holidays. Encroachments on the cultivators' traditional rights such as, "those on grazing grounds, common ponds, thatching grass, etc." (Jena 1968: 86) also became commonplace. The first evidence of any interest in the lake's fishery by the region's zamindar class can be traced back to this period of the sixty year settlement.

Conspectus of Colonial Rule

Unfortunately, Zamindar rule in Orissa did not lead to the hoped for investments in land and infrastructure envisioned by its backers. Rather, although land prices increased in value over time, zamindars found that land management provided small returns on their investment

⁵¹ *Pahi ryots* were only settled in 1897, at the end of the sixty year settlement (Sahoo 1997: 318-19).

⁵² The granting of patta to ryots apparently had a very long gestation period in Orissa, as is evidenced by Trower's comment in his 1817 missive to the Board of Revenue: "The Ryots are burthened [sic] with many unauthorized Abwabs, and it was with a view to prevent such impositions that, that I proposed to the Board, the exchange of Pottas and Kabooliats between zemindars [sic] and the cultivator of the soil should be drawn up on stamped paper of a very trifling price ... At present the demands are nearly arbitrary and certainly oppressive" (Trower 1961: 30).

⁵³ This was true both for *thani* (permanent) and *pahi* (migrant) *ryots*.

compared to such activities as money-lending, bonds, urban properties, and grain trade.⁵⁴ Unlike in England, where “there was a strong industrial sector to stimulate agriculture, and there were government moves to stabilise prices and safeguard the interest of the landed classes,” the East India Company practiced a *laissez-faire* approach to the economy (Islam 2008). In a recent study by Banerjee and Iyer (2005: 1190), the authors assert that “those districts in India where collection of land revenue from the cultivators was assigned to a class of landlords systematically underperform the districts where this type of intermediation was avoided.” This may be because areas formerly under zamindar rule have lower levels of collective action and are more prone to conflict stemming from the class differences that the colonial land revenue policies engendered.

These processes can be discerned in the Chilika Lake districts of Orissa, where colonial rule profoundly affected social relations across caste and class. As noted above, the deposition of the king ended the “system of entitlements” while strengthening certain of the *achieved* status castes and local zamindars. On the one hand, the end of the “system of entitlements” and granting of *patta* (title to land) reduced those with position and status (such as the paiks) to mere cultivators with land-holdings.⁵⁵ As Tanabe (1998: 89) discerned:

The British colonial government sorted out the rights that existed in multi-layered ways on a certain piece of land, allocated a deed of right to one person out of all of these and gave him exclusive proprietary rights besides the responsibility of paying taxes. In this way, land came to be a medium for stratifying society by a singular measure according to the amount of land-holding, instead of something that guaranteed the individual status and role through office.

⁵⁴ Cohn disagrees with this assessment with regards to Bihar, where he finds that, “land appears to have been a good investment,” and the, “price paid for land appears to have risen sharply after 1795” (Cohn 1987b: 411). Agricultural prices in this period also appear to have encouraged putting land under cultivation.

⁵⁵ Mubayi (1999: 55) contends that the underlying cause of the Paik Rebellion was, “the deprivation felt by the landholders [which] was not merely economic, but ideological as well.”

Under the “system of entitlements” ownership of land was not as important as entitlements to a share of the grain heap. While fishers were not generally entitlement holders, some were while others paid *chandina*, a tax levied on the landless classes which afforded some rights, such as entitlement to fishing grounds. Fishers could also perform ritual duties that afforded them certain entitlements. The single-minded colonial focus on land revenue administration effaced these relationships. As such, ownership of land became the *sine qua non* of status in Oriya society. Since the Khondayats were the largest landholders⁵⁶ under the system of entitlements, this propelled them into a privileged position as land-ownership was translated into social authority.⁵⁷

Srinivas (1959) identified the large landholding groups that emerged as the “dominant castes,” that numerically, economically and politically preponderated over other castes. However, more recent scholarship has pointed out that this terminology is vague while obscuring the fact that “actual power and often the largest landholdings are in the hands of a few individuals of the dominant caste, not the caste itself” (Fuller 1977: 109).⁵⁸ With the removal of

⁵⁶ “The survey and settlement of 1836 confirmed the position of paikas who were mostly of Khandayat caste as the largest caste-wise land holders” (Tanabe 1998: 90). In 1836, the Khondayats of Tanabe’s field site of Garh Manitri had a total of 205.57 acres or 59.49% of the total village acreage. This increased to 308.38 acres by 1911, though their share was reduced to 42.92. Tanabe speculates that this was part of a British policy to demilitarize the paiks by reducing their number and influence. The group that most benefitted from the discriminatory British policies were Brahmins, who saw their share in landholdings go up from 2.64% in 1836 to 17.26% in 1911 (Tanabe 1998:90). Nonetheless, the Khondayats were by far the largest landholders as a group, a position that has only improved since 1911 as other agricultural castes have chosen to identify themselves as Khondayats.

⁵⁷ Brahmins also greatly benefitted from the British interventions since “The colonial government’s policy of non-intervention in religion had in effect led to the preferential protection of religion related peoples and the Brahmanas maintained and extended their position as privileged class” (Tanabe 1998: 93).

⁵⁸ Since Srinivas first proposed this terminology it has been critiqued as vague. Dumont (1970: 161) felt that dominance was solely a factor of land ownership and had nothing to do with number, while Dube (1968: 59) first made the point that we cannot speak of dominant “castes” but only of dominant individuals and factions. Fuller recognizes this and notes that the role of individuals indicates the secondary role of caste, since those in power owe their position to, “political power, not their caste status” (Fuller 1977: 109). Nonetheless, caste as a factor of local identity and social mobilization cannot be easily discounted and has been skillfully exploited by politicians for “vote banks” in the past (Bailey 1960; Gupta 2005; Jeffrey 2001; Krishna 2003).

the Khurda Raja and the disintegration of the system of entitlements, these individuals among the Khondayats were ideally positioned to become zamindars. The jajmani relationships that developed around this time provided zamindars with an increasingly important role as they undertook to play the part of minor raja in a reenactment of the “system of entitlements” at the local level. Lerche (1993: 247) enumerates three kinds of relationships centered on the land-holding Khondayats that developed over time: ritual relations between Khondayats and Brahmins (such as *dana* and *dakshina* offerings); relations between Khondayats and service castes (*Bartana*); and Khondayats and agricultural servants (*Halia*).

While in the past, “the right to the share ... was linked to the role performed and not to the recipient,” (Mizushima 1996) the dyadic nature of the jajmani relationship meant that class differences were accentuated as agreements were now transacted between individuals. Over time the ryots found themselves burdened with rack-rents, excessively taxed, and bound to the land while steadily losing many of their traditional use rights (e.g. in forests and fisheries). Even worse off were those classes such as artisans, tribals, fishers and untouchables who saw their status deteriorate as land ownership became increasingly important. Their rights to the produce of the land and obligations within the system of entitlements were no longer honored and the economic gap between these groups and the ryots steadily increased.⁵⁹

Perhaps the most fundamental change brought about by colonial rule and common to both the Zamindar and Ryotwari systems was the emphasis on a legalistic approach. Stokes (1959: 82) recognized that, “The British mind found incomprehensible a society based on

⁵⁹ In Garh Manitri, the share of land owned by the scheduled caste Hadi (sweepers) declined from 7% to 1.7% from 1836 to 1911. Similarly, land owned by Dhoba (washermen) declined from 2.75% to .9% and that of the Saora (Tribal group) went from 2.28% to .4% (Tanabe 1998: 90). Castes which benefited from British rule included Telis (oil pressers), Gudia (sweet-makers) and Gauda (Cowherders). In his study of highland Orissa community, F. G. Bailey (1963b) demonstrated that the process by which the trading castes embraced capitalism and improved their overall position continued into the decade following Indian independence.

unwritten custom.” The granting of title to land was a project of legibility that necessarily involved defining the rights and obligations of those on the land and a demarcation of the land to the exclusion of areas such as Chilika Lake. Whereas, in the past, there were “many and diverse paths along which the people of the eighteenth century had earned their livings,” the British system did not allow for such ambiguity (Washbrook 1988: Quoted in Tanabe 1998: 79). The exigency of taxation limited access to only those territories that were properly marked on maps and legible to the state. Scott (1998: 47) describes this as a “kind of fiscal Heisenberg Principle” whereby new institutional arrangements transformed the facts that they took note of. The result was that Chilika Lake communities that previously depended on the commons to diversify their economy – through farming, fishing and salt-making – now saw these lands officially demarcated, separated and legislated. As the next chapter will attempt to demonstrate, the lines between land and lake and the partitions between the respective subsistence activities were never so cut-and-dried.

CHAPTER 5

SETTLING THE WATERS

The feeble breeze rising from the lake was no match for the rising heat of the day. Though it was only nine in the morning, I was uncomfortably dripping with sweat and trying my best to enjoy the hospitality of a group of contractors who had invited me to their workers' bungalow. Every couple of minutes (protestations notwithstanding) I was served another cup of piping hot *chai* by my eager hosts, as I impatiently scanned the horizon for the boat that would take me to Nalabana Island and away from this torpid heat.

Together with my field assistant Mayur, I had spent the early morning in the adjacent village of Chandraput talking to fishers about changes to the lake's ecosystem and the status of social relations between fishers and non-fishers along the western shores of the lake. Mr. Dasa, a well known fisher activist who was a leading member of the Chilika Matsyajibi Mahasangha (Chilika Fishermen's Federation), acted as our host and offered us a tour of the local sights, starting with the new government research center that was being constructed on the outskirts of the village.

The research center, which jutted into the lake on what looked like a plinth of landfill, was part of an ambitious "campus" of buildings intended to serve scientists conducting research on Chilika Lake. Off to one side, a small two story building built to house researchers was being fitted with air conditioners and awaited its first guests. The main building, a three-storied

circular edifice, was being built around a large foyer that would house public exhibits on the lake and its ecosystem.

One of the contractors, a young man from Bhubaneswar led us up several flights of stairs to show us the center's most recent addition – an Irrawaddy dolphin carcass. The dolphin, which was not much bigger than an average-sized dog, was found along the shore and dropped off by some fishers. It was stored in a large chest, where it lay decomposing and wrapped in plastic sheets. The telltale signs of the boat propeller that had caused its untimely death were clearly visible along its backside. As we exited the room, I shuddered to think what this gruesome mess would look like after yet another day in the devastating heat.

Back at the bungalow, the conversation had taken a familiar turn and several people simultaneously grilled me about my family, America, my views on India, Orissa, etc. My mind wandered, and out of the corner of my eye, I spotted the fishing village of Barkul just to the south of the research campus. The village, which is inhabited exclusively by *Khandaras*, the fishing caste considered to be the “lowest” in the local hierarchy of fishers, provided stark contrast to the white-walled and air-conditioned campus springing up in their midst.

Though Barkul is only a few kilometers from the bustling and prosperous market town of Balugaon, it looked and felt forlorn and dilapidated. The village clearly suffered from endemic filariasis and several villagers bore the disfiguring signs of this disease. During a visit the previous afternoon, I was surprised to spot a large tortoise ambling through the sandy tracks of the village under the watchful eyes of its owner. Since it was quite rare to see fishers keeping pets, I asked my hosts if it was common for people in their village to take care of tortoises. Not at all uncommon, they responded; in fact, this tortoise was being taken care of for an upcoming feast.

Since it was prawn season, most of the local fishers had decamped to their fishing grounds, where they typically stayed for two weeks at a time. In part, this was because prawn fishing is traditionally conducted at night, when the prawn are easily attracted by lights. Mostly, however, this was because the fishing grounds of almost all of the villages along the western shore were located across the lake near Parikud Island and in the shallow waters surrounding Nalabana Island.

Over the previous decade, the government had declared Nalabana Island to be a bird sanctuary and then progressively made the adjacent waters off-limits to fishers. This naturally resulted in tension and resentment against the government that was further exacerbated by the entry of non-fishers into the fishery. This influx pushed many fishers from their ancestral fishing grounds and into those of other fishers. Many of them took up fishing in the rich waters off Nalabana Island and reports of fighting sporadically trickled out. With the assistance of Mr. Dasa, I arranged a visit to these fishing grounds in order to get a better feel for the current state of affairs.

After what seemed like an eternity, our boat finally arrived and we darted off across the cooling waters of the lake. When we arrived at the fishing grounds, we found a floating village with hundreds of boats lashed together in clusters, bobbing silently in the shallow reed-filled waters. The smell of fried fish and rice cooked on kerosene *chulas* (stoves) hung in the air while fishers, young and old, played cards, listened to the radio or fixed their nets. The previous night's catch was safely ensconced in ice in the hulls of the boats and awaited the arrival of the *mahajan's* (middleman) agent who would transport them to the warehouses in Balugaon and from there to market.

As soon as we arrived, a group of people crowded in to greet Mr. Dasa and to take a closer look at the foreigner accompanying him. Seeing this commotion, several nearby boats punted towards us as the crowd swelled and gathered around. Mr. Dasa directed several of his acquaintances to join us in our boat, and with Mayur as interpreter, I began to question them about these fishing grounds.

After the customary introductions, I began by interviewing a middle-aged fisher who sported an orange *gamucha* (a type of towel) on his left shoulder. “Which villages are fishing in these fishing grounds?” I inquired, as I placed a voice recorder on the mat between us.

“*Sahib*,¹ here one can find fishermen from all over the lake.” He replied.

“Which village are *you* from?”

“We are from Barkul, though there are fishermen from Chandraput, Gabapader and as far away as Bhalabhadrapur fishing here right now. There are even some refugees here.” He said as he pointed to a boat comprised of a crew of Bangladeshis who were the descendants of refugees that had arrived in the area during the lead up to the 1971 Indo-Pakistani War.

“So, then who do these fishing grounds belong to?” I asked.

“These are Barkul’s fishing grounds.” He asserted. “We have the lease for these grounds.”

“Then why are these other groups fishing here? Don’t they have their own fishing grounds where they can fish?”

“What to do, *Sahib*? So many fishermen have lost their fishing grounds to non-fishermen and gherries that they come here for fishing.”

“I thought every fishing village leased its fishing grounds directly from the government.”

¹ An honorific roughly meaning *Sir*, though it can also be used as *Mr*. Although it may be used equally to refer to Indians or non-Indians, it is often the conventional term when speaking to foreigners in India.

“Yes.” Several men bobbed their heads in agreement.

“So, how do non-fishermen take their fishing grounds and turn them into prawn enclosures?” I wondered aloud.

Unsure precisely what I was asking them, my interlocutors replied matter-of-factly, “They come, they take.”

“OK,” I replied, “then why don’t the fishermen just go to the police and file a complaint? If they are leasing the fishing grounds then these non-fishermen are trespassing on their property.”

“*Sahib*,” one of the fishers responded as several others smiled, “If they go to the police, then the police will request proof that this is their fishing ground.”

“Very well,” I persisted, “then why don’t they show them the map?”

“Because they will only accept the official map located in the Collector’s office and the Revenue Department will not release these maps to anyone. Not the police. Not the fishing community.”

“That’s convenient,” I muttered. “Then what’s the point of paying for the lease grounds if you cannot even get a map proving that it belongs to your community?”

“What can we do, *Sahib*? We have leased these fishing grounds since the time of Taylor Shah. If we do not pay for our lease grounds, then the Revenue Department will grant the lease to the non-fishermen and we may lose our fishing grounds forever.”

“You see,” Mr. Dasa explained, “the police, the Revenue Department and the politicians are all working together. The fishermen continue to pay the lease for the fishing grounds while the non-fishermen secretly pay lease to the Collector in the Revenue Department. The Revenue

Department gives some of that money to the police while the politicians rent out the fishing grounds so that they can raise prawn for export.”

“So basically,” I summed up, “what you’re saying is that the Revenue Department is earning twice on the same fishing ground and those fishermen are forced to encroach on the fishing grounds of other communities or risk being beaten up or killed in their own fishing grounds by the ‘prawn mafia.’”

“What to do, *Sahib*?” replied someone from the crowd, “Too much tension.”



Introduction

The study of fishers and fisheries in South Asia has long been a neglected subject. Reeves (1995: 261) hypothesized that this lacuna stems from a bias which discounts fisheries as never “being of the same importance as agriculture on the one hand, or artisanal manufactures on the other,” and a tendency of the South Asian literature to identify fishing as “an occupation of lesser people.” As such, communities that were not engaged in agricultural production were regularly obscured and marginalized by the almost single-minded concern with land revenue administration. Recent scholarship on South Asian fisheries has been primarily focused on the maritime fishery; this, in spite of the evidence that in the colonial period, the value of the annual haul of inland fisheries was more than twice that of the maritime fishery (Reeves 2002: 121).² For precisely this reason, Chilika Lake, with its distinctly ambiguous status as both an inland fishery and brackish water lagoon, provides a fascinating case study of colonial interventions in South Asian fisheries.

² In addition, Reeves (2002: 121 n 2) points out that of the 4024 items listed in Subba Rao’s (1989) comprehensive fisheries bibliography, only 992 are related to inland fisheries and of these 672 deal with aquaculture.

Based on a treasure trove of colonial era correspondences and court cases serendipitously discovered during fieldwork,³ this chapter explores how Chilika Lake, qua *hrada* (lake) was discursively and legally reconstituted as a lagoon, or “an arm of the sea” under British rule. This re-designation derived from a reading of the lake and its ecology in a manner which I term “synecdochal hegemony.” This reflects the actions of the colonial authorities in Orissa who repeatedly used selective reasoning through synecdoche (i.e. the substitution of a part for the whole) in a predictably hegemonic fashion that furthered the colonial interests of the day. In the case of Chilika, this involved a systematic disregard for local complexity and categories and a selective designation of one part or aspect of this constantly changing ecosystem to define the ecosystem as a whole. As the following investigation into the fishing rights of the Chilika Lake communities demonstrates, this feat necessarily involved a willful disregard for the dynamic nature of the ecosystem and an artificial decoupling of the land from the water. Stemming from what Scott (1998) has termed “state simplifications,” these re-designations allowed the Revenue Department to colonize the lake and administer it as private property.

From this research, it becomes clear that, for the fisher communities, these changes represented a definitive rupture with the pre-colonial social order. Whereas in the past, each community of fishers claimed specific fishing grounds based on traditional use rights, increased government control over the lake in the 19th century led to the introduction of a formalized lease system and the granting of tenurial rights to fishers. In effect, these government interventions extended rights traditionally associated with land ownership to this inland waterbody and ushered in a new category of peasant, which I will refer to as “*pani ryots*” or “water cultivators.”

³ This chapter is largely based on a treasure trove of documents obtained from the private collection of the Satapada Primary Fisherman’s Cooperative Society (SPFCS) in Balugaon through the kind assistance of Mr. Padhi, the former Secretary of the Cooperative Society. Based on conversations with Mr. Padhi, the society hired a lawyer in the early 1990s to collect these historical documents in preparation for court cases surrounding the introduction of a new leasing system. These documents are available upon request.

This unprecedented development raises many questions such as: How did this new situation affect the various fishing communities? In what ways was the new system different from the pre-colonial system of entitlements? How did this new, all-inclusive category affect the heterogeneity of the various fishing communities? How was the ecology of the lake discursively reconstructed? What were the consequences of a legalistic approach? How did this affect the relations between fishers and non-fishers in the lake? To address these questions, this chapter will review the history of fishery regimes in South Asia in the pre-colonial and colonial eras. The history of the Chilika Lake fishery will be explored based on colonial era correspondence and with an eye to the social implications of these systems from the perspective of the fishing communities.

Fishery Regimes and Communities in Antiquity

In a series of fascinating articles written shortly after Indian independence, L. S. Hora, the first director of the Zoological Survey of India,⁴ reviewed ancient Hindu texts such as the *Ramayana* (500-100 BC), Ashoka's Pillar Edict V (246 BC), and the *Arthashastra* (300 BC) to demonstrate the existence of comprehensive fisheries legislation in antiquity (Hora 1948a; Hora 1948b; Hora 1950; Hora 1952; Hora 1953) (Figure 5.1). For instance, the Mauryan era Pillar Edict⁵ (272-231 BCE) designates the Gangetic dolphin, prawns, jellyfish, skates, and puffer fish as protected species that benefited from officially designated closed seasons when fishing was prohibited (Hora 1950: 45).

⁴ It bears mentioning that Hora was the ichthyologist responsible for composing the first comprehensive list of Chilika Lake fish species (Hora 1923).

⁵ Pillar Edict V is one of the many pillar and stone edicts that Emperor Ashoka had distributed throughout his empire. Exemplars of this pillar have been found in parts of present-day Uttar Pradesh and Bihar.

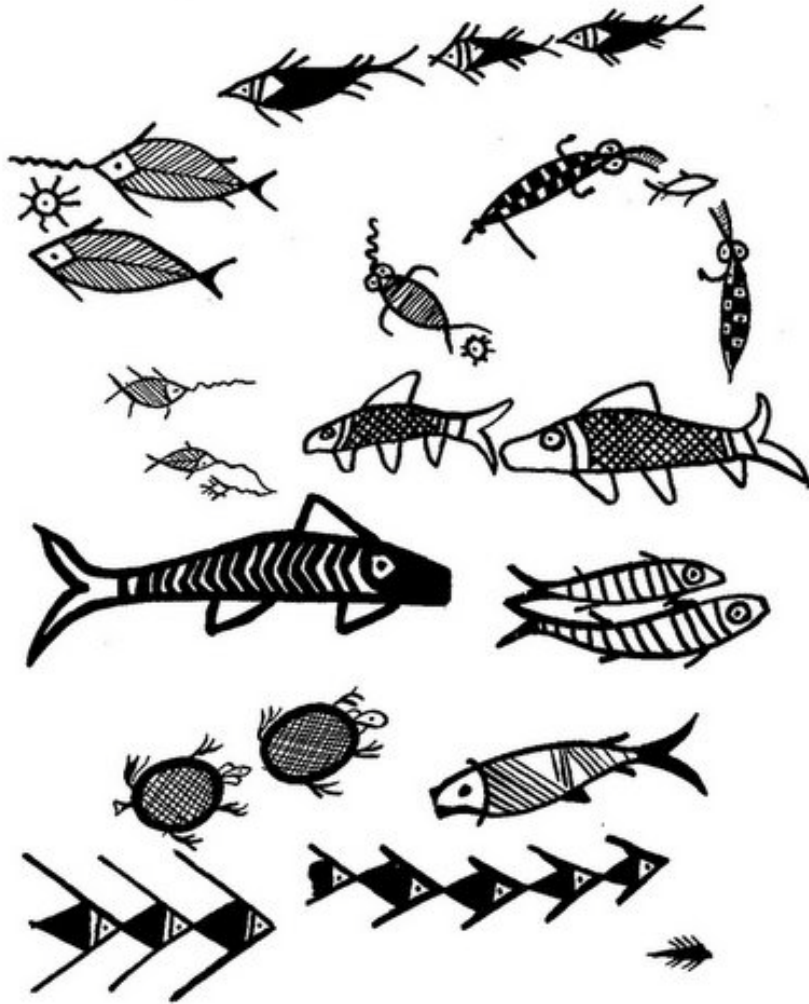


Figure 5.1 Depictions of Fish and Reptiles from the Indo-Iranian Borderlands ca 2500-1700 B.C. Note the wide variety of marine species, including prawn and even sea turtles. It is unclear whether the three fish that appear to be swordfish are actually swordfish or whether this a depiction of fish that have been caught on a fishing line. (Fairservis 1971: 20).

Similarly, the *Arthashastra* (4th c. BCE) contains laws discussing government ownership of fishing grounds, freshwater pond aquaculture, protected species, the use of bycatch for fertilizer, a prohibition of fishing during breeding seasons, and the taxation of fisheries.⁶ Thapar

⁶ E.g., Book II, Chapter 26 of the *Arthashastra* titled “The Superintendent of Slaughter-House,” states that: “when a person entraps, kills, or molests deer, bison, birds, and fish which are declared to be under State protection or which live in forests under State-protection (*abhaya ranya*), he shall be punished with the highest amercement.” As for aquaculture, it states that “fish in tanks, lakes, channels and rivers ... shall be protected from all kinds of molestations” (Kautilya 2008).

(1997: 71) interprets this taxation of fish as proof that they “were regarded an important commodity in Mauryan times. [Since] a toll had to be paid on the capture of fish and birds which amounted to one-tenth of the catch.” To Ellis (1818), this extensive body of legislation suggested that fisheries in pre-colonial India were one of the “eight incidents of ownership contained in the Sanscrit [*sic*] text,” (Reeves 1995: 263) that were alienable. Unfortunately, it remains unclear from these texts what the rights of the actual fishing communities were and whether or not these included property or traditional use rights to their fishing grounds.

What is certain is that these texts are peppered with references to specific fishing communities. Among the earliest examples comes from the *Vajasaneyi Samhita* and *Taittiriya Brahmana* versions of the Yajur Veda, which are believed to have been compiled sometime between 1,400 and 1,000 BCE (Macdonell and Keith 1967 [1912]: 186).⁷ Describing the *Purushamedha*, or human sacrifice,⁸ the texts aver that, “For Lakes a fisherman; for Standing Waters a fisher; for Tank Waters a Nishada; for Reed-beds a fish vendor; for the Opposite Bank one who gropes for fish; for This Bank a fish-catcher; for Fords an Anda; for shallows a Mainala; for Sounds a Bhilla” (Griffith 1899: 257-58).

This passage provides clear evidence for the existence of a developed fishery sector with specialized fishing communities in South Asia since at least the second millennium BCE.⁹

Elaborating on this passage, the great Vedic commentator Sayana (d. 1387) explained that the various groups could be distinguished based on their various fishing techniques. According to

⁷ *Vajasaneyi Samhita* is also known as the *Shukla* (White) *Yajurveda* and the *Taittiriya Brahmana* is also known as the *Krishna* (Black) *Yajurveda*.

⁸ According to Griffith (1899: 255 n), this was a symbolic sacrifice where “men and women of various tribes, figures, complexions, characters and professions,” were attached to stakes and released unharmed following a ceremony conducted by a priest.

⁹ While this may seem like an obvious point, there has been a great deal of debate in the literature as to whether fishers even existed in Vedic times. Das (1931) was of the opinion that fish were not consumed in Vedic times, but rather an Aryan innovation. Hora (1948b; 1952) strongly opposed this view. For a very preliminary review of the opposing views, see Reeves (2003).

his commentary, a “Dhaivara is one who takes fish by netting a tank on either side; Dasa and Sauskala do so by means of a fish-hook (*badisa*); Baina, Kaivarta, and Mainala by means of a net (*jala*); Margara catches fish in the water with his hands; Anda by putting in pegs at a ford (apparently by building a sort of a dam); Parnaka by putting a poisoned leaf in the water.” It bears recalling that, to this day, the Chilika Lake fishing communities are similarly divided into jatis that are traditionally identified with specific fishing gear and techniques (see Chapter 2).¹⁰

It is also worth noting that there are still groups (including the fishers in my field site of Bhalabhadrapur) that refer to themselves as *Dhaivara* and *Kaibarta*. The fact that many Kaibarta claim to be Dhaivara (or Dhevar/Dhivara)¹¹ and regularly refer to themselves as Keutas¹² strongly suggests that these present-day fishers are not in any way descended from their scriptural namesakes.¹³ Rather, since Kaibarta literally means *fisher* in Sanskrit¹⁴ (Monier-Williams, et al. 1964 [1899]: 311, 517) and, as a group, they claim higher ritual status than other fishers, it seems likely that over time various groups have merged or taken on this ethnonym, in a process similar to that of Khondayats (See Chapter 4). In any case, throughout Assam and West Bengal, large numbers of fishers refer to themselves by these ethnonyms or variations thereof

¹⁰ Since it is not exactly clear how Sayana reached these conclusions based solely on the available text, it is entirely possible that he was extrapolating back in time based on his observations of how various groups captured fish in the 14th century.

¹¹ According to Monier-Williams, fisherman is the secondary definition of *Dhivara*, the primary definition being “a very clever man.” Alternatively, it is also listed as, “a sort of harpoon for catching fish” or a “fish basket” (Monier-Williams, et al. 1964 [1899]: 517).

¹² Singh (1998: 1652) notes that Keuta is another term for Kaibarta in Orissa and derives the name from *kaita* (water). Keuta is also an umbrella term for *fisher* in Orissa (cf. Senapati and Kuanr 1966: 134).

¹³ First appearing in the Yajur Veda, Kaibarta are also mentioned in the Mahabharata (8 – 4 c. BCE) and the Manu Smriti (200 BCE – 200 CE), where it maintains that they are “born of a prostitute by a Kshatriya or of an Ayogava female by a Nishada father” (Monier-Williams, et al. 1964 [1899]: 311). The Manu Smriti (X:34) explains that “a Nishada begets (on the same) a Margava (or) Dasa, who subsists by working as a boatman, (and) whom the inhabitants of Aryavarta call a Kaivarta” (Bühler 1886: 410). According to the Manu Smriti, a Nishada is the offspring of a Brahmana male and Shudra female and an Ayogava is the offspring of a Shudra male and a Vaishya female (Bühler 1886: 403).

¹⁴ Singh (1998: 1451) claims that the term *Kaibarta* denotes their profession and is derived from *ka* (water) and *varta* (livelihood).

(cf. Singh 1993: 648-51). In Orissa Dhevar Kaibarta are primarily found in the coastal Puri and Ganjam districts and they are the most numerous of the Chilika Lake fishing jatis. In my field site of Bhalabhadrapur, all of the fishers self-identified as Dhevar Kaibarta (See Chapter 7).

Mughal and Maratha Era

What little information available on fisheries management during the Mughal and Maratha eras suggests a sustained interest in the subject. It appears that fisheries located within or adjacent to agricultural lands (such as village tanks and streams) were regulated and considered part and parcel of the adjoining agricultural lands. Under the land revenue administration set up by Emperor Akbar's (1556-1605) deputy Todar Mal in the 1580s, Orissa was divided into Mughalbandhi and *Garhjat* (hilly tracts) (Haque 1980). The Mughalbandhi was divided up into three *Sarkars* (districts) that were overseen by the district head, who was known as an *amil*. Below the *amil* was the *sadr qanungo* who was responsible for several *pargannas*, which were fiscal units overseen by *talukdars* who were also known locally as *qanungos* or *chaudhuris*. The lowest administrative rank were the *muqaddams* or village heads, referred to in the previous chapter (Figure 5.2).

This system was designed to not only ensure an official presence at all levels of society, but also to socially embed government officials and thereby ensure that they had a personal stake in the agricultural production. D'Souza contends that the way this was accomplished was by granting *talukdars*, who were holders of the transferable office, deductions from the gross collections and privileged tenure lands that included fisheries. Stirling, who was the first European historian of Orissa described the prevailing practice in the Mughalbandhi, where "the *talukdars* and *muqaddams* were entitled to almost five per cent of the revenue collection,

besides being granted perquisites on fishing, orchards and forest produce (*jalker*, *phalker*, and *banker*). They were also allowed a percentage on the taxes collected from trade (*muteharfa*) and given incentives to expand the agrarian frontier” (D'Souza 2006: 60).

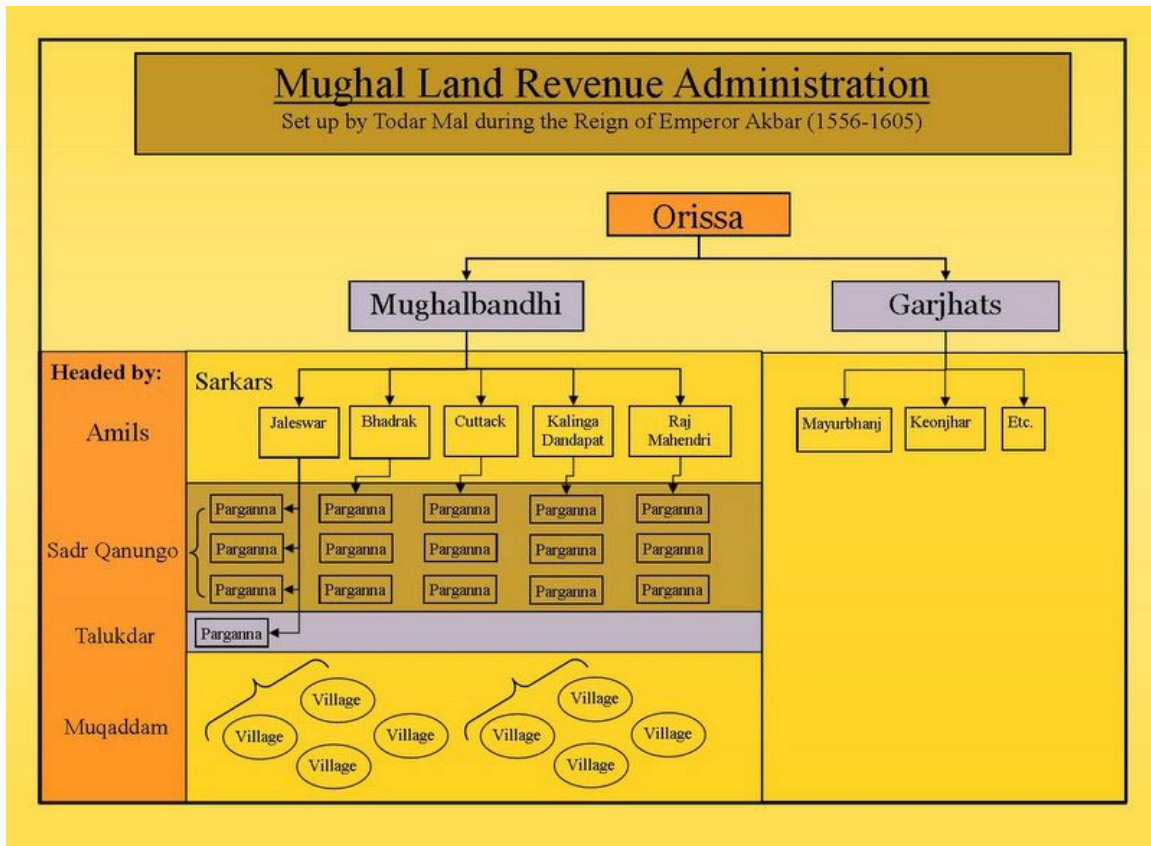


Figure 5.2 Mughal Land Revenue Administration.

Since ownership of fisheries was held either at the village level by muqaddams or at the parganna level by talukdars, it appears that fishers in pre-colonial Orissa were granted access and rights to these fishing grounds through the payment of extra taxes to the village community. According to Wilson’s (1968: 3) *Glossary of Judicial and Revenue Terms*, this tax was known locally as *abwab pataki*, or “A cess apparently peculiar to Orissa, literally ‘taxes on the wicked or fallen,’ applying the term to eight inferior or degraded castes or occupations, namely *Tantis*,

weavers, *Tambulis*, venders of betel and *pan*, *Guriyas*, confectioners, or makers of sweetmeets with *Gur* or molasses, *Sonars*, goldsmiths, and *Kaiwartts*, *Kibarats* and *Gokas*, different tribes of fishermen.”

Tanabe has suggested (letter to author, August 20, 2008) that *abwab pataki* may be another name for *chandina*. This was a residence tax, or “rent of land on which a house is erected,” (Wilson 1968: 101) which was usually levied on business caste groups “such as oil-pressers, weavers and cotton-carders [who] were often not entitlement holders, and had to pay a higher tax for their residence and agricultural land as ‘outsiders’ (*chandana*)” (Tanabe 2005: 372). This was likely because the “system of entitlements” discussed in the previous chapter was concerned with reallocating agricultural production. The items produced by these groups were not allocated but rather entered the market where they were sold for profit. For this reason, they were taxed as an item of trade and the respective groups were assessed higher rent for the right to live in the village without contributing to the agricultural production.

Reeves (1995) is of the opinion that this type of taxation was a widespread practice with regards to fishers in the pre-colonial era. In other parts of India, fishers were required to pay *muhtarifa* or a trade tax on their boats and nets. Various rendered into English as *muteharfa*, *moturpha*, etc., this was “a tax or taxes levied on trades and professions, on the artificers of a village or their implements, as upon the weavers loom, upon tradesmen and their shops and stalls, and sometimes upon houses ... the taxes of a similar nature formerly levied in Bengal being included in the general denomination of *sair*” (Wilson 1968: 350-51). Under the definition for *sair*, Wilson (1968: 454) states that the term “applies to various items of income from landed property not comprised in the produce of cultivation, as rent from fisheries, from timber, from fruit trees, bees-wax, etc.” That these taxes applied to fishers is further confirmed by Sarada

Raju (1941: 5) who referred to muhturifa as a tax “on every conceivable profession and occupation,” that “even the meanest and poorest – fishermen, potters, dhobis, etc – were not exempt [from paying].” Baden Powell provided a much broader but equally important definition that identified muhturifa as “a house tax, or kind of ground rent levied by the landlord, or landlord community, on the *non-agricultural residents* in the village” (Reeves 1995: 264 Emphasis added).

Although it is always dangerous to generalize across different regions of India,¹⁵ based on our knowledge of the chandina and muhturifa taxes, it appears that South Asian fishers were not only considered a separate group because of their non-participation in cultivation, but also quintessential outsiders to the village community. Considered a type of hunter who made their livelihood from the marketing of dead animals, they were traditionally looked down upon and held apart from higher caste Hindus.¹⁶ Certainly, this was true in Orissa, where the fishing community was marginalized and assessed additional taxes. This is evidenced in Hunter’s detailed reckoning of the Parikud kingdom’s finances, where he reveals that the king collected both a fishery tax (1872: 35 n 38) as well as chandina from the non-agricultural residents (Hunter 1872: 39 n 45).¹⁷

The evidence that taxes such as muhturifa were levied on the entire caste group also strongly suggests that this outsider position played an important role in the fishers’ identity formation. Kumar reports (Reeves 1995: 264) that in Maharashtra, “*mohturfa* was levied not on

¹⁵ For an example of this in South Asian fisheries research, see Reeves’s (2002) study comparing the colonial fisheries of Bengal and the United Provinces.

¹⁶ In his study of the fisheries of West Bengal, Saha (1970: 100) states that “The peculiar caste system in India has confined fishing as a profession strictly to particular communities who are considered very low in the social scale. ... The social stigma is so pronounced even today that any person engaged in fish trade is looked down upon by higher-ups.”

¹⁷ Since the fisheries tax is listed under a line item termed “miscellaneous,” it appears that technically speaking, while this is an example of muhturifa, it is likely that this was a direct translation of what was officially termed *sair* in Bengal. This is alluded to in Wilson’s (1968: 350-51) definition of *muhturifa*.

individuals but on caste groups; the head of the caste was told of the demand on his group and the group then distributed the demand among the caste.” Jena’s inclusion of fishers in his list of the jagir holders in the Khurda Kingdom prior to the arrival of the British suggests that the payment of these taxes afforded the fishing communities some degree of traditional use rights to their fishing grounds. In general, jagir holders were considered privileged tenure holders to whom “the state gave up its right either in full or part of its revenue demand in favour of an individual or institution as remuneration for certain services rendered and in lieu of monetary contribution” (1968: 155).

Based on interviews with several elders from my field site of Bhalabhadrapur, I was told that that prior to British rule it was the responsibility of the fishing communities to keep the Khurda Raja’s kitchen stocked with fish.¹⁸ Known as *bethi*, this practice was especially important on certain holidays such as *Durga Puja* and *Dussehra* when fish is customarily served as a part the ritual meal.¹⁹ *Bethi* was a type of bonded labor or service to honor superiors that could be demanded by the king (Wilson 1968: 73). This *bethi* requirement was likely part of *saanta - sevaka* (master – servant) relations that afforded the fishing communities certain communal rights or benevolences in lieu of contributions to the grain heap.²⁰ Describing a contemporary example of such relations, Lerche (1993: 258) reports that in Narsinghpur (located in Cuttack District) the “Keutas (Fishermen) arrange the practical aspects of a yearly boat

¹⁸ This may seem contrary to the traditional Hindu practice of eschewing fish among the higher castes, however, in Orissa fish is a staple food and it is often remarked that among Oriyas even Brahmins regularly consume fish. Over a century ago, Day (1976 [1877]: 17) observed that, “in Orissa, all but the Brahmans and some religious fanatics seem to eat it [fish].”

¹⁹ Since the ritual sacrificing of animals on *Durga Puja* is technically prohibited in Orissan temples, *bhekti* (mullet) is sometimes used. Supposedly this is because the blood of this fish closely resembles the blood of goats and there is no prohibition regarding harming fish. On *Dussehra*, it is common for people to eat fried fish.

²⁰ Lerche (1993: 258) states that the Parikud Raja would give “titles, seats in the court and special land grants to those Carpenters and Blacksmiths whose work he liked.”

procession of one of the local Gods, as well as the [Narsinghpur] raja's annual visit to the Puri Jagannath temple by boat." In exchange for this service the fishers received jagir land.²¹

Colonial Era Fisheries and Tax Policies

With the spread of British rule in South Asia and the colonial preoccupation with revising land revenue administration, the pre-existing tax structure was largely scrapped, private property was instituted and new bureaucratic instruments were put in place. In Bengal, even prior to the introduction of Permanent Settlement in 1793, Lord Cornwallis took the decision to ban all miscellaneous taxes or *sair* collected by zamindars.²² His declared intent was that the British government would wrest the right of taxation out of the hands of individual landlords, thereby making the colonial government directly responsible for the collection of these miscellaneous taxes. Almost immediately he realized the difficult nature of such an undertaking and reversed himself. Opting to summarily abolish the collection of all *sairs*, Cornwallis explained his rationale in a revealing passage dated July 18, 1790:

When I first proposed the resumption of the *sayer* [*sic*] from the Landholders, it appeared to me advisable to continue the former collection (the unauthorized articles excepted) for the current year, in order that by the necessary accounts [we might have the means] for making a fair adjustment of the compensation, and at the same time acquire sufficient knowledge of the collections to enable us to enter upon the regulation of them from the commencement of the ensuing year ... The collections appear so numerous and of so intricate a nature that as to preclude the possibility of regulating them all; and as the establishment of new rates for such articles as it might be thought advisable to continue would require much consideration, ... I recommend that, instead of continuing the collection for the current year ... all the existing articles of *sayer* [*sic*] collection ... be immediately abolished. (Yule, et al. 1968 [1903]: 800)

²¹ Ray (1956: 13) states that in a Puri *sasana* village, "Gudia (confectioner) and Keuta (boatman and fisherman) castes are not counted as *sevakas*, but they are paid for their services in land." *Sasana* villages were established by the Khurda kings to attract Brahmins to work in the Jagannath Temple. That fishermen were not considered *sevakas* refers specifically with regard to service in the temple.

²² In an order promulgated on June 11, 1790.

Fisheries, however, were included in a small subset of *sair* duties that were *not* abolished. These were, “rent paid for the use of land (and the like) ... or for orchards, pasture-grounds, or fisheries sometimes included in the *sayer* [*sic*] under the denomination of *phulkur* (Hind. Phalkar, from *phal* ‘fruit’), *bunkur* (from Hind. *ban* ‘forest or pasture-ground’), and *julkur* (Hind. *jalkar*, from *jal* ‘water’)” (Yule, et al. 1968 [1903]: 800).²³ This seems to imply that these *sairs* were so integral to the finances of the zamindari estates that their abolition was not countenanced.

After the introduction of Permanent Settlement in 1793 it was decided to maintain the “rights over the fisheries bounded by their ‘estate’ (*mahal*) to the zamindars as part of their *sayer* [*sic*] income” (Reeves 1995: 267). At the same time, Sir Thomas Munro was quick to note that this was in no way to be construed as a permanent right; the government was granting the zamindars the right to collect *sair* without relinquishing its legitimate right to village “wastelands” such as “quarries, mines, fisheries, &c.” (Munro and Arbuthnot 1881: 244). To be sure, this was a break with the longstanding practice of viewing the land as inextricable from the tanks and waterways on the land. Yet, according to Munro, the historical transfer of what was legally defined as “wastelands” upon the sale of the cultivable land, was not due to any “actual proprietary right in the waste,” but rather on the purely technical aspects of property exchange that prevented the separation of cultivable land from the surrounding territories (Munro and Arbuthnot 1881: 224).²⁴

This new situation resulted in several shifts for those whose livelihood depended on the fishery. On the one hand, the abolishment of *sair* duties meant that the fishers were no longer

²³ Note that this is identical to the previously mentioned list provided by Stirling.

²⁴ Describing the fishery regime in Burma (which was part of British India until 1937), Maxwell (Reeves, et al. 1999: 251 n 11) succinctly explained that: “Fisheries were regarded as private in Burmese times. The British government has always treated them as property of the State.”

required to pay taxes for their boats and nets. On the other hand, the introduction of Permanent Settlement and the recognition of zamindars rights to jalkar adjacent to or on their property, constituted a change in the fishing rights of the fishing communities. Whereas in the pre-colonial period, the fishers paid a tax as outsiders to the entitlement system, they were now required to pay rent in order to access their fishing grounds. Since many zamindars were absentee landlords, in practice this meant that it was the *ijaradars* or revenue farmers (Wilson 1968: 214) who ensured that rents were collected on time.

In the first ever study of fisheries in India sponsored by the colonial government, Buchanan-Hamilton (1822)²⁵ reported that it was common for zamindars to sublease their jalkar rights to *ijaradars* who kept a percentage and passed on the rest to the zamindars. This new system placed the fishing communities in Bengal at the mercy of the *ijaradars* and was clearly prone to abuse as “jalkar was increasingly being separated from zamindari ... thus becoming a *financial* right, the real profits (from production) of which went to lessee and not a zamindar, and as a result, access was granted only to those who paid for the privilege” (Reeves 1995: 270 Emphasis in original).²⁶ In particular, the *ijaradars* appear to have acted as middlemen who collected revenue and provided loans to the fishers for fishing gear or family events in return for a share in the future profits of the fishery. Buchanan-Hamilton felt that the lack of a sense of ownership under this system was detrimental to the fisheries. He concluded that, “The property in the fisheries (Jalkar) has in many places been separated from that of the adjacent land, which

²⁵ Buchanan-Hamilton began his enquiries into the fisheries of Bengal in 1794 (Saha 1970: 11).

²⁶ Describing the situation in Puraniya (Purnea), which was located in Bengal, Martin (1838: 192) wrote that, “In most parts the right of fishing is annexed to the land, and is let to renters (Mostajirs), who sometimes employ men to catch the fish for wages, or for a share, and sometimes relet them to the actual fishermen, giving them either an exclusive right to the use of a certain extent, or a right of frequenting a certain extent with others.”

seems to me to be a great loss,²⁷ as it is the proprietor of the neighboring land alone that can take care of the fish or fishermen” (Reeves 1995: 269).

Chilika Lake Fishery

Although Orissa was a part of the Bengal Presidency until 1936 and the Bengal Code served as the legal code where no local jurisprudence was available, it appears that there were some substantive differences between fishery regimes in Orissa and Bengal. This stems from the fact that, while the British quickly instituted private property in Orissa following the 1803 invasion, Permanent Settlement was never enacted in the state. Rather, until 1836 a series of short term settlements punctuated by periods of unrest prevailed. After 1836 a thirty year settlement that was extended for another thirty years (due to the devastating famine of 1866) ushered in a period of relative stability in the land revenue administration (See Chapter 4). In the coastal districts a hybrid ryotwari and zamindari system developed which limited the power of zamindars and the extent of some of the greatest abuses prevalent in Bengal such as ijaradar revenue farming.

However, two factors appear to have played a role in British attempts to regulate the Orissa fishery. The decision to undercut the Maratha administrative system through the appointment of muqaddams and elevation of sarbarkars to the position of zamindars (rather than talukdars), may have led to the decoupling of waters from the adjacent lands. Whereas under the

²⁷ Contrary to Buchanan-Hamilton, Martin (1838: 192) believed that the “nominal value of the fisheries is a trifle, most of the landlords pretending to give them to their servants, as a reward for their trouble.” At the same time, he admitted that, “there is no knowing the amount of a Zemindar’s [*sic*] profit from the nominal rental.” In his discussion of Ronggopoor District, which appears to be part of present-day Nepal and West-Bengal, Martin (1838: 593) wrote that, “I am inclined to imagine, that the profits which these derive from the fisheries are very considerable, although all that is apparently paid by the famers (Izaradars) as rent, is very trifling, and is kept so on purpose; but I suspect, that considerable presents are made on the granting [of] each lease, and in general these are annually renewed.”

Marathas, the rights to fisheries were held at the taluk or parganna level, under the British it was transferred to the local level. The position of talukdars, which was removed from the day-to-day management of local society, was more likely to lump the land and the water together. The transfer of powers to the local level likely meant more, not less, oversight of the fishery and contributed to rent seeking²⁸ by local officials faced with heavy monetary demands by the British government. This undoubtedly worsened the economic situation of the fishers, though decoupling of the water and land also helped pave the way for their claims to their fishing grounds.

In the case of my field site on Satapada Island (which was an enclave of the Khurda Estate) the Revenue Department was leasing out the fishing grounds within the first decade of colonial rule. These fishing grounds were “very valuable mixed fish and prawn fisheries situated round the islands of Tua and Satpara [*sic*] on the eastern shore of the Chilka Lake. The fisher tenants have at all events since the time of Golam Kadir’s settlement,²⁹ paid *dafait* rents for the same to government” (Taylor and Maddox 1899: 92). It is unclear if this lease system existed prior to the declaration of *khas* rule in 1805 or whether this was a British innovation. Clearly, these *dafait* rents, which were a type of “pay in addition to the rent for privileges attaching to the land, as right of fishing, &c.,” (Wilson 1968: 124) and collected at auction were quite lucrative

²⁸ By “rent-seeking” I mean the pursuit of economic gain without wealth creation. This may involve the use of coercive force (e.g. Weber’s “monopoly on violence” characteristic of governments.)

²⁹ Golam Kadir was the tahsildar of the estate from 1806 until the Paik Rebellion in 1817 (Maddox 1899: 9).

for the government. Taylor reported that these *machadias* (fishing grounds)³⁰ were assessed in 1896 at Rs 1,258.³¹

These fishing grounds appear to have been the exception to the rule and may have come about because the profitable nature of this fishery. It does, however, clearly attest to the existence of fishing grounds in the early colonial era and suggests the existence of other *machadias* in the lake. Nevertheless, it is not until the period that Oriya historians refer to as the “sixty years of thirty year settlements” (1837-1897), that the issue of the lake’s fisheries truly came to the fore. During this long period of relative stability that was akin to a Permanent Settlement, local zamindars were finally able to consolidate their economic position. As the fear of losing title to their land receded and the returns on land decreased, it appears that some zamindars looked for new ways to obtain greater returns on their investment.

The government, which was in effect losing money during this extended period when land could not be assessed, was also looking for ways to add to its coffers. Starting in the 1870s, government interventions and the superimposition of British legal categories on the lake precipitated a quarter century of court cases, legal challenges and government policies that led to a complete restructuring of the fishing regime. These events not only profoundly affected the

³⁰ In Orissa, the “rent or right of fishery,” was also known as *machadia* (Wilson 1968: 314). In Oriya *macha* means fish. All of the fishing grounds were located in Balbhadrapur [sic] zilla and included the following: Sidua river, Paritanda, Niantaghar, Ratamati, Barpania and Sergada (Taylor and Maddox 1899: 92).

³¹ From 1835-1957: 1 Rupee = 16 annas = 64 pices = 192 pies. In the late 19th century, 15 rupees equaled 1 pound (Huntington 1901: 302). As such, Rs 1258 was equivalent to 84 pounds in 1896. Based on a research paper commissioned by the House of Commons (Webb 2006) this is equivalent to 7483 pounds in real 2005 figures (84£ * 89.09411). Of course, this does not take into consideration purchasing power parity, a theme that has been central to discussions of the impact of colonial monetary policy on the Indian economy (cf. Heston and Summers 1980). According to Taylor, the payment of 8 annas per household (or 1/2 a Rupee a year) was equivalent to “about 2 *bissas* of fish per house per annum, or about two days average catch” (Taylor and Maddox 1899: 95) In addition, this was collected at the village level and hence the actual cost per fisher fluctuated and was calculated based on a local system whereby the number of men actively fishing was taken into consideration (Taylor and Maddox 1899: 94). Nonetheless, Taylor (1898) reported in his correspondence to the Khurda Sub-divisional Officer that sixteen villages “objected to the rate proposed by me viz 8 as per house and begged it might be reduced.”

fishery but also played an important role in shaping the identity of the various communities with a stake in the lake.

The Right of Government

In a letter dated 31st July, 1886 to the Secretary of the Government of Bengal, C. T. Metcalfe, Commissioner of the Orissa Division of the Revenue Department appears to have first officially breached the question of “the right of Government to the Chilika Lake fisheries in the District of Puri,” at the highest levels of Government (Metcalfe 1886: §1).³² Referring to the fisheries on the western shore of the lake that came to be known as the Banpur fisheries (Figure 5.3), Metcalfe put forth the opinion that, “these fisheries appear to have been brought under Settlement since the acquisition of the Province of Orissa by the British government [though] no revenue is now obtained by Government from any part of them.” Metcalfe (1886: §2) noted that:

It was never included in the maps, measurements papers or settlement of any of the adjoining estates. All round it there are creeks and channels. Some of them run into and are included in the Surveys of the Khurda Government and some other Estates by former Settlements. In other places, these creeks are held by neighboring estates without Settlement merely in the right of long possession.

Metcalfe then proceeded to describe the series of events that led to his request for guidance in this matter. According to him, the issue first came before the government in 1877, when his predecessor Mr. Armstrong leased a fishing ground to Jagannath Prasad Dash for a *jama* (assessment) of Rs. 150.³³ This was immediately objected to by the tenants of the

³² The documents in the possession of the Satapada Primary Fisheries Cooperative Society are not facsimiles of the originals, but rather were manually retyped from the original documents. Most, but not all, of these documents are sourced, and whenever possible, I have strived to obtain and cite the original. Since these documents are unpaginated, I have included section numbers where available. In my possession are photocopies of the entire collection.

³³ Metcalfe does not say precisely where this fishery was located, but based on subsequent letters, it appears that this was in the vicinity of Bhusundupur.

neighboring estates who referred to “an order [that] was passed by a former Collector³⁴ in 1857 declaring that ‘no rent was to be hired from them’” (Metcalf 1886: §3). These tenants rallied at the Collector’s office in Cuttack where the large crowd demanded their “right to catch fish free of rent” (Metcalf 1886: §3).



Figure 5.3 Location of Banpur and Parikud Fisheries (US Army Map Service 1959, 1963).

³⁴ This apparently is referring to Mr. Ananda (Metcalf 1886: § 3).

Since no evidence of an existing lease under the ongoing settlement could be found, Beams decided to cancel the lease to Jagannath Prasad Das and his monies were returned. In his decision, Beams argued that by levying rent, Armstrong implicitly defined the lake as part of the Khurda khas mahal rather than as an “arm of the sea” and he feared that this would affect the legal status of the lake since thereafter any zamindar could likewise claim the right to do the same. In light of the unclear legal situation, Beams enjoined Armstrong to consult the Legal Remembrancer³⁵ to obtain government orders before taking further actions (Metcalf 1886: §4). However, no such action was taken by Armstrong and the matter was temporarily laid to rest.

Shortly thereafter in 1879, Radha Jena, Madha Jena and Gobind Jena, fishers from Alupatna,³⁶ a village situated on the Satapada peninsula, petitioned the Board of Revenue against the Raja of Parikud who they claimed was attempting to claim rent for the Satapada fishing grounds for which they were paying dafait rents to the government. In August 1881, they petitioned Mr. Smith, the Commissioner of the Board of Revenue over the fishing grounds of Rathamati, Bhongurinedi and Authorbate, which according to them, were part and parcel of the Khurda estate. They complained that the Parikud Raja had leveled a criminal charge against them and taken them to court for encroaching on these fishing grounds.

Though they were acquitted by the District Magistrate on appeal, the Raja took the case to a civil court where he obtained “possession of more than what was claimed by him” (Metcalf 1886: §5). Following this ruling in his behalf, the Raja ordered the survey markers between his estate and the Khurda khas mahal be thrown off. The fishers then formally petitioned the government to look into its interests since it was not made a party to the civil suit. As this drama

³⁵ A Legal Remembrancer in the Indian legal system is the primary government legal advisor.

³⁶ Since it is less than three kilometers from Alupatna to both of my field sites, it served as good base and I resided in the village for several months in 2005.

unfolded at the entrance to the lake, Jagannath Prasad Das, whose lease in the Banpur fisheries had been cancelled by Beams, filed a petition with the government requesting that this lease be reinstated (Figure 5.4).



Figure 5.4 Places Mentioned in the Text. Red star designates location of Bhalabhadrapur field site (US Army Map Service 1959, 1963).

In summary, Metcalfe expressed his opinion that these civil cases were in no way binding on the government and that the lake should be considered an “arm of the sea” and thus “entirely at the disposal of Government as the paramount power. If any of the Zamindars of the neighboring estates or their *rayots* [*sic*] are now enjoying the proceeds of that fishery they are

doing it without any settlement and merely by sufferance” (Metcalf 1886: §6). Pointing out that the fishery was extremely profitable, he singled out “The Raja of Parikud [as] the greatest usurper,” who “derives a considerable profit from these fisheries though apparently without any title.” Since these fisheries were “reported likely to yield 15 to 20,000 rupees with improved management,” he tentatively proposed that “these fisheries be made over to the management of the Forest Department” (Metcalf 1886: §7).

From the Office of the Secretary to the Government of Bengal, this inquiry letter was forwarded to H. J. S. Cotton, the Secretary to the Board of Revenue (Cotton 1886). Referring to a government directive by Advocate-General T. Lowie from 29th April, 1869, Cotton stated that: “This ruling declared that in regard to fisheries in tidal waters, Government is a trustee on behalf of the public, and is not empowered to make over the fisheries to any individuals to the exclusion of the public in general” (Cotton 1886: §2). However, since this principle was *not* incorporated into the Burma Fisheries Act VII of 1875, some ambiguity remained. Nonetheless, Cotton appealed to the recent ruling in *Hori Das Mal vs Mahomed Jaki* (Boulnois, et al. 1885: 434-38) where the Full Bench of the Calcutta High Court ruled that, “the government has the same rights to make settlements of Jalkar and of lands covered by water as of other unsettled and unappropriated lands” (Cotton 1886: §2).

Cotton then proceeded to divide the waters of Chilika into three broad categories which came to be known as Class I, II and III as follows: I. Open waters – Free to the public since the arrival of the British; II. Creeks and Channels – Fisheries “lying within the boundaries of the Zamindari Estates, but not included in the assets upon which the government revenue of these estates is assessed” (Cotton 1886: §3); and III. Within the Khurda khas mahal – “Partly free and partly usurped by neighbouring Zamindars, especially by the Raja of Parikud” (Cotton 1886: §3).

A fourth category regularly referred to, but never explicitly designated as a separate class, were the fisheries in the southern sector of the lake located within the Madras Presidency (Figure 5.5).

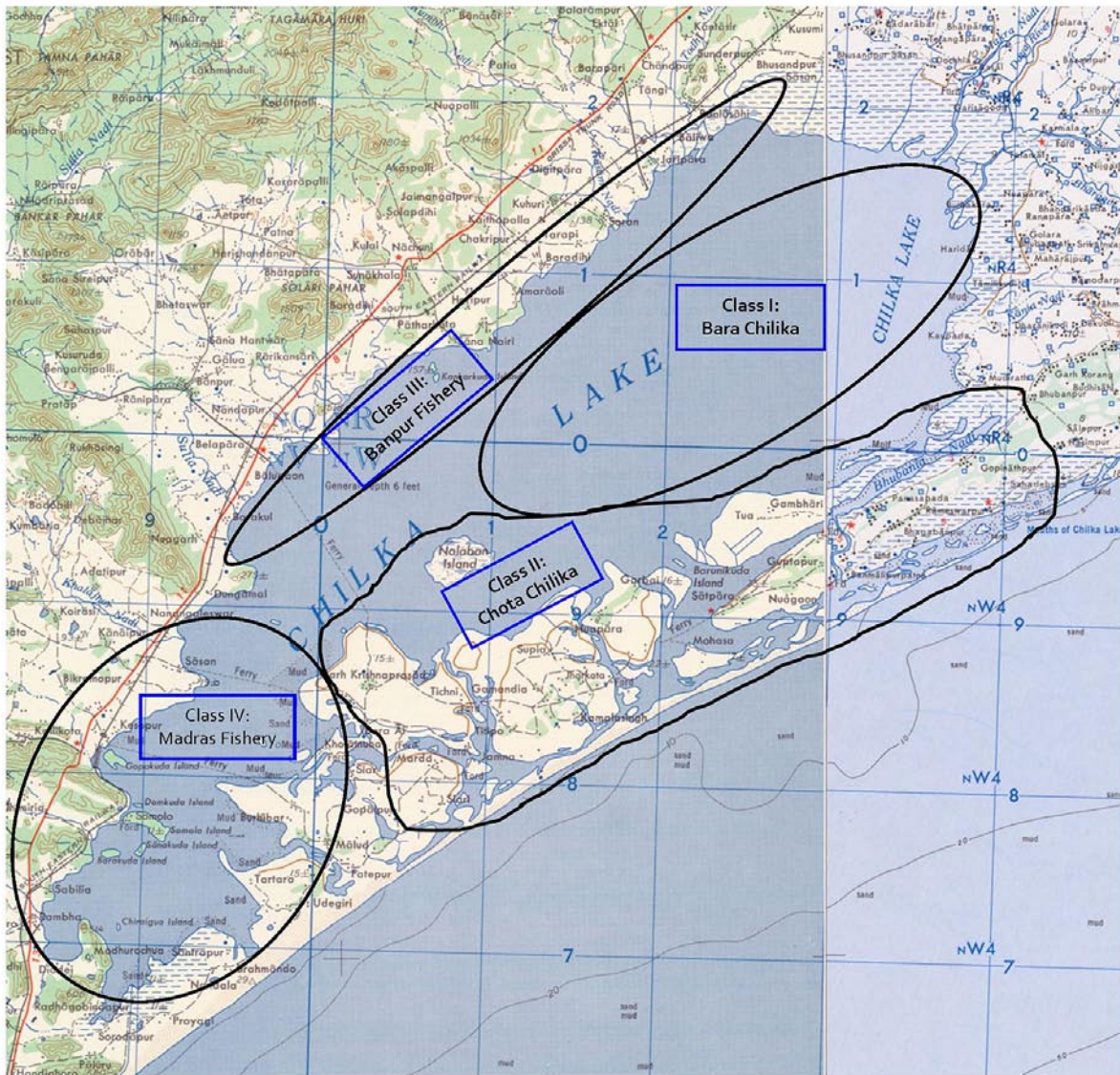


Figure 5.5 Approximate Location of the Four Classes of Chilika Fisheries (US Army Map Service 1959, 1963).

For the sake of convenience I have included this category as Class IV in following table:

Table 5.1 Classes of Chilika Fisheries.

Types of Chilika Fisheries based on Revenue Department Correspondence	
Class I	Bada Chilika – Open waters of the lake
Class II	Chhota Chilika – Creeks and Channels within Khurda and Zamindari Estates (e.g. Satapada – Tua Dwarsuni fishery)
Class III	Within the Khurda Khas Mahal (Banpur Fisheries) usurped by neighboring Zamindars (e.g. The Parikud Raja)
Class IV	Fisheries within the Madras Presidency

Cotton rejected Metcalfe’s suggestion that the fishery be placed under the purview of the Forest Department and called for a detailed report of the three categories of fishery from the District Collector. In conclusion he stated that:

There seems to be no room for doubt that the right of Government to assess revenue upon the fisheries of all these three classes could be successfully asserted though in dealing with the fisheries of the third class it would possibly be necessary to institute legal proceedings to establish the title of Government. At the question of policy, it appears to the Board [of Revenue] that when the amount which might be realized is so considerable as the Commissioner’s letter shows it to be, the interests of the general taxpaying public demand that Government should not relinquish its rights and should not abandon so substantial an item of its revenue. (Cotton 1886: §4)

The Great Fishery Debates

While never explicitly mentioned, the backdrop to these dispatches seems to be part of a heated debate that was raging at that time on the colonial government’s role in South Asian fisheries.³⁷ Throughout the 1870s, as zamindars attempted to cement their rights to fisheries, an increasing number of cases came before judges from fishers who resisted the privatization and

³⁷ The Enclosure Movement in England, which resulted in the closing of the commons and peaked in the late 18th century, serves as the other backdrop to this debate (Moore 1966; Neeson 1993; Polanyi 1957a; Thompson 1964).

loss of access to their traditional fishing grounds. This came to a head in 1888 in the Meherpore Case where the court determined that, “The fact of fish being in a public river does not make the fish the property of the person who has the fishing right in such river, and nobody can be said to be in possession of them, as they are *ferae naturae*. The right of fishing is not property of such nature that a man who infringes it can be said to commit criminal trespass” (Reeves 1995: 276). As such, even when zamindars had jalkar rights, they could not claim ownership of the fish in the rivers.

Concurrently, there was growing interest in the management of fisheries for conservation and revenue. Major Surgeon Francis Day, the first and only Inspector General of Fisheries, decried the lack of government oversight in the fisheries.³⁸ He contended that the abolition of the muhturifa tax on nets resulted in poaching, declines in fisheries throughout the country as fishers increased their fishing efforts, and the entry of outsiders into the fishery. Day felt that “great and destructive innovations have been or are being permitted, and that the British, with the most philanthropic intentions, have given to the people license in fishing that has been greatly abused, and is now destroying the fishery” (Reeves 1995: 282). He described what today would be called a “Tragedy of the Commons” (Hardin 1968) situation where lack of government oversight had led to “a scramble on the principle – ‘Should I not catch them, somebody else will’” (Reeves 1995: 280).³⁹ To prevent the complete collapse of the fisheries, Day strongly recommended a system of auction leases that would regulate the allocation of this resource (Reeves, et al. 1999: 252).

³⁸ Day also opposed the salt tax due to its impact on the curing and marketing of fish (Arnold 2000: 133). When he retired in 1876, the Fisheries Department was abolished (cf. Buckland 1906: 133; Saha 1970: 11).

³⁹ Writing a quarter century later, K. G. Gupta, who was tasked by the Fisheries Department to inquire into the state of Bengal’s fisheries, concluded that lack of government oversight had already resulted in the depletion of the Chilika Lake fishery (Das 1910: 6).

The growing interest by zamindars and the flurry of court cases further convinced the Board of Revenue that a potential source of income was being despoiled and was in desperate need of some sort of protective legislation and assessment. Opposing voices countered that the estimates of potential revenue from fisheries were grossly inflated and did not merit active government intervention. They contended that the need to license and police a new regulatory regime would consume any projected profits,⁴⁰ create middlemen and divert attention away from land revenue administration (Reeves 1995: 283). In the end, the Meherpore Case raised serious concerns that the lack of clear property rights risked the outbreak of violence, and that widespread “poaching” would lead to the rapid collapse of the fisheries.

To address this issue, a conference on freshwater fisheries was convened in 1888 with representatives from all parts of the country in attendance. Following considerable debate, it was agreed that an Indian Fisheries Bill should be drafted. The bill “would be applicable in all provinces and ... would certainly (a) prevent the use of dynamite or poisons in fishing; (b) regulate fixed engines; and (c) protect stock-pools” (Reeves 1995: 287). On many issues such as mesh size, damming of streams and the “declaration by government of a right to fish in particular waters,” the delegates were unable to reach agreement (Reeves 1995: 287).

The draft bill was circulated for comment in January 1889, but the only provincial bill to emerge from this effort was the Bengal Private Fisheries Protection Act, II of 1889. The legislation outlawed the use of “fixed engines” or weirs and defined “private waters” as those which are: 1. Exclusive property; 2. Exclusive fisheries, which was applicable to those areas where “fish are not confined but have means of ingress and egress” (Wigley 1907: 260). The Act also exempted

⁴⁰ This auction lease system was first proposed for Burma where it was vigorously opposed by Major-General Albert Fytche, the Chief Commissioner of Burma. Writing to the Board of Revenue in 1870, he argued that, “It would be impossible for the local officers to enquire into the trade of every auction purchaser when the fisheries are so numerous, and every one who purchased a fishery would be attacked by the unsuccessful competitor, rendering in every case detailed enquiries requiring a whole staff of fishery officials” (Reeves, et al. 1999: 254).

“acts done by any person in the exercise of a *bona fide* claim of right,” and did not apply to “angling with a rod and line or with a line only in any portion of navigable river” (Wigley 1907: 261).

Report on the Chilika Fishery

After a delay of three years, the Commissioner’s Office of the Orissa Division of the Revenue Department submitted its report on the Chilika Fishery to the Secretary to the Board of Revenue in 1889. The report, which was researched by Mr. Savage, discussed the three aforementioned Chilika categories (Table 5.1). His enquiries revealed a far more complicated situation than the original model presumed. Whereas it was believed that the open waters of the lake (Class I) were free to the public, it was discovered that, in actuality, the Parikud Raja collected a transit fee, a type of *sair* called *paritand* from the boats plying those waters (Commissioner's Office Orissa Division 1889: §4).

In addition, the Parikud Raja not only claimed the Class II fisheries around the village of Alupatna (Satapada fishery), but also claimed the Banpur fishery from Barkul to Bhusundupur – an area surveyed as part of the Khurda khas mahal. The Class III fisheries in the creeks and channels adjacent to zamindar estates were also found to be partly claimed by the Raja of Parikud. The Class IV fisheries located in the adjacent Ganjam District of the Madras Presidency, were found to have no private fisheries since the claims of the Raja of Khalikote had been officially denied in 1868.⁴¹ Mr. Savage also reported that the lake’s fisheries were not nearly as lucrative as previously thought and calculated that the total amount realized at that time

⁴¹ The report recommended the placement of boundary markers in the water to prevent fishers from Puri District fishing in the Ganjam waters (Commissioner's Office Orissa Division 1889: §8). Since future reports do not refer to this issue, it appears to have been amicably resolved between the two districts. With the formation of the State of Orissa in 1936, Ganjam district was given over to the new state and the entire lake came under one jurisdiction.

was only Rs 4667 of which only Rs 1202 could be claimed by the government (Commissioner's Office Orissa Division 1889: §7).⁴²

It was, however, unanimously agreed that the most lucrative of the fisheries were in the side channels and creeks. The areas surrounding Tua Dwarsuni and Satapada and the waters around Nalabana Island, which were recognized as containing the richest fisheries, were also those where it was felt that the Parikud Raja had the strongest claim. Mr. Savage felt that the government should not try to contest the Raja's claim because, "we [the government] had nothing to show when the rights to the fisheries were fenced by the present holders and we could not treat them as trespassers unless we could show that the fisheries were not included in the original grants of the Jagirs but were assumed afterwards" (Commissioner's Office Orissa Division 1889: §6). The Government Pleader agreed with this assessment and felt that, while it might be possible to assert government right over the open waters, with "regards those in the creeks and channels he does not think it would be just and proper [to] thrust the persons now in possession of the fisheries ... without proper legal proceedings and a thorough enquiry into the nature and extent of the persons to be proceeded against" (Commissioner's Office Orissa Division 1889: §10).

Following the receipt of this report, internal discussions were held in Calcutta by the Government of India the results of which were outlined in a correspondence between C. W. Bolton, the Officiating Secretary to the Board of Revenue and the Secretary to the Government of Bengal, Revenue Department (Bolton 1890). Siding with those who expressed doubts regarding the economic logic of pursuing fisheries as revenue streams, Bolton (1890: §3) dryly stated that, "The necessity of pressing the Government rights on pecuniary grounds cannot,

⁴² Of the Rs 4667, Rs 1202 belonged to the government, Rs 2600 to the Parikud Estate and Rs 865 to the *Jagir Mahals* of Malud, Bajrak, Manikapatna and Garjhit Andheri. This is less than a quarter of what Metclafe originally estimated the fishery to be worth.

therefore now be said to be an important element in the case.” Nevertheless, basing its decision on the *Hori Das Mal vs Mahomed Jaki* case (Boulnois, et al. 1885: 434-48), the Board decided to pursue the government’s claim to the water body based on the principle that “There is no longer any question that the government has the exclusive right to fisheries in tidal navigable rivers and that it can lease such rights to individuals” (Bolton 1890: §5).⁴³ Bolton was certain that the government’s right to the Bada Chilika or Class I open water fisheries of the lake was an open and shut case.

Discursive Ecologies

As the government’s own correspondence makes clear, this claim was hardly straightforward and necessitated a legal and discursive reconfiguration of the lake’s ecology to match the court ruling. In the first place, although Chilika is fed by rivers, it is not a river by any means, but rather a coastal estuary and seasonal lagoon that was at times a lake. As was noted in the Bolton missive and the 1889 report: “The lake consists, during the hot weather, of an expanse of 344 square miles of salt water, while in the rains it covers an area of about 450 square miles, the water then being fresh” (Bolton 1890: §4).

It was not uncommon during the dry season for the lower water levels to lead to the silting up of the sea mouth, thus effectively turning the lagoon into a lake. Stirling (1846: 31) reported as early as the 1820s that it was the government, through the Public Works Department, that was artificially maintaining the sea mouth open (cf. Das 1910: 2). Obviously, these

⁴³ This is a surprising ruling if one considers that Chapter 16 of the Magna Carta has traditionally been interpreted to mean that the public has a right to fish in tidal waters. As Sir Matthew Hale (1609-1676) noted in *De Jure Maris*, “The common people of England have regularly a liberty of fishing in the sea or creeks or arms thereof . . . and may not without injury to their right be restrained of it” (Quoted in Walters 1997: 315). In the *Hori Das Mal vs. Mahomed Jaki* case, the judge ruled that the law referred to by Hale “*is a branch of the territorial law of England; and it has been held here over and over again that the territorial law of England does not prevail in the Indian mofussil*” (Boulnois, et al. 1885: 444; italics in the original).

government interventions raise some serious questions with regard to the official designation of the lake as an “arm of the sea.” For similar reasons, the designation of the lake as “tidal” was equally problematic. This fact that is alluded to by Bolton, who wrote that “the tide flows over the whole lake only in the dry weather,” since in the rainy season the “water apparently raises the level of the lake to an extent sufficient to check or moderate the inflow of the tide” (Bolton 1890: §4). In the deltaic part of the lake near the Banpur fisheries, the lake was almost never tidal. Rather, during the dry season (the only time of the year that the Banpur fisheries could possibly be tidal) the sea mouth was kept artificially open by the government to prevent the lagoon from turning into a lake.

In the case of Class II and III fisheries, matters were rendered even more complicated by the fact that the majority of the creeks and channels, including the most lucrative fishing grounds such as the ones surrounding Satapada, were ephemeral channels that were dry land in the summer months. This seriously called into question the government’s claim to these fishing grounds on the basis of their designation as “tidal navigable rivers.” In addition, it was discovered that the maps upon which the Revenue Department was basing its claim did not even show the creeks and channels under consideration because the survey was “evidently ... carried out in the dry season” (Bolton 1890: §4). For this reason, Bolton agreed with Savage and recommended that these areas remain unassessed by the Collector. Bolton felt that:

The fisheries in that area [Class II] cannot therefore, be properly, regarded as situated within navigable and tidal waters and the general principle of law mentioned in para 5 above [i.e. “right to fisheries in tidal navigable waters”], which renders fisheries so situated the property of the state does not apply to them. The land over which the waters lie for some months of the year appears to have been included within the neighbouring estates in the survey maps, and the fisheries not being state property, rest, therefore in the proprietors of these estates. (Bolton 1890: §8)

Similarly, with regards to the boundary dispute surrounding the Class III fisheries around Satapada, Bolton recommended that the government relinquish its claim and that by doing so, he

felt that it was “probable” that the Parikud Raja would “voluntarily relinquish the right which he has hitherto exercise of levying the transit fee and the pretensions which he has put forward to the right of leasing out certain fisheries within the boundaries of the Khurda Estate. The question in dispute with him might thus be satisfactorily compromised” (Bolton 1890: §10(b)). Two months following the submittal of this report, all of Bolton’s recommendations were accepted in principle by W. Mande, the Officiating Under Secretary to the Government of Bengal, though he advised, “to await the result of the approaching settlement of Orissa” (Mande 1890: §2).

Nevertheless, prior to the 1897 Settlement, D. B. Allen, the Collector of Puri, revealed that, with regards to the Class II fishery, the “government has for some years exercised the right of leasing out the fisheries along the whole length of the Chilka foreshore bordering the Khurda Estate.” He opined that “the rights of Government are I believe undisputable” (Allen 1891: §4). In addition, he disclosed that these fisheries were “demarcated and surveyed under the Survey Act V (BC of 1875) after due notice during the last settlement and as no objection was raised it has been included in the boundary of the Estate. The settlement has been finally confirmed and nobody can now establish claim to the fisheries” (Allen 1891: §4(a)). Moreover, he declared that according to the maps in his possession the creeks and channels that were being claimed as fisheries were actually lands that were assessed during the decennial settlement as *nunmati* (salt lands). This was because, “salt was being formerly manufactured therefrom during the hot season in which it becomes dry” (Allen 1891: §4(b)). He averred that the fact that they were fishing grounds for part of the year did not change their status as government owned “wastelands” under the salt monopoly. In short, “It was only during the rainy season that water remains on the area and fish is caught. The case is exactly the same now in respect of the

fisheries as it was before excepting that no salt is manufactured from the soil” (Allen 1891: §4(b)).

Allen’s premature assertion that the government rights were “indisputable” was disputed in the very next paragraph of his report, where he related the recent High Court case (*Empress vs Rathi Behera and Ananta Behera*). In this case, the court accepted the appeal by several fishers who had been convicted for trespassing on government leased fishing grounds. The court acquitted them based “on the ground that those convicted had a *bona fide* claim to fish in that place” (Allen 1891: §5).⁴⁴ To counter this setback, Allen advocated for government intervention on the grounds that, “otherwise we cannot expect to go on leasing out fisheries where any Khurda *rayat* [*sic*] can trespass with impunity. Nor would it be acquitable [*sic*] to demand rent from the leasees [*sic*] unless we can keep them in possession of the fisheries leased to them” (Allen 1891: §6).

That the lease of these fisheries was not previously mentioned in any of the sundry reports and only came to light *after* the High Court ruling and government declaration of its intention to waive its rights to these fisheries is a significant finding that emerged from this research. This strongly suggests that the Puri Collectorate was surreptitiously leasing these fisheries while collecting an annual revenue of Rs 605 (Allen 1891: §4(c)).⁴⁵ Otherwise, it is difficult to comprehend why the Puri Collector never once referred to the leasing of these fishing grounds – especially if one considers that, as noted above, Mr. Beams specifically revoked exactly such a lease in 1875 and ordered that no action should be taken pending consultation with the government.

⁴⁴ This clearly demonstrates that within a year of the passage of the Bengal Private Fisheries Protection Act, II of 1889, it was being invoked by the fishers and applied to Chilika by the High Court.

⁴⁵ This amounts to £3593 (in 2005 figures) based on the formula referred to in Footnote 31.

The 1897 Settlement

As the 1897 settlement approached, it was left up to James H. Taylor, the Assistant Settlement Officer in Charge of Khurda to resolve the matter of fishery rights in Chilika Lake. The son of W. C. Taylor, a former Collector of Puri District who was the first British official to value the lake's fishery (Maddox 1899: 19), James Taylor was intimately familiar with Orissa and the Khurda Estate. While he unequivocally ruled that the entire lake (including the adjoining rivers and creeks) belonged to the government, he also established a lease system, elements of which function to this day. He continued the tradition of state simplifications that allowed for discursive reconfigurations based on the superimposition of British legal concepts – a feat that relied heavily on the aforementioned Full Bench ruling on the *Hari Das Mal vs. Mahomed Joki* case.

Based on the “Enquiry Report on the Chilka Lake Fisheries,”⁴⁶ the government disregarded all evidence to the contrary to declare the open waters of the lake (Class I) as “an arm of the Bay of Bengal being connected with it through a tidal and navigable channel” (Enquiry Report n.d. [1897?]: §6). As such, the Parikud Raja's claim to paritand, or transit fees, in this part of the lake was definitively rejected. With regards to the Class II fisheries in channels and creeks, it was ruled that the local designation of these water bodies as *nadis* (rivers), e.g. *Sidua nadi* between Satpara and Tua Dwarsuni, could not be accepted. This hegemonic redefinition was justified based on the conclusion that:

They are, I think, erroneously called as rivers because they do not possess any of the three important constituents of a river viz. source, stream and mouth. They get their water from the main Chilika as its arms and when the season so allows it to assume all its characteristics – namely liability to tide and saline taste of water. Naturally therefore they may be regarded as part and parcel of the Lake and the distinction which underlies

⁴⁶ This report was clearly part of the 1897 settlement of the Khurda Estate, but the copy in my possession (See Appendix A) does not have either a date or author. Though I cannot be certain, it appears to have been written by James Taylor.

the connotation of these two terms – namely Bara Chilka and Chota Chilka is one of depth only. The Chota Chilka consisting of the creeks and channels, more or less dry in the hot weather, becomes a wide expanse of water in the rainy season. (Enquiry Report n.d. [1897?]: §6)

The Enquiry Report rightly points out that the geographic designation was irrelevant and did not of necessity prove that they belonged to the adjoining estates that claimed them as part and parcel of their territory. Rather, it only established that “their physical positions do not authorise any *prima facie* presumption that they belong to the fiscal divisions of the parganas within which they lie. Interspersed, as an ordinary river belongs to an estate within which it runs; and so it is indispensable [*sic*] necessary that their alleged inclusion within them should be established by explicit proof of any grant by the proper authority” (Enquiry Report n.d. [1897?]: §8).

Even though the zamindars were able to supply evidence that they had been receiving rent from fishers since *amli* year 1207 (1799),⁴⁷ the revenue officers refused to accept this as a right of prescription. Rather, it was reasoned that “it requires something more than the mere fact of his having collected some rents from the persons who were fishing in the river to show that under the words *Jalkar* the Crown entrusted to grant him the exclusive right of fishery in a tidal navigable river” (Enquiry Report n.d. [1897?]: §12). The claim that there was a statute of limitations with regard to settling lands that had never been previously settled by the government was rejected and the 1837-41 survey maps were invoked once again to support this position.

As previously noted, both Metcalfe and Bolton reviewed these maps and in their reports concluded that since the lake was surveyed in the dry season they could not be used as proof of the government claims to the creeks and channels. Based on the same maps, the Enquiry Report

⁴⁷ The *amli san* (official calendar) of Orissa was reckoned from the birth of King Indradyumna. The calendar was a harvest calendar adopted by the British during their rule of the province. A. D. 1900 was *amli* year 1308 in Orissa (Encyclopaedia Britannica 1910: 500).

presented exactly the *opposite* case, i.e. that “the Revenue Survey Maps indicate their [i.e. the creeks and channels] position separately from those *parganas*, with district boundaries marked with some blue lines, whereas no definable boundary lines appear between them [i.e. the creeks and channels] and the main Lake, both of which are marked with one color” (Enquiry Report n.d. [1897?]: §13). In addition, a statement appended to the map that listed the size of the Parikud *pargana* as only 138.92 square miles was uncovered and taken as definitive proof that the Parikud Raja’s claims to large sections of the lake was not entertained when the maps were prepared. By shifting the burden of proof to those claiming rights in the lake, the author of the report ruled in favor of the government in all three classes of fisheries.

New Lease System

Following this decision, the Revenue Department set about establishing a new lease system for the lake. Taylor reported that he convened meetings with representatives of the fishing communities who urged the following, “for the consideration of their superior authorities: First, that their livelihood depends on their obtaining the fisheries in question; second that *sarbarahkars* and others bid against them at the time of auction sales, well knowing that no matter how high a sum may be engaged for by the former, the latter must subsequently come to them for a sub-lease” (Taylor and Maddox 1899: 93). Taylor felt that these were legitimate concerns and ruled that future leases should be transacted directly with the fishers through their *danguas* (village headmen). At the same time, he rejected a long-term settlement and instead recommended that each household be assessed at the rate of 8 annas a year for the right to fish in the lake and that this assessment should be increased by five per cent every three years (Figure 5.6).

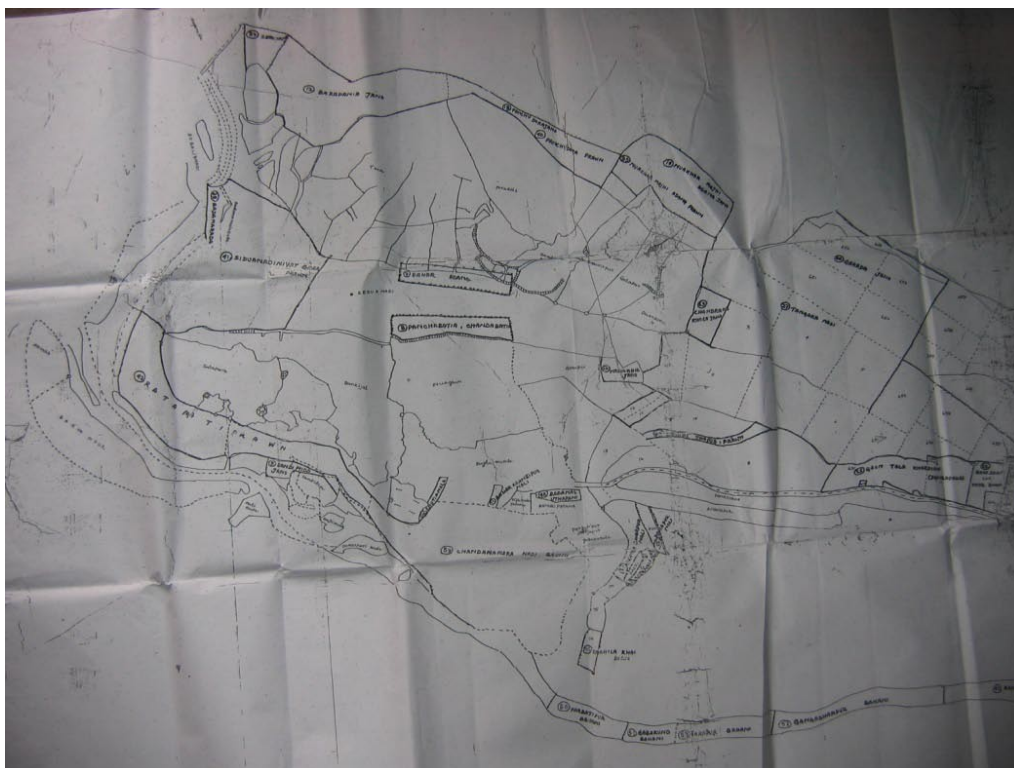


Figure 5.6 Map of lease areas from the most recent lease agreement.

In the case of the Satapada sector, where the fishers had been paying the government dafait rent for at least 80 years and there was a long history of conflict with the Parikud Raja over fishing grounds, these decisions appear to have been well-received. To this day Taylor is reverentially referred to as “Teller Shah” by the Satapada fishing communities. However, in the previously unassessed Banpur fisheries from Barkul to Bhusundupur, Taylor encountered passive resistance. It was in this sector of the lake that the government had attempted to lease fishing grounds in 1875 and it was from precisely these villages that an appeal was lodged to the High Court regarding their *bona fide* claim to the fishing grounds. Based on their victory in the case, the fishers were of the opinion that they were exempt from ever having to pay for the right to fish in the lake. Taylor quickly disabused them of this notion and clarified that “the High Court’s Order in no way affected the case, as the right of the tenants to fish rent-free had not

been enquired into. I also explained that the mere fact of the Government not having taken rent for the fishing in no way gave the tenants a title to convert a concession into a right” (Taylor and Maddox 1899: 93).

On several occasions, Taylor attempted to meet with these fishing communities to settle with them, but they repeatedly found excuses for not appearing before him. When representatives from sixteen villages did finally appear before him on the 13th of June 1897, they filed a petition in which they agreed to take lease of the fishery, only to renege on their pledge six months later. Perplexed by the volte-face of the fishers, it was not until he convened a meeting in Satapada in December of 1897 that Taylor realized the source of the foot dragging. Although the meeting was meant to resolve the outstanding boundary issues between the Khurda Estate and the Parikud Raja, the king unexpectedly produced several fishers from the western shore of the lake and presented an Oriya map to press his case regarding the Banpur fisheries (Taylor and Maddox 1899: 45). Only then did it dawn on Taylor that the Raja, who was loath to relinquish his claim to the fisheries on the western shores of the lake, was inducing the fishers to resist the government attempts to lease out those fisheries.

Given that the fishers in the Khurda khas mahal depended on the productive fishing grounds surrounding Nalabana Island, and that these fishing grounds were leased to the King, Taylor realized that they were “much more dependent on the Parikud Raja’s good will than on that of Government and for that reason recalcitrant as far as the khas mahal is concerned” (Taylor 1898). The headmen that the Raja invited even presented Taylor with *kabuliyats* (signed contracts) attesting to the Parikud Raja’s ownership of their fishing grounds. However, on the pretense that he had convened a meeting solely to settle the boundary dispute between Parikud

and the Khurda Estate,⁴⁸ Taylor refused to review these kabuliyats and sarcastically remarked that, “The fishermen would sign a kabuliyat for seal fisheries of the North Pole so long as the Parikud fisheries were included in the same document” (Taylor Letter 1898).

In the end, J. M. Gupta, the Khurda sub-divisional officer was deputed with the task of settling with the fishing communities over the Banpur fisheries. In his letter of March 2, 1898, he reported agreement on the part of the fishers to pay the suggested average of eight annas per house. Specifically:

The rent for any particular village has first been calculated by taking into account the number of houses and the rate fixed, *i.e.* 8 annas per house. Then the entire male population of the village actively engaged in fishing, whether adults or boys, having been calculated, a boy counting as half a man. In some villages like Bhusundpur, Balipatpur &c., where the Keots jointly engaged in fishing calculate their shares according to the ownership, number and kind of their boats; a big boat has been calculated as one unit and a small one as half. In other villages, however, like Mongolajori, &c. boats do not count, calculations being made entirely on the heads engaged in fishing. This method of calculation was pointed out to me by the Keots themselves and was adopted by me, as it appeared to me to be not only a very fair method of calculation, but it also gave satisfaction to all. (Taylor and Maddox 1899: 94)

This satisfaction was short-lived and almost as soon as Gupta returned to the Collector’s office the fishers sent a petition to the Commissioner and the Board of Revenue objecting in principle to the payment of rent. After the government threatened to take the matter to the courts the fishers once again agreed to the terms and on May 20, 1898 signed leases in Taylor’s presence (Taylor and Maddox 1899: 94).

Continued Resistance

Less than a year later, the sub-divisional officer S. Mohanty sent a dispatch requesting guidance on how to deal with fishers from seven villages who were disputing the rent that they

⁴⁸ Taylor was resolving the boundary dispute referred to above between Parikud and Bhalabhadrapur *zilla*, which was part of the Khurda Estate.

had been assessed (Mohanty 1899). In particular, the officers wanted to know how to proceed in light of the fact that Section 193: “Rights of Pasturage &c.” of the Bengal Tenancy Act had not yet been extended to Orissa (Roy 1906: 587-88). Two years later, Misra (1901) reported that these fishing communities continued their refusal to pay for these fishing grounds. Based on his report it is not difficult to see why. It is worth quoting his observations in its entirety:

Some of our lease holders also hold leases under the Raja of Parikud for catching fish in his part of the Chilka. I fear that the Raja is still trying to dissuade these men to pay the *Jama* [revenue assessment] as due to us. Recently, I met the Rajah’s *Dewan* [Chief Minister] and was surprised to hear that his Rajah’s right to fisheries in Chilka extended all along the North western shore up to Kalupara Ghat. I told him that we [i.e. the government] were in possession as we were actually realizing the fishery *Jamas* in respect of the fisheries in this part of the shore. He said the Raja was also realizing *Jamas* from the fishermen. *The fact as I understand it is that most of the fishermen who pay fishery Jamas to us also hold leases for fishing in the part of Chilka belonging to the Raja and the Raja makes them pay not only for the fisheries in his part of Chilka, but also for our part of the Chilka.* In September last, the fishermen of Jagannathpur Patna, Balipatpur 1st and 2nd *Kismats* [hamlet], Karatia Sahi, Mangalajori, Balinasi and Panchupathia served a notice on the Collector that they would bring suit in a competent Civil Court unless the orders fixing fishery *jamas* were cancelled and the amounts already paid by them for the last three years were refunded to them. (Misra 1901: Emphasis Added)

It is not surprising that the fishers so vigorously opposed the government sanctioned *Jama*, when one considers that Misra is in effect describing a dual taxation system where the fishers of the Banpur fisheries were being assessed *three* times! Since the lucrative fishing grounds that they traditionally fished were in the waters off of Nalabana – an area that the government leased to the Parikud Raja – they were left with few options. On the one hand, the fishing grounds adjacent to their villages would not support their families, while on the other hand, if they refused to pay the government for these fishing grounds, they risked losing their rights to the nearshore fishery. Indeed, Maddox, the Settlement Officer of Orissa, had explicitly warned them that in case of “default of payment of the *jama* for any year, the lease is *de facto* cancelled,” and thus could be leased to another group (Maddox 1899: 19).

From the perspective of the Parikud Raja, it is easy to see why no amount of persuasion and government compromises could convince him to renounce his rights to the fishing grounds along the eastern shore of the lake. As the king of a patch of sandy and flood prone islands on the edge of a brackish water lagoon, the lake and its fisheries were crucial to the Raja's economic survival. A perennially poor backwater, Hunter (1872: 31) proclaimed that "there is more distress in Parikud than in any other part of Orissa." Over thirty years later Das described Parikud as a desolate place where "there are no towns. Krishnaprasad [*sic*], the seat of the Rajah of Parikud, contains some masonry buildings, the huts of the Rajah's relations and officials clustering all round. There are no manufactures, no shops, no other industry than agriculture and fishing and the tenants are generally poor and thriftless" (Das 1910: 4).

Based on Hunter's detailed accounting of the Raja's finances, the category "Fisheries", which apparently referred to *paritand* or transit duty, comprised no less than 20% of his income in 1869.⁴⁹ Not surprisingly, we find in the 1901 report that the Raja was still collecting *paritand* – almost one hundred years after such *sairs* were explicitly outlawed under Regulation XII of 1805 (Toynbee 2005 [1873]: 46).⁵⁰ By 1889, Mr. Savage estimated that the Parikud Estate earned some Rs 2600 from the fishery – a veritable king's ransom when one considers the diminutive size of this kingdom.⁵¹ Significantly, this research points to the underlying cause for the king's continued intransigence. To forego the rent from the various fisheries would have

⁴⁹ Hunter culled this information from the 1869 report by Collector Geddes. Of a total of Rs 698 income, 141 is listed under fisheries (Hunter 1872: 35 n 38, 39 n 45). In the 1889 Revenue Department letter it is listed as Rs 120 for the *amli* year period of 1270-1279 (1862-1871) (Commissioner's Office Orissa Division 1889: §4).

⁵⁰ It bears noting that according to the 1889 Commissioner's Office Report, the government collected the *paritand* for the Parikud Raja during the period when the estate was under the management of the Collector from 1862 to 1871 (Commissioner's Office Orissa Division 1889).

⁵¹ This amounts to approximately £15,443 (in 2005 figures) based on the formula from Footnote 31.

entailed a grave financial loss and would imply that the king had relinquished his legitimate claim to the fishing grounds.

Dénouement in the Fisheries

Although the Parikud Raja continued to collect rent for the fishing grounds in his kingdom and the neighboring Khurda khas mahal, this proved to be insufficient for his financial survival. In the end, a confluence of factors precipitated the Raja's downfall while at the same time sealing the fate of the fisheries. Of these, it appears that the government's decision to halt salt production in the Chilika tract in 1893 was by far the most significant. The Raja depended on a yearly royalty from the Salt Department for the Nuapada salt tract which, in terms of income, was second only to the fishery. Taylor (1899: 100) reports that in 1893, the same year that this rent was expunged from the rent rolls, this amounted to no less than Rs 1,113.⁵² The closure of the salt works and the strict prohibition on the independent production of salt (due to the government imposition of a salt monopoly) also had far reaching social repercussions that will be discussed in the following chapter.

The arrival of the Bengal-Nagpur train line along the east coast of the lake in 1890 and the opening of the Khurda Road – Puri spur line in 1897 undoubtedly further undermined the Raja's finances. While this promised new markets for the fishery, I contend that it also greatly diminished the transit trade on which the Raja's paritand depended. As Das explained, "The Chilika was formerly the highway of the southern parganas of the district and the only export route with the Ganjam district of the Madras Presidency. The Bengal-Nagpur Railway has

⁵² In 2005 figures this amounts to approximately £ 6,600 (Webb 2006). This was a fortune if one considers that in 1866 the gross revenue of the kingdom amounted to only Rs 698 per annum (Hunter 1872: 39 Ftn 43).

changed the run of the trade. Pilgrims now avail themselves of this line of travel and have to a great extent abandoned the boat travelling through the lake” (Das 1910: 4).

Although Das was alert to these changes, he seems oblivious to their consequences. In 1904, he reproachfully remarked that, “The present Raja from extravagance and reduction of his income by stoppage of Salt manufacture in Parikud found himself involved in debt and made over his property to the management of the Court of Wards on 23rd August 1904 to save himself and his property from the clutches of his wily creditors” (Das 1910: 11). At the same time, the Revenue Department decided that it would be wise to take this opportunity to settle the entire coastal tract that included the *Jagir Mahals* of Malud, Bajrak to Manikapatna and Garjhit Andheri, which had been administered by government officers since 1884.⁵³

Even after declaring what amounted to bankruptcy, the Raja continued to insist on his claim to the lake and its fisheries. Das (1910: 24) reported that during his settlement activities, “The Rajah of Parikud wanted us to map and prepare a record for his rights over the waters of the Chilka covering an area of some 400 square miles.” However, this was rejected on the same grounds as before. In what appears to have been a last ditch effort on the Raja’s part to redefine what constituted the “tidal navigable” portion of the lake, he “claimed before Mr. Duke, Commissioner, in his visit to Parikud during the distress in December of 1907, the whole of the Chilka as falling within his jurisdiction to the extent to which in the driest season its depth does not exceed a man’s height” (Das 1910: 25). Though the Commissioner passed on this claim to the Board, the Revenue Department ruled that the Raja’s claim was baseless.

⁵³ Because these Jagir Mahals were conferred to Fateh Muhammed by a *sanad*, they were of a special category and could not be sold. Das (1910: 11) explained that, “In 1827 we find the jagirdar Jamuluddin involved in heavy debt and the property under attachment. The grant made to the jagirdar and his heirs for ever being considered of the nature of perpetual entail, the property was not alienable so the Civil Court directed to sequestrate the property and make the income available so long as the judgment-debtor lived or till the decree-holders were satisfied.”

Post-Settlement Period

Ironically, after years of deliberation and conflicting signals, it was decreed by the Board of Revenue in the 1906-9 settlement of the *Jagir Mahals* that “government should not interfere in the matter of the fisheries in the Chhota Chilika [i.e. creeks and channels]” (Das 1910: 24). Possibly this was a sop on the part of the authorities that was meant to counterbalance the decision to end the salt trade. However, by this time it was a moot point. With the Parikud Kingdom and the coastal *Jagir Mahals* in receivership and the rest of the lake under the jurisdiction of either the Khurda khas mahal or Madras Presidency, the vast majority of the lake was being administered by the Revenue Department.⁵⁴

From the perspective of the fishing communities, these were no doubt positive developments that liberated them from their dependence on the Parikud Raja and the untenable situation whereby they were paying rent thrice over. In addition, the government decision to lease directly to the danguas prevented mahajans (middle-men), sarbarkars, and fish merchants from gaining control of the fishing grounds for the purpose of rent farming. As a result of the 1897 settlement, the entire lake was surveyed and the various fishing grounds were enumerated and regulated under a complex lease system. These were divided up into *janos*, *bahano*, *chingudia*, *uttapani*, and *dian* (See Table 5.2) based on the type of fishery involved (Biswas 1995: 55-59; Murmu and Biswal 2006: 168).

Of all of these, *jano*, *bahano* and *chingudia* were the most important. *Jano* (barricade) fishing targeted precisely those parts of the lake which were dry in the hot season. Fishers built barricades using split bamboo that acted as weirs. During the rainy season, a gate allowing fish

⁵⁴The Parikud Raja and other zamindars continued to collect machadia jama (revenue for fishing grounds) as part of their estates, only now it was being collected by the Revenue Department for the respective mahals (estates) that they were administering. This meant that the system was a little less arbitrary and appeals could be addressed directly to the government. For a full list of those who were paying for fishing grounds in 1952, when zamindar rule ended under the Estate Abolition Act, see Biswas (1995: 53).

to enter the area was left open and as the waters diminished, the fishers sealed the entryway to capture the fish.⁵⁵ *Bahano* is a type of net fishing conducted at night that uses lights to lure fish into the waiting nets. Typical of the deeper portions of the lake, this technique can be encountered throughout the lake. It seems that, unbeknownst to him, Hunter (1872: 18) was describing *bahano* fishing from his perch on the Harida Mulaghati pass when he wrote that, “as night closed in, I began to catch the reflection of the canoe lights flashing on the Chilká Lake below.” *Chingudia* are fishing grounds where prawn are plentiful.

The colonial government’s decision to lease the lake out to the fishing communities appears to have been a logical continuation of local revenue policies based on cadastral surveys that had, since the 1830s developed into a type of ryotwari settlement. In effect, the survey work of the Khurda Estate that was completed in 1880, sallied forth from the land to map and parcel out the waters of the lake. The fishers became pani ryots, with each community responsible for their respective *machadias* (fishing grounds). This also seems to have been a way to resolve the internal arguments within the Board of Revenue as to whether government intervention in the fishery was either necessary or remunerative.

By designating only one group (i.e. those from traditional fishing castes) as permissible tenure holders, the Board, in effect, made them stewards of the fishery. Proponents contended that “the most effective controls were exercised by proprietors or lessees who stood to gain financially from them [the fishing grounds] and so could be relied upon to conserve them” (Reeves 1995: 286). This addressed conservation concerns about a “Tragedy of the Commons” in the lake without incurring the prohibitive surveillance costs of a new administrative

⁵⁵ Martin (1838: 191) describes a similar technique on the Kosi river (a major tributary of the Ganges). He writes that, “Most of the fish are taken as the river dries up by putting screens across the smaller channels, until the water leaves them dry.”

bureaucracy. By setting a fixed rate for the fishing grounds with provisions for incremental increases, the Board also clearly hoped to reduce the need (and costs) of government oversight.

Table 5.2 Chilika Lake Lease Fisheries under the Lease System (cf. Murmu and Biswal 2006).

Type of Fishery	Method	Period
Jano	Barricade or enclosure fishing in shallow waters.	August to February
Bahano	Net fishing. A variety of nets used, but often done at night using light as a lure.	Year round
Chingudia	Prawn fishery. Primarily in shallow water with muddy bottom. Box traps (dhaudi) used.	March to August
Uttapani	Near-shore fisheries. Traditionally both fishers and non-fishers.	Year Round
Dian	Upland in rivers and creeks near Chilika. Typically 100-200 meters from Chilika. For the non-fisher communities.	Year Round

Conclusion

The new revenue arrangements undermined the dichotomy that existed between those who directly contributed to the grain heap and those who did not i.e. the landed and landless social classes. While still technically landless and renting from the government, the lease system was *de facto* recognition and official sanction for the fishers' territorial claims. By transacting directly with the danguas of the fishing villages, the government implicitly recognized the fishing jatis as the only group with a *bona fide* claim to the fishery. Though this new arrangement ran the risk of the fishers losing access to their fishing grounds if they defaulted on payment, it also meant that they now collectively held title to their machadias.

Most importantly, this represented a rupture with the fishers' past status as quintessential *chandana* (outsiders) within the pre-colonial "system of entitlements," a fact that stemmed from

their lack of officially recognized tenure. While fishers are viewed by “upper caste” Hindus as “untouchable” by virtue of their “polluting” profession to this day, the granting of recognized territory and alienable property rights facilitated their transformation into tenure holders. As a group already actively engaged in trade and markets under the pre-capitalist⁵⁶ “system of entitlements,” fishers appear to have been uniquely situated to benefit from what amounted to gaining possession of their means of production. I contend that this major shift catapulted them from being essentially hunter-gatherers outside the “system of entitlements” to full-fledged (albeit marginalized) members of the peasantry or “*pani ryots*.” This change undoubtedly serves as the backdrop for the eventual entry of non-fishers into the fishery that will be discussed in the subsequent chapter. The unintended consequence of the fishers’ improved social standing and economic position was that it removed a modicum of the stigma attached to fishing.

As Stokes (1959), Ludden (1999), Cohn (1987a), Dirks (2001), Tanabe (1998; 2006b) and others have shown, the superimposition of the British legal system and colonial interventions in land revenue administration was instrumental in the formation of new caste identities. In the case of Chilika, the government leasing of fishing grounds united the various fishing groups under the rubric of “Fishermen.” For example, in neither Taylor’s nor Das’s settlement reports are the fishing groups referred to as anything other than “Fishermen.” In reality, there were several endogamous groups that ranked themselves hierarchically with respect to one another while avoiding commensality. That Taylor was aware of the existence of various jatis is evidenced by the fact that in the list of tenants that he compiled for his land survey, he catalogs

⁵⁶ In light of the lively contemporary debate on this matter, I shudder to use the charged term “feudal” in this context. In his two historical treatises (*Early Medieval Indian Society: A Study in Feudalisation* and *Indian Feudalism*) Ram Sharan Sharma (1965; 2001) has championed the view that a form of feudalism developed in India. Sima Yadav (2005) has recently contested this interpretation in *The Myth of Indian Feudalism*.

six fishing jatis.⁵⁷ At the same time, he pointedly made use of curly brackets to designate the set as “Fishermen” (Taylor and Maddox 1899: 54). Since the fishing jatis were now grouped together under one revenue category, it is not surprising to find that over time these groups also began identify themselves as *matsyajibi log* (fishing people) rather than solely based on jati affiliation. As will be discussed in the following chapters, this is crucial to understanding caste relations and social networks in the Chilika basin.

This penchant for meddling in discursive categories is the hallmark of colonial rule in India. Based on a legalistic approach surrounding land revenue administration, British rule evinced a systematic disregard for local complexity and categories. For example the separation of the lake into three Classes of fisheries that dominated discussions of the lake for at least twenty years is a classic example of “state simplifications” (Scott 1998) predicated on a synoptic viewpoint. Disconnected from the complex and intertwined realities of the lake’s fisheries, these neat categories were really arbitrary divisions that muddied the waters, so to speak.

Similarly, the Class I fisheries that were supposedly “free to the public” were actually a major source of income for the Parikud Raja. The government’s insistence on stamping out *paritand*, only contributed to the Parikud Raja’s intransigence in other areas and led to his eventual bankruptcy. The lucrative Class II fisheries surrounding Tua and Satapada that the government had assessed with *dafait* rents for the greater part of a century were multi-use sites that were dry for parts of the year and, as such, were classified on government maps as *nunmati* or “salt lands.” For this reason, it was felt that these lands could not be claimed by zamindars, since they were actually “wastelands” that belonged solely to the government.

⁵⁷ It is interesting to note that Taylor does not list the *Khandara jati* in his list. This is because they were not considered fisheresses due to their capture of prawn, a species not considered fish. This suggests that, to the extent that the British were imposing new epistemic categories on the Indians, they were to some degree working within an Indian framework.

The use of maps surveyed in the dry season to make this assessment simplified the ecological complexity of these territories. The Class III or “Banpur fisheries” located on the northwest shore of the lake were existentially dependent on the fisheries surrounding Nalabana Island that were not even listed as a separate class of fisheries in the Revenue Department reports.⁵⁸ The attempt to settle the issues surrounding this fishery with this simple schema ignored social and ecological realities while at the same time subjected the fishers to a punishing dual taxation system. In short, administrative interventions were enacted based on categories that proved to be far more fluid and complex than these simple designations suggested.

In order to justify what amounted to the colonization of the lake, the Revenue Department employed what I term “synecdochal hegemony” whereby the furtherance of the colonial interests of the day were achieved through the predictable selection of only one part of this constantly changing ecosystem to represent the ecosystem as a whole.⁵⁹ For instance, although the lake is imperceptibly (if at all) tidal in its deltaic portions and only tidal in other sectors during the dry season, it was decreed that Chilika be classified as an “arm of the sea” based on its “tidal” nature. The fact that this re-designation (i.e. from the Oriya designation of Chilika as *hrada* (lake) to an “arm of the sea”) effectively converted the lake from an inland to a marine fishery was never acknowledged. The implications of a marine fishery predicated on the artificial maintenance of an opening to the sea were also never discussed. Similarly, the rejection of the Oriya concept of *nadis* (rivers) and its replacement with the notion of “creeks and streams,” which are supposedly “navigable,” provide yet another example of selective reasoning.

⁵⁸ Not to mention the Class IV fisheries in the Madras Presidency that were mentioned but not explicitly discussed or enumerated. In effect, this effaced any transboundary issues that likely existed between these two jurisdictions.

⁵⁹ This differs from Scott’s (1998: 3) “state simplifications,” which he defines as “abridged maps” of society that “represented only that slice of it that interested the official observer.” Rather, “synecdochal hegemony” suggests a type of directed hegemony with forethought and meant to selectively define the landscape to the government’s advantage.

This definition may have been true during the rainy season, but it also willfully ignored that these waterways were completely dry for four months of the year.

Perhaps the most egregious example is the official designation of precisely the most lucrative territories as “wastelands” based on the fact that the survey maps were drawn up in the dry season when these territories were used to produce salt. Using Rocheleau’s (2005) terminology, these maps were then used as “power tools” to synecdochally claim and legally define these territories as state-owned lands. Unfortunately, these interventions were quite often mutually exclusive. For instance, it is difficult to see how dry land can be claimed as tidal or how “wastelands” can be assessed for rent as designated fisheries. That these designations only work when each one is taken individually and then applied to the whole is their defining characteristic as an inherently hegemonic exercise of *pars pro toto* reasoning in furtherance of colonial rule.

While in many respects these new arrangements benefitted the fishing communities, in the long run these interventions placed the fisher and non-fisher communities on a collision course. Primarily this was because a cut-and-dried legalistic separation between land and water in a water body that was in constant flux was an injudicious simplification. By failing to take into consideration the traditional use rights of the non-fisher communities who depended on the lake, these decisions practically ensured that there would be constant quarreling between the two communities. As Das (1910: 9) noted, “the Parikud cultivator is content with very little and that is all he generally gets. A full meal of rice once a day taken with Chilka fish suffices him and he eats in the morning what is left from his evening repast.” By granting tenurial rights to fishers (as “*pani ryots*”), the rights to water and land were strictly separated. From the perspective of the non-fishers, this meant a closing of the commons that criminalized their subsistence

practices.⁶⁰ Although this may not have been much of an issue in 1897, as will be discussed in the next chapter, over time this developed into a major source of contention.

⁶⁰ As the numerous court cases referred to in this chapter clearly demonstrate, the fishing communities were more than willing to avail themselves of colonial institutions to defend their right to the fishery. This is reminiscent of F. G. Bailey's (1996) observations of 1950s highland Orissa and how "low caste" Panos made use of new legal protections officially outlawing caste. Both examples demonstrate a great deal of political savviness on the part of these disenfranchised and marginalized groups. Naturally, in the case of the fishers, this sentiment only intensified once they directly leased their fishing grounds from the Collector.

CHAPTER 6

UNSETTLING THE WASTELANDS - FROM SALT LANDS TO PRAWN PONDS

The “Centre for Environmental Awareness and Education” in the village of Parala was located between a fallow paddy field and a parched prawn pond. Though it was obviously newly constructed, it had an abandoned air about it and reminded me of nothing so much as a concrete shack with an arched façade (Figure 6.1).



Figure 6.1 Centre for Environmental Awareness and Education in Parala.

The inside of the center was literally bare bones, with some unmarked animal skeletons, a few cobweb-covered jars filled with dead insects, and pieces from the shell of an Olive Ridley sea turtle. Paid for by the NGO Ramsar Convention Japan (RCJ), the Centre was designed to

serve as a resource for teachers to educate students about their natural environment. Mr. Parida, a local community leader who had returned home after a career in the military, generously provided the land for the Centre and oversaw its construction. Proud of this accomplishment, he excitedly informed me of his plans to add a second floor for his son as soon as he found him a suitable wife.

In the meantime, the Centre would serve as my base camp on Nuapada Island, where I planned to spend several weeks interviewing local non-fishers who had taken up aquaculture and fishing as their primary source of livelihood. Though lacking in even the most basic amenities, it was graced with spectacular front-row views of the Outer Channel region of Chilika that more than made up for this inconvenience. From the roof of the Centre, one could clearly see Satapada Island some three kilometers straight ahead in the distance. The Chilika Development Agency (CDA) office building and museum dominated the tip of the island. To my right, I could see the palm and casuarina covered strip of Forest Department land that separated Chilika from the Bay of Bengal; and, to my left, lay the island of Baruna Kuda and the *Mugger Mukh* (shark face) channel that connected the Outer Channel with the main body of the lake. Following the shoreline in the same direction, it was less than two kilometers to the village of Gurubai, which was formerly a major salt manufacturing center and was visited by Hunter (1872: 41-44) in the 1860s.

Although the CDA recently launched a new car ferry service with much fanfare (it was immediately dubbed the “floating bridge” by locals), the tried and true *dangas* (country boats) were clearly still the preferred method of transportation on the lake. Motorcycles and riders perched precariously like figureheads in the bow and aft, the *dangas* listed slightly to this side or the other as they plied the waters to points distant. As I nervously watched these wobbly vessels,

filled to overflowing with people and goods, I could not decide whether riding in these ferries was a testament to faith or indifference (Figure 6.2). Closer to shore, *bundhs* (earthen embankments) measuring some two hundred feet or more, extended into the water to form a patchwork of squares along the lakeshore (Figure 6.3).

Mr. Parida informed me that these were prawn enclosures built by local villagers and rented out on a three-year lease to a Ganjam businessman. Being of varying sizes, each of the squares netted a different amount in rent, but overall the village earned an astounding sixteen lakh rupees¹ annually from the rental of these enclosures. In addition, the village also benefitted from the purchase of locally captured seed stock and the employment of three or four men who maintained the prawn ponds for this investor.



Figure 6.2 A local Chilika ferry.

¹ Based on the exchange rate of Rs 42 per dollar, when I first visited in 2002, this amounted to US \$3800.



Figure 6.3 Nearshore prawn ponds.

In the early afternoon, Mr. Parida arrived to escort me to the village’s elementary school. Small even by local standards, the school was built in the shape of an “L” and boasted five or six rooms facing an open courtyard with banyan trees and coconut palms. The walls were neatly painted over with Oriya language maps of India and Orissa as well as cheek-by-jowl images of Gandhi and Netaji Subhash Chandra Bose.² Although each class officially had some thirty students, the actual number was much higher, as parents were in the habit of sending their toddlers along with their older siblings in an Indian village version of day care.

² Netaji Subhas Chandra Bose (1897-1945?), a leader in the Indian independence movement and two-term President of the Indian National Congress, broke with Mahatma Gandhi over the issue of non-violence. Bose advocated violent resistance to British colonial rule, and with Japanese funding formed the Indian National Army during World War II. Bose died under mysterious circumstances when his airplane crashed in Taiwan and many believe that he survived the crash and spent the rest of his life in hiding.

Mr. Jena, the schoolmaster, was an amiable man who agreed to join me in a freewheeling conversation about the village, *chinguri chasa* (prawn aquaculture) and relations between the fishers and non-fishers in Chilika. He bridled at my mention of this last topic and made a point of explaining that all this talk of *matsyajibi* (fisher) and *ana-matsyajibi* (non-fisher) was a recent innovation concocted by the fishers to prevent the “non-fishers” from their right to fish in the lake.

As I was a bit taken aback by this assertion, I asked, “But wasn’t it true that the people in your village are all landowners from the *khodayat jati* while they are all *keuta log* (fishing caste people)?”

“Yes. Yes. But, we have always fished in the lake for *tarkari* (daily consumption). Since the days of the Parikud Raj, we have this right.” He sighed and added, “What can we do?” he added, “Before there was much land and few people. Now the land is the same but see how many people.”

“I understand,” I nodded, “but isn’t the area in front of your village already leased out to a fishing village?”

“Yes, it is leased out by Mahisa village.”

“So,” I wondered aloud, “Is it fair that you are taking over these fishing grounds, building embankments and leasing them out as prawn ponds to outsiders?”

Smiling wanly, he replied, “They are saying that the entire Chilika is theirs. For that reason there is always dispute between them and ours. We are not going to their lease area. We are catching fish from our side.” Thinking for a moment, he continued, “Before, the fishermen were rich and we were poor. Now, *they* are poor and we are rich. Before, we left our families and went to Calcutta and Surat searching for work and today we stay in our village. Now my son

is going to high school, we have nice *gamuchas* (a type of towel) and the village is full of motorcycles.”

Not wishing to press this point any further, I thanked him for his time and returned to the Centre to collect my thoughts. Though I was really looking forward to unwinding a bit, a small group of young men came by to take advantage of the fact that the Centre was open and proceeded to turn it into their makeshift clubhouse. To escape the smoke and the overpowering smell of *beedis* (Indian cigarettes), I sat outside on the small verandah. Looking up, I noticed an elderly man stop in his tracks at the unexpected sight of a foreigner. I smiled and greeted him with “Namaskar” as he quickly raised both palms together in response. Barely lifting his head from the card game at hand, one of the young men uttered something in Oriya to my field assistant Mayur.

“What did he say?” I asked.

“He says *that* man is a slave.”

“Slave?”

“Yes, a Slave. From Gurubai village.”

As I tried in vain to process what Mayur was telling me, I stared at the old man, flabbergasted. Never before had I found myself in close proximity to someone who was referred to by others as a slave. I realized that up to that moment, I really only understood slavery as an abstract notion, an intellectualized and disembodied concept that no amount of Passover Seders, history books or Hollywood movies could prepare me for. Upon further inquiry, I learned that the old man was “only” a bonded laborer³ who was working to pay off his debts to a local prawn entrepreneur. Sensing my consternation, the young men attempted to reassure me that the old

³ The Indian parliament abolished debt bondage under the Bonded Labour System (Abolition) Act, 1976. Though it is also illegal under international law (cf. Article 1(a) of the United Nations 1956 Supplementary Convention on the Abolition of Slavery), this form of slavery is rampant in India to this day.

man was relatively well off. After all, they added, he was childless and only had to support was his wife.



Salt for the Masses

Conjointly with the land-tax we have to consider the salt-tax. Notoriously the Company retain the monopoly of that article which they sell at three times its mercantile value – and this in a country where it is furnished by the sea, by the lakes, by the mountains and the earth itself. – Karl Marx, *New York Daily Tribune*, August 5, 1853. (Marx and Engels 1972: 79)

On March 11, 1930, Mahatma Gandhi departed from Sabarmati Ashram near Ahmedabad, Gujarat to undertake the historic 390 kilometer (240 mile) pilgrimage that came to be known as the Salt March. A watershed moment in British – Indian relations, this campaign signaled the start of the *satyagraha* or non-violent movement that eventually culminated in Indian independence. Writing to Lord Irwin, the Viceroy of India, in the weeks leading up to the march, Gandhi explained the rationale for his opposition to the salt monopoly as follows: “I regard this tax to be the most iniquitous of all from the poor man’s standpoint. As the independence movement is essentially for the poorest in the land, the beginning will be made with this evil” (Weber 1997: 74). His sights firmly set on the sleepy coastal town of Dandi, Gandhi and his followers tramped through the countryside for three weeks until they arrived on the shores of the Arabian Sea (Weber 1997: 345-46). There, in front of an assembled crowd of over 50,000 onlookers, Gandhi openly defied the 1882 Salt Act by scraping the salty soil with his bare hands. This simple and otherwise prosaic act ignited the imagination of the subjugated masses and inspired throngs of Indians to follow in Gandhi’s footsteps.

The province of Orissa, a coastal state with a saliferous tract stretching over 515 kilometers (320 miles), was at the forefront of the Salt Satyagraha. Within days of Gandhi's departure from Sabarmati, large crowds gathered in Cuttack and Balasore to organize the local resistance to the salt monopoly (Choudhury 1979: 193-94). Departing the same day that Gandhi reached Dandi, thousands of men and women marched north from Cuttack toward the salt pans of Inchuri in the Balasore district. At the same moment, to the south, in the Puri district, Pandit Nilakantha Dash rallied the public and enjoined them to produce salt all along the Chilika lakeshore (Choudhury 1979: 200). The level of enthusiasm evinced in Orissa for the salt agitation was unrivalled in India and the British authorities found themselves flat-footed as they jailed thousands of *satyagrahis* (non-violent protesters) in an attempt to restore law and order.

Although Gandhi's decision to make the salt monopoly the centerpiece of the independence struggle proved to be the innovative stroke of genius that turned these aspirations into a mass movement, it was hardly the first time that opposition to the salt tax had incited the masses into action. In the case of Orissa, the Salt Satyagraha represented the culmination of 130 years of active resistance to this oppressive rule. Indeed, as early as 1817, colonial administrators recognized that the imposition of salt monopoly was burdensome to the populace and, as previously noted, this was felt to be a contributory cause of the Paik Rebellion. In 1888, the first large-scale protests in India in opposition to this system took place in the Orissa capital of Cuttack (Choudhury 1979: 184). As a staple product of the state and the only manufactured product of the coastal belt, salt-making was critical to the local economy and employed an estimated 40,000 *malangis* (saltworkers) (Aggarwal 1976: 50; Barik 2001: 126). Yet, due to the imposition of the salt monopoly and official price setting, salt in Orissa was taxed as much as 2000% and the average Oriya paid more for salt than anywhere else in British India (Choudhury

1997: 263). These government policies wreaked havoc on this indigenous industry and created circumstances that made it impossible for locally produced salt to compete with less expensive varieties imported from Madras and Liverpool. By 1898, the last remaining salt works in the province, the Chilika Lake *aurangs* (salt manufacturing centers) of Satapada, Gurubai, and Tua, were permanently shuttered by government decree.

When compared to the extensive literature on land revenue administration, British salt policy in Orissa has, to date, received scant scholarly attention (Aggarwal 1976; Barik 2001; Choudhury 1979; Choudhury 1997; De 1961; Patra 1971; Ray 1960a). This is in spite of the fact that, under the Marathas and throughout nineteenth century British rule, the salt revenue from the province greatly surpassed the land revenue (Choudhury 1979: v, 85; Patra 1971: 174). Even less has been written about the malangis, a social class of workers from various tribal and caste backgrounds, who were engaged in seasonal salt manufacture (Bhargava 2006; Martin 1838; Serajuddin 1978). The seasonality of this industry was, in fact, the defining feature of the salt centers of the Chilika Lake coastal tract where the ryots struggled to eke out a marginal existence from one rice crop a year. In order to economically survive the lengthy offseason, a large proportion of the lake's inhabitants labored as malangis to supplement their household income. For this reason, nineteenth century colonial salt policies and the eventual closure of the lake *aurangs* disproportionately affected the Chilika coastal communities.

This chapter explores the history of colonial salt policies with an eye to the role that this has played in relations between fishers and non-fishers in the Chilika Lake basin. Beginning with a review of the history of salt revenue administration in the pre-colonial era, it attempts to demonstrate how British concerns regarding salt manufacture dictated colonial policies towards the province in the prelude to the 1803 invasion and annexation. The imposition of Salt

Monopoly in 1804 and the way in which this system evolved up until the closure of the Chilika Lake aurangs in 1898 is explored in depth. The experience of Chilika Lake is presented as a case study of how this exploitative system devastated the local economy and pauperized the malangis employed in salt manufacture. With the 1897 land settlement and the granting of territorial rights to fishing grounds in Chilika (see Chapters 4 & 5), *nunichar* (salt lands) tracts were officially redesignated and constituted as government owned “wastelands” that were off-limits to economic activities. These tracts, the majority of which were ephemeral creeks and channels of the lake, were thus effectively placed off limits to all but fishers in the rainy season. My research shows that the historical juxtaposition of the granting of exclusive territorial rights to fishers in multi-use areas and the demise of the local salt industry resulted in conflict between fishers and non-fishers. I ask why prawn aquaculture was so rapidly embraced in the coastal tract of Chilika and conclude by demonstrating that the roots of the present conflict surrounding aquaculture stems from the loss of salt manufacture and the continued unpredictability of the agricultural crop. Though the recent entry of non-fishers into the fishery is being driven by trade liberalization policies and the “Blue Revolution” in fisheries this phenomenon can be best understood as a process of reengagement by the agricultural class with the lake’s nearshore – a biologically diverse habitat long classified by the government as a “wasteland.”

Salt-Making in Antiquity

Salt making in the coastal provinces of India dates back to prehistoric times. The earliest known reference to this essential mineral appears in the epic poem of the *Mahabharata* (8th c. – 6th c. B.C.), which refers both to salt manufacture and a system of taxation known as *lavana*

sulka or duty on salt (Choudhury 1997: 259).⁴ Similarly, the Mauryan era *Arthashastra* (4th – 2nd c. B.C.) demonstrates the degree to which salt manufacture in antiquity was firmly under government oversight. It refers to the appointment of a government minister called the *Khanyadhyadhyakshah* or superintendent of ocean mines who regulated commerce in such commodities as conch shells, corals, precious gems and salt. In his detailed description of this system, Kautilya – ever the master administrator – explained that:

Soon after crystallization of salt is over, the superintendent of salt shall in time collect both the money rent (*prakraya*) and the quantity of the shares due to the government; and by the sale of salt (thus collected as shares) he shall realise not only its value (*mūlyam*), but also its premium of five per cent (*vyājim*), both in cash (*rūpa*). Imported salt (*āgantulavanam*) shall pay one-sixth portion (*shadbhāga*) to the kings. – *Arthashastra*, Book II, Chapter XII, Verse 84. (Kautilya 1967: 89)

Yet, to truly grasp the importance afforded by the Mauryan government to commodities such as salt, it is worth reflecting on the following dictum with which he chose to conclude the chapter: “Mines are the source of treasury; from treasury comes the power of government; and the earth, whose ornament is treasury, is acquired by means of treasury and army” (Kautilya 1967: 90).⁵

In Orissa, salt-making and fishing were the primary economic activities of the coastal belt prior to the 19th century (Banerji 1980 [1930]-a: 12). Thanks to the ready availability of brine, salt-impregnated soils, salt pans (that overflowed twice each month), and easy access to fuel lands (where firewood could be collected for boiling saltwater), the Orissa coast was particularly well-suited for salt manufacture (Aggarwal 1976: 326; Barik 2001: 121; Choudhury 1997: 252). As an essential ingredient in the preservation of fish, salt undoubtedly also played an important role in commerce, since it made possible long-distance trade networks in dried fish that extended

⁴ It is slightly surprising that salt is not mentioned even once in the Rig Veda and only once in the Atharva Veda. This has been taken as evidence for and against the Punjabi origins of the Vedas (Macdonell and Keith 1967 [1912]: 230).

⁵ According to Macdonell and Keith (1967 [1912]: 230 Ftn 3), in the *Chandogya Upanishad*, salt is “to be placed above gold in value.” Chapter thirteen of this Upanishad also contains the well-known parable wherein salt added to water is likened to a person’s soul (Müller 1900: 104-05).

as far as Burma and the Northeast (Choudhury 1979: 172; Das 1910: 6; Serajuddin 1978: 310 Ftn 20; Southwell 1915: 64).⁶

Two types of salt-making were traditionally practiced along the Orissa coast – *panga* or the boiled earth method typical of the northern stretch of the coastline and *karkatch* or the evaporation method typical of the Chilika tract (Aggarwal 1976: 326; Ray 1960a: 213). The prevalence of *panga* salt in the north and *karkatch* salt to the south was dictated by underlying environmental factors. Along the northern coastline, increased precipitation made the evaporation method risky (Aggarwal 1976: 332) and the greater availability of firewood made the boiling method possible (Barik 2001: 122). While, along the southern coastline, the lack of fuel lands in the sandy Chilika tracts made the *karkatch* method the economically viable option (Drummond 1855: 86). Although the *karkatch* salt was “crude in quality and dull in color,” in Orissa it was more sought after than the *panga* variety (Barik 2001: 122).⁷ Hunter (1872: 41) attributed this to the fact that, for Oriyas, “the use of solar salt is an important aid to the salvation of their souls.” This was because “the Hindu reckons salt made by the sun to be more pure than that evaporated by the artifices of man.”⁸ It alone enters the temples, and throughout the whole of Orissa the respectable classes will not use the other sort.”⁹

⁶ Stirling (1887 [1822]: 9) disdainfully contradicts this assertion and relates that fish were transported without any prior preparation. In his words, “a large quantity travels far into the interior, unprepared in any way, which it of course reaches in the last stages of putridity, but not on that account a bit less palatable or acceptable to the nice and scrupulous Hindu.” Based on this research, it seems highly likely that by the time Stirling was writing about the fish trade in Orissa, the unprecedented increase in the price of salt had precluded its widespread use in the curing of fish.

⁷ See Hunter (Hunter 1872: 41-44) for an excellent contemporary description of how *karkatch* salt was produced in the Chilika *aurang* (salt manufacturing center) of Gurubai. Sterling and Peggs (1846: 15-16) provide a detailed contemporary description of *panga* manufacture in Orissa.

⁸ In language that would be familiar to Levi-Strauss (1969), Hunter (1872: 44) further clarifies this rationale by observing that Oriyas look upon the difference between *panga* and *karkatch* salt in the same way that they regard “cooked and uncooked rice. All nature’s gifts are pure until contaminated by the hand of man. Cooking constitutes such a contamination; and the priests of Orissa would as soon think of eating rice boiled by a person of inferior caste, as they would of using salt evaporated by the human device of fire.”

⁹ Aggarwal (1976: 326) claims that “the respectable classes were not using *Panga* salt, for the *Panga* salt was chiefly being manufactured by people of low castes, such as Keutas, Bauris, Kandaras etc.”

The first written evidence of salt manufacture in Orissa dates back to the Middle Ages and the 11th century Chodaganga inscriptions (Choudhury 1997: 259). In these inscriptions, reference is made to the official appointment of a *lavana karadhikari* or salt revenue officer. Similarly, the 15th century Kapilendradeva inscriptions allude to the existence of a salt tax in a passage that refers to the king's remission of the salt duty. While it remains unclear how heavily salt was taxed in the pre-Mughal era, there are indications that the taxation rate was not overly oppressive. For example, in the *Arthashastra*, individuals falling under the category of *vanaprasta* (hermits) were exempted from manufacturing salt with a license, as were other "men learned in the Vedas, persons engaged in penance, as well as labourers," who were permitted to "take with them salt for food" (Kautilya 1967: 89-90). Professor Sadananda Choudhury, the preeminent historian of salt manufacture in Orissa, contends that this ancient system is an accurate description of the prevailing situation in the province during the pre-colonial era. According to his research, "the levy on salt, all through the ages up to the Maratha rule, was of a trifling nature. The state considered the provision of salt for general consumption to be a more important object than the realisation of a revenue from this necessary item of food" (Choudhury 1997: 260).¹⁰

With the arrival of the Mughals, an ad valorem tax of between 2 ½% for Muslims and 5% for members of other faiths was imposed on salt (Choudhury 1997: 259). In addition, licenses were auctioned to the highest bidder (or assigned to favorites) and transit fees from the commerce with the interior of the country were collected (Aggarwal 1976: 457; Patra 1971: 118). The malangis received advances from the *beparis* (licensed salt merchants) with the

¹⁰ The cheapness of salt is corroborated by the accounts of British officers who arrived in Orissa at the time of the British conquest. For example, Melville wrote that, for "5 annas a person could easily purchase a *maund* of salt" i.e. for slightly more than a quarter of a rupee it was possible to buy approximately 84 pounds of salt! (Hunter 1872: 43 Ftn 50).

promise that they would produce a certain quantity of salt within the salt season (Ray 1960a: 204; Ray 1960b: 78; Serajuddin 1978: 304). For the most part this system continued under Maratha rule, though it appears that the licensing system was abandoned in favor of a tax on the salt producing lands (Barik 2001: 123; Patra 1971: 119). The transit duty, which was immensely profitable, was maintained, and according to Ray (1960a: 205), 300,000 *maunds* (12,600 tons) of salt was exported from Orissa up the Mahanadi river to Berar where it was traded for “rice, grain, oil-seeds, cotton and other rural commerce” (Aggarwal 1976: 326; cf. Barik 2001: 123). This salt was much sought after and early British accounts refer to the salt produced in the “wild inhospitable tract,” of Orissa as the “finest salt in all of India” (Stirling and Peggs 1846: 15). Colonial records indicate that during the last decade of the 18th century, the East India Company in Bengal annually purchased 68,000 *maunds* (2,856 tons),¹¹ providing the Marathas with an annual income of over Rs 200,000 (Ray 1960a: 206);¹² a sum in excess of the entire land revenue collected from the province (Barik 2001: 124; Choudhury 1979: 85).¹³

British Salt Monopoly

British interests surrounding Orissan salt were a driving force behind the decision to invade and annex the province. In the aftermath of the Battle of Polashir Juddho (Plassey) in

¹¹ Based on Ray's (1960a: 205) estimates, the total known export from Orissa amounted to at least 368,000 *maunds* in the late 18th century (300,000 to Berar and 68,000 to Bengal). This is equivalent to 30,912,000 pounds or 15,456 tons. It is unclear how much of this salt was produced around Chilika, but the duty collected by the Maratha government from the Chilika *aurangs* amounted to Rs 4500 (Ray 1960a: 206).

¹² Salt was purchased by the British not solely as an article of food but also as a necessary ingredient in the production of munitions (Choudhury 1979: 85). This was driven primarily by the increasing tensions between Britain and France, who were throughout the 18th century vying for dominance in India (Barik 2001: 124).

¹³ The *beparis* also greatly profited from this trade. Ray recounts that a certain “Sambu Bharati, a *Mahajan* (merchant) of Cuttack, had salt *golas* (warehouses) in the territory of the Rajah of Khurda; he agreed to pay the Rajah's *peshkash* (tribute) of Rs 1,000 to the Maratha government. In return for the privilege, he was granted to carry on his commerce duty free” (Ray 1960b: 79). The *golas* referred to in this passage were undoubtedly situated along the shores of Chilika Lake.

1757, the East India Company was granted *diwani* (the right to levy taxes) in Bengal and moved quickly to establish economic control over the province. In 1765, in one of his first acts as Governor of Bengal, Lord Clive (1725 – 1774), founder of the British Empire in India, established the “Exclusive Society” in Salt, Tobacco and Betel Nut (Aggarwal 1976: 55). Created as a perquisite for the senior European officers in the Company, the Society amounted to the introduction of a monopoly on these three items.¹⁴ Unfortunately for the Company grandees, their plans for personal aggrandizement were thwarted with the establishment in 1774 of a Board of Trade responsible for setting economic policy in the province. The Board promptly suspended the “Exclusive Society” and implemented an excise system designed to ensure that, subject to the payment of a duty to the Company, the salt trade would be open to all natives (Serajuddin 1978: 305).

This nascent excise system was, however, undermined by the continued activities of the Exclusive Society which, under the pretext of the need to dispose of its old stock in salt, did not suspend its activities. The result was a precipitous decline in the government’s salt revenue and a decision at the highest levels to stamp out this interference. In a textbook example of the inherent danger of turning into the thing one seeks to destroy in order to defeat it, Sir Warren Hastings (1732-1818), the first Governor-General of Bengal, instituted a system whereby the Company took upon itself to impose a monopoly on these items. Under this system, “all salt was delivered to the Government at a fixed price and Government sold it at a fixed price” (Aggarwal 1976: 457). In addition, Salt Agents were appointed in 1780 to provide malangis with advances to undertake salt manufacture. This allowed the government to determine pricing (and hence revenue) by fixing the quantity of salt produced in a given year. In essence, the government

¹⁴ The profits from these monopolies were no doubt substantial if one considers that they were assessed as a 35 per cent ad valorem duty that was eventually increased to 50 per cent (Serajuddin 1978: 304-05).

converted a competitive industry into a state “monopoly both over the manufacture and over the sale of salt” (Ray 1960a: 208).

Nevertheless, throughout the latter part of the 18th century, both the price and quantity of salt available in Bengal fluctuated wildly. For example, the salt revenue in 1784-5 was £628,747 but in the following year it declined to £467,687 (Ray 1960b: 80). Official inquiries into this matter implicated less expensive salt imported from the Maratha province of Orissa. To address this issue, the government promulgated a decree in 1784 that “no merchant, except the Company itself, would be allowed to import or sale [*sic*] salt in Calcutta” (Barik 2001: 125). In addition, government *golas* (warehouses) were constructed to house the manufactured salt and *chowkeys* (guard posts) were set up along the major roads to make certain that only officially sanctioned salt was being transported (Patra 1971: 122).

These regulations amounted to an undisguised attempt by the East India Company to pressure the Maratha government into allowing the extension of salt monopoly into Orissa. As could be predicted, the tightening of the salt monopoly in Bengal only resulted in an increase in the price of salt that spurred renewed efforts to smuggle in salt from Orissa. Evidence suggests that salt smuggling was rampant up and down the frontier, and it has been estimated that through only “one pass in this region some 15,000 maunds (630 tons) were annually smuggled into Bengal” (Ray 1960b: 82-83). The need to stave off the illicit salt trade was deemed such a priority that, in 1790, Cornwallis dispatched his confidante George Forster to the court of Maratha Maharaja Raghuji Bhonsle to, once and for all, resolve this vexing issue (Patra 1971: 121; Ray 1960b: 83; Sen 1974: 261). At the behest of the Company, Forster suggested that the British government would purchase *all* the salt produced in Orissa in a given year. While the Marathas initially expressed some interest in this scheme, the British proposal was eventually

rejected on the pretence that it would result in the financial ruin of the Orissa beparis.¹⁵

Following the failure of these negotiations, smuggling continued unabated until the British invasion in 1803.

Salt Monopoly in Orissa

Almost immediately following the British invasion of Orissa, the Bengal salt monopoly rules were extended over the province.¹⁶ Official correspondence from this era confirms that colonial interest in salt as a source of revenue was at the forefront of the East India Company's calculations. Writing less than a month prior to the imposition of salt monopoly, Captain Morgan, the British commander at Balasore, wrote to Colonel Harcourt in Cuttack that, "During the season of 1805-1806 the sale price by public auction may be gradually raised to one rupee and eight annas per maund. When the net revenue will be little short of ten lacs;¹⁷ and in 1806-07 if raised to two rupees per maund and an increased quantity is manufactured, the net revenue will be fully equal to if not exceed, two hundred thousand pounds sterling" (Choudhury 1979: 159). While the revenue did not initially reach these forecast levels, a net profit of Rs 43,435 was recorded for 1804 and Rs 104,894 for 1805. Clearly the salt monopoly in Orissa promised to be a major source of revenue for the Company and merited focused government consideration.

To accomplish this objective, a Salt Agent was appointed by the government in 1805 to introduce the new regulatory system and maintain oversight of salt manufacture in the province.

The Salt Agent was tasked with recognizing and licensing official aurangs or salt manufacturing centers and negotiating settlements with the zamindars in possession of these appropriated territories. Furthermore, the government agent swept aside the beparis

¹⁵ Forster was of the opinion that this excuse was a ruse and that the Marathas "disliked our plan thinking perhaps that an abolition of the clandestine trade in salt would diminish [their] profits" (Sen 1974: 261).

¹⁶ This was accomplished under Regulation IV of May 4, 1804 (Toynbee 2005 [1873]: 93).

¹⁷ A lakh (or lac) is a South Asian unit of measurement equal to 100,000. Thus, ten lakhs equals one million.

to undertake the role of middleman. In practice, this meant that the government was now responsible for providing advances to the malangis, who were effectively made employees of the East India Company (Ray 1960a: 209-10). Based on calculations surrounding estimated population and average salt consumption in the province, the Company fixed the amount of salt that could be produced and set the rate at which it would purchase the manufactured salt from the saltworkers (Serajuddin 1978: 307). To enforce this new system, the “mere scraping of the saline earth was heavily punished,” (Choudhury 1979: 32) and smuggling operations were suppressed (Patra 1971: 138; Ray 1960a: 211).

As the major source for smuggled salt, these rules initially applied only to the northern district of Balasore. However, in 1812, it was decided to extend the system over the entire province¹⁸ under the conviction that “a revenue upwards of five lakhs of rupees would be derived for a management cost of one lakh of rupees” (Choudhury 1979: 12; cf. Ray 1960a: 214). For the first time, Chilika Lake was encompassed under the British system and the seven lake aurangs of Bhusundapur, Haridas, Parikud, Gurubai, Malud, Satapada and Tua were officially licensed as salt manufacturing centers (Choudhury 1979: 13). Of these, the Bhusundapur and Haridas aurangs were located in the northwest corner of the lake and produced panga salt, while the rest produced karkatch and were located along the sandy coastal tract that separates Chilika from the Bay of Bengal (Figure 6.4).

Much as in Bengal, the end of the competitive system of salt manufacture and imposition of salt monopoly, resulted in a rapid and dramatic increase in the price of salt. In his contemporary account, Stirling (1887 [1822]: 48) estimated that the “enhanced price of salt” amounted to an astounding increase of at least 400 or 500 per cent.¹⁹ The major difference between Bengal and Orissa derived from the long British acquaintance with the former province. As in the case of land revenue administration, the wholesale application of Bengal rules led to

¹⁸ This was formally accomplished under Regulation XXII of 1814 (Choudhury 1979: 41).

¹⁹ Stirling is likely underestimating the increase in the price of salt. Oriya historians contend that the price of salt “shot up to about eight times that prevailing under the Marathas” (De 1961: 25).

disastrous results. To begin with, the level of salt production mandated by the government was woefully inadequate and based on inaccurate population estimates. This error was further compounded by calculations based on the assumption that the patterns of salt consumption in Orissa were identical to Bengal. In reality, due to differing dietary habits, religious requirements, and the greater economic importance of such industries as fish-curing and cattle-rearing, average salt consumption in Orissa was greater than in Bengal (Serajuddin 1978: 310). Unfortunately, these miscalculations and false assumptions tragically culminated in a devastating salt famine.

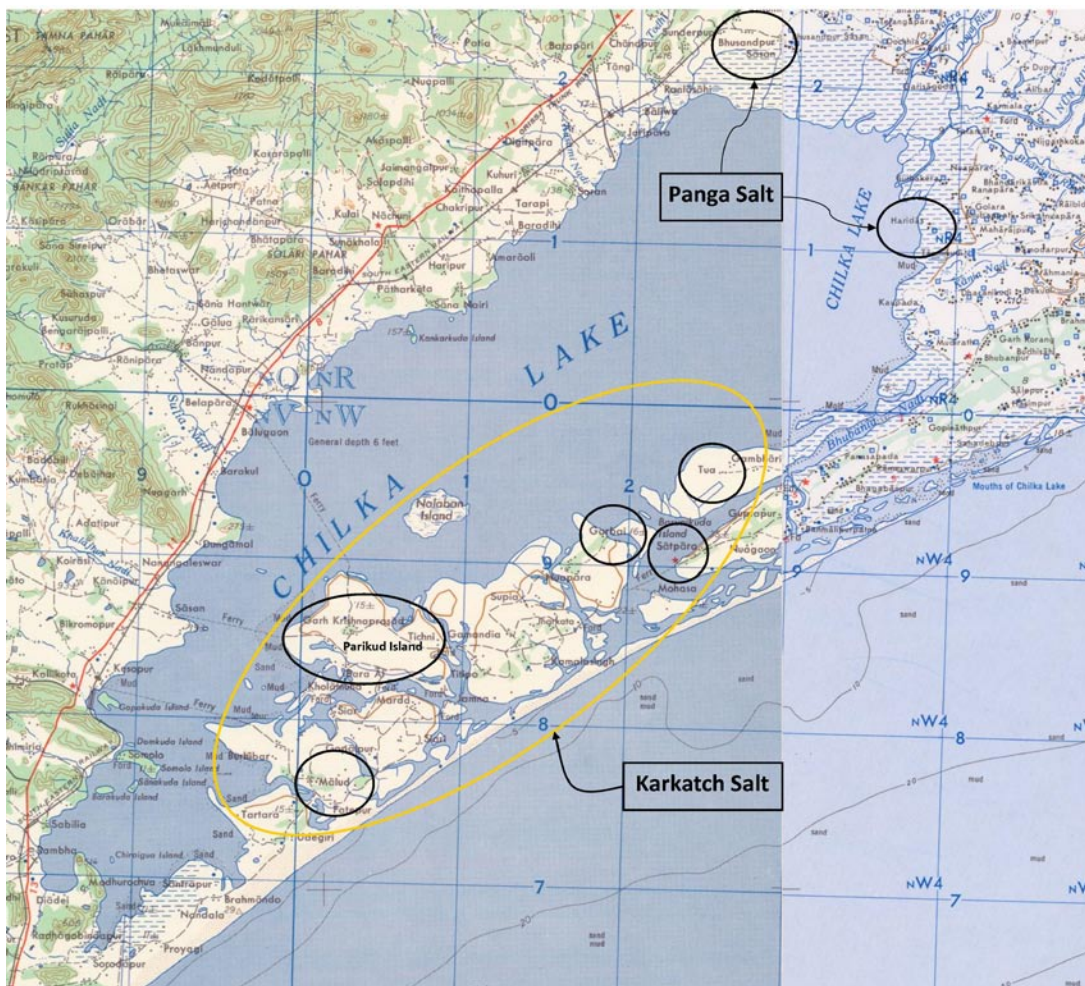


Figure 6.4 Modern map indicating the location of the Chilika lake aurangs in 1823 (US Army Map Service 1959, 1963).

When the Paik Rebellion erupted shortly thereafter in 1817, Mr. Trower, the Collector of Puri was of the opinion that the inability to obtain salt was a key contributory cause (Toynbee 2005 [1873]: 93). As he observed in his report to the Secretary of the Board of Revenue, “the cry for salt is general throughout the District. Not only is the high price complained of, a price, which is said to preclude the lower classes of the people from purchasing it, but the difficulty of procuring it, even by those who can afford to pay for it” (Trower 1961: 29). To support these assertions, he related that during his own tour of the district, “it was with the greatest difficulty [that] I could procure sufficient salt for the consumption of my camp” (Trower 1961: 30). Furthermore, based on conversations with zamindars and ryots, he reported that there was discontentment among the malangis, who were “very ill-paid and forced to give a greater weight than is required to the Government” (Trower 1961: 30). When one considers the large number of poor ryots who labored as malangis in the off-season, the breadth of support for the Paik Rebellion is hardly surprising.

Though Mr. Becher, the Company’s Salt Agent to the province, submitted a vigorous defense of the salt administration in the province (De 1961: 52-57), the government subsequently concluded that, due to “a very erroneous calculation,” (Ray 1960a: 222) there was indeed “a shortage of more than 2 lakhs of maunds (840 tons) of salt required for the consumption of the people of Orissa” (De 1961: 24). Based on these revised calculations, it is estimated that two thirds of the population was unable to obtain salt in sufficient quantities (De 1961: 24). Following this debacle, the Board of Trade reorganized the Salt Department in 1819 and placed it under the newly established “Board of Customs, Salt and Opium” (Choudhury 1979: 119). In

1823, a Salt Agent was appointed to oversee the Puri district and the salt manufacturing centers known as the “lake aurangs” (Patra 1971: 141).²⁰

The “Lake Aurangs” and Salt Production in Chilika

Salt production in the Chilika Lake aurangs was an integral part of the local culture and economy and, “apart from a little weaving and pottery making,” (Hunter, et al. 1877: 151), salt had the distinction of being the only manufactured product of the Orissa coastal belt. Primarily produced along the eastern half of the lake, the region was ideally suited for karkatch salt production, since the water was “at all times shallow [and] ... from the vicinity of the sea and the influence of the tides, the brine appears stronger than in other quarters” (Drummond 1855: 88). In addition, the lake was blessed with vast tracts of nunichar (salt lands) which “were overflowed with the lake water during the rainy season” and completely dry in February and March (Choudhury 1979: 4). With the arrival of the monsoon, freshets turned these ephemeral creeks and streams into teeming fisheries. During the December to June dry season, these fisheries evaporated in the blistering heat and became ideal for both karkatch and panga production. Early in the season, Malangis would follow the receding waters and obtain brine for boiling from these salt-saturated soils in a technique known as “saline efflorescence” (Drummond 1855: 86). Using this method, a gang of malangis could reportedly produce from five to eight maunds (420 to 672 pounds) of salt in 24 hours (Choudhury 1979: 6).

As a consequence of the *balia matal* or salt-infused, loamy soils of this region,²¹ local agriculture was almost entirely dependent on the annual rice harvest known as the *saradh* (winter

²⁰ In 1823, the “lake *aurangs*” were Bajrikote, Malud, Parikud, Satapada, Panasapada, Haridas and Bhusundupur. Except for Haridas and Bhusundupur, these *aurangs* were located along the sandy coastal strip that separates the lake from the Bay of Bengal.

crop) (Das 1910: 6).²² The consequences of these ecological constraints were manifold and undoubtedly account for the disproportionate number of *pahi ryots* (migrant farmers) who resided in this region.²³ This also explains the local dependence on salt manufacture in the off-season (Aggarwal 1976: 326) and why, unlike the Bengali *malangis* who were often “tribals, forest dwellers, and woodcutters,” (Bhargava 2006: 24),²⁴ the Chilika *malangis* were “almost exclusively [drawn from] the agricultural [class]” (Drummond 1855: 87). As Choudhury (1979: 10) explains, “Salt manufacture was of very great importance to its [Chilika’s] inhabitants,” since, “it constituted the principal vocation of the peasant class in the Parikud group of islands in the lake. This provided the only avenue for subsidiary employment and trade for the Parikud people and enabled them to obtain their other necessities of life.” In short, this occupation had “constituted since times immemorial a source of employment and livelihood to thousands of people inhabiting the almost barren tracts in and around Chilka lake” (Choudhury 1979: 11).²⁵

²¹ The Settlement Officer Babu Sudarsan Das (1910: 6) described these soils of Chilika as “in most parts a barren uncultivated waste composed of loose sand impregnated with salt. The soil is sandy, liable to severe drought and is exposed to risk of salt water inundations from both the sea and the lake.”

²² In the Chilika tract, the *saradh* crop amounted to 91.19 % of crops in Parikud, 83.42 % in Malud and 67.96% in Manikapatna, the parganas closest to Balabhadrapur. Overall, only 0.7 % of the total cropped area in Puri district was *do-fasal* or double cropped (Chakrabarti 2004: 39-41).

²³ In the *pargana* of Chaubiskud where I conducted my fieldwork, over fifty per cent of the ryots in 1837 were migrant farmers (Hunter 1872: 59). This was the highest percentage of *pahi ryots* in the state.

²⁴ According to Bhargava (2006: 24), *malangis* were a British innovation, “an amorphous category, invented by the Company.” Interestingly, she notes that in the 18th century many of the *malangis* in the Sunderbans were Oriyas who “came largely from Cuttack but also from other parts of Orissa” (Bhargava 2006: 24). It is quite likely that many of these *malangis* were from the Chilika area, since at that time Chilika was part of the Cuttack district.

²⁵ Hunter (1872: 44) presents the Chilika Lake *malangis* as belonging to “the despised classes.” In other words, “some of them have holdings, and work as agriculturalists during the main portion of the year. But most of them are day-labourers, with or without even a little patch of land attached to their cottages, and the names of their castes betray their inferiority in the Hindu social scale.” This characterization contradicts other contemporary sources and may be due to the fact that this passage was written in the immediate aftermath of the 1866 Famine, during which a great many ryots perished. Indeed, Hunter himself notes that “During the past eight years no salt has been made owing to the excessive manufacture of the preceding period.” This suggests that many *malangis* had moved on from salt manufacture and that, at the time of his visit, only the “despised classes” were still actively engaged in salt manufacture.

From the initial 1823 reorganization and appointment of a Salt Agent for the lake aurangs, the colonial government initiated a process that would eventually result in the complete restructuring of the local economy. Although the local karkatch salt was considered the only variety sanctioned for use in Hindu ritual, it suffered from impurities which translated into lower profits (Patra 1971: 141).²⁶ For this reason, the authorities discontinued the export of karkatch salt to Bengal in 1825. However, in order to forestall widespread discontentment among the malangis, and out of a fear of repeating the mistakes that led to the Paik Rebellion, the chastened authorities artificially boosted demand for karkatch salt in Orissa by lowering its cost. Salt Department records indicate that this decision was wildly successful in the short run.²⁷ For example, Satapada (my field site) led production with 300,000 maunds (12,600 tons) produced in 1852 followed closely by Gurubai in the Parikud Kingdom with 240,000 maunds (10,080 tons) (Drummond 1855: 85). In the long run, however, this decision cut off the lake aurangs from their traditional markets in Bengal, reduced their market share, and left the industry vulnerable to competition.

This competition arrived in two forms: 1) The introduction of Liverpool salt and; 2) The replacement of the salt monopoly with a licensing program known as the excise system. In reality, these were interconnected events that stemmed from the British free-trade movement of the 1820s and 30s. With the abolition in 1825 of the salt duty in England, British salt manufacturers began looking for lucrative foreign markets where they could export their product (Aggarwal 1976: 458; Choudhury 1979: 59). Though Bengal was identified as a potential market with millions of consumers, the salt monopoly prevented the sale of foreign salt in India.

²⁶ Hunter, et al. (1877: 152) explained that the *panga*, or “artificially evaporated salt sells at a slightly higher price ... as it is stronger, and goes much farther, the people find it in reality cheaper.”

²⁷ In 1823-4, the total amount of salt sold in Orissa was 178,183 maunds (7483 tons), in 1824-5, 226,571 maunds (9516 tons) were sold and in 1825-6, 333,648 maunds (14,013 tons) were sold in the province (Patra 1971: 143).

Thus was born the campaign to end the salt monopoly. By 1836, the efforts of this lobby bore fruit as the British parliament agreed to appoint a Select Committee to look into the matter.

The supporters of the salt monopoly contended that the system was necessary because the government (through the Permanent Settlement) had placed a limit on the taxation of land (Martin 1838: 294). As such, it was “the only contribution of the masses of poor people for the public expenditure of the state. In other words, it was considered to be the only impost that fell upon the people of moderate means who neither held lands, nor went to law, nor consumed liquor or opium” (Choudhury 1979: 163).²⁸ Opponents of this system countered that this was the most iniquitous of taxes because consumption did not vary as a result of income and thus fell most heavily on the poor.²⁹ Indeed, according to Choudhury’s (1979: 161) calculations, by 1864 the salt duty in Orissa was the highest in India and hovered between 1800 and 2000 per cent!

The opposing sides also vociferously squared off on the issue of the wellbeing of the malangis. The opponents decried their unhealthy working conditions and the saltworkers’ perpetual indebtedness to the salt agents (Bhargava 2006: 38). Supporters of the salt monopoly countered that “many of the Molunghees are wealthy individuals, and all are as well off, if not better, than other classes of the community” (Martin 1838: 321). Rather than benefit the malangis, they claimed that ending the salt monopoly would force the malangis into the unenviable position of choosing between seasonal work as laborers or risking their economic survival on cultivation in a marginal and fickle environment.

²⁸ In *The Administration of the East India Company*, J.W. Kaye remarked that: “Of all the great sources of Indian Revenue not one has been so much assailed as the monopoly of salt. It is here that the philanthropists will find his most palpable object of censure, the partisan of free-trade his most vulnerable point of attack, and the advocate of the Company his least defensible position” (Quoted in Patra 1971: 177).

²⁹ The rural poor suffered the most since those living in cities earned more and were able to better adapt to this situation (Ray 1960a: 219).

In the end, the opponents of the salt monopoly secured a partial victory and the British government directed the Board of Trade to introduce a mixed system whereby the monopoly on sale was discontinued but the monopoly on production continued as before. In an echo of current day debates surrounding globalization and free trade, this step was explicitly endorsed as a way to increase competition and thus reduce the high price of salt purchased by the consumers. In fact, the price of salt did drop as salt arriving as ballast from Liverpool greatly undersold the locally produced varieties.³⁰ By 1851, 56% of salt sold in the Bengal Presidency was imported from England, amounting to almost three million maunds (126,000 tons) of salt annually (Choudhury 1979: 108).³¹ This resulted in the closure of local manufacture and the reduction of output throughout Orissa. By 1862-3, imported salt from Liverpool had complete possession of the market³² (Patra 1971: 178) and the British government opted completely out of the salt-making business.

Salt under the Excise System

The end of the government salt monopoly system in 1863 did not spell the end of the government monopoly over salt. Rather, it resulted in the introduction of a new licensing system that came to be known as the Excise System. Under this system, which took effect the following

³⁰ This system of transporting salt developed because British ships often sailed with very little merchandise on their onward journey to India and their reduced weight made sailing in the high seas more treacherous. Salt was latched upon as an appropriate dead weight to serve as ballast (Choudhury 1979: 49 Ftn 71).

³¹ Contrary to the predictions that the Indian consumer would eschew Liverpool salt as impure (because it was produced by non-Hindus), for the majority of people, economic considerations trumped religious concerns. An example of one such prediction comes from a speech by the Hon. Andrew Ramsay, who asserted in 1830 that “many natives of high caste would rather starve than eat salt from this county; no Hindu of good caste would eat any thing from on board ship” (Martin 1838: 307).

³² Barik (2001: 129) credits the low cost of imported salt to the U.S. Civil War. The inability to access the U.S. market created a surplus that was dumped on the Bengal market.

year,³³ the right to produce salt continued to be vested with the government, though the government was no longer directly involved in salt production (Hunter 1872: 43-44).³⁴

Individual capitalists were encouraged to apply for licenses to produce salt and the government continued to earn its revenue “by levying an excise duty on every maund of salt sold from the salt warehouses under joint control of the government and the licensed manufacturers”

(Choudhury 1979: 59). In what appears to have been an attempt to resurrect the beparis, the authorities hoped local capitalist investment would revive the industry and benefit the coastal region.

Though the excise system policy was well meaning and designed to combat the numerous excesses of the Salt Monopoly, its implementation ultimately destroyed the indigenous salt industry and brought great tragedies in its wake. Many seasoned colonial administrators warned that a poverty stricken state such as Orissa sorely lacked individuals with entrepreneurial experience, or sufficient capital, to successfully outcompete imported salt. Lord Dalhousie (1812-1860), the Governor-General of India and Governor of Bengal, opined that, “Necessity may unfortunately compel this Government for the present, to continue to raise an objectionable impost upon an article of first necessity, but nothing can justify the Government in pursuing for this purpose, a system which unduly exposes a portion of its people to disadvantage that are rapidly depriving them of their means of livelihood” (Aggarwal 1976: 329). The Board of Revenue was even more pessimistic and predicted that:

This state of things, so injurious to the home-producer and to the industrial interest of the country, appears to the Board to demand close enquiry, and if possible the application of a remedy. The discontinuance in any district of a manufacture in which thousands of persons have been engaged all their lives, and from which they have derived large portion

³³ It was formally introduced under Act VII of 1864 (Choudhury 1979: 61).

³⁴ The exception to this rule was the role of government oversight of hygiene at the remaining *aurungs* (Choudhury 1997: 257).

of their subsistence, is a most serious calamity, which the Government is bound to avert by every possible means consistent with the maintenance of revenue derived from salt and with fairness to the foreign importers. (Aggarwal 1976: 328-29)

In the case of Chilika, many of these dire warnings unfortunately came to fruition. With the abolition of the Salt Monopoly, the approximately sixteen thousand *malangis*³⁵ who worked in the lake *aurangs* became unemployed overnight (Choudhury 1997: 255). Whereas in the pre-colonial era, the *malangis* were able to negotiate agreements directly with the local zamindars,³⁶ continued government control of the salt producing tracts precluded this option. The fact that large surpluses in salt had accumulated in the government *golas*, led the government to limit salt production to 500,000 maunds (21,000 tons) and scared off potential investors from procuring licenses (Aggarwal 1976: 329). This caused widespread unemployment and depopulation up and down the Orissa coast as the *malangis* were dislocated and forced to migrate in search of employment as day laborers or field hands in the agricultural sector.

The worst affected of all the people were the inhabitants of the Chilka region in the southern part of the province. The ‘Parganas’ of Malud, Parikud, Budgerkote, Balabhadrapur, Gurubai and Satpara of this region were situated on the narrow strip of sandy land dividing the Chilka lake from the sea. Their population numbering about ten thousand were a class of

³⁵ Based on Salt Department reports there were 15,639 *malangis* and other associated saltworkers in the Puri District in 1854-5. The vast majority of these worked in the lake *aurungs* (Choudhury 1979: 56). Since salt production increased through the early 1860s, this number likely approached 16,000 by 1863. Throughout the province, an estimated 26,000 *malangis* were thrown out of work in 1863 (Mohanty 1993: 55).

³⁶ With the imposition of Salt Monopoly, the zamindars forfeited their salt lands to the government in perpetuity (Bhargava 2006: 26; Ray 1960a: 215-16). For these expropriated lands, the government provided the zamindars with *musahira*, or “a monthly allowance paid to Zamindars from the proceeds of their estates when deprived of management of them on their own behalf” (Wilson 1968: 357) and *khoraakee*, which was a portion of the salt produced that they could sell for profit (Wilson 1968: 287). The abolition of the Salt Monopoly ruined these zamindars because, even though these lands were not returned to their original owners, this system of payments was discontinued. A case in point is the property of Fateh Mohammed, the notorious traitor who received a *sanad* (deed) to the Parikud lands in appreciation for his assistance to the British at the time of invasion. After salt monopoly was imposed, Mohammed lodged a formal complaint requesting the right to independently produce salt on this land. However, the government ruled that “nothing in the terms of his grant exempted him from the operation of the general regulations” (Toynbee 2005 [1873]: 93). In 1889, when Mohammed’s grandson entered into debt and requested a government allowance, he blamed his reduced state on the end of the salt allowances described above (Das 1910: ix). Notwithstanding this claim, his request for a government allowance was rejected outright.

exclusively professional salt manufacturers. This was due to the fact that agriculture in this region was almost nonexistent. Naturally, they earned their livelihood from salt manufacture since ages. The abolition of the monopoly and the cessation of manufacture for that matter reduced the non-agricultural population of this region to the position of utmost poverty (Choudhury 1979: 57).

To make matters worse, in 1866, intermittent rains and below average rainfall resulted in a major famine that devastated Orissa and left somewhere between a quarter and a third of the population dead (Hunter, et al. 1877: 173).³⁷ As previously noted, Hunter (1872: 31) was of the opinion that nowhere in Orissa was the distress more intense than along the Chilika coastal parganas of Malud, Parikud, Bajrakote, Balabhadrapur, Gurubai and Satapada, where at all times “the people live perpetually on the verge of famine.” With the failure of the agricultural crop and the inability to fall back on salt manufacture, these coastal communities and the agricultural class in particular were decimated.³⁸ Starvation was rampant and the “country surrounding the lake presented melancholy sights of death and depopulation” (Choudhury 1979: 57). During this dark period, a disproportionate number of malangis perished throughout Orissa and a salt famine ensued. When salt production in the lake aurangs was finally resumed in 1872 it required the importation of malangis from the Madras Presidency (Hunter 1872: 44).

³⁷ As with all famines, this one was as much man made and the fault of poor bureaucratic decision-making as it was the result of natural causes. Hunter, et al. (1877: 148-73), Mohanty (1993), Samal (1990), Mishra (1991) and Mukherjee (1958) provide in-depth discussions of the 1866 Famine, its underlying causes, and far-reaching consequences.

³⁸ According to figures collected following the famine, 101,895 or 48% of the fatalities in the Puri district were cultivators. There is some question as to the extent to which fishers suffered from the famine. Indeed, “according to many observers, [they] prospered during the early part of the famine” (Mohanty 1993: 62). The Collector of Puri visited my field site of Satapada during the famine and reported that thanks to the ample fishery there was no sign of famine among the fishers in what was otherwise one of the worst affected regions (Mohanty 1993: 62). It is difficult to assess whether this report is truly representative of the situation in this region, since it is dated December 1865 and thus precedes the height of the famine by six months.

The greatest deficiency of the excise system was that, though in principle the excise was the same on Indian and imported salt, in reality Indian salt manufacturers were burdened with the cost of excise collection (Barik 2001: 130-31). This included the “preventive establishment” that sought to limit the illicit production of salt, “warehouse establishment” costs surrounding the storage of the salt and a 7½ % surcharge known as *suruf* (Wilson 1968: 469) that was added by the government for potential wastage (Barik 2001: 131; Choudhury 1979: 28). Ironically, “in the core of salt-land its price to consumers was higher than elsewhere in India” (Blyn 1981: 239).³⁹ By 1880, with the exception of the Chilika Lake aurangs, the millennium old tradition of salt manufacture was extirpated throughout the entire Bengal Presidency (Barik 2001: 132).

The End of the Lake’s Salt Industry

The reprieve for the Chilika Lake aurangs was short-lived. As Pandit Gopabandhu Das (1877-1928),⁴⁰ a leading figure in the Orissa independence movement, caustically remarked, “It is not improbable that the Bengal Officers did not like the continuance of the industry in an extreme and by no means attractive corner of the province, and for want of strict supervision of the excise system which was then working [this] did not prove a success” (Aggarwal 1976: 330). In an unprecedented act, which Das termed “but another instance of how the Orissa shore has often been used as a ground for administrative experiments,” the supervision of the lake aurangs was summarily transferred to the Madras Presidency in 1890 (Aggarwal 1976: 330). This set the

³⁹ Based on a report by Mr. Bliss, the Commissioner of Salt Revenue in Madras, under the excise system, “a consumer in Orissa had to pay for his salt at least three annas more per maund compared to others in the rest of India” (Choudhury 1979: 80).

⁴⁰ Pandit Gopabandhu Das, known lovingly to Oriyas as Utkal Mani (Gem of Orissa), was born near Puri in a village along the Bhargavi River, a tributary of Chilika Lake. He was a lawyer, journalist and politician who struggled tirelessly for Oriya rights and Indian independence. He was elected to the Orissa Legislative Council in 1917 on a platform that called for the restoration of the right to produce salt without excise duty (Misra 2006). He is credited with inspiring Gandhi to wear a *dhoti* and to undertaking the transformation of the Indian National Congress into a truly mass movement.

stage for the last chapter of salt manufacture in Chilika that came to be known as the System of Direct Manufacture. Under this system, willing malangis were offered a “special inducement” as remuneration. “Each salt ryot or malangi was allotted a plot of land nearly two-thirds of an acre to work out his salt pan with the assistance of a member of his family. Small advances not exceeding five rupees were given to each of them to be paid back to government in salt” (Choudhury 1979: 21). The outer channel communities of Tua, Satapada, and Gurubai were selected as testing grounds for this novel approach to salt production.

Though there were high hopes for this new system, it unfortunately failed to live up to expectations. In part this was due to the lack of interest on the part of the Madras Presidency Salt Department, which found itself unexpectedly responsible for overseeing an extra-judicial territory, in an unfamiliar district, where they could barely communicate with the locals (Choudhury 1979: 153). Once again, “state simplifications” (Scott 1998) took their toll, as the government randomly distributed plots to malangis unaware that not every salt pan was equally capable of producing salt. Nevertheless, the death knell came with the arrival of the East-Coast Railway in 1896.⁴¹ The additional cost of transporting the salt across the lake on country boats proved uneconomical and gave the Ganjam district town of Houma⁴² an unassailable advantage (Taylor and Maddox 1899: 100).

By 1898, the last aurangs in Tua, Satapada and Gurubai were permanently shuttered by the government.⁴³ The coastal tract of Chilika was turned into a “dreary desert” as the

⁴¹ The first train from Khurda to Bhubaneswar was flagged off on July 20, 1896 (Nayak 2008a).

⁴² Houma, which is located on the Palur canal near where it meets up with the Rushikulya River and the Bay of Bengal, is a salt manufacturing center to this day. Not coincidentally, it is famous in Orissa for its dry fish market which takes place every Sunday.

⁴³ This governmental decision seems particularly cold-hearted if one considers that the hardest hit district in the 1896-7 Bengal famine was the coastal tract of Chilika. Based on the Famine Committee’s report, 231 square miles of the Chilika lakeshore were affected and 74,000 people were provided with assistance (Chakrabarti 2004: 42-44).

inhabitants were deprived of “their only means of livelihood” (Choudhury 1979: 24).⁴⁴ The colonial administration was well aware of this situation and, in the 1897 Settlement Report, Taylor remarked that since “The manufacture of salt formed a valuable means of livelihood for numerous tenants living in the island of Tua and Satpara. ... it is to be feared that the abolition of the manufacture will for sometime cause distress among the poorer tenants and their condition will need to be closely watched by the proper authorities” (Taylor and Maddox 1899: 100). Writing a little over a decade later, Das (1910: 8) reported that the “withdrawal of this source of income has had a most prejudicial effect,” on the condition of the Chilika lake communities, though he refrained from offering any solutions to address their plight.⁴⁵

The closure of salt manufacture in the lake signaled the end of malangis as a class in Orissa. The marginal nature of the salt-induced and loamy soils of the Chilika coastal tract, the lack of irrigation, and the constant threat of flooding, left this long-suffering group in a precarious state. As Chakrabarti has observed, the almost absolute reliance on mono-cropping (i.e. the saradh) resulted in agricultural insecurity that manifested as poverty and famine. It was along precisely this coastal tract that, “distress was first felt and relief measures were necessary in 1866, 1885-86 and 1888-89,” as well as in 1896-97 and in 1916 (Chakrabarti 2004: 42). The government decision to discontinue the manufacture of salt further exacerbated this insecurity and removed a vital source of reliable income. As Pandit Gopabandhu Das eloquently observed, the end of this industry resulted in untold suffering to the former malangis as “year by year, for

⁴⁴ The end of salt manufacture sent ripple effects throughout the Orissan economy. For instance, the once flourishing port of Balasore declined as the salt trade decreased. This was because the sale of salt provided the capital for many subsidiary industries (Choudhury 1997: 258; Patra 1971: 177-78).

⁴⁵ To his credit, Taylor proposed establishing a fish salting yard at Satapada that would make use of the large quantities of undelivered salt that remained at the local warehouse (Taylor and Maddox 1899: 100).

want of employment,” they resorted to “hopelessly leaving their wives and children, going out to Burma and Assam in quest of wages” (Barik 2001: 138).

Removal and Reengagement with the Salt Lands

The local communities that had toiled as malangis repeatedly lobbied the government to reinstitute this cottage industry. In 1901 and again in 1908, the government was petitioned to relieve the distress of the Chilika coastal tract by reopening the lake aurangs. Yet, after successive government inquiries, it was deemed that the karkatch produced in Chilika salt lacked a sufficient market and was uneconomical to produce (Aggarwal 1976: 331-33). Following another devastating famine in 1916 (Devi 1992: 165) and an increase in the price of salt due to World War I, the Orissa Legislative Council vigorously took up the cause from 1916 through 1920. During this time, the M/s Tata and Kilburn Company expressed their interest in manufacturing salt in the lake and even obtained a twenty-five year license from the government. Unlike previous small-scale efforts, this was intended to take advantage of economies of scale and the authorities went so far as to approve the company’s request to hand over the entire island of Tua “in order to prevent any interference by outsiders,” (Devi 1992: 167). However, with the end of the war and a rapid decline in salt prices, the project was shelved. The final attempt to revive the industry was made by the Parikud Raja, who obtained a five year license to manufacture salt in 1932 (Devi 1992: 170).⁴⁶ Faced, however, with numerous bureaucratic hurdles, the issue of carriage, and the costs associated with the salt-tax, the project was unceremoniously abandoned in 1936 (cf. Pitt 1932).

⁴⁶ Das (1910: 11) states that the stoppage of salt manufacture finally led the Parikud Raja to make over his property to the Court of Wards in 1904. In effect, this meant that the Raja declared bankruptcy and applied for protection from his creditors.

In practice, the closure of the final two salt manufacturing centers in 1898, meant that the officially designated nunichar that were unfit for cultivation were placed under sole government possession. Since these lands were unproductive, they were categorized “wastelands” (Das 1910: 6).⁴⁷ Furthermore, given that the government was keen to prevent the illicit manufacture of salt in these tracts, the nunichar was essentially placed off-limits in the dry season. In the rainy season, the same nunichar areas were among the most productive fishing grounds leased out by the government to the local fisher communities. In particular, the shallow waters around the Tua and Satapada islands were rich fisheries and ideal nursery grounds for a variety of fish species. As discussed in Chapter 5, the recognized right of the fisher communities to fish in these waters extends back to 1805. This was formally enshrined under the 1897 Settlement of the Khurda Khas Mahal, where it was decided to directly lease out these fishing grounds to the local fishers. Coming as this did at precisely the same time that salt production was halted, this new lease system effectively converted these formerly multi-use territories into the exclusive domain of the local fisher communities. Unable to produce salt or obtain a lease to fish in the lake, non-fishers who entered into these territories for subsistence and livelihood activities were branded trespassers and poachers. Based on my almost two years of fieldwork, I found that the fishers felt that that the lake was their singular domain by tradition and local right.

⁴⁷ Under the Mughals, it was decreed that “salt or pitch lands, or the like, which are indispensable to Mahomedans, are not waste” (Baillie 1873: 40). During the initial years of colonial rule, unoccupied waste lands were not included in land revenue assessments based on the belief that the landowners would actively seek to reclaim and cultivate these lands since this would reduce their revenue burden. In 1828, the right of government to these lands was asserted under Regulation III and a concerted effort was made to identify and separate out these lands. The vast majority of these lands were subsequently designated State Forests (Baden-Powell and Holderness 1907: 58). Most recently, the National Wasteland Development Board of India defined wastelands as “degraded land ... which is currently lying unutilized and land which is deteriorating for lack of appropriate water and soil management or on account of natural causes” (Singh 1997: 268).

However, following Indian independence and the abolition of Zamindar rule in Orissa in 1952,⁴⁸ the local non-fisher communities began to contest their exclusion and put forth a claim of legitimate rights to the nunichar. Starting in 1954, villagers from the Tua Island hamlet of Gambhari began fishing with *poluha* in the foreshore waters of the island. A *poluha*, which is a rudimentary fishing device made of bamboo, is reminiscent of a large shuttlecock with an opening in the narrow end. To work a *poluha*, the angler wades waist-height into the water and then either scoops out his prey with a horizontal swinging motion or drops the *poluha* like a trap over passing fish, which are then scooped out by hand through the top opening (Figures 6.5 & 6.6). Traditionally used by the local non-fisher community to catch fish for *tarkari* (personal consumption), in the 1950s they began to enter the fishery in larger numbers for the sake of marketing fish in the local bazaars. The first place to formally register a case against *poluha* wielding non-fishers was in my field site of Bhalabhadrapur,⁴⁹ after a group of villagers from the Tua Island hamlet of Gambhari entered the their *jano* (a cruive-like enclosure) and captured large numbers of fish.⁵⁰

⁴⁸ This was accomplished under the Orissa Estates Abolition Act, 1951, which was implemented as Orissa Act 1 of 1952.

⁴⁹ In the petition filed by Kunjabeheri Jagadeb to the Puri Collectorate, S. K. Rau (Rau 1956) refers to a Tahsildar report of August 8, 1954 that looked into *poluha* rights in the Satapada *jano*. In addition, the Sub Divisional Officer's letter to the Collector of Puri, he refers to Letter No. 10314 (or 10315), dated December 31, 1954 in which the issue of *nunichar* rights in the Satapada *jano* were investigated (S. D. O. Khurda 1956).

⁵⁰ While it might seem at first glance that this relatively unsophisticated method of fishing could hardly be an efficient way to catch large numbers of fish, under local conditions it proved to be highly profitable. By fishing in a *jano* (enclosure) it was a simple matter to corner large numbers of fish; especially as the waters receded in the dry season. In *State vs Kaibilya Jena & Ors.*, it was reported that a group of "persons numbering about 50 caught fish between 9 p.m. and 5 a.m. in the night without any authority to make a wrongful gain and to put the Satpada society into loss." The loss was estimated at Rs 1500 for one night.



Figure 6.5 Non-Fishers of Parikud Island with Two Types of Poluha.



Figure 6.6 A Local Non-Fisher Demonstrates the Use of Poluha in a Village Pond.

The Fight for Nunichar Rights

The Gambhari non-fishers, who were publicly cautioned against trespassing in leased out fishing grounds, ignored the authorities and continued to fish in the Satpada *jano* until a large number of them were placed under arrest for committing “several overt acts with an ulterior motive to forcibly catch fish unauthorisedly from the Sidua Niataghar fishery leased out to the Satpada Fishermen Co-operative Society” (Hota 1956).⁵¹ Following their arrest, the local magistrate admonished the non-fishers for having,

... formed a committee for the purpose of forcibly catching fish from the said Sidua Nadi Ghar fishery and to meet the litigation expense and [the fact that] you are ready to oppose the fishermen, if obstructed, and assault them while catching fish in the said fishery which may lead to serious breach of the peace resulting in loss of lives, and in order to achieve your end, you are holding meetings and instigating other neighbouring non-fishermen to join hands with you for doing the above unlawful acts. (Hota 1956)

Based on the above passage, it is evident that the entry of non-fishers into the Satapada lease area was not a random act, but rather represented the start of an organized movement to assert a claim to the lake and its fishery resources. Rather than put forth a claim asserting a right to fish in the lake or, alternatively, to the various fishing grounds leased out by the government to the fishers, the non-fishers instead claimed an “age-old right” to the *nunichar* or “abandoned salt fields to which there is over flow of Chilika waters during rains” (S. D. O. Khurda 1956). In addition, they openly contested the fishers’ sole rights to the fishery on the basis of their “right of fishing in the shallow water of Chilka lake including *Lunichar*⁵² by means of *Poluha*” (S. D. O. Khurda 1956).

⁵¹ The following documents are taken from the private collection of the Satpada Primary Fisheries Cooperative Society in Balugaon referred to in Chapter 5. A photocopy of these documents is available upon request.

⁵² *Lunichar* is an alternative pronunciation of *nunichar*. *Luni/nuni* means salty in Oriya. Other possible spellings include *Nunchar/Lunchar*. Another common term for the salt lands is *nunmati*.

In 1956, in an effort to have their claim officially recognized by the authorities, the Gambhari villagers submitted a petition to the Collector of Puri, “on behalf of ten thousand others belonging to 24 villages under Brahmagiri P.S.,” in which they averred that their right to fish “is age old and supported by custom, usage and conceded by authorities” (Rau 1956). Specifically, their claim of a “right to fish” was predicated on the allegation “that all the *Nunchar* areas should be regarded as shallow water fisheries” (Rau 1956). These areas, which, “In rainy season water spreads over ... are entered as *Nunchar* and it is contended by the petitioners that they have been catching fish in this area. The present right by petitioners is therefore claimed on the areas which are recorded as *Nunchar*” (Rau 1956).

To the great dismay of the non-fishers, in this case, and in a bevy of successive cases that includes an Orissa High Court ruling, they proved unable to sway the authorities or establish their claim of an “age-old right” to the nunichar lands. The authorities consistently ruled that, since the nunichar is listed in the land register as *sarkari* (government owned), there was no foundation to any claim based on customary use. Moreover, based on the case of the Banpur fisheries (extensively discussed in the previous chapter), the authorities questioned the non-fishers’ assertions of customary use. In that earlier case, the fishers of the northwest corner of Chilika were deemed to have a *bona fide* claim to the fishing grounds in their nearshore waters and were subsequently assessed eight annas per household for the right to fish in the lake. The authorities thus reasoned that, if the non-fishers did, in fact, have a legitimate claim to fish in the foreshore areas of Tua Island, that a similar arrangement would have also been negotiated at the time of the 1897 settlement. The lack of any such arrangement was deemed sufficient evidence against the claim of an age old right.

Undeterred by their legal losses, the non-fishers of the area, led by villagers in Gambhari as well as those of Tichana on Parikud Island, continued to forcibly enter into the fishers' lease areas to fish with poluha. By 1964, Tua islanders brazenly erected an earthen embankment across the Sidua Nadi fishery in an ingenious plan to cordon off the area for themselves (1964) (Figure 6.7). Indicative of the non-fisher's increasing economic involvement with the lake's fishery, court records reveal that this plan was specifically designed to obstruct the Satapada fishers in order to "carry on fish trade" (S. D. O. Puri 1965). Although local authorities ordered the embankment's immediate removal, no concrete steps were taken and the case soon became mired in the courts.⁵³

In the face of rising communal tensions, rioting, assaults, thefts, and even murder,⁵⁴ the Puri Collector convened an advisory committee in 1960 and tasked it to investigate the pressing issue of fishery rights in the lake. Presented in 1964 as the *Report of the Nine Member Committee on Chilka Fishery Disputes* (hereafter referred to as The Nine Member Report) the authors found that,

With the rise of prices of fish as a result of exports and general trend in rise of prices, fishing has become lucrative and it is felt that all the inhabitants both around and inside Chilka are trying to adopt fishing for their income in some degree or others. The cultivators whose primary occupation is cultivation of land are trying to make an

⁵³ The Gambhari villagers claimed in *State v Khetrabasi Jalli* (1964) that this embankment had existed for over 100 years and that, since there was no proof that they had placed it there, the authorities could not order them to remove it. In *State v Indramani Jagadeb* (Mitra 1926), the judge ruled that it was the responsibility of the Brahmagiri police station to demolish the embankment. Most recently (2007), it was paved over with World Bank financing to serve as an access road to Tua Island.

⁵⁴ Concerns surrounding communal tensions were repeatedly voiced in the official record and will be discussed in the subsequent chapter. The F.I.R. (First Information Report) and court records are replete with examples of rioting, assaults, thefts and murder. For example, "the leaders of the non-fishermen, Purna Chandra Mansingh, Indramani Jagadeb and some others have been convicted and sentenced to 7 years P.I. for killing a man in village Gambhari who had sided with Jaikrishna Jally of Satapada in one state appeal No. 4 of 1954. About 56 villagers of Gambhari have been convicted and sentenced to fine for rioting in G. R. Case No. 1249 to 1257 of 1954" (Misra 1965). For a complete record, a copy of the Satpada Primary Fishermen Cooperative Society records is available upon request.

additional income by taking to fishing in their spare time. Often they are found selling fish after meeting their own consumption. (The Nine Member Report 1964)⁵⁵



Figure 6.7 Aerial View of Tua and Satapada Islands including the Sidua Nadi jano fishery and the embankment that dissects it. Note the large number of prawn ponds surrounding Tua Island (Google Maps 2009).

As a result, the committee members felt that no “water-tight division is possible between fishers and cultivators since fishermen are cultivating lands and cultivators in Chilka are catching fish.” Moreover, since “fish, being a principal food of the people of this area, it is difficult to

⁵⁵ The Nine Member Report (1964) and Trpathy (1965) (below) are part of the Satapada Primary Fisheries Society collection and are unpaginated.

deny this privilege” (The Nine Member Report 1964). Based on these findings, it was recommended that “local people should be allowed to do fishing by Poluha method up to waist-deep water in all seasons of the year” and that new *Dians* (small shallow areas adjacent to *jano* fisheries) be delimited and leased out to the non-fishers (The Nine Member Report 1964).

In effect, these recommendations represented an official acceptance of the non-fisher claim to rights in the shallow waters or nunichar. As might be expected, the minority opinion opposing these recommendations was voiced by the fisher representative, who feared that this was a dangerous precedent that would lead to demands for further concessions. Instead of accepting the Committee members’ paternalistic advice that, “In their own interest, the fishermen should concede something in favour of other people of the locality to save themselves from greater harm,” (The Nine Member Report 1964) the fishers successfully lobbied against these recommendations. In 1965, Chief Minister Sri S. Tripathy, wrote that,

The fishermen have become panicky due to some sort of an enquiry recently conducted by an officer of the Co-Operative Department on the representation of non-fishermen. Conferring of rights on people other than those who have got some sort of a customary right, should not be attempted and if such a proposal is before the Government, the implications should be very carefully examined. The Collector, Puri may be told to inform the fishermen community that the Government will maintain the status quo and nothing will be done to create any apprehension of doubt in their minds. (Tripathy 1965)

Upon receipt of these orders, S. P. Das, Collector of Puri, directed the Puri Superintendent of Police to prevent the non-fishers from fishing with poluha in the shallow waters of the lake. “So long as their rights, if any, are not recognized,” he declared, “they would be regarded as trespassers and action will have to be taken against them according to law” (Das 1965). Nonetheless, in 1967, it was decreed that poluha would be permitted in specified areas on the margins of the *jano* fisheries from March 1st through July 31st.⁵⁶ In 1972, it was further

⁵⁶ “... certain facilities like ‘Poluha’ fishing and ‘angling’ was given in 1967 by Circular No. 39561/R., dated 15th July of that year [i.e. 1967]” (Kholamuhana Case1993: §35).

specified that this arrangement was for “domestic consumption only, with no right to sell” (Kholamuhana Primary Fishermen Co-op Society vs State of Orissa and Ors 1993: §35 Hereafter Kholamuhana Case).⁵⁷ While these decisions effectively put an end to the non-fishers’ campaign for unlimited access to the nunichar, these rules proved to be unenforceable and only a temporary setback, which presaged the introduction of aquaculture and the mass entry of non-fishers into the lake’s fishery.

“Blue Revolution” in the Nunichar

For over a quarter of a century, Chilika has been at the epicenter of the “Blue Revolution” in India. Envisaged by its backers as a way to ensure a reliable supply of protein for burgeoning populations, aquaculture was widely touted in the 1970s and 80s as a logical complement to the “Green Revolution” in agriculture (Das 1991: 25). In actuality, discussions of the benefits of improved fishery techniques and the artificial propagation of fish in Chilika precede these “revolutions” by three quarters of a century. As early as 1906, in his *Report on the Fisheries of Bengal*, Sir K. G. Gupta suggested that, “The lake would form an ideal ground for the propagation of estuarine fishes including *hilsa*. The lake is now largely fished and the introduction of any improved methods of capture without anything being done to increase the supply, can only have a disastrous end and lead to the speedy depletion of the waters” (Quoted in Das 1910: 6).⁵⁸ Based on this recommendation, in 1915, the Fishery Department formally tabled

⁵⁷ Reminiscent of Hobsbawm and Ranger (1983), though only in existence for a generation, this arrangement whereby non-fishers obtained the right to fish with *poluha* for *tarkari* (daily consumption) as long as no fish were sold in the market, was repeatedly presented to me by my non-fisher interlocutors as their “traditional” rights.

⁵⁸ The earliest mention of improved fishery methods that I uncovered in my research was from Sir John McLelland, founder of the Geological Survey and Forest Service in India, who in 1839, “pointed out the immense benefits which would be derived by judiciously manipulating the fresh-water fisheries” (Southwell 1915: 2). Hornell (1911) was the first to systematically explore the possibility of marine fish farming in India. The first mention of improved fishery methods in Chilika appears to be in Hunter, et al. (1877: 27), where it was suggested that the oyster beds of the lake could be improved and farmed.

a proposal to pursue “the artificial cultivation of fish” and attempted to entice entrepreneurs to take up fish culture in Chilika (Southwell 1915: 6, 26).

In one of history’s great ironies, these initial projects were deemed uneconomical since, “unfortunately, it was found that the major part of the catch on Chilka Lake consists of prawn” (Southwell 1915: 19). Plans to transport fish from the lake were shelved since prawn, which comprised up to thirty per cent of the haul from the lake (Directorate of Fisheries 1970: 30), was not consumed locally, but rather dried and exported to Burma and the Northeastern states (e.g. Assam, Nagaland, Tripura) (Southwell 1915: 42, 64). Indeed, as an aquatic invertebrate, prawn is classified *poco* (an insect) in the local taxonomy and hence considered ritually polluting (Southwell 1915: 36).⁵⁹ Traditionally, only members of the Khandara jati – who are to this day widely considered by the other Chilika Lake fishing jatis as hierarchically “lowest” among them – openly ate prawn and earned their livelihood by catching it in the lake.⁶⁰

As noted above, the 1950s witnessed a rise in exports that resulted in a renewed interest in the lake’s fishery. While the lake’s non-fishers were enticed to enter the fishery by the worldwide rise in fish prices, the Indian government similarly sought to develop the nation’s fisheries to obtain increased export earnings. The importance of prawn steadily increased throughout the sixties and by the early 1970s, over 90% of Indian export earnings from marine products came from the sale of prawn species (Roy and Mohanty 1978: 19). As the largest brackish water lagoon in India, Chilika Lake was identified early on, as “the most suitable region in the state for developing large scale brackish water fish farming” (Jhingran 1977: 46; Jhingran

⁵⁹ Even today, many Oriyas refrain from eating prawn for this reason. That prawn was not considered for local consumption is evident from Hornell (1911: 64). In his extensive study of the potentiality for marine fish farming in India, his only reference to prawn is as “an indispensable and never failing source of fish-food.”

⁶⁰ As recently as 1927, the “fishermen by caste” objected “to the settlement of the fisheries with the Kandras on the ground that they are not fishermen by caste” (Mitra 1926). Presumably, this was because they primarily fished for prawn.

and Natarajan 1972; Mohanty 1977: 14). Two prawn species: 1) Tiger Prawn (*P. monodon*), known locally as *bagada*, and; 2. White Prawn (*P. indicus*), known locally as *kontala*, were singled out as fast growing and lucrative exports (Munthe 1986: 1). However, there was a general consensus that the supply of prawn was insufficient to meet global demand and the Fisheries Department was enjoined to increase production “by taking up commercial breeding of the prawns and nursing and rearing of their juveniles in brackish water farms and subsequently stocking the young ones in the lake” (Directorate of Fisheries 1970: 30). The Chilika Investigative Unit (CIU) of the Central Ministry of Food and Agriculture, which was established in 1956 with the goal of “develop[ing] the fisheries of the lake to a level of optimum productivity” (Jhingran 1963: 47), was tasked with overseeing this ambitious undertaking and, in 1962-3, an experimental brackish water fish farm was constructed in Keshpur (Figure 6.8).

Though initial attempts to raise prawn in Keshpur were unsuccessful, during the period from 1968 to 1976 prawn exports from the capture fisheries of Chilika registered a staggering increase of 33,900% (Roy and Mohanty 1978: 19).⁶¹ In 1978-9, due to the steadily rising price of shrimp in the world market and the high fuel costs in the capture fisheries, the Orissa government ordered a survey of the state’s brackish water resources. This study revealed that of the 14,000 ha suitable for brackish water aquaculture, “most of this land was government owned and only 6-7% was privately owned” (Khatua 1984: 87). Approximately one third of the suitable brackish water lands in Orissa were found along the shores of Chilika Lake⁶² and the vast majority of these territories (some 89%) were government owned (Munthe 1986: 41). Most

⁶¹ During the 1968-9 season 3,137 tons of prawn were exported from Chilika. In the 1975-6 season this figure rose to 1,063,790 tons. During the same period, over 99% of the marine products exported from Orissa were prawn with the only other “marine” product being frozen frog legs (Roy and Mohanty 1978).

⁶² Mohanty (1977: 14) calculates that 6,000 ha, or slightly less than half of area available for “*profitable* fish culture,” [emphasis added] in Orissa is located on the margins of Chilika.

notably, it was reported that “many areas suitable for brackish water aquaculture seem to be of little alternative use” (Munthe 1986: 41). As Shri P. Mohapatra, the Additional Director of Fisheries affirmed, it was imperative to develop these “low lying lands in the tidal region,” [i.e. the *nunichar*] since they were “lying unproductive [and] may yield quite a sum by proper farming and exploitation” (Mohapatra 1981: 30).⁶³



Figure 6.8 Map of places mentioned in this chapter (US Army Map Service 1959, 1963).

⁶³ Although this effort was spearheaded by the Fisheries Department, it is emblematic of what Jodha (2000: 468) has termed the “over reliance on technology,” and the minimal “use of indigenous knowledge systems or involvement of local communities” with regards to wastelands management and development.

Prawn Farming in the Salt Lands

Elmer G. Leterman, insurance salesman, sales consultant, and author, famously aphorized that “Luck is what happens when preparation meets opportunity” (Frank 1999: 472). This is certainly true of Chilika, where, in a serendipitous turn of events, M. G. Rao, the Assistant Director of Fisheries, unintentionally stumbled upon a new type of brackish water aquaculture in 1981 (Down to Earth 1992a).⁶⁴ During a tour of the Palur Canal region to promote freshwater tank aquaculture under the World Bank financed⁶⁵ Economic Rehabilitation of the Rural Poor (ERRP) program (Roy 1985), Rao,

... came across a few ponds with saline soil, which of course, ruled out major carp culture. Not wanting to disappoint the beneficiaries, he took a chance and stocked the saline tank with *P. monodon* [i.e. tiger prawn] juveniles and found to his surprise that they grew quite well. The surprise was due to the fact that it was assumed then, as now, that in confined tanks salinity would rise and fresh water would have to be pumped to rectify the situation, thus affecting cost effectiveness. (Khatua 1984: 87)

The reason costly pumping was unnecessary was because, “Rain water fills the ponds, which are dug out in highly saline soils. [And] the water becomes brackish, just the way tiger shrimps (*Penaeus monodon*) want it” (Reyntjens 1987: 8). Equally remarkable, even after over twenty years of repeated use, these highly saline soils (i.e. the nunichar) showed “no decline in salinity” (Munthe 1986: 26).

These fortuitous results were immediately conveyed to J. B. Patnaik, the Chief Minister of Orissa, who latched onto prawn aquaculture as a way to salvage the underperforming ERRP program. In late 1982, just over twelve months after Rao’s fortuitous experiment, the Chief Minister ordered the construction of no fewer than 5000 half-acre prawn pond “complexes” in

⁶⁴ Much of this section is based on information obtained during a December 2007 interview with Mr. S. K. Mohanty held in Bhubaneswar. Mr. Mohanty was the Fishery Officer in charge of the technical aspects of this program.

⁶⁵ Representatives of the World Bank visited Orissa in 1979 to look into “planning the extension [of] intensive pisciculture” (Roy 1985: 30). Other projects financed by the World Bank include the Orissa Fish Seed Development Corporation which is responsible for establishing fish hatcheries in the state (Das 1992: 38; Mohapatra 1981: 29).

Chilika (Khatua 1984: 88; Mohanty 1988; Reyntjens 1987). Under this new initiative of the ERRP program, the poorest of the poor were eligible to receive a half-acre prawn pond free of cost as well as free technical assistance and a 100% subsidy on the first year's inputs (Khatua 1984: 89; Mohapatra 1981: 30; Munthe 1986: 1). The largest concentration of these ponds was located just to the north of Tua Island in the government owned "wastelands" surrounding the village of Suna Muhin (Reyntjens 1987: 8) (Figure 6.6). An initial group of 540 participants⁶⁶ were locally selected by the Block Development Officers from among landless individuals who earned less than the poverty line of Rs. 1200 per year (Khatua 1984: 89). To the astonishment of all those involved, the participating families quickly discovered that they were able to earn an average of Rs 1243 net income in ninety days, or more than the government-designated official poverty line, which was based on *annual* earnings (Khatua 1984: 91-92). Since it was possible to harvest two crops in years with sufficient rainfall, the return on this investment was no less than Rs 3839 (Khatua 1984: 92).

Once news of these results became known, the program was widely touted by the Orissa government as a "bonanza" for the rural poor and served as a model for other development efforts throughout India and beyond (Reyntjens 1987). Though there were voices that recommended a further exploration of the "social consequences in the pilot scheme before expanding it," (Khatua 1984: 96) aquaculture was aggressively promoted by the government and spread throughout the lake at breakneck speed. Concerns regarding the possible effects that this industry might have on the lake's ecology, or the repercussions that it might have on social relations between the fisher and non-fisher communities, were put aside. For the non-fishers who entered Chilika with poluhas in the 1950s, this turn of events was seen as a vindication of

⁶⁶ Khatua (1984: 92) reported that in his study of 203 beneficiaries. "107 (52.7%) belonged to fishermen's castes and practiced fishing; 41 (20.19%) belonged to non-fishermen's castes and *also* practiced fishing and 55 (27.09%) belonged to non-fishermen's castes and did not practice fishing" (emphasis in original).

their pioneering efforts to stake a claim to the nunichar. Other non-fishers discarded any reservations they may have still had and descended en masse upon the lake and its fishery.

Many individuals and communities converted their rice paddies and grazing land into prawn ponds and constructed embankments in the ecologically sensitive nearshore areas of the lake (Dujovny 2007; Khatua 1984: 94). Others abandoned their traditional professions, purchased boats and nets with the money they earned from aquaculture, and began earning their livelihood from the lake's fishery (Samal 2002). Investors and well connected individuals⁶⁷ were so enticed by news of this modern-day gold rush that they employed thugs (known locally as the "prawn mafia") to forcibly capture jano fishing grounds and turn them into lucrative prawn ponds (Mishra 1996: 14-15; Pattanaik 2008: 2; Samal 2002). In 1988, even the Tata Group, India's largest business group, obtained a government lease for "1,400 hectares of Chilika's low-lying land between the Panasapada and Siara villages," (Mishra 1996: 161) in what was known in the 19th century as the Panasapada aurang. Interestingly, this was also less than five kilometers north of where the Tatas had contemplated placing a salt factory in World War I.

As will be discussed in the subsequent chapter, the entry of non-fishers into the fishery has led to the widespread encroachment of fishing grounds, the erosion of the fishing communities' traditional use rights to the lake, and "subsistence convergence." Since the nunichar and jano areas of the lake typically overlap, the conversion of janos into prawn ponds has predictably resulted in communal tension and conflict (Khatua 1984: 93). Longstanding divisions of labor established and solidified under colonial rule were undone due to the introduction of prawn aquaculture. As the previous chapters have demonstrated, these historically contingent divisions were based on the imposition of a land revenue system that

⁶⁷ Bailey (1988: 37), observed a similar phenomenon in the shrimp ponds of the Philippines and noted that, "Local elites have the advantages of education and wealth which provide access to the knowledge and capital necessary to successfully adopt new production technologies."

assumed a water tight division between land and water when assigning tenurial rights. Based ultimately on essentialist notions of caste as an occupational category, these colonial innovations destroyed the “system of entitlements” (See Chapter 4) and stovepiped social relations in the Chilika basin. As inherently problematic as this was, the unraveling of the revenue system that separated the respective communities, has resulted in simmering resentment and occasional bouts of violence between the matsyajibi and ana-matsyajibi.

Indelible Niches

In his authoritative survey of Mediterranean history in the age of Phillip II, Braudel (1972) observed that, more than a millennium after the fall of Rome, the Empire’s frontiers had left an almost indelible impression on the landscape. He submitted that,

The frontier between the Rhine and the Danube was ... a cultural frontier *par excellence*: on the one side Christian Europe, on the other the Christian periphery, conquered at a later date. When the Reformation occurred, it was along virtually the same frontier that the split in Christianity became established: Protestants on one side and Catholics on the other. And it is, of course, visibly the ancient *limes* or outer limit of the Roman Empire. (Quoted in Anderson 1996: 14)

The reengagement of the agricultural class with the nunichar “wastelands” and the rapid spread of prawn aquaculture have similarly exposed historical undercurrents. Although these territories were formerly multi-use areas and do not constitute a cultural frontier *per se*, they have emerged as a contested space claimed by opposing camps with distinct cultural practices. Salt-making, the indigenous and all but forgotten industry of the coastal tract, lies at the root of the present conflict. Destroyed by the exploitative Salt Monopoly system, the loss of this industry devastated the local economy and pauperized the coastal population. In particular, the agricultural communities that eked out a bare existence on marginal soils and one rice crop a year were ineluctably dependant on the additional income earned as malangis.

The historical juxtaposition of the granting of exclusive territorial rights to fishers in the lake at the same time that salt manufacture was discontinued was fated to generate conflict between fishers and non-fishers. The official designation of the nunichar as government owned “wastelands,” masks the economic and ecological contributions of these tracts⁶⁸ and effectively turned them into the exclusive domain of the fisher communities. Whereas, in the past, the lake’s agricultural communities were engaged in the nunichar for income generating activities, they now risked being labeled trespassers if they were found in the nearshore waters of their village. Considering the fact that the agricultural communities regularly fished in the lake for tarkari, the colonial land revenue system (rooted as it was in functionalist conceptions of caste as occupation) left them exposed to legal sanctions for carrying out this subsistence activity. To properly appreciate how vulnerable the non-fishers were as a result of this new arrangement, it bears recounting Das’s (1910: 9) observation that “The Parikud cultivator is content with very little and that is all he generally gets. A full meal of rice once a day taken with Chilka fish suffices him and he eats in the morning what is left over from his evening repast.” In effect, with the rise in world fish prices and decline in agriculture, the non-fishers found themselves in a state of relative poverty vis-à-vis their fisher neighbors.

From the perspective of hindsight, it seems almost preordained that the first legal proceedings for fishing with poluha in the nunichar would emerge from the Tua and Parikud islands. Both of these locations were historically the site of important salt producing aurangs, which, as low-lying islands, suffered from regular flooding and a limited supply of arable lands. Though I am not in possession of actual figures, it seems quite likely that on these islands, the earnings from agriculture in the 19th century were secondary to the revenue from salt

⁶⁸ Jodha (2000: 466) is right to point out that the “inappropriateness of [the] state’s approach to these land-resources is rooted in the very nomenclature.”

manufacture.⁶⁹ By the same token, the timing of the non-fishers' reengagement with the nunichar as a source of income, seems hardly coincidental. Contrary to Samal (2002), who blames the entry of non-fishers into the Chilika fishery on the introduction of prawn aquaculture and the trade liberalization of the early 1990s, this research conclusively demonstrates that that the process of "occupational displacement" originated with the claim to the nunichar that preceded aquaculture by thirty years.

Rather than a clear-cut example of the dangers of globalization or a cautionary tale about the perils of technology, the timing of the Gambhari villagers' entry into the fishery is more reminiscent of F. G. Bailey's (1996) insights from his Orissa field site of Bisipara. In this reexamination of the author's fieldwork (conducted from 1952-4) Bailey recounts the events surrounding the agitation by *Pano* untouchables for entry into the village temple. Though the Panos embraced Gandhian notions of non-violent resistance and proved unable to sway the Khondayats to grant them entry (they eventually constructed their own temple), throughout this campaign they actively solicited the participation of government entities. Bailey interprets this in light of Indian independence and the abolition of untouchability under Article 17 of the Indian Constitution. By appealing to the government, the Panos attempted to redefine their status while testing the resolve of the Indian authorities. Similarly, it is my contention that, following the abolition of zamindar rule in Orissa, the non-fishers saw an opening to legally challenge the status quo that developed following the shuttering of the salt aurangs and the 1897 Settlement.

Equally interesting is the non-fishers' symbolic use of nunichar and poluha as identity markers. Rather than claim an inherent right to enter the lake or fishery for livelihood purposes, the non-fishers based their claim on a right of access to the nunichar. It follows from this that the

⁶⁹ The Tua islanders repeatedly complained that they were forced to fish because they did not even have enough land to grow vegetables let alone rice (Appeal Case No. 8 1957; Banpur Tahsildar 1956).

claim to the shallow waters of the lake was first and foremost based on the type of soil that lay beneath these waters rather than a claim to Chilika qua *water* or the fish therein. This approach seems to implicitly accept that the waters are the domain of the lake's fishers and that any claim over these waters (and the fish therein) is predicated on the fact that it is over "their" land. In effect, by focusing on the salt lands, the non-fishers positioned themselves as the rightful inheritors of the malangis; a position that allowed them to claim an age-old connection with the nunichar that amounted to a claim of an easement over this government property (cf. Rau 1956).

Likewise, as a fishing implement used only by non-fisher communities, the poluha was not only an angler's tool, but rife with symbolic meaning. As noted in the previous chapter, the respective fisher jatis in the lake were traditionally distinguished from one another based on the type of gear they used for fishing. Not simply a matter of differing dietary habits (e.g. consumption of prawn) or diverse fishing grounds (e.g. freshwater/brackish water/saltwater) the use of distinctive gear was clearly also a factor of mimetic differentiation (Deb 1996). In the case of poluha, its public use by large numbers of non-fishers acted as an identity-marker that (in the local context) epitomized resistance and rebellion. In his study of peasant revolts in India, Ranajit Guha (1983) recounts that as early as 1873, poluhas were used by non-fishers to claim a right to fish in the *bhils* (freshwater marshes and swamps) of Bengal (cf. Reeves 1995: 289-90; Tsai 1997: 39). "The *polo* [sic] in its turn was regarded as a badge of insurgency," he writes, "It gave to the movement and its participants their respective folk names – '*Polo Bidroha*' [i.e. Polo Rebellion] and '*Polowallahs*' [i.e. Polo wielders]. To be told the '*Polowallahs* are coming!' could indeed panic their opponents..." (Guha 1983: 128) (Figures 6.9 & 6.10). Both in the freshwater fisheries of Bengal and in the case of Chilika, the impetus for resistance is clearly a consequence of the introduction of the colonial land revenue system. Whereas under the pre-

colonial “system of entitlements” described in Chapter 4, there were mutual exchanges between fishers and non-fishers, the colonial system instituted market forces that necessitated the strict maintenance of property rights. The use of poluha in Chilika added symbolic resonance to their “rebellion” against the loss of access to the nunichar.



Figure 6.9 A group of non-fishers heads out to fish with a type of poluha in the Harichandan area of Chilika.

With the introduction of aquaculture in the 1980s, the non-fisher communities of the lake wholeheartedly embraced the opportunity to reengage with the nunichar as a source of income. This reengagement was aided by the fact that, as an activity, aquaculture mimics agriculture in a variety of ways (Bailey, et al. 1996: 5-6). While there is a long tradition of viewing fishers as “peasants of the sea” (Firth 1946), fishing is a unique activity that is arguably closer to hunter-gathering than cultivation (cf. Acheson 1981; Smith 1977). For example, as Alexander (1977:

247-48) pointed out, agricultural systems are typified by strict spatial boundaries while fishers are bound by the specialized gear that they use and the resource they harvest (i.e. fish). In practice, this means that fishers have less control than farmers over their annual yield and are more prone to fluctuations in catch. Most importantly, the difficulty in demarcating and maintaining strict boundaries⁷⁰ means that fishing grounds are at constant risk of turning into common property resources.



Figure 6.10 Non-fisher heading out to fish with a type of poluha near Harichandan.

⁷⁰ Though it has been conclusively demonstrated that territoriality is common among fishers (Acheson 1975; Berkes 1985; Feeny, et al. 1990; McCay and Acheson 1987), fisheries are more prone to conversion into common property resources than land.

Aquaculture, on the other hand, easily lends itself to “high-modernist” thinking and “state simplifications” (Scott 1998), where there is “an element of systematization and control that would result in higher production potential” (Mohanty 1977: 14). Similar to modern agriculture, aquaculture is typically a monocrop carried out in a designated area (i.e. like a field), in which all the inputs (e.g. seed, feed, pesticides, and antibiotics) are monitored and strictly controlled. Harvesting is based on a predetermined timetable, and barring unforeseen circumstances (e.g. disease), the size of the crop is known in advance. In addition, because it involves raising prawn from fingerlings to market, aquaculture also mimics livestock rearing practices which are more familiar to cultivators and hence their attitude “towards shrimp seems the same as towards domestic animals. They share their food with the shrimp and choose to live near them” (Khatua 1984: 90). Based on my own observations, these factors present the agricultural communities with a competitive advantage and accounts to a large degree for the rapid spread of aquaculture in Chilika. Finally, though salt manufacture has been all but forgotten in the coastal tracts of the lake, this research clearly demonstrates that its legacy lives on in aquaculture. Specifically, aquaculture has revived the nunichar as a source of livelihood and provides the agricultural communities with the supplemental income they need in order to survive the long slack season.

In his study of ecological relationships in Swat, Fredrik Barth found that the Pathans, Kohistanis and Gujjars of this mountainous region did not occupy distinct “culture areas” based solely on natural areas, but rather a mosaic in which “many ethnic groups with radically different cultures co-reside in an area in symbiotic relationships of variable intimacy” (Barth 1956: 1079). Prior to the arrival of the British in Orissa, the Chilika nunichar was precisely such a multi-use area utilized for income generating activities by cultivators cum malangis in the dry season and by fishers who constructed janos following the monsoon rains. Unfortunately, the land revenue

system imposed by the British rested on a legalistic approach based on property rights and “state simplifications” that precluded such nuances in favor of cut and dried certainties. While this was undoubtedly predicated on the exigencies of the administrative system and the need to fix people in place for taxation purposes, it was also clearly premised on an essentialist reading of the caste system. In practice, this meant that cultivators were granted property rights under the ryotwari system and fishers were hegemonically categorized “fishermen tenants” (Taylor and Maddox 1899: 93). This departure from the “ritual symbiosis of the Indian caste system” (Barth 1956: 1088) which existed under the pre-colonial “system of entitlements,” unsettled social relations in the Chilika basin and set the stage for competition over ecological niches such as the nunichar. In the following chapter, I employ social network analysis to further explore these issues of caste and identity among the fishers and non-fishers of the lake.

CHAPTER 7

“SUBSISTENCE CONVERGENCE” AND THE ETHNICITY OF CASTE

Sometime around midnight on the night between the 29th and 30th of May, 1999, “twelve vehicles and five armed platoons of the state police,” (Outlook India 1999) made their way down the rutted track leading to the fishing village of Sorana. Some 10,000 fishers heeding the call of the *Chilika Matsyajibi Mahasangha* (CMM or Chilika Fishermen’s Society) to join in the “Do or Die Movement,”¹ converged on this village from all corners of the lake and were enjoying some well-earned rest after an eventful day of protests. The movement, which emerged from the successful anti-Tata² *Chilika Bachao Andolan* (CBA or Save Chilika Movement) reorganized to campaign in opposition to all forms of prawn aquaculture in the lake. Basing their demand on the Supreme Court of India’s 1996 landmark ruling in *S. Jagannath v. Union of India* insisted on the immediate implementation of the court order prohibiting all prawn aquaculture within 1000 meters of the lake’s high water mark (S. Jagannath v State of India 1996: § 51A(g)10). Since the authorities showed no intention of implementing this directive over two years after the court appointed deadline, the CMM announced plans for a continuous campaign to force the government’s hand (Samal 2007: 177).

¹ This is an allusion to Mahatma Gandhi’s “*Karo ya Maro*” (“Do or Die”) slogan for the 1942 *Bharat Chodo Andolan* (Quit India Movement). In his typically inspirational style, Gandhi rejected the Cripps Mission’s offer of eventual Indian independence. Speaking to the All-India Congress Committee, he explained his position as follows: “I want freedom immediately, this very night before dawn if it can be had,” he said. “Here is a mantra [prayer], a short one, I give you ... ‘Do or die.’ We shall either free India or die in the attempt; we shall not live to see the perpetuation of our slavery” (Collins and Lapierre 1975: 63).

² The anti-Tata campaign, which thwarted the Tata Group’s plans for a large-scale prawn pond in the lake, will be discussed in greater detail in the next chapter.

Over the next two months, the lake's fishers were mobilized and gathered to protest the government's continuing inaction. The campaign was officially launched with the *gheraoing* (surrounding) of the state assembly in Bhubaneswar and quickly grew into a mass movement that spread throughout the Chilika Lake communities. In a matter of days, the main coastal highway was blockaded, all north-south rail traffic on the Madras/Kolkata line was halted and local rallies were held in numerous fisher villages around the lake. On May 28, Anadi Behera, President of the CMM, presented the state government with a 24-hour ultimatum on behalf of the lake's fishers (The Statesman 2005). In this ultimatum, the CMM announced that, unless the state government moved to implement the apex court's ruling and committed to the complete removal of the illegal prawn gherries, that the fishers would have no choice but to take the law into their own hands.³ He called on all fishers to gather in Sorana, a village in the Northern Sector of the lake renowned for its prominent role during the salt agitations of the 1930s (Nayak and Mahanti 2006: 82). On the morning of May 29, after negotiations between the government and the CMM broke down, Behera exhorted the assembled crowd to demolish the lake's gherries. By the end of the day, this unprecedented flotilla of fishers summarily removed no fewer than eleven prawn enclosures covering a water-spread of over 3000 acres (Amnesty International 2000; EJF 2003: 15; Outlook India 1999; Samal 2007: 178).

Fearing that the fishers would continue to take the law into their own hands, the local administration hatched a plan to arrest the entire leadership of the CMM in the hopes that cooler heads would prevail. Led by the Khurdha District Collector Sarbeswar Mohanty and Superintendent of Police S. S. Hansdah, the plan's success hinged on the risky decision to enter

³ Only a month earlier, on April 24, 1999, the CMM directed its members to demolish over 1,000 acres of prawn gherries and fifty of its members were arrested (The Statesman 2005). Following this episode, the government began the demolition of prawn ponds, only to abandon the effort after two days (Outlook India 1999). The authorities claimed that they lacked a sufficient number of boats, manpower or know-how to implement the Supreme Court ruling.

Sorana village in the dead of night while everyone was asleep (Outlook India 1999). With *lathis* (batons) raised, the police proceeded from house to house in search of the CMM leaders and mercilessly beat anyone who stood in their way, including women.⁴ As word of the midnight raid and arrest of the CMM leadership quickly spread throughout the village and nearby fisher encampments, the police soon found themselves outnumbered and surrounded by thousands of angry fishers. Fearing that the police would, “do away with their leaders in connivance with the prawn mafia,”⁵ (Outlook India 1999) the crowd demanded their immediate release. When it became clear that the road leading out of the village was barricaded by the crowd, the Superintendent of Police ordered a lathi charge followed by the firing of tear gas (EJF 2003: 15). At that point, the police, who subsequently claimed self-defense,⁶ indiscriminately opened fire and hastily beat a retreat.

Banchanidhi Behera, a local fisher, and Pramila Behera, a young woman from Sorana, were killed instantly by the hail of bullets. Other victims included Digambar Behera, who died on his way to the hospital and Sudarshan Behera, who succumbed to his injuries while undergoing treatment in the hospital (The Statesman 2005). Approximately forty others, including a large number of women and children, required hospitalization and two huts caught fire and completely burned to the ground after being struck by tear gas canisters (HNF Bureau

⁴ Women have played a prominent role in the anti-prawn agitations. According to the Director General of Police, “it was the village women who led the attack on police and DM [District Magistrate]” (The Statesman 2005). In another interview, a local woman confirmed that they, “in fact, provoked the men to demolish the *gheris* (enclosures for prawn farming). They do not want to wait for government action. Their involvement is very encouraging for the men-folk” (Mario 1999).

⁵ The late hour and the reported presence of armed thugs hired by the prawn pond owners (Das 1999) caused many in the crowd to fear that the leaders would be physically harmed.

⁶ A judicial probe headed by Justice P. K. Tripathy submitted a report exonerating the police on the grounds of self-defense. The report, which cost hundred of thousands of rupees and six years to compile, was initially not made public on the grounds that it required the Chief Minister’s approval. It took the fishers two more years of legal wrangling to get the government to release the report (The Telegraph 2007). The CMM suspected foul play and rejected the probe’s findings (The Pioneer 2003).

2007). Among the many injured was fifteen year-old Santosh Behera, who was fast asleep on the verandah of his house. He was permanently maimed when his hand was struck by a stray bullet (Sahoo 1999). According to the survivors, medical assistance was slow to arrive and over five agonizing hours passed from the time the police departed until the first ambulances reached the village (Sahoo 1999).

By far the the worst incident surrounding the introduction of prawn aquaculture, the Sorana massacre was not a singular event, but rather the culmination of almost fifty years of rising tensions between the lake's fishers and non-fishers that has left scores dead and injured on both sides of this divide.⁷ As I have attempted to demonstrate in the preceding chapters, this conflict over rights to fishing grounds in the lake is part of a colonial legacy that can be traced back to government interventions surrounding taxation and property rights. As this research clearly shows, the colonial insistence on a previously nonexistent strict separation of land and water was rooted in the introduction of capitalist property rights and driven by a functionalist interpretation of jati as occupational category. Ostensibly based on Hindu texts such as the *Manu Smriti*, the seemingly prosaic legal proscriptions surrounding tax collection facilitated in the formation of civil society and "governable categories" (Dirks 2001) which, over time, engendered the formation of new identities. This strict separation of land from water resulted in segmentary opposition (Evans-Pritchard 1947) between fishers and non-fishers that was further exacerbated by local limitations to agricultural production and the exigencies of the oppressive Salt Monopoly. The entry of non-fishers into the fishery following the abolition of zamindar rule

⁷ According to published accounts, somewhere between twenty (The Pioneer 2003) and fifty people (The Pioneer 2003) have lost their lives in clashes between fishers and non-fishers since 1991. Considering that, in Bhalabhadrapur alone, five people have purportedly died in clashes with the non-fisher community of Gombhari, it seems likely that the higher estimate is closer to the truth (cf. Dharitri 2005; Sambad 2005). Citing the Das Committee Report, the Orissa High Court wrote that, "The mafias are playing havoc today in the lake as they have become the real monarch and determine the fate of the poor fishermen. It is learnt that they are armed with deadly weapons like guns, revolvers, A.K. 47 and bombs" (Kholamuhana Case 1993: §68).

in 1952, and especially since the introduction of prawn aquaculture in the 1980s, has only led to further entrenchment on both sides.

Rising tensions and increasing conflict between fishers and non-fishers in the Chilika Lake basin can be understood as a result of the shift from the “symbiotic relationships of variable intimacy” (Barth 1956: 1079) of a multi-use area to one of competition over ecological niches (Love 1977). Samal (2002) has attributed this to the “occupational displacement” of fishers in the lake due to the introduction of new technologies, trade liberalization policies and the increased export of prawn to countries such as Japan and the United States. Based on his research, the introduction of prawn aquaculture has resulted in the entry of “upper caste people” (Samal 2002: 1717) and the “squeezing of [the] traditional fishery sources for capture fishery [as well as] ... the consequent threat of occupational displacement of fishermen mostly belonging to the scheduled caste” (Samal 2002: 1714).

Predictably, this has led to conflict and clashes between the fisher and non-fisher communities as they compete for limited resources and rights to the lake. Although an atmosphere of resentment between the two camps was to be expected, I was nonetheless struck by how often fishers would matter-of-factly inform me that, “Externally, we are friends, but internally, conflict,”⁸ during interviews about fisher/non-fisher relations. When asked why they were not on more friendly terms, informants would typically attribute this to the “Chilika problems” surrounding the new lease policy and the loss of fishing grounds. The non-fishers I interviewed also alluded to the persistence of caste sentiments, or, as an informant once

⁸ Other examples include: “In face, we are friends, but inside we are rivals”; “Internally, not accepted, but externally talking sweet”; or “Only talking externally. Internally, conflict”; and “Just now talking and go externally, but internally not accepting. Conflict”; “not friends, but acquaintances”; and “Have relations with friends from other villages, but not in heart. Never cooperate.” These sentences were culled from semi-structured interviews with fishers in Bhalabhadrapur who participated in this study. Twelve out of eighteen study participants characterized relations between fishers and non-fishers in a similar manner.

succinctly explained to me, “Although we are selling fish, we are not equal with *Keuta* [a fisher jati]. They can never establish relationship with our caste. Whatever may be, these are low caste.”

The following analysis will complement the work on “occupational displacement” first raised by Samal and concludes that his research partially misreads the social processes currently unfolding in the Chilika basin. The displacement of fishers from their fishing grounds due to the introduction of prawn aquaculture is in many ways a secondary phenomenon that is being driven by what I term a “subsistence convergence”⁹ among the fishers and non-fishers of the lake. By referring only to the issue of fisher displacement, Samal effaces the subsistence shift from agriculture to fishing that these communities are currently undergoing. To make this case, I begin with a review of recent government interventions in the lake’s lease policy and how this has reopened the question of rights to the lake. I demonstrate the political nature of this attempt to redraw the lines between land and water while at the same time legally redefining who can be considered a “traditional” fisher. This is followed by a comparison across my field sites of Bhalabhadrapur and Satapada Gada based on socio-economic and demographic data obtained from a complete census of both villages. These findings present a clear picture of changes to the local economy as well as forming the basis for a discussion of the related processes of de-ritualization and ethnicization.

The Roots of Conflict

“The history of the commercialization of Chilika Lake is also the history of the marginalization of its traditional fishing communities.”¹⁰ Historically, tension and

⁹ I opted for the broader term “subsistence” over Samal’s “occupation” because, from the fisher’s perspective, the terms “occupation” and “profession” imply a de-linking of caste from livelihood activity that removes issues of identity from the equation.

¹⁰ This introductory sentence is from the manifesto of the *Chilika Bachao Andolan* (Save the Chilika Movement).

conflict have always existed between fishermen and non-fishermen over traditional rights in Chilika; this even led to legal disputes and violent clashes between the communities. But the fishermen's traditional rights remained intact, as the majority of non-fishermen refrained from fishing because of caste taboos. – Mishra (1996: 212)

The massive influx of non-fishers into the lake's fishery has negatively affected communal relations in the Chilika basin. As discussed in the previous chapter, these tensions stemmed from increasingly adversarial relations over rights to the shallow jano fisheries located in nunichar areas previously used for salt manufacture. Throughout the 1950s and 60s, local authorities reported with increasing concern about the worsening relations between fishers and non-fishers. As early as 1956, the Banpur *tahsildar* (revenue officer), who was sent to investigate the entry of non-fishers from Tua Island into the Bhalabhadrapur fishing grounds, warned that the,

... foreshore areas of Tua and Satapada are parts of government fisheries and they are being leased out to fishermen since long and therefore the non-fishermen cannot be allowed to catch fish there. The non-fishermen have not only no rights, but if allowed to catch fish there will be friction and trouble and the fishermen cannot follow peacefully their forefather's trade of fish catching (Banpur Tahsildar 1956).

He correctly predicted that, barring swift government intervention, "the poor fishermen will be much harassed and brought to endless litigation and expenditure" (Banpur Tahsildar 1956).

By 1962, as the non-fisher's demand for fishing rights in the nunichar made its way to the Orissa High Court, the local *dafadar* (police sergeant) reported on the "existence of acute enmity between the parties" (Kapila Jena v. State of Orissa 1962). Following the High Court decision to grant sole rights to the foreshore fishery to the fishing communities, tensions further escalated and a rash of thefts, communal riots and even a murder were reported. Baidyanath Misra, a government Emergency Officer who was dispatched to investigate the unrest, reported back that, "from the local enquiry it is revealed that there is tense feeling between these two villages

[Bhalabhadrapur and Gombhari] and in order to maintain peace A. P. R. [Additional Police Reserves] are posted there. As A. P. R. police is posted there, there is not trouble at present. There will be serious trouble the moment the A. P. R. force is withdrawn from the spot” (Misra 1965).

Two years later, a period of relative calm and retrenchment followed the government’s 1967 decision¹¹ to allow non-fishers to undertake poluha fishing on the margins of the jano fisheries. In 1972, a subsequent decision stipulated that this arrangement was for “domestic consumption only, with no right to sell” (Kholamuhana Case 1993: §35). This was confirmed in the June 1974 decision that “all fishery *sairats* [lease areas] in the State should be settled with cooperative societies of *genuine* local fishermen” (Kholamuhana Case 1993: §17 Emphasis added). This latter decision was in keeping with the practice established following the abolition of zamindar rule in 1952. Under this system, the lake’s fishery sources were vested with the Revenue Department of the Government of India and then leased out to the fishers of the lake. From 1953 to 1959, this was accomplished through open auction with the *Anchal Adhikari* (Circle Officer)¹² of the lake (Bedamatta 2007a: 365; Ray and Ray 2007: 400). In 1959, the Central Fishermen Co-operative Marketing Society Ltd. (CFCMS) was specifically set up under the Chilika Reorganization Scheme¹³ to lease out fishery sources to Primary Fishermen Co-operative Societies (PFCS) representing the fisher communities of the lake (Samal and Meher 2003). While it was possible for non-fishers to lease out some marginal (*Dian*) territories in the

¹¹ “... certain facilities like ‘Poluha’ fishing and ‘angling’ was given in 1967 by Circular No. 39561/R., dated 15th July of that year [i.e. 1967]” (Kholamuhana Case 1993: §35).

¹² The *Anchal Adhikari* (Circle Officer) was a gazetted officer of the Revenue Department who replaced the local zamindars during the period of administrative restructuring (Jha 2003: 181).

¹³ This new system was implemented based on the recommendations of A.F. Laidlaw, a Canadian expert on cooperative societies and member of the Antigonish Movement (Samal 2007: 169).

lake, this arrangement effectively recognized the fishers' traditional rights to the lake by giving precedence to the PFCSs.

Reopening the Issue of Rights to the Lake

Starting in the early 1980s, this lease system began to unravel. As discussed in the previous chapter, in 1981, in an attempt to salvage the underperforming Economic Rehabilitation of the Rural Poor (ERRP) program, the Chief Minister of Orissa ordered the construction of 5000 half-acre prawn ponds in the foreshore areas of the lake. In a suspicious confluence of events, the Conservation and Sanctuary Committee on Chilika Lake (1981-2), recommended sweeping changes to the Revenue Department's lease system, which, for the first time, allowed "fisher persons by caste or by profession or persons exclusively dependent on Pisciculture as profession to become members of primary societies" (Panigrahi, et al. 1998: 16). Moreover, in a reversal of a longstanding policy, the committee concluded that, even though the waters of Bada Chilika (main body of the lake) had been declared free to the public since British times (See Chapter 5), this did not in any way constitute a concession on the part of the government. Similarly, it argued that in the Chhota Chilika (creeks and channels of the lake), "in absence of any specific settlement¹⁴ or preparation of records of rights for the fisheries," that there was "no such customary rights in favour of any body" (Samal 2007: 169). In short, precisely at the same time that prawn aquaculture was introduced in the lake, the government effectively reopened the issue of fishery rights in the lake.

Based on research commissioned by the Danish International Development Agency's (DANIDA) Socio-Economic Cell, within a year of this project's implementation, localized

¹⁴ This seems a bit disingenuous if one considers that Taylor, who oversaw the establishment of the lease system (See Chapter 5), specifically states that the fisheries "have been since time immemorial in the possession of the Khurdha fishermen tenants living in the villages adjoining the Chilka lake" (Taylor and Maddox 1899: 93).

conflicts were emerging throughout the fishery. As Khatua (1984: 93) observed, “the ERRP scheme directly affects the Jano culture. Where the Janos are not productive there is no conflict in the conversion. But well-organized villages with productive Janos want their areas untouched and the conflict level is high and tensions exist” (cf. Munthe 1986: 32; Reyntjens 1987: 9). Moreover, he expressed concern that “should enough allocations not be available in the future, this is a potential high-conflict issue because the people insist that all should benefit and that productive Janos should be left alone. With the allocation of Jano lands to the BFDA [Brackish Water Fisheries Development Agency] programme, community rituals and activity have been affected, and the community does feel upset about this” (Khatua 1984: 93). In retrospect, what was even more ominous was the evidence of illegal pond construction uncovered by Khatua. His report appears to be the first account of the unanticipated proliferation of ponds that were “blocking shore access and fishing access, thereby leading to conflicts,” (Khatua 1984: 94).

As Samal (2002: 1714) points out, throughout the 1980s this type of encroachment was spurred on by population pressures, economic liberalization, increased exports, modernization of fishing gear and the rapid rise in the price of prawn (cf. Kadekodi, et al. 2000: 220-22). In the same year that the Indian Rupee was devalued twice, the government announced that it had completely revamped the lake’s fishery policies in what came to be known as the “1991 Lease Policy” (Mohanty 2003: 181; Samal 2007: 170-71). This new policy did away with the various categories of fisheries in previous leases (e.g. *jano*, *dian*, *uthapani*, etc.) and reassigned these into either “capture” or “culture” sources, thus providing non-fishers with the opportunity to formally lease fishing grounds from the Revenue Department. Most controversially, the new policy stipulated that the “landmass (which is submerged during high water) after being suitably divided into convenient size by the Collector, may be leased out to a society/organisation formed

by the inhabitants of the neighbouring villages composed of people *but not members of the PFCSs*” (Ray and Ray 2007: 401 Emphasis added). The fishers condemned this as contrary to numerous court decisions (See Chapter 6) surrounding rights to the nunichar and objected to granting the Collector with new powers that “resulted in the auction of leases to the highest bidder, [thereby] providing [the] upper hand to the moneyed people,” (Bedamatta 2007) many of whom lived outside the Chilika basin.

Following the announcement of these changes, 36 PFCSs, led by the Kholamuhana PFCS, challenged the new lease policy before the Orissa High Court on the grounds that: 1) It unfairly infringed on the fishers traditional right to lease fishing grounds; 2) It unfairly tilted in favor of the non-fishers and promoted mafia raj in the lake; 3) That the distinction between “capture” and “culture” was unintelligible, arbitrary and ambiguous, and; 4) That the new policy conferred unguided powers on the Puri Collector (Kholamuhana Case 1993: §3). Before reviewing the case, the court appointed a Fact Finding Committee¹⁵ under the chairmanship of G. S. Das to look into the traditional rights of the fishers and non-fishers in the Chilika basin, the role of the prawn mafia, and the ecological impacts of prawn aquaculture on the lake (Das 1993). The Das Committee agreed with the fishers that the 1991 Lease Policy was flawed due to an arbitrary and ambiguous distinction between “capture” and “culture” fisheries. To resolve this issue, it recommended a thorough survey of the fishery to appropriately demarcate the various sources. Much to the chagrin of the fishers, the committee reported that large numbers of non-fishers were also earning their livelihood from the fishery and that they did, in fact, have

¹⁵ Samal notes that due to internal rifts between fishers based on caste and political affiliation, “there was not a single fisherman in the five member committee.” Rather, he goes on to say that “the fishermen’s community was represented by an advocate of Puri *belonging to Brahmin caste*” (Emphasis added. Samal 2007: 171). Although this comment alludes to the continuing importance of caste in Orissa, Samal fails to note that even if there were one “genuine” representative from a fisher caste, they would be outnumbered four to one in a committee set up to provide recommendations on their primary source of livelihood.

traditional rights to fish in the lake. Moreover, the committee placed much of the blame for the entry of the prawn mafia on the practice of *benami* (third-party) leases that were surreptitiously negotiated by the PFCSs (Down to Earth 2002).¹⁶

Though the High Court broke with the committee's findings and insisted that it did "not read any traditional right of the non-fishermen fishing," it nonetheless concluded that the non-fishers took up "fishing in a big way and [that] this reality cannot be ignored" (Kholamuhana Case 1993: §44). Although High Court Justice Hansaria agreed with the non-fisher's attorney that the court should not be swayed by caste considerations, he nonetheless referred to the breakdown in caste barriers as incontrovertible proof that non-fishers were left with no choice but to take up fishing. In his words:

... we entertain no doubt in our mind that non-fishermen *have to be given* some right of fishing in Chilika, no matter even if they had no such right by tradition and custom. Shri Mohapatra [Attorney for the non-fishermen] is right that caste barriers got broken down under the impact of hunger and the people of upper class (to which the non-fishermen belong),¹⁷ who abhorred fishing, taking it to be an occupation of lower caste, took recourse to it to quench the fire of hunger, which knows no bounds, and under the impact of which a man of higher class would take up a profession traditionally taken to belong to lower class. (Kholamuhana Case 1993: §54 Emphasis Added)

Based on the above facts and premised on the jaw-dropping rationale that issues of legality ultimately had no bearing on this legal case, the High Court Justice argued that:

Whether this [entry of non-fishers into the fishery] was a legal act has not much importance, because if a thing gets rooted and cannot be got uprooted without causing damage to the structure of the society, it would be good for all concerned to accept it and then to tailor the solutions and remedies accordingly... The mere fact that the non-

¹⁶ The Das Committee found that 42 of the 49 PFCSs had sublet their fishery sources to third parties during the 1988-1991 lease period (Samal 2007: 173). During interviews conducted with fishers, they contended that this was done under coercion and that if they had not leased out these fishing grounds to non-fishers, that they would have been forcibly removed and not received any compensation for the rent that they had already paid the Revenue Department (cf. Dogra 1993; Down to Earth 2002). Fishers also complained that this information was placed in the Appendices of the Das Committee Report at the very last minute, affording them only one day to formally respond to these findings (Kholamuhana Case 1993: §72).

¹⁷ It is a testament to the persistence of caste sentiments and terminological confusion that Judge Hansaria refers to class here when he clearly means caste in the sense of *varna*.

fishermen do not belong to a caste which has accepted fishing as a profession cannot be a ground in the changed circumstances to treat them as outsiders for the purpose of conferring some right to fish in Chilika. (Kholamuhana Case 1993: §95)

Adding insult to injury, in his summation, the judge condescendingly admonished the fishers that “it would be good for all concerned, including the fishermen themselves,” if they would “accept the reality and adopt the principle of ‘Live and Let Live’” (Kholamuhana Case 1993: §95).

In its ruling, the High Court directed the Revenue Department to: 1) scrap the old lease system privileging fishers, and; 2) to reallocate the lake between the two communities, with sixty per cent going to the fisher and forty per cent to the non-fisher communities (Ghosh, et al. 2006: 243; Ray and Ray 2007: 402). Based on a total water-spread of 47,317 acres of fishing sairats the court ruled that 33,019 acres (27,019 acres were classified “capture” sources and 6,000 acres as “culture” sources) be leased out to the fishers through the CFCMS. The remaining 14,000 acres were designated “culture” sources for the non-fishers while the “landmass” i.e. nunichar, was to be “jointly shared, almost in equal proportion, by the two contending parties – Primary Societies and non-fishermen” (Kholamuhana Case 1993: §104). Lastly, the court agreed with the Das Committee that the government-sponsored “intensive” aquaculture was detrimental to the lake ecology and was the source of what was dubbed “mafia raj” and “prawn-dollar disaster.”¹⁸ The judge ruled that only “traditional extensive aquaculture”¹⁹ could continue within the confines of the lake (Kholamuhana Case 1993: §99).²⁰

¹⁸ The court repeatedly expressed its opinion that the mafias were a byproduct of the high export earnings obtained from the sale of prawn. In his ruling, Justice Hansaria even pondered whether, “If ‘prawn-rupees’ would be there, mafias may not be there” (Kholamuhana Case 1993: §97).

¹⁹ Based on inputs and yields, the court listed four possible types of aquaculture in ascending order of negative environmental impacts: 1) Traditional extensive; 2) Semi-intensive; 3) Intensive; 4) Supra-intensive or ultra-intensive (Kholamuhana Case 1993: §64).

²⁰ Much as in the question of non-fisher rights to fish in the lake, the court held that, “Historical facts and realities of the situation have to be borne in mind while dealing with live problems. Nobody, not even the Courts, can set the clock back; all that is permissible and would be acceptable is adjustment of the clock. ... This approach of ours would amount to accepting a lesser evil, having felt that evil can not be done away with altogether”(Kholamuhana Case 1993: §99).

Based on the court ruling, in 1994 the Revenue Department amended the 1991 Lease Policy to define “capture” areas as the traditional fisheries of *jano*, *bahani*, *uthapani*, *dian*, etc. “Culture” areas were defined as “controllable confined areas in the inter-tidal zone of the Chilika Lake where aquatic animals can be held captive for certain period of time and from where the entire produce can be totally harvested” (Ray and Ray 2007: 403). Non-fishers and moneyed interests latched upon the High Court ruling and 1994 Lease Policy to further intensify aquaculture production in the basin while expanding their forcible takeover of fishing grounds in the lake. Rather than achieve the stated goal of laying the foundation for bonds “of friendship and unity ... between the fishermen and non-fishermen living in and around Chilika,” (Kholamuhana Case 1993: §107) the fishing communities continue to be deeply resentful of this ruling and reject it on the grounds that it unfairly compromises their access to their only source of livelihood. They point out that the High Court’s calculations were over-simplified and did not take into consideration the decreasing size of the lake and the fact that some fishing grounds had already been placed off-limits due to the creation of a bird sanctuary on Nalabana Island.²¹ More importantly, according to research conducted by the Orissa Legislative Assembly, by 1997 the non-fisher communities were in possession of 20,000 acres of the lake or 6,000 acres more than was allotted to them by the court ruling (Samal 2002: 1716).

During semi-structured interviews conducted with fishers in fishing communities throughout the lake, my interlocutors strenuously rejected the underlying premise of the High Court ruling which presented the 60:40 division of the lake as an equitable solution. I was

²¹ Nalabana Island was declared a bird sanctuary in 1973 and this original allotment has subsequently been expanded on several occasions to include the rich fishery surrounding the island (CDA 2008b; Kadekodi, et al. 2000: 215). In addition to Nalabana Island, there is an Indian Naval base in the Central Sector that maintains some areas as off-limits, the Northern Sector of the lake near Busundapur has a bird sanctuary and the CDA has been given Wildlife Warden Status in the Outer Channel, which the locals fear will become a full-fledged dolphin sanctuary that will restrict access to their fishing grounds (Government of Orissa 2007).

repeatedly told that Chilika is their only source of livelihood and that since they were “fishermen by caste” they were unwilling to part with any territories or forego their exclusive traditional rights to the lake. Often fishers suggested that the local non-fishers provide them with forty per cent of their paddy land in return for fishing grounds. As mentioned in the introductory chapter, they referenced the fact that they had lost their singular role as custodians of the lake and remonstrated that now “even Brahmins” were fishing in the lake.

In general, interviews conducted with fishers uncovered a seething indignation towards non-fishers that was further fueled by the sense that, after generations of being considered untouchables for earning their livelihood from the fishery (See Table 7.1), the fishers were now being told by the same people that these caste considerations were irrelevant. Though they stressed that people were no longer as caste conscious as in the past, and that many (but not all) of these caste prohibitions are no longer practiced, caste clearly continues to play a crucial role in their daily interactions. The numerous ways in which this history structures the daily interactions between the two groups will be discussed in greater detail in the subsequent chapter.

Table 7.1 Examples of Caste Prohibitions as Freelisted by Fishers in Bhalabhadrapur.

Examples of Historic Caste Prohibitions as Freelisted by Fishers in Bhalabhadrapur²²	
Prohibited from Eating Together (Commensality)	82%
Considered Untouchable	71%
No Intermarriage (Endogamy)	65%
Prohibited from Touching Straw Mats of Non-Fishers	59%
Hierarchical Seating at Meetings	53%
Not Allowed to Enter Non-Fisher’s House	41%

²² This freelisting exercise was conducted by seventeen fishers who were asked to provide examples of caste prohibitions that they personally experienced during their lifetimes. Only examples with two or more responses are included in the table.

Prohibited from Non-Fisher Wells	18%
Used to be Scolded or Beaten by Non-Fishers	18%
Prohibited from Non-Fisher Bathing Ponds	12%
Prohibited from Non-Fisher Verandahs	12%
No Friendships Allowed with Non-Fishers	12%
Would Play with Non-Fishers only in School	12%

The Chilika “Black Bill” – The 2001 Lease Policy and its Implications

When I first visited Chilika in May, 2002, I traveled around the lake interviewing fishers and non-fishers in eight villages located in three sectors of the lake.²³ In six of these villages, I handed out disposable cameras as part of an exercise in “informant photography” (Collier and Collier 1986; Pink 2007). Though I did not direct the participants to photograph any particular subject, I requested that they take photographs reflecting changes in their surroundings that they had witnessed during their lifetimes (Dujovny 2007). After these photos were developed I used them for “photo elicitation” interviews (Blinn and Harrist 1991) to learn more about these changes. While many people spoke ruefully about the proliferation of prawn culture ponds built by non-fishers and the devastating impacts this was having on their environment, I also found that the memory of the Sorana firing incident was beginning to fade into the background. In part, this was because the government indefinitely suspended the granting of leases following the Sorana tragedy. In addition, I suspect that this was due to the fact that all eyes had turned to

²³ These villages included: 1) Outer Channel- Bhalabhadrapur, Aloopatna, Parala, Sanapatna, and Arakhakuda; 2) Northern Sector – Panchupathia and Jaripada, and; 3) Central Sector - Chandraput and Barkul.

fathoming the many changes caused by the opening of the new sea mouth in September, 2000 (Dujovny 2009).²⁴

When I returned for extended fieldwork in January, 2005, the mood among my contacts in the fisher communities had clearly soured. People regularly sought me out to discuss the negative effects of the new sea mouth and to bitterly complain about what they referred to as the “Black Chilika Bill” (The Statesman 2005). Officially known as “The Orissa Fishing in Chilika (Regulation) Bill, 2002,” (Hereafter “2002 Bill”) this legislation had the fishers of the lake up in arms. This came as a bit of a surprise, since the fishers initially supported the draft bill since it outlawed prawn aquaculture in the lake (Samal 2007: 179). Their rejection of the bill only emerged after legislators in the State Legislative Assembly sent it for review by a Select Committee (Ray and Ray 2007: 404). When the amended bill was resubmitted in 2003, it included several changes that the fishers felt went against their interests as well as the 1996 Supreme Court ruling prohibiting prawn aquaculture in the lake.

Specifically, the fishers suspected that the government’s inclusion of *poluha* and *khainchi*²⁵ as “traditional” capture sources for the first time was meant as a back-door way of granting the non-fishers rights to the Chilika fishery (Samal 2007: 180). As discussed in Chapter Six, there is a long tradition of using *Poluha* to resist fishing restrictions and it was evident to all concerned that political pressures from the non-fisher communities were behind this move to recognize them as being a “traditional” community with rights to the capture fishery. From the fishers’ perspective, this is seen as a blatant political attempt to redefine what it means to be a fisher. Paraphrasing Dirks, this appears to be a clear example of the politicization of caste

²⁴ In September, 2000, the Chilika Development Authority dredged a new sea mouth to connect the lake to the Bay of Bengal. This was deemed necessary to prevent the brackish water lagoon from converting into a freshwater lake.

²⁵ *Khainchi* works on the same principle like *poluha*, but is smaller, and used to capture smaller fish in shallow water. It is shaped like the cornucopian “horn of plenty” and is primarily used by women.

categories and the formation of “governable entities” by legal fiat. Equally offensive to the fishers was the provision in the draft law that would provide leases for fishing grounds in the lake at a ratio of 70:30 (i.e. for fishers and non-fishers, see §5(1)).²⁶ Designed to grant non-fishers sole rights to their nearshore waters, it is a clear attempt to redraw the longstanding line between land and water. Finally, and perhaps most insidiously, the inclusion of the bureaucratically concocted “improved traditional method of fishing” was understood by all concerned to be a fig leaf for the legalization of prawn aquaculture (Ray and Ray 2007: 404). For these reasons and because the amended bill would grant the Chilika Development Authority broad police powers to enforce the law,²⁷ it has been unanimously rejected by the lake’s fisher communities.²⁸

Under the leadership of the CMM, the fisher communities organized a campaign to prevent a vote on the bill. From December 17-21, 2003, “as many as 20,000 members of the community gave vent to their anger by laying siege to the House [i.e. Legislative Assembly] while legislators were inside debating the bill” (Mahapatra 2003). They argued that the granting of 30% to non-fishers would only result in constant harassment as it would lead to benami leases by well-heeled outsiders and further encroachment (Down to Earth 2002; NDTV 2003; The Statesman 2005). As Mr. Rabi Jena, President of the *Purbanchala Matsyajibi Mahasangha*

²⁶ This reduction from a ratio of 60:40 to one of 70:30 was suggested as a concession by the government to the fishers. The fishers have rejected this and point out that the non-fishers have already encroached on more than 30% of the lake. They fear that by granting them legal rights, they will slowly encroach on ever more territory.

²⁷ The 2002 Bill, as drafted, would allow for the CDA to “enter into and inspect any place in or around Chilka” (§13(1)i), “search any person or search any place or premises, boat, vehicle, vessel or receptacle,” (§13(1)ii), “seize any document, boat, vehicle, vessel, receptacle, net or other article ... including fish” (§13(1)iii). In addition to these police powers, the CDA would be authorized to “cause demolition and removal of enclosures set up by net, mess, embankment or otherwise for fishing in Chilika...” (§12(2)d). The law goes on to state that “It shall be the duty of every police officer to cooperate with the CDA for carrying into effect and enforcing the provisions of this Act” (§17(1)a).

²⁸ Based on the latest figures released, over 130 km² of the lake is occupied by prawn *gherries* (enclosures) (Pattanaik 2007: 46). The fishing communities regularly object to the existence of these enclosures and blame both the Revenue Department and CDA for not enforcing the Supreme Court ruling.

(Eastern Fisher Federation)²⁹ explained, “even if only 5% is offered to the non-fishers, we will not agree. The non-fishers go to Chilika with aim to eat well and make a good house while living lavishly. But we go to Chilika, so that our kitchen will be open. Otherwise, we will starve.”³⁰

Fortunately for the fishers, every year since the “Black Bill” was first introduced, they have managed to successfully prevent its passage (Samaya 2005; The New Indian Express 2005).³¹ Most recently, while chairing a meeting at the Chilika Development Authority, Chief Minister Naveen Pattnaik issued a demolition order against all “illegal prawn gherries” in the lake (Telegraph 2009). While there is no doubt that this would be warmly welcomed by the vast majority of the lake’s fishers, there is a widely held belief, based on past experience, that this is just another example of what my field assistant termed “a drama for the cameras.” So long as the issue of rights to the fishery remains unresolved, this will undoubtedly continue to be a source of discord between the lake’s fisher’s and non-fishers.

Village Comparisons: Bhalabhadrapur and Satapada Gada

The rigours of the caste system which artificially restrict a number of people to a fixed trade, irrespective of fluctuations in its requirements, act with full force upon the lower classes, who are but slowly throwing off its shackles. A difficulty of a different kind arises when there is an increased demand for any particular kind of labour, which the caste-men concerned are unable to meet, as people of another caste will not readily take it up, although it may offer profitable occupation. There is every prospect that the employment of capital and the introduction of improved methods will secure to fishermen not only steady work but also good wages, both of which they lack at present. But the

²⁹ This organization was founded to lobby on behalf of the fishers living in the Outer Channel communities.

³⁰ Similar things were repeatedly stated during informal conversations held around the lake as well as in formal interviews with Balram Das, President of the CMM and with Mr. B. K. Nayak, President of the *Harijan Matsyajibi Mahasangha* (“Untouchable” Fisher Federation).

³¹ In September 2005, I was witness to the immediate aftermath of a anti-government protest in Satapada. The CDA building, which was *gheraoed* was also pelted with stones and several windows were shattered. A large contingent of police officers were stationed in the area for several weeks following this protest.

caste rules will stand in the way of any large extension of fishing operations for some time to come. – Sir K. G. Gupta, *Reports of the Results of Enquiry into the Fisheries of Bengal, and into Fishery Matters in Europe and America* (1908), Quoted in Southwell (1915: 35).

With this backdrop of rising tensions surrounding rights to the fishery, I set out to explore the similarities and differences between two adjacent villages from the respective fisher and non-fisher communities. Separated from one another by less than a hundred meters, the villages of Bhalabhadrapur and Satapada Gada are both located in the Outer Channel region of the lake on the southern tip of Satapada Island (Figure 7.1). Until 1991, and the construction of a bridge over the Dahikhya channel, the area was only accessible by ferry and thus relatively isolated from the mainland.³² Bhalabhadrapur, which is the larger of the two villages, is primarily inhabited by fishers from the Kaibarta jati, though there are also small communities of dalits (from Hadi and Doma jatis) living within the village limits. Satapada Gada is exclusively inhabited by non-fishers from the Khodayat agricultural caste and does not even have a family of resident Brahmins to minister to their religious needs.³³ Even in the way that the two villages are spatially laid out, they could not be more different. Bhalabhadrapur centers on the village temple and extends out in a straight line for about 750 meters in either direction, whereas Satapada Gada, which is more compact, is laid out in the shape of a rectangle with a temple in the center. The latter's settlement pattern is undoubtedly linked to the town's strategic location

³² As I have hopefully demonstrated in the previous chapters, the area was hardly isolated. Nonetheless, because it is an island, Satapada is slightly more difficult to reach than Manikapatna, which was the historical port town of this region. Since the introduction of dolphin tourism in the 1990s, large numbers of tourists regularly make day trips from Puri, which is only sixty kilometers distant.

³³ The Brahmins who serve as *purohits* (priests) in Krushnaprasad Garh all live in the Brahmin village of Nathapur, which is some five kilometers distant.

along the inner channel and belies its long history as a fortress in the pre-colonial Khurdha Kingdom³⁴ (See Figure 1.3 for close-up map of villages).



Figure 7.1 Satellite map of Satapada Island with Tua Island to the north and the Outer Channel and new sea mouth to the south. The sun symbol is positioned directly between both villages (Google Maps 2009).

In May, 2005, I settled on a full census of Bhalabhadrapur as my first act of data collection. The goal of this exercise was to obtain household-level data on the community, identify potential participants for my research, draw a detailed map of the village, and formally

³⁴ *Gada* literally means fortress in Oriya. According to a local centenarian that I interviewed, the British also maintained a military garrison on Satapada Island during his lifetime, though their encampment was one and half kilometers south of Satapada Gada in the market area known locally as *rata mati* (red earth).

introduce myself to as many people as possible. Following the lead of my field assistant, we started at the south end of the village and went door to door as I collected GPS points³⁵ and we filled out the census forms. The forms, which were personally designed after an initial consultation with my field assistant, contained questions related to village demographics, education, residence, socio-economic status, landownership, as well as questions related to livelihood strategies and involvement in the fishery (Appendix B). A similar survey of every household was conducted in Satapada Gada in December 2007.³⁶ In general, the data from these two surveys reveals a great deal of similarity between both villages across a broad spectrum of categories.

1. Demographics: Though Bhalabhadrapur, which boasts a population of 1482 people, is almost three times larger than Satapada Gada's more modest 544 inhabitants, the ratio of males to females was almost identical (51:49 in Bhalabhadrapur and 53:47 in Satapada Gada) as was the overall pattern of age distribution (Figure 7.2). The only discernible difference was that, with 60% of Bhalabhadrapur's population under the age of thirty, its residents were, on average, slightly younger than those of Satapada Gada, where roughly half the population (51%), is under thirty.

³⁵ Since the village residences typically share a wall and often even a roof between them, the GPS, with an accuracy of fifteen to thirty feet was not as effective a tool as I had hoped it would be in mapmaking. However, I was able to georeference intersections and points of interest such as temples.

³⁶ The thirty month difference between the Bhalabhadrapur and Satapada Gada surveys reflects a change in direction with regard to my dissertation. For a perspective on my original research focus, see Dujovny (2009).

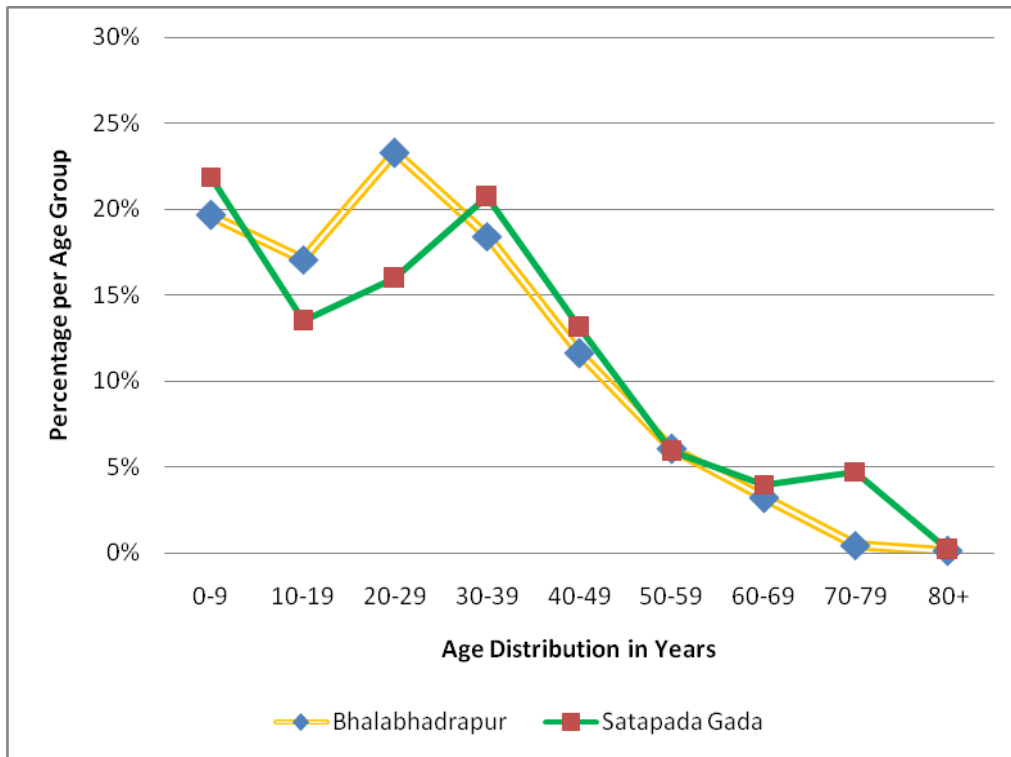


Figure 7.2 Comparison of age distribution for Bhalabhadrapur and Satapada Gada by percentage of population.

As was alluded to above, the caste composition of Bhalabhadrapur is more diverse than Satapada Gada, in which 100% of the households identify as being from the Khondayat (non-fisher/warrior) jati. By contrast, in Bhalabhadrapur, 89% of households self-identify as Kaibarta (Fisher), 6% as Hadi (Dalit), 3% as Doma (Dalit) as well as one family each of Brahmins, Bariks (barbers), and Khondayats (Figure 7.3). The Figure 7.4 pie chart combines both populations for an overview of caste composition in the area of my field site. Though exact figures are difficult to come by, fishers outnumber non-fishers on Satapada Island.

It is interesting that discriminatory caste sentiments were also evident among the various “low” caste groups in Bhalabhadrapur (cf. Deliège 1999). This came to light as a result of the great deal of reluctance on the part of my field assistant to have the resident Hadi and Doma included in the village’s census. While it is true that their residences were set back from or

perpendicular to those of their fisher neighbors, at first I was surprised by this contention since, after all, he considered those houses immediately before and after the dalit homes to be integral to the village. Though I was informed that they are not allowed to be members of the village council, I chose to include them as residents of Bhalabhadrapur on the basis of the fact that their government-issued voter identification papers and Below-Poverty-Line cards (BPL) list them as residents of Bhalabhadrapur. It is worthy to point out that no similar objections were made with regard to the other jatis (e.g. Brahmin, Barber, etc.) who reside in the village. It was primarily due to these initial findings of social exclusion that I decided to include dalits in the following chapter's discussion of egocentric social networks.

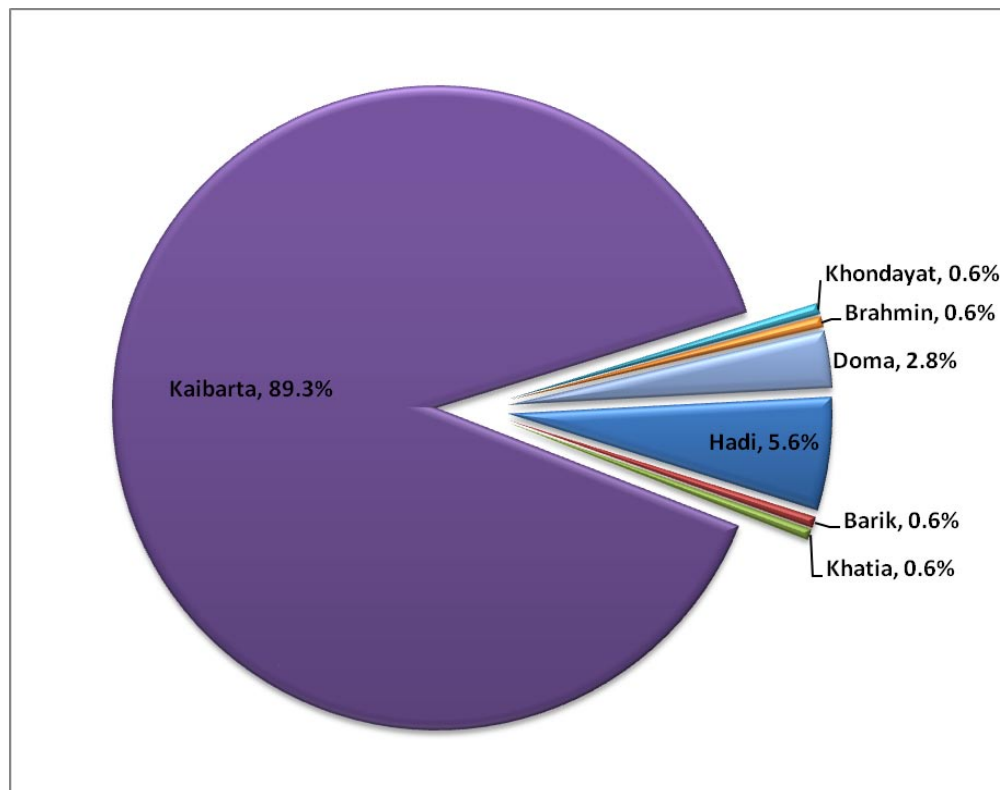


Figure 7.3 Bhalabhadrapur jatis by household plot (N = 178).

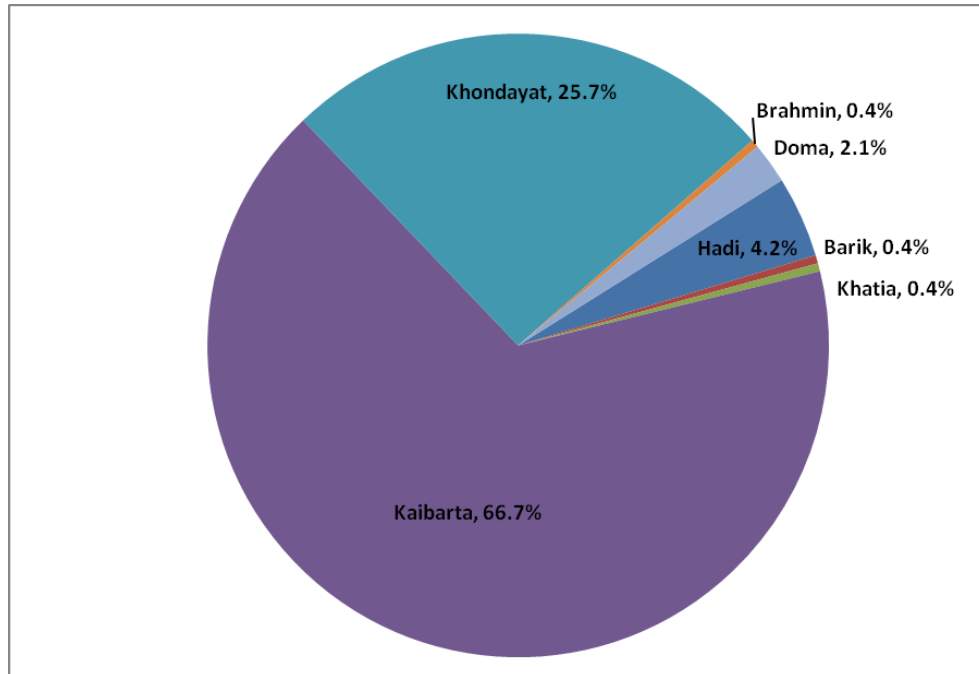


Figure 7.4 Jati Composition of Field Sites (Bhalabhadrapur and Satapada Gada) by percentage of total households (N = 237).

2. Education: Considering that the two villages share a primary school between them and a local high school with several other villages, it would seem that they have access to similar educational opportunities. Yet, the data indicates that, even though the overall distribution of grade levels completed are quite similar for both villages, a significantly higher percentage of individuals in Satapada Gada (72%) have received some schooling when compared to Bhalabhadrapur (53%)³⁷ (Figure 7.5). However, a more fine-grained analysis of this data reveals some interesting and unexpected phenomena. For example, in Satapada Gada there is a noticeable spike among those who attended school only up until the fifth grade. According to local informants, this is reflective of past poverty that necessitated pulling children out of school to help with herding water buffalo or to labor as field hands in the rice paddies. Similarly, the data reveals a spike among fishers who successfully completed their primary school education

³⁷ Even after adjusting for the low level of education among dalits (only 27% with education), the percentage of Kaibarta with formal education only rises to 55%.

(i.e. up to seventh grade). This can be attributed to a decision by the Bhalabhadrapur village council which barred those who failed to complete the seventh grade from fishing in the lake. Nonetheless, a significantly higher percentage of Satapada Gada residents successfully completed their primary school education (33%) when compared to Bhalabhadrapur (21%).

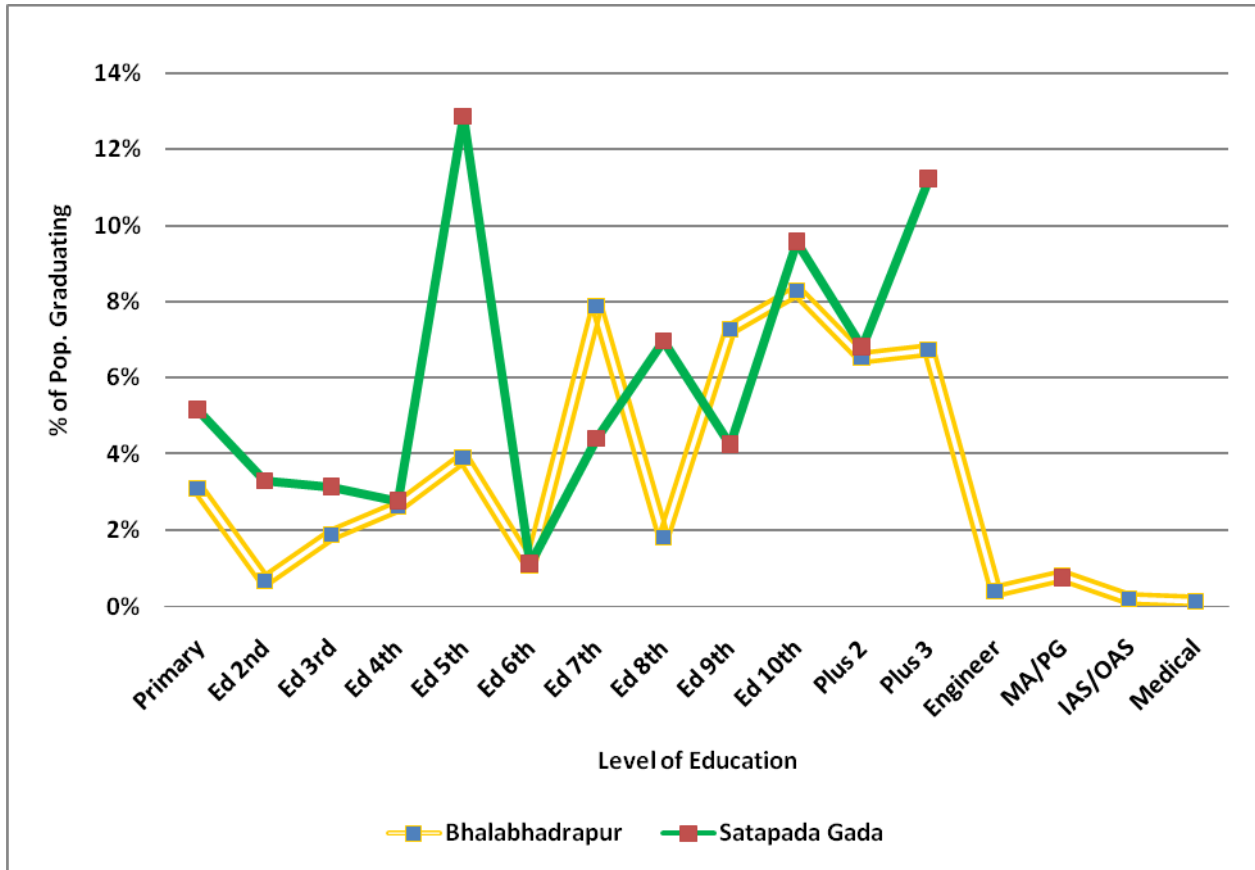


Figure 7.5 Comparison of level of education completed by percentage for Bhalabhadrapur and Satapada Gada.

By the same token, Satapada Gada boasts a higher percentage of people who matriculated from high school. This was attributed to the fact that, until 20 years ago, the only high school was located in Baghamunda, a Khondayat (Non-Fishing) village that is located approximately five kilometers from Satapada Gada and Bhalabhadrapur. In a reflection of the often overlooked role of social networks and caste affiliation, I was told that the non-fishers of Satapada Gada

were better placed to avail themselves of housing opportunities in Baghamunda because of their numerous kinship ties with the village. In practice, this meant that they were more likely to attend high school than their fisher neighbors. Lastly, based on these constraints, and the fact that more non-fishers have completed college, it is surprising that so few non-fishers have gone on to pursue a graduate education. While there are several fishers who have completed college and a few who have gone on to get their Master's, only one non-fisher has received a Master's degree. This may be a testament to the fact that the fishers of Bhalabhadrapur are members of a "scheduled caste" and can take advantage of "reservations"³⁸ when applying to institutions of higher education.

3. Residence: With regard to data on residence patterns, an identical percentage of people in both villages presently live elsewhere, but maintain their primary address in the village (Bhalabhadrapur 13% and Satapada Gada 11%). In the vast majority of the cases these are people who have left in search of short-term employment opportunities or those who are employed by the government and have been temporarily posted in other places. It is interesting, therefore, that a significantly higher percentage of people presently living in Satapada Gada (25% compared to 12% in Bhalabhadrapur) were not born in the village. Since Oriya tradition prescribes virilocal residence, almost all of these individuals are women who relocated following marriage.³⁹ Also of interest is the fact that, in the case of Satapada Gada, these 133 people hailed from no fewer than 57 discrete villages, whereas the 175 Bhalabhadrapur residents who arrived through marriage came from only 40 villages. This suggests that, although there are fewer residents in Satapada Gada, they have more diverse kinship ties with a greater number of

³⁸ Unlike "affirmative action" in the United States, in India, reservations are quota based programs.

³⁹ In the case of Satapada Gada, of the 133 people born outside of the village, 100% were women who arrived as wives. In Bhalabhadrapur the few exceptions were people born outside the village when their parents were in government service.

villages. The importance of this phenomenon, which Granovetter (1973) famously termed “the strength of weak ties” will be addressed during the subsequent chapter’s discussion of social networks.

4. Socio-Economic Indicators: Since it was evident from the initial interviews in my field site that people were (rightly) cautious about divulging their earnings to a stranger, I collected a variety of proxy indicators as part of the census in an attempt to roughly quantify socio-economic status. To begin with, based on official Satapada Panchayat (village assembly) statistics, 35% of residents in the eleven panchayat villages,⁴⁰ have government-issued BPL (Below Poverty Line) cards that entitle the recipients to receive rice and oil at greatly reduced prices. Of this, 40% are fishers and dalits and 30% are non-fishers from agricultural or Brahmin communities.

I was repeatedly told by locals that type of housing provides an easily visible and reliable indicator of overall household wealth.⁴¹ Indigenous categories were used to divide the houses into three categories: 1) *Chala*, or the traditional coastal Orissan house with thatched roof and mud walls; 2) “Asbestos,” which refers to a type of asbestos roofing that does not need to be replaced every year, and; 3) *Pukka*, meaning “proper” and referring to a house made of bricks and flat concrete roof. Interestingly, Bhalabhadrapur had a higher percentage of both Chala and Pukka houses (Figure 7.6). This can largely be attributed to the greater income disparity among fishers, between those who earn their livelihood solely from the fishery, and those who are shop owners or “service holders” (local parlance for government employees). These findings may also be indicative of past economic affluence in the period prior to the entry of non-fishers into

⁴⁰ The are covered by the Panchayat includes: Bhalabhadrapur, Satapada Gada, Aloopatna, Banki Jalla, Naubadi, Baulapatna, Bhoi Sahi, Nathapur, Gabakunda, Nuagaon, Matapatana, Guptapur, Jagannathpur, Pirisipur Bhoi Sahi.

⁴¹ This reasoning is standard in South Asian studies, e.g. Dube’s (1955: 168) assertion that, “In a general way it can be said that a house and its belongings indicate the owner’s standard of living.”

Chilika. Other proxy indicators that were analyzed, include a comparison of goods and services, such as electricity, availability of a tube well, ownership of livestock and shop ownership (Figure 7.7).

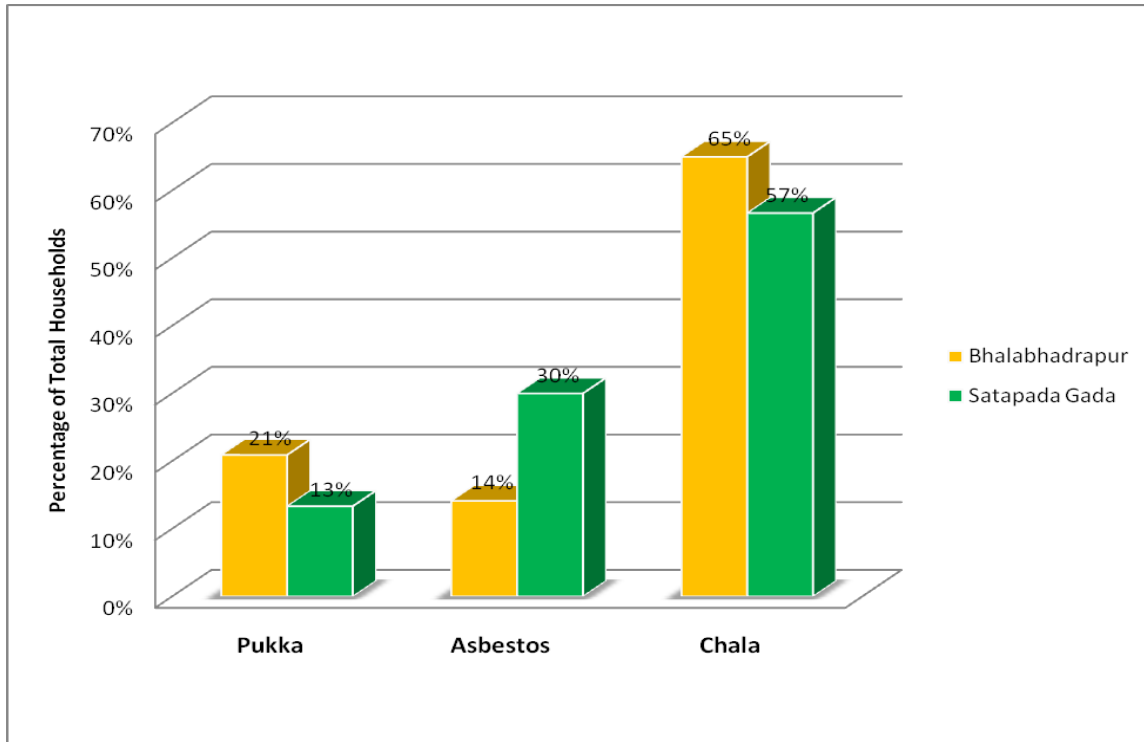


Figure 7.6 Comparison of House Types.

This reveals conflicting data, with a greater percentage of those living in Satapada Gada having electricity, while fewer have access to their own water supply. This may simply be due to the fact that Satapada Gada is a smaller village and water is readily available from the wells located in the village's central square.⁴² The existence of electricity suggests a greater number of electrical goods and improved economic conditions among those in Satapada Gada. This is further corroborated by the larger house sizes in Satapada Gada (4.9 rooms per home), though

⁴² In 2002, the government ran a water pipe through both villages and pumps water for several hours each morning and afternoon (Government of Odisha 2009).

this is tempered by the higher average household population density (average of 9.1 people per house compared to 8.3 in Bhalabhadrapur). At the same time, caution should be taken before reading too much into these figures since the data also points to greater population density in Bhalabhadrapur at the level of individual rooms.

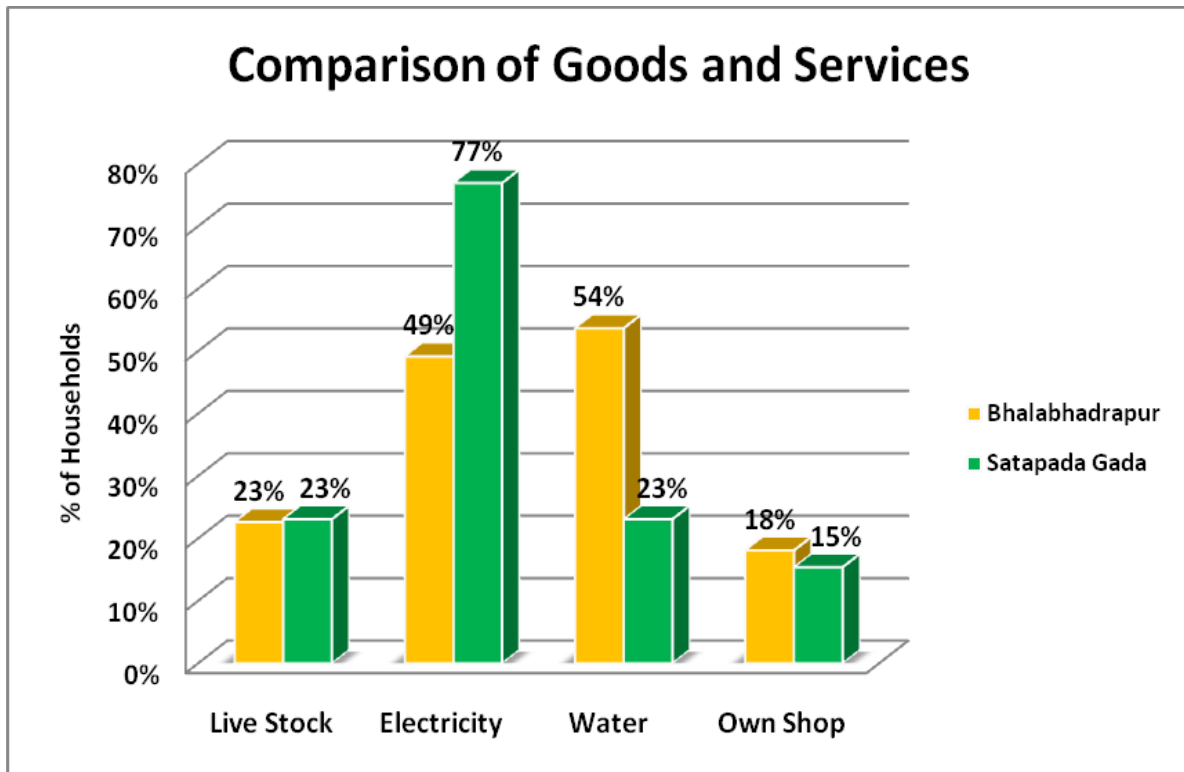


Figure 7.7 Comparison of Goods and Services.

On average there are 2.3 people per room in Bhalabhadrapur compared to 1.8 in Satapada Gada (Figure 7.8). Since households are typically comprised of “joint families” – several brothers and their families living around a shared courtyard – this is a significant finding. Typically, each family unit is allotted one room, with an extra room set aside for the household’s unmarried women who have reached puberty. 11% of those living in Bhalabhadrapur live in one room houses. By contrast, in Satapada Gada there are no one room houses.

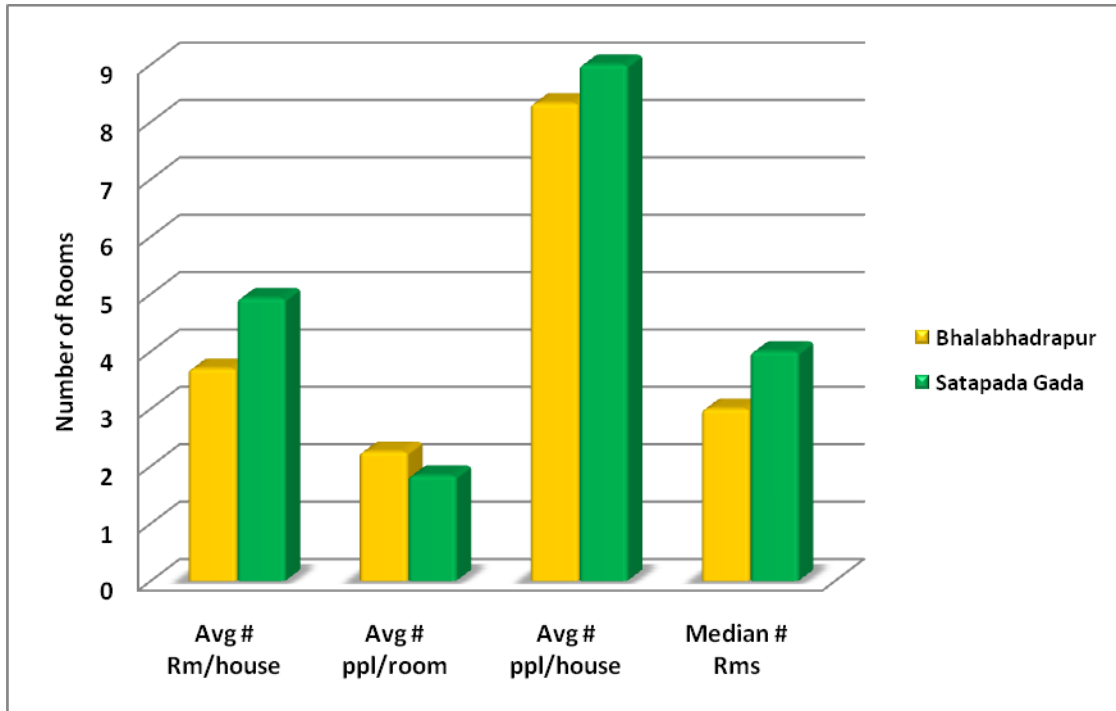


Figure 7.8 Comparison of Living Arrangements.

5. Landownership: Another proxy indicator used to gauge differences in socio-economic levels, and an area where major disparities could be expected, was in the area of landownership. The survey data revealed that the vast majority of those living in Bhalabhadrapur (88%) were not landless since they own their household plots as well as kitchen gardens. However, only 27% reported owning land officially designated *chasa zamin* (agricultural land) compared to 97% of those living in the agricultural community of Satapada Gada (Figure 7.9). Closer inspection reveals, however, that this represents small-scale agriculture since a full two-thirds of the landholdings in Satapada Gada are only one or two acres in size (Figure 7.10).⁴³

⁴³ Of a total of 87 plots of land, 58 were only one or two acres in size. The maximum farm size of five acres was only reported by three households.

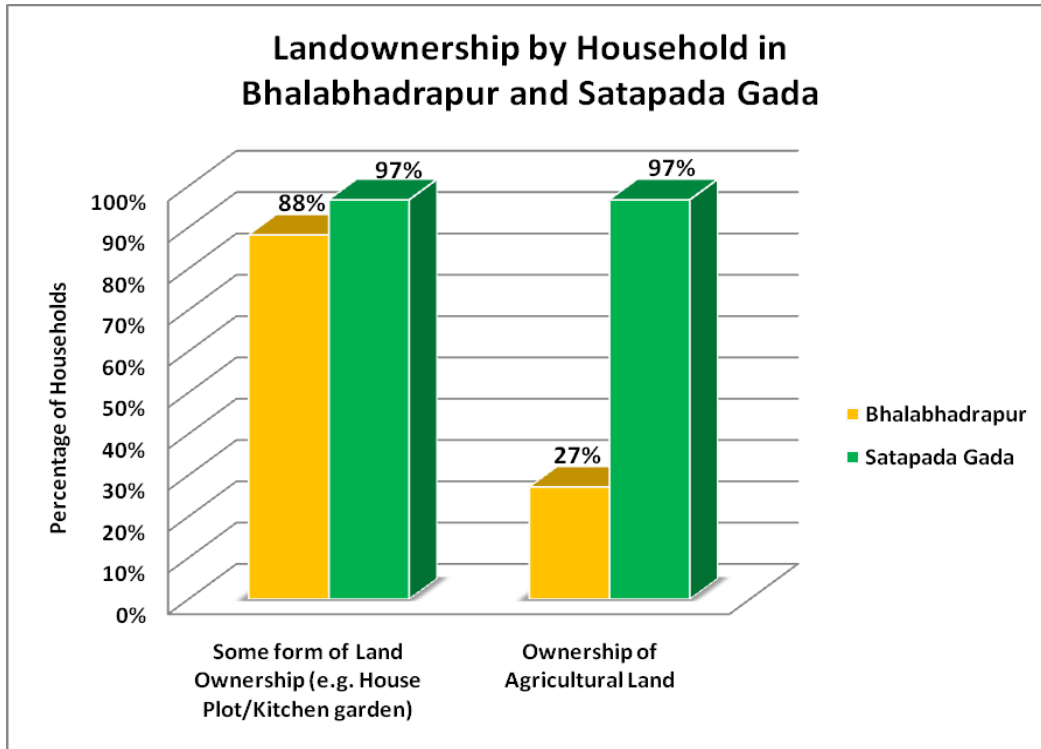


Figure 7.9 Landownership in Bhalabhadrapur and Satapada Gada. This demonstrates the disparity between the two villages with regards to *chasa zamin* (agricultural land).

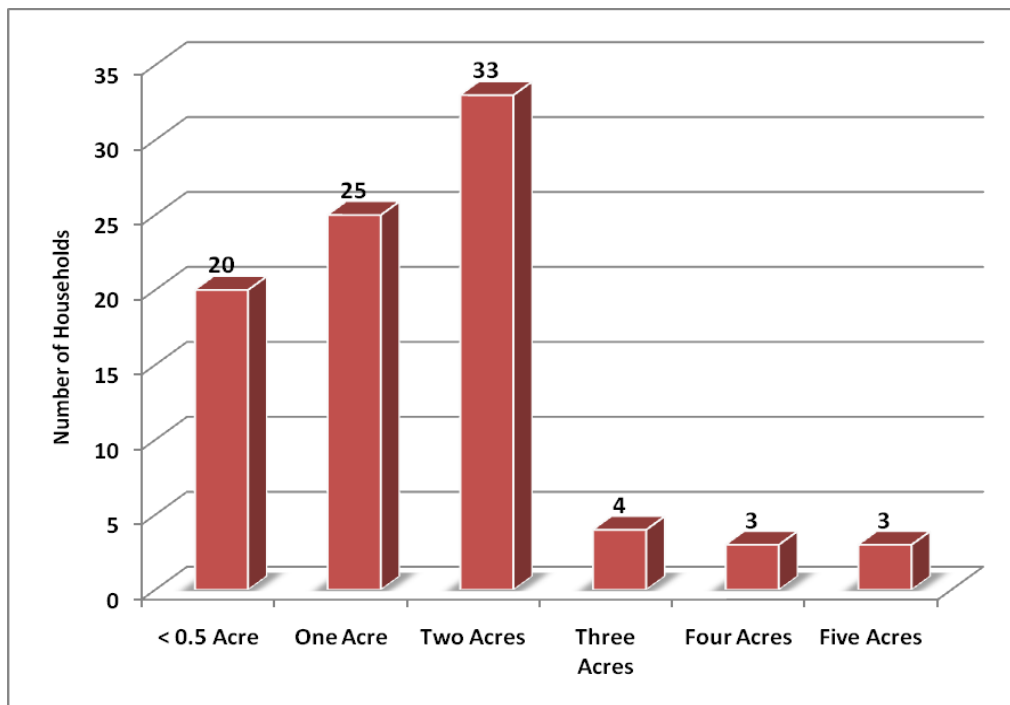


Figure 7.10 Size of Landholdings in Satapada Gada (N=91). This clearly shows that the vast majority of landholdings are small farms of two acres or less.

6. Livelihood: The survey data on primary sources of livelihood uncovered some startling trends. As might be expected for the fisher village of Bhalabhadrapur, 56% reported that their primary source of livelihood was fishing in Chilika, a figure that rose to 61% when only those who self-identified as being from the Kaibarta fisher jati were considered. Approximately half (46%) of Khondayats from Satapada Gada similarly reported that their primary source of livelihood was derived from fishing in the lake. In general, the survey showed that the Satapada Gada economy is far more diversified than in Bhalabhadrapur (Figure 7.11), with many households engaging in multiple livelihood activities. By aggregating all those who listed fishing and/or aquaculture as primary sources of income (in addition to other pursuits), it turns out that some 57% of households in Satapada Gada are involved in the fishery in one form or another. When this figure is compared to the 18% who listed agriculture as their primary source of income,⁴⁴ it becomes clear that what I have termed “subsistence convergence” or the shift from agriculture to fishing has already occurred.⁴⁵

⁴⁴ Similar to the statistic concerning fishing, this is an aggregated figure that includes all those responses which listed agriculture in conjunction with something else.

⁴⁵ It is also interesting to note that, while there is an identical percentage of households that earn their livelihood through business activities, 23% of those from Bhalabhadrapur are government “service holders” compared to only 11% in Satapada Gada. This, despite the fact that Satapada Gada has a higher percentage of college graduates. It is possible that government reservation policies account for this disparity.

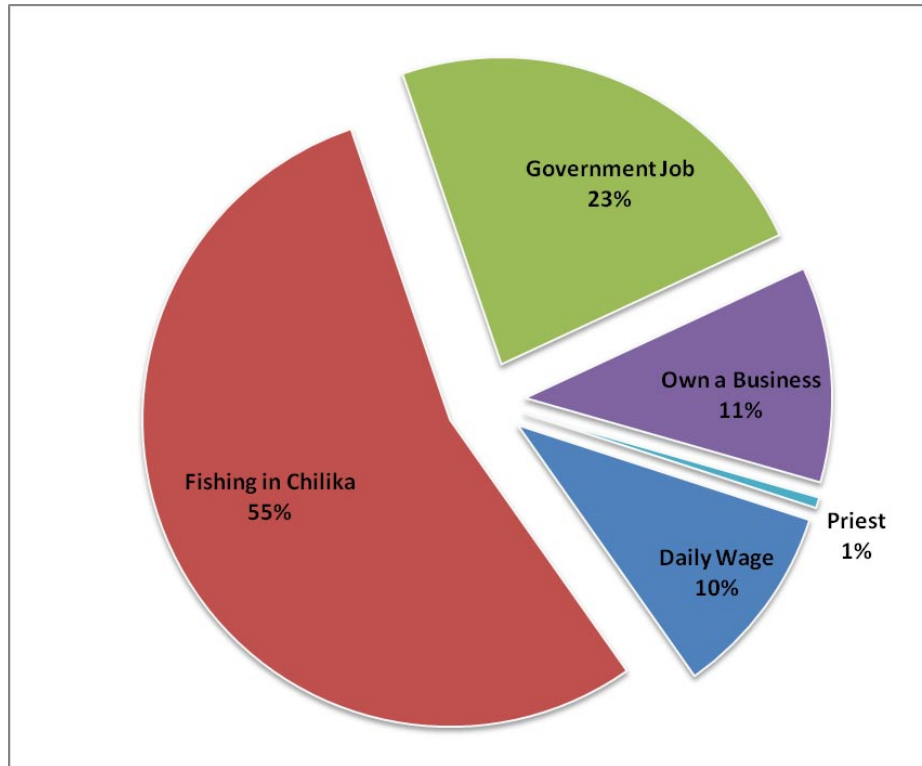


Figure 7.11 Sources of livelihood in Bhalabhadrapur by percentage of households (N = 176).

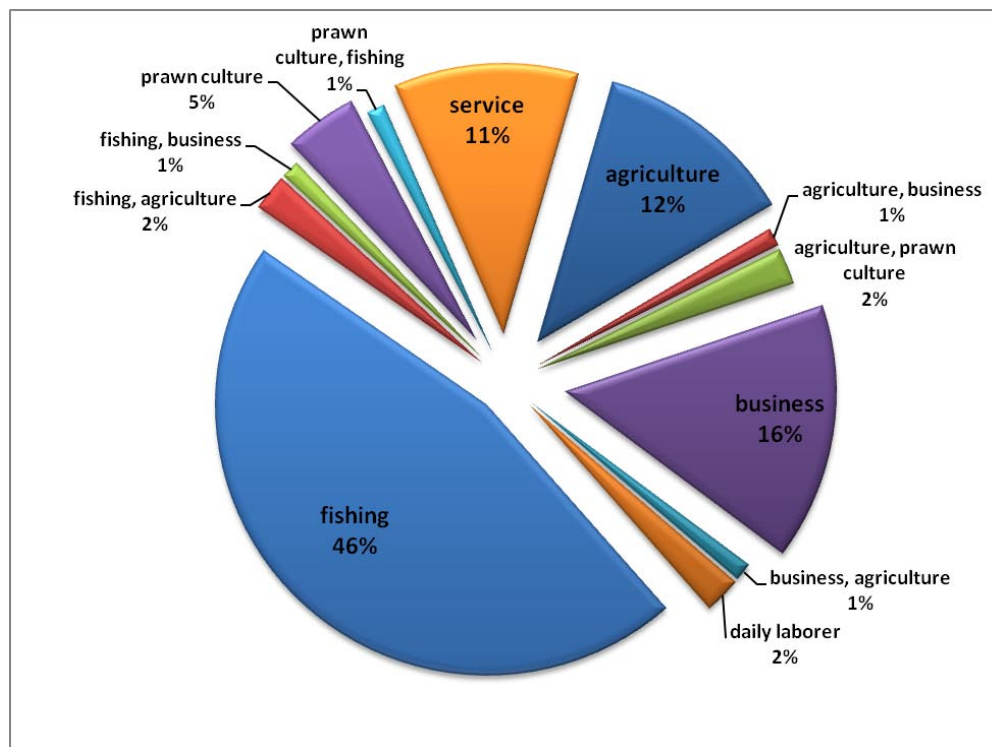


Figure 7.12 Sources of livelihood in Satapada Gada by percentage of households (N = 91).

7. Involvement in the Fishery: The livelihood trends are further supported by the survey data regarding involvement with the fishery. For example, although a slightly lower percentage of Satapada Gada residents list fishing as their primary source of income, almost three-quarters (72%) reported owning a fishing boat compared to about one-third (37%) of those living in Bhalabhadrapur. If one recalls that Satapada Gada has roughly one third the population of Bhalabhadrapur, this translates into greater boat capacity – or one boat per 10 people in the *non-fisher* village compared to one for every 17 in Bhalabhadrapur (Table 7.2).⁴⁶

Table 7.2 Comparison of village level boat capacity and percentage of households owning boats.

	Boat Capacity (Number of People per Boat)	Boat Ownership (% of Households)
Bhalabhadrapur (Fisher Village)	17	37%
Satapada Gada (Non-Fisher Village)	10	72%

That this reflects a higher level of involvement in the fishery is further corroborated by the slightly higher percentage (62%) of households from Satapada Gada reporting that they set nets in the lake on a daily basis as compared to Bhalabhadrapur (54%). This is a startling statistic because it clearly shows that the non-fishers' involvement with the lake is no longer based primarily on aquaculture but rather is indistinguishable from that of their fisher neighbors. This points to the fact that the large-scale gherry aquaculture in the lake is in the hands of wealthy outsiders who employ relatively few non-fishers to maintain them. Most non-fishers engaged in the fishery are doing so as fishers and not as aquaculturists.

⁴⁶ Even after adjusting for those who are not from a fisher caste, this figure only rises to 41% of those living in Bhalabhadrapur own a boat. Similarly, by removing those who are not traditional fishers from the calculation of boat capacity, the result is one boat for every 15.75 people in Bhalabhadrapur versus one for every 10 people in Satapada Gada. While this is likely more reflective of the reality on the ground, I use the other statistics because in the present situation where, at least in theory, anyone can buy a boat and fish, I see no reason to exclude the non-fishers of Bhalabhadrapur from these calculations.

Notwithstanding these findings, by far the greatest disparity between the two communities was uncovered with regard to their involvement in aquaculture and ownership of prawn ponds. While there are individuals in both villages who maintain prawn ponds, this research uncovered a total of 36 ponds in Bhalabhadrapur and 47 in Satapada Gada. The majority of these *pokhory* (ponds) are located in converted paddy lands or in *bundhs* (near shore embankments) next to the respective villages rather than in the open waters of the lake.⁴⁷ Dividing this number with the total number of households per village demonstrates the degree to which the non-fisher villagers of Satapada Gada are much more invested in this new industry. At 78%, the percentage of ponds per household in Satapada Gada was almost four times higher than the 20% of ponds per household in Bhalabhadrapur (Table 7.3).⁴⁸

Table 7.3 Comparison of the number of prawn ponds per village. The percentage amount refers to number of prawn ponds divided by number of households for the respective villages.

	Reported Number of Prawn Ponds Owned per Village	Percentage of Total Households Owning Prawn Ponds
Bhalabhadrapur (Fisher Village)	36	20%
Satapada Gada (Non-Fisher Village)	47	78%

The Rise of Ethnic Identity in the Chilika Basin

The broad array of census data demonstrates that, even though the villages of Bhalabhadrapur and Satapada Gada are cleaved along caste lines, there is much that unites the

⁴⁷ This does not in any way mean to imply that this is less detrimental to the environment or the fishery. As previously discussed in Chapter 2, converting paddy into prawn ponds destroys agricultural land and results in the loss of village commons. Embankments destroy the photic zone, which is crucial for the lake's ecosystem.

⁴⁸ Neither of these figures were self-reported. Though prawn ponds are functioning in both villages, the activity is technically illegal and people are hesitant to talk about how many they own. Rather, these statistics were collected by walking around the villages with a map and a group of knowledgeable locals who pooled their knowledge on which households owned ponds and how many they owned.

two communities. In particular, the livelihood data from the non-fisher village of Satapada Gada represent a dramatic break with past practices and signals the decline of agriculture and an active engagement with the fishery. It will be interesting to return in the future to see whether this process of “subsistence convergence” will lead to a further confluence across this range of indicators. For the purpose of the present research, however, the ongoing shift from farmer to fisher raises some important questions about caste and social relations in the Chilika basin. Of these, perhaps the most obvious is: Why should we continue to refer to “non-fishers” by that appellation, when it appears that they are more engaged with and invested in the fishery than the lake’s traditional fishing communities? After all, since the Orissa High Court ruled that they have rights to the lake, the “non-fishers’ have been (unsuccessfully) trying to lease out fishing grounds through the aegis of the *Chilika Ana-Paramparika Matsyajibi Mahasangha* (Chilika Non-Traditional *Fishermen’s* Society). And yet, one cannot help but wonder what exactly do these “non-fisher” “fishermen” mean when they refer to *themselves* as “non-traditional” fishers?

I believe that the answer to these riddles reveals as much about changes to the local caste “system” as they do about the changing nature of “caste” (jati) in India. To this end, the following discussion presents the case that castes have undergone a process of ethnicization. This change has for too long been obscured by the tired dichotomy of the “Modernity vs. Tradition” arguments (Gould 1970; Gusfield 1967; Rudolph 1965; Singer 1971) and unfulfilled expectations that the caste system is an epiphenomenon of class that will disappear with the rising tide of class consciousness (Adduci 2009; Agarwala and Herring 2008; Béteille 1965; Bhowmik 1992; Chibber 2006; Herring and Agarwala 2006). Rather, I concur with Sheth (1999: 2503) that these debates have served to perpetuate the “old colonial ideological-evaluative frame” positing the demise of caste while raging on around positions that are essentially mirror

images of one other. Whereas advocates of structural and cultural continuities have characterized changes to caste “in terms of functional adjustment made by the system for its own survival” those from a political-ideological perspective have persistently predicted that the forces of modernization will inevitably transform the caste system “into a polarised structure of economic classes” (Sheth 1999: 2503). Regardless of camps, both sides of this long-running debate share an implicit acceptance of the ongoing importance of caste and the conviction that it will continue to function as a coherent “system.”

As the preceding historical chapters have hopefully demonstrated, to the extent that there ever was a coherent caste “system” in coastal Orissa (e.g. the “system of entitlements”), it was inherently fuzzy and dislodged upon the arrival of the British and the imposition of what they termed the “land-settlement process” (Cohn 1996: 5). By “fuzzy,” I refer to the previously mentioned example of Paik soldiers, who were members of a militia that was recruited from all ranks of society (including tribals and Muslims). Through their service to the Khurdha Kingdom, they received landholdings and the ascribed status of Khondayat. Following the British invasion of Orissa, the process of caste and group formation continued and quite often was even the direct result of colonial interventions. For example, the introduction of property rights and the “enumeration modality”⁴⁹ associated with the land revenue administration system (e.g. land surveys and the census) is notoriously implicated in the “creation of social categories by which India was ordered for administrative purposes” (Cohn 1996: 8). A case in point is the Board of Revenue’s decision to lease fishing grounds directly to the fishers of the lake. In practice, this presented the Collector’s Office with the power to decide which groups were legitimately fishing in the lake. Khandaras, a “low” caste group who are universally accepted as

⁴⁹ After having lived in India, I can appreciate Cohn’s (1996: 8) conjecture that this fixation with enumeration was because “a number was, for the British, a particular form of certainty to be held onto in a strange world.”

fishers today, were not considered “fishermen” by the other fishing groups as recently as in the 1930s. Oddly enough, considering the recent history of the lake, it seems that this was because they earned their livelihood in the ritually defiling “*chingudi poco*” (“insect-like” prawn) trade. Similarly, the agricultural communities were designated “non-fishermen” by default and therefore lacked any rights to the fishery.

Cohn (1996: 162), much like Scott (1998), described this process as a consequence of the “conceptual scheme which the British created to understand and to act in India [in which] they constantly followed the same logic; they reduced vastly complex codes and their associated meanings to a few metonyms.” Over time, “India was redefined by the British as a place of rules and orders; once the British had defined to their own satisfaction what they construed as Indian rules and customs, then the Indians had to conform to these constructions” (Cohn 1996: 162). The result was that a rigid caste “system” based on Brahminical and scriptural authority was superimposed over the more fluid local social structures and resource use patterns. Over time, as Dirks (2001: 8) points out, these rules and orders became naturalized as a “uniform, all-encompassing, ideologically consistent, Indologically conceived caste system.” Caste took on the appearance of a primordial, unchanging and other-worldly phenomenon inimical to individualism and immune to politics.

As recently as the publication Louis Dumont’s (1970) *Homo Hierarchicus*, this essentially Orientalist and ahistorical outlook dominated discussions on caste. Yet, even Dumont began to wonder if caste was “dying” and questioned whether it could continue as a holistic “system” based on purity and impurity. Dumont based this discussion on the work of G. S. Ghurye, the doyen of Indian sociology, who first identified the phenomenon of “caste patriotism” as undergirding the proliferation of caste associations and as an impetus for the South

Indian anti-Brahmin movement. Preferring to coin his own term, Dumont suggested the term “substantialization” to describe an emerging principle of organization within political groupings that manifested as a tendency toward the horizontal politicization of various jatis. This principle, he argued, was evident in the “transition from a fluid, structural universe in which the emphasis is on interdependence and in which there is no privileged level, no firm units, to a universe of impenetrable blocks, self-sufficient, essentially identical and in competition with one another, a universe in which the caste appears as a collective individual ... as a substance” (Dumont 1970: 222). From Dumont’s perspective, this meant that the caste system was detached from its ideological moorings and thus remained only as a “substance” i.e. in the physical beings who were members of a particular caste by virtue of descent. He not only saw this as a threat to the interdependence of the caste “system” but also predicted that this would ultimately result in conflict as groups battled one another over status and resources.

In one of history’s paradoxes, at the same time that colonial interventions were transforming the local “system of entitlements” into the scripturally-based and timeless caste “system,” “enumerative modalities” (Cohn 1996: 8) such as the census and revenue administration were sowing the seeds of the system’s dissolution. Through these administrative processes, individuals were ascribed a fixed caste category that was quite often loosely based on functionalist notions surrounding occupation. Over time, groups and individuals not only began to identify and naturalize these categories but also began seeking out others who were similarly categorized. In his classic work on the census, Cohn (1987a) showed how the decision to include caste and hierarchical ranking,⁵⁰ motivated groups to pool their resources in order to

⁵⁰ Often caste associations would hand out pamphlets explicitly outlining what information they should divulge to the census takers. Due to this constant political jockeying for improved social ranking, the questions of caste affiliation and ritual hierarchy were removed from the census in 1931 (Reddy 2005: 549). According to Dirks (2001: 301), the Indian government was considering reintroducing questions on caste affiliation into the census.

lobby the government for improved social standing. Furthermore, the British decision in the 1920s to “schedule” or list castes for “positive discrimination” (i.e. affirmative action), helped coalesce the identity of these groups around a sense of disenfranchisement by upper-caste Hindus (Reddy 2005). It was not long before these grievances found voice in leaders such as B. R. Ambedkar (e.g. Ambedkar 2004), who organized the “lower” castes into political associations demanding increased rights (Jaffrelot 2005).

With the introduction of representative democracy following independence, this process was further accelerated and encouraged “‘particularist’ interests [to] mobilize themselves to compete for rewards and favours from the institutions of the state” (Washbrook 1989: 179). Bailey (1963a) was one of the first to describe these associations as interests groups recruited along caste lines. “Some castes formerly reckoned low,” he explained, “now refuse the economic obligations and spurn the economic privileges which went with low-caste status. They do not disavow membership of the group into which they were born, but they do claim implicitly that their group may enter freely into competition with other castes” (Bailey 1963a: 123). As he goes on to say, this constitutes nothing less than a “flat denial of differential rights and duties, and therefore a denial of an organic system and hierarchy.” Sheth (1999), who maintains that this process is the end result of increasing secularization, terms it the “de-ritualisation and politicisation” of caste. Specifically, he asserts that, “These changes have (a) pushed caste out of the traditional stratificatory system, (b) linked it to the new structure of representational power, and (c) in their cumulative impact they have made it possible for individual members of different castes to acquire new economic interest and social-political identification and own class-like as well as ethnic-type identities” (Sheth 1999: 2504).

In his decidedly structuralist typology of caste, Barnett (1975) attempts to account for the rise of these “ethnic-type identities” by bypassing the “Modernity-Tradition” debate. He suggests that the phenomenon of “caste” should properly be divided into two parts: “code” and “conduct.” By “code,” he refers to questions of descent, i.e. the substance or the blood/genetic code of an individual, while “conduct” refers to an individual’s actions and ideology. Whereas in the classic “system” of caste these two aspects were involuted, with one affecting the other, as a result of de-ritualisation, he maintains that there has been a steady attenuation of the effects of “conduct” on “code.” In his words:

If we accept as a first approximation that the caste system involves a stress on a relational universe of structure (interdependence) rather than independence (meaning and substance inhering in each unit) and therefore emphasis on transactional rather than attributional rank, then these processes have vital implications for caste as a system. Caste is substantialized in terms of the attribute of natural identity while that aspect of purity/blood relating to transactions and castewide codes for conduct is devalued (except of course for codes directly related to natural identity transmission – that is, marriage). Once this is accomplished, castes can compete as equivalent “ethnic groups,” each claiming a unique natural identity and substance...” (Barnett 1975: 158)

Both caste and ethnicity are thus historically contingent phenomena that become naturalized as part of an individual’s identity. The difference lies in the extent to which ethnicity remains an opportunistic political force and “effective platform for political claims-making” (Reddy 2005: 571) that has a tendency to “expand (assimilate) and contract (differentiate) to ‘fill the political space available for their expression’” (Reddy 2005: 555).

Until recently, interest in the ethnicization of caste has been largely overshadowed by predictions of the rise of class and the demise of caste typical of the tradition vs. modernity school of analysis. Commentators such as Jeffrey (2001) have shown that, while class formation is occurring, it is just as likely to manifest *within* castes as it is to convert caste to class (cf. Fuller 1996: 13). At the same time, he discerns the important role of ethnicity and admits that “the prevalence of hierarchical notions of caste difference suggest that caste in India may be a more

powerful, resilient and flexible cultural idiom for the expression of class values than most forms of ethnic identity in Europe and North America” (Jeffrey 2001: 232). This was especially evident following the Mandal agitations of the early 1990s and the rise of “low” caste-based parties such as the Bahujan Samaj Party (BSP) in Uttar Pradesh (Gupta 2005: 422-24). Recently, there has been a grudging acknowledgement that the transformation of caste into ethnicity can no longer be ignored (Fuller 1996; Gupta 2005; Jaffrelot 2000; Jeffrey 2001; Pick and Dayaram 2006; Reddy 2005; Washbrook 1989).⁵¹

In short, since being first discerned, “caste associations” of broader and “ethnically” based “caste categories” (Bailey 1963a: 107)⁵² such as “Harijans” and “dalits” have become politically mobilized. Comaroff (1987: 312) explains that this inherently political process of mobilization is one which “enters a dialectical relationship with the structures that underlie it; once ethnicity impinges on experiences as an (apparently) independent principle of social classification and organization, it provides a powerful motivation for collective activity.” In the Indian milieu, this self-reinforcing process has, over time, manifested as “‘horizontally’ disconnected ethnic groups, putatively differentiated by their own styles of life” (Fuller 1996:

⁵¹ A prominent exception is Manor (1996: 459) who feels that India’s rich heterogeneity and cultural complexity “makes it harder to apply this word there than almost anywhere else.” However, Manor fails to properly define the term or engage with the considerable literature on ethnicity while implicitly defining it as a social force that must necessarily lead to conflict. His assertion that ethnicity is not an important factor because people can and do draw upon multiple identities could benefit from Tambiah’s (1996: 12) maxim that ethnicities are interests motivated by “the pragmatics of calculated choice and opportunism” (Quoted in Reddy 2005: 555). Lastly, it is unclear why his list of possible ethnicities (or “identities” as he terms them) is limited to religion, language, tribal affiliation, and the “Aryan” and Dravidian divide. I find it surprising that caste does not rise to the category of possible “identity” and agree with Blair (1972: 109) that “Religion, language, culture, and race are all important cleavages producing primary groups at the national level in India, and in some measure at the state level as well. But at the *local level*, where these other divisions do not exist for the most part, the caste system produces the most significant cleavage” (Emphasis added).

⁵² “Caste categories” were placed between the notions of caste as varna and “caste associations.” Bailey (1963a: 107) explained that these were aggregates of people with “the same traditional occupation and sometimes the same caste name,” but not “social strata since, while they are exhaustive (they cover the whole population) and exclusive (no one can belong to more than one category at the same time), they are not unambiguously groups.”

22). It is precisely around this “style of life” (i.e. “conduct”) that a collective or ethnic consciousness and identity has emerged.⁵³

The De-Linking of Caste and Occupation

Returning to our riddles, what does the above discussion suggest about the phenomenon of “subsistence convergence” in Chilika Lake? Specifically, what part have increasing secularization, de-ritualization of caste, politicization, and ethnicization played in the changing occupational roles and strained communal relations of the Chilika basin? Before I can properly address these questions it is first necessary to discuss the link between caste and occupation. To the degree that this “link” exists, it has long been recognized as tenuous at best. Indeed, even Ibbetson (1903), who is credited with being the first to write extensively about this topic, did not intend to posit some timeless link based solely on descent.⁵⁴ Rather, as Bayly (1999) explains, his writings on caste and occupation in the Punjab were actually based in a functionalist and materialist perspective that stood in opposition to the racial typologies developed by the likes of Risley (1901). He recognized the political nature of caste and based on his fieldwork, he concluded that Indians were “individuals, achievers of land, power and distinction by virtue of personal attainment and historically dynamic interactions, not passive recipients of race essences or binding cultural codes” (Bayly 1999: 143).

⁵³ Weber was of the opinion that caste was the end result of a process whereby ethnic groups became endogamous jatis. Fuller has placed this argument on its head and suggests that caste is being “historically constructed, or perhaps more aptly being ‘deconstructed,’ as a vertically integrated hierarchy decays into a horizontally disconnected ethnic array” (Reddy 2005: 547).

⁵⁴ It is a tribute to Ibbetson’s scholarship that he introduces his study on castes in the Punjab with a self-effacing anecdote. He recalls that “an old agnostic is said to have summed up his philosophy in the following words: ‘The only thing I know is that I know nothing; and I am not quite sure that I know that.’ His words express very exactly my own feelings regarding caste in the Punjab” (Ibbetson 1903: 234).

However, by the turn of the twentieth century, with the ascendance of an Orientalist view of caste and the exigencies of colonial rule, these insights were largely discounted and put to one side. Scriptural sources such as the *Manu Smriti* (Laws of Manu) came to be seen as timeless guides to proper behavior in what Cohn (1996: 71) attributes to the British belief that “the original or earliest legal text was assumed to have the most authority.” Typical of this period is Max Weber, who in his characteristically calibrated language, identified “occupation” as the distinguishing factor between the rival concepts of “tribe” and “caste.” A “tribe,” he explained, “normally comprised many, often almost all, of the possible pursuits necessary for the gaining of subsistence,” whereas “‘caste’ and ‘way of earning a living’ are so firmly linked that often a change of occupation is correlated with a division of caste” (Weber 1958: 31). Recognizing that, based on his definition, “caste” might be confused with “guild,” Weber added that caste was hereditary and was maintained by ritual barriers, which were “absolutely essential for caste” (Weber 1958: 35).

These elegant dichotomies can not be easily dismissed as some flight of fancy from a bygone era; even today, and especially at the village level, occupation is more often than not predictive of caste. Unlike Dirks (1992; 1997; 2001), I reject the notion that caste is essentially a British “invention” that was nurtured and designed for the purpose of governance.⁵⁵ I do agree, however, that the revenue and enumeration modalities empowered the British to wield their power through the creation of categories at the same time that they were claiming to uphold the mantle of orthodox authenticity. There is certainly no doubt that this notion of caste as

⁵⁵ I recognize that Dirks uses this terminology for sensationalist purposes and is in reality arguing that caste as we know it is a modern and historically contingent phenomenon. My reservations with his argument rests primarily on two objections: 1) I agree with Bayly (2001: 70) that this type of argument runs the risk of denying Indians agency, and; 2) I suspect that it overestimates both the strength and foresight of colonial rule. While there is no doubt that the British had hegemonic intentions, I agree with Cohn (1996) that the consequences of many of their colonial interventions were completely unanticipated and more often than not based on a misreading of Indian society.

occupation provided the ideological underpinning for Taylor's (1899) aforementioned decision (See Chapter 5) to exclusively lease the lake's fishing grounds to recognized "fishermen."

As mentioned in the previous section, the mobilization of formerly disconnected caste groups was an inherently political process that was often based on overarching caste categories such as occupation. The success of these efforts largely hinged on the gradual loosening of the rules of conduct made possible by increasing secularization and de-ritualization. This allowed for group formation and consolidation without a loss of ritual or social status. This interpretation certainly rings true in the case of my field site, since the "subsistence convergence" uncovered in the census points both to a process of de-ritualization and the de-linking of caste and occupation.

Historically, this de-linking of occupation from caste (and hence hierarchy or status) has enabled individuals from "low" castes to enter into professions not mentioned in the scriptural sources and in this way to work their way up into the middle class. Dumont was well-aware of these changes and lamented that "the freedom of the new professions means that the caste no longer prescribes occupation." The embrace of fishing by the Khondayat's of Satapada Gada demonstrates this phenomenon in action as this ritually "high" caste group has taken up a profession traditionally carried out by an "impure" scheduled caste group. As recently as the late 1980s, fishing was considered such ritually defiling work that even those non-fishers who entered the fishery typically employed bonded laborers to carry out the day-to-day work (Kholamuhana Case 1993: §40(2)). Any such reservations have clearly been overcome as Khondayat's presently carry out this work themselves with no sense that it is negatively affecting their status. If anything, it seems that the opposite is true as their increased wealth has improved their status – evidence of the way ritual concerns are secondary to economic and class

considerations. Based on my fieldwork, I believe that these changes primarily stem from the emergence of an ethnic consciousness and the concomitant separation of caste from status.

Lastly, it should be mentioned that in present-day India there is nothing particularly remarkable about people from “higher” castes involved in professions considered ritually impure. There are abundant examples of Brahmins who earn a living in the leather business or members of scheduled castes who are lawyers or doctors.⁵⁶ Nonetheless, this case differs from these aforementioned examples because it provides an example of subsistence at the group level. This transition from agriculture to an activity more akin to hunter-gathering⁵⁷ is, in and of itself remarkable, and based on an exhaustive search of the literature is rarely encountered in the anthropological literature.⁵⁸ Within the more limited scope of south Asian anthropology, this is clearly indicative of an ideological change to caste in the sense of *jati* that is consistent with de-ritualization and the emergence of an ethnic consciousness.

⁵⁶ At the same time, I must agree with the dalit scholar and theorist Kancha Ilaiah (2009) that this openness has its limits and there are no examples of dalits who are officiating priests in Hindu temples. Based on this discrimination, he recently criticized the United States administration for hosting a *deepavali* (Hindu festival of lights) celebration at the White House.

⁵⁷ Since the Man the Hunter conference (Lee, et al. 1968), it was generally accepted that the defining characteristics of hunter-gatherers include, “egalitarianism, small residence groups, few exclusive rights to resources, lack of ownership of property, absence of food surpluses, and extensive resource sharing” (Grinker 1992: 160). This view has been widely challenged by authors (Wilmsen 1983; Wilmsen, et al. 1990) who have pointed to the ahistoricity of this perspective and the fact that most hunter-gatherers appear to have always been integrated into the larger market economy to some degree. My argument is based on my point (mentioned in Chapter Five) that as an activity, fishing is more like hunting and gathering while aquaculture is more akin to farming, since all of the inputs are controlled. In general, I contend that hunter-gathering is more a “way of doing” than a “way of being.” In addition, I would argue that the inability to see fishers as more akin to hunter-gatherers than agriculturalists (e.g. Firth (1946) and the “peasant economy” of fishers) has effaced these differences to the detriment of the fishers that it was ostensibly trying to assist (cf. Alexander 1977).

⁵⁸ The closest example that comes to mind is Balee’s studies on “cultural regression” in the Amazon. In these studies, he argues for the anthropogenic origins of the Amazonian rainforest and suggests that present-day hunter-gatherers are descendants of agricultural communities (Balée 1989; 1992; 1993; Mann 2006; Posey and Balée 1989; Rival 2006). Wilmsen and Denbow (1990) similarly argued that the view of the Kalahari San as always being hunter-gatherers was ahistorical and failed to recognize periods of sedentarization and their status as refugees. Diamond (1997) recounts that in the case of the Chatham Islands, the Moriori were Polynesians descended from the Maoris who became hunter-gathers due to the ecological constraints of those distant islands. None of these cases specifically refers to agriculturalists embracing fishing as their primary source of livelihood. The only scholarly study that I uncovered that mentions such a shift from agriculture to fishing is Seixas’s (2002: 16) dissertation on changes to management systems in a coastal Brazilian lagoon.

Ethnicity and “Tradition” in the Fishery

In the case of fishers, this newfound ethnic consciousness has brought together members from eight different jatis under the umbrella of the CMM and the various regional fishery societies. As one prominent fisher leader explained during an interview, the cooperation between the various fishing jatis is a direct consequence of their joint struggle for exclusive rights to the lake. According to him, in the same way that all classes of Indians joined forces to fight colonial rule, the lake’s fishers stand as one against the non-fisher invasion.⁵⁹ Going solely by the numerous large-scale protests organized by fishers, there seems no doubt that the category of matsyajibi resonates with locals and serves to politically mobilize them much in the same way that ethnicity does in other parts of the world.

Although non-fishers are ostensibly a much more diverse group that encompasses anyone not from the traditional fishing jatis, it is in practice a metonym for Khondayats who have shifted from agriculture to fishing. It is the Khondayat community that forcibly entered the fishery and it is by far the largest non-fisher group claiming traditional rights to the fishery. To the extent that they “preponderate numerically over the other castes,” and also wield “preponderant economic and political power,” they are the epitome of what Srinivas (1959: 1) famously termed the “dominant caste.” He further speculated that, “A large and powerful caste group can be more easily dominant if its position in the local caste hierarchy is not too low,” (Srinivas 1959: 1) something which is true of Khondayats who claim *dvijya* (twice-born) Kshatriya status in the *chaturvarna* (four-part) caste system.

⁵⁹ This obviously implies a political process, and like all politics, this can sometimes result in strange bedfellows. For example, recently (2008) the fishers and non-fishers in my field site have joined forces against the adjacent fisher village of Aloopatna. This stems from a long-running dispute over fishing grounds that are claimed by Bhalabhadrapur. Since the non-fishers of Satapada Gada have illegally encroached on some of these fishing grounds, they are also opposed to any attempt by the villagers of Aloopatna to upset the present situation.

Even though the agricultural land in the coastal belt of Chilika is of poor quality and most Khondayat's possess only a few acres, the census demonstrates that they dominate this resource and thus have long enjoyed a privileged place with regard to any surplus of grain. This was undoubtedly an advantage under the "system of entitlements" as well as under the subsequent "jajmani system" wherein goods and services were exchanged between castes. It is also advantageous today, since farmland can serve as collateral for bank loans. Fishing grounds, on the other hand, are communally owned and therefore cannot be put up as collateral.⁶⁰ Lastly, one can not discount the Khondayat sense of superiority and manly brio that derives from their historical association with the Paiks. The people of Satapada Gada were visibly proud of the fact that their village was once a fort in the Khurdha kingdom and some even claim to be descendants of the soldiers that were stationed there.

There are other groups, such as Bhois, a scheduled caste group⁶¹ that have also entered the fishery, but their numbers are small, they are not represented within the Khondayat-dominated organizations, and their encroachment into the lake is only possible because of the protective cover provided by local Khondayats. The *bhadralog* (higher castes), or what Mohanty has dubbed the "*brahman-karan*"⁶² middle class," (Mohanty 1990: 321) act as *mahajans* (middlemen) financiers and provide the Khondayats with political cover for these encroachments. They are certainly involved in lobbying efforts to open up the lake to non-

⁶⁰ In the documentary film *Chilika Bank\$* (Joshi and Sagar 2008), this point was made by a prawn exporter who presented it as evidence that the fishers are not legally the owners of their fishing grounds.

⁶¹ Traditionally, Bhois were palanquin bearers, though most are presently employed as day laborers (cf. Singh 1998: 256-59). Satapada Bhoi Sahi is located some 2 kilometers from my field site and is a smaller and demonstrably poorer village than either Satapada Gada or Bhalabhadrapur. During several visits, I found men repairing box traps and gill nets.

⁶² Brahmans are Brahmins and *Karans* are *Kayasthas*, or a local scribe caste that has risen to prominence in Orissa following independence. While I was in Orissa, the Chief Minister and head of the Biju Janata Dal party, the head of the opposition Indian Congress Party, as well as the head of the Communist Party all shared the typically *Karan* last name of Pattnaik.

fishers, but they are businessmen and politicians who would hardly refer to themselves *ana-paramaparika matsyajibi* (non-traditional fishers). Based on my fieldwork on Satapada Island, Khodayats are by far the largest group to put forth such a claim.

Considering the historical dominance of Khodayat's, the decision to refer to their own governing body as representing the interests of *ana-paramaparika* or "non-traditional" fishers raises some interesting points. It suggests that, even as caste has become de-ritualized and more like ethnicity, ritual concerns continue to linger under the surface. After all, for a group to consider themselves "non-traditional fishers" implies that they accept that there are, in fact, "traditional fishers." If one considers that, historically, these "traditional fishers" were fishers by *jati* (as derived from birth and occupation), this betrays the persistence of caste sentiments and ethnic pride (i.e. "caste patriotism") on the part of the lake's Khodayats. This also helps to explain why the non-fishers who petitioned the Orissa High Court, did so to assert a traditional right *to fish* in the lake rather than put forth the claim that they were traditionally *fishers* in the lake.

In what can only be called an added twist of irony, these lingering caste sentiments suggest that, while de-ritualization and ethnicization laid the foundation for their entry into the fishery, non-fishers were motivated to embrace a ritually defiling occupation as a way to maintain their local dominance. As long as the ritual system was uncontested, it mattered less that the fishers were faring better economically than their non-fisher neighbors. However, following independence and the introduction of new legal mechanisms outlawing untouchability, the Khodayat sense of ritual and political dominance was threatened. This profoundly felt sense of *adharma*, or state of affairs contrary to the natural order of things, induced them to challenge the lake's fishers by (re)entering the fishery. It is reminiscent of Jeffery's (2001: 218)

description of how the Jats of his field site resorted to physical violence in order to remind the scheduled castes that they “have the power [*shakti*] in the village ... [and] that just because they are pampered by the government does not mean that they rule the village.”

What Jeffery’s case illustrates is that, even when faced with economic disadvantages or politically hamstrung by reservation policies, powerful castes are often quite adept at maintaining their dominance at the local level. He posits that this is because “dominant castes are better placed to use caste solidarity, or other forms of influence, to obtain favours from politicians and other officials outside the village” (Jeffrey 2001: 221). This is suggestive of the types of connections with the local state bureaucracy observed by Robbins (2000) in his study of corruption in the management of Rajasthan’s forests. He found that “Corruption molds the equitable *de jure* systems of authority in the Rajasthan Forest Act around local systems of trust, power, and social capital, skewed inequitably in favor of traditional caste elites and men” (Robbins 2000: 436). Jeffery (2001: 222) postulates that this is a consequence of “how caste power is reproduced through durable networks of understanding, often institutionalized in routine religious or political practices or structures.”

The fact that over the past fifty years there has been little in the way of repercussions for Khodayat’s who persisted in illegally fishing in the lake is suggestive of social connections and more than a modicum of social capital. In part, this undoubtedly reflects the ability of Khodayat’s to muster symbolic capital by drawing on their historical connection with the vaunted Paiks and dvijya status as members of the Kshatriya (warrior) “class” (i.e. varna). With the rise of ethnic sentiments, this has undoubtedly been to their advantage when dealing with other members of the bhadralog that are disproportionately represented in the higher echelons of

the All India Services.⁶³ This state of affairs is hardly unique to coastal Orissa, and as Robbins's (2000: 434) Rajasthan study revealed, "the common class and caste backgrounds of both foresters and the local elites in the wood trade establish strong bonds of trust for extra-legal exchange." Politically, as well, Khodayat dominance was expressed in their larger numbers, their ability to promise vote blocks at election time (Kothari 2004),⁶⁴ and their ties to influential politicians. For instance, Maheswar Mohanty, the former speaker of the Orissa Legislative Assembly who tabled the Chilika "Black Bill" also served as the representative for the Chilika Lake constituency.

The above examples provide a glimpse of how local dominance is perpetuated through social networks. Whereas in the past, these social networks would have been curtailed by such ritually defiling actions as fishing, the ethnicization of caste means that it is precisely these connections that help the non-fishers to (re)assert their dominance in the Chilika basin. It is also these ties that serve as tangible proof that they have not been outcasted by the other members of their caste group. This reassures the non-fishers presently fishing in the lake that, unlike the "traditional" fishers who are fishers by "code" and "conduct," they can claim to only be fishers in the sense of "conduct." It is for this reason that, even though non-fishers presently set traps in the lake and depend on the fishery for their livelihood, they continue to see themselves and are seen by others as "non-traditional" or ethnically distinct from their fisher neighbors.

Although this heuristic exercise provides us with a set of criteria to resolve our riddle of who should be considered "traditional" or "genuine" Chilika lake fishers, it also presents the

⁶³ This refers to the three civil services of the Indian government viz. Indian Administrative Service, Indian Police Service and the Indian Forest Service

⁶⁴ As Gupta (2005) and Krishna (2003) point out, it is an established fact that the role of caste on politics is in decline. Nevertheless, even though I did not collect data on caste and voter preference and am well aware that all major political parties were well represented in both villages, I was told by numerous informants that they vote as fishers or non-fishers i.e. categories tied to caste.

anthropologist with a conundrum. It is problematic precisely because both the question and the criteria imply an acceptance of a timeless “conduct” or essentialist “code” that runs counter to the anthropological literature of the past thirty years. This scholarship, which tackled the Orientalist tendencies of its predecessors, conclusively showed that, by no means, is caste a timeless and unchanging category based on scripture, but rather a historically contingent and fluid phenomenon that is not immune to politics. Nevertheless, as we see in the case of Chilika, it is precisely the fishers who that are resisting their present disenfranchisement by hearkening back and essentializing categories that were used in the past to oppress them as “untouchables.” As Reddy (2005: 546) observed, the irony rests in the fact that, “those very ‘objectified’ natives are, of their own volition, reclaiming identities that very closely approximate those that ethnographers have put their energies into dismantling ... [and] are doing so precisely to resist the conditions of their ‘incarceration.’” More than that, the fishers are doing so in order to gain advantage over their neighbors in a competition for the scarce resources of the lake. On the other hand, while the non-fishers of the lake are living proof of the fluid and political nature of caste, their seemingly modern claim to being “non-traditional” fishers implies an acceptance of the discourse of caste as essentialized “code.” That both of these contradictory views are possible as a result of the de-ritualization and ethnicization of caste bespeaks to the continued relevance of caste and its changing role as a social force in Indian society.

Over time, the “subsistence convergence” uncovered in Satapada Gada may blur what is essentially an ethnic fault line and source of conflict between the two groups. Although this may seem unlikely at present, the next chapter will provide recent examples of cooperation based on a shared interest in maintaining the health of the lake. In addition, since ethnicity is notoriously opportunistic it may actually be conducive to a rapprochement. Barnett (1975: 156) suggests

that this is because the rise in ethnic identity “involves a shift away from the whole and toward the person, or groups conceived on the model of the person. It situates primary identity within that person or group rather than the whole itself. The whole is a secondary system built up from these primary persons.” If true, this represents an ideological shift to greater agency and a new locus of opportunity for individual choices. One of the first places where this should manifest is in cross-caste friendships, since ritual and status would no longer act as an impediment to their formation. It is with this in mind that I employ social network analysis in the next chapter to examine egocentric friendship networks in my field site.

CHAPTER 8

COOPERATION AND FRIENDSHIP IN THE CHILIKA BASIN: A SOCIAL NETWORK ANALYSIS OF CROSS-CASTE RELATIONS

Chilika Bachao Andolan: The Anti-Tata Movement

In the spring of 1991, Chitaranjan Sarangi returned to Orissa after several years of working in the Indian state of Madhya Pradesh on the Bhopal Gas Tragedy.¹ Disappointed by the Indian government's response to the industrial accident and faced with widespread apathy among the public, he was determined to dedicate his life to raising awareness surrounding what he felt was a corrupt and exploitative political system. Together with his brother Debaranjan, a student at Bhubaneswar's Utkal University, he began by organizing informal meetings with the straightforward goal to "meet the people and tell the truth" (Mishra 1996: 163 n 17). Through Debaranjan's contacts at the university, they attracted a small group of interested students and formed an informal association that they, simply enough, named "Meet the Students" (MTS). The group, which first met in May, brought together intellectuals and eminent scholars from all over Orissa to speak on a broad range of political and socioeconomic issues affecting the state.

At some point during the summer, the group first heard about the Tata Corporation's plans for an Integrated Shrimp Farming Project (ISFP) along the shores of Chilika Lake.

Sarangi, who immediately saw this as yet one more example of how the Indian government

¹ The Bhopal Gas Tragedy was an industrial catastrophe that occurred on December 3, 1984, in Bhopal, India. Over 500,000 people were exposed to methyl isocyanate and other toxins and at least 3,800 people died as a result of this exposure. Some Indian government estimates suggest that up to 25,000 people have consequently died due to injuries sustained as a result of this accident (Eckerman 2005).

enabled corporate interests to undermine local livelihood concerns, strongly advocated in favor of organizing a campaign. In early July, Meet the Students travelled to the lake on a fact-finding mission to explore the possibilities for mobilizing an anti-Tata campaign around the Gandhian principle of *satyagraha* (nonviolent resistance).

As was briefly mentioned in the previous chapter, the ISFP was initiated in 1986 under the ruling Congress Party, which inked a deal with the Tata Corporation to lease out “1,400 hectares of Chilika’s low-lying land between the Panasapada and Siara villages,” (Mishra 1996: 161) for a period of fifteen years (cf. Pattanaik 2003; Rao and Bist 1990).² This grandiose project was, in many ways, the logical conclusion to the steady industrialization of the fishery which had begun with the introduction of prawn aquaculture in the early 1980s. The planners envisioned enclosing a lake within the lake by building a 13.7 km long ring embankment in an area of shallow waters (Mohanty 2003: 183). According to the proposal, this area would then be subdivided into hundreds of smaller ponds for intensive prawn cultivation (Mohanty 2003: 183). In addition to these prawn ponds, the Tata’s planned to build a hatchery, a feed mill, and a processing plant (Pattanaik 2003: 59) that would be based on the latest foreign technology.³ Prawn raised on the site would be rapidly processed for export and shipped primarily to the Japanese and American markets (Kothari 1993: 473; Pattanaik 2003: 59; Rao and Bist 1990). Based on the company’s initial projections, over 1,600 tons of prawn would be harvested yearly and in the first year alone, “sales would have been Rs 8.65 crore (\$4.7 mln) and this figure would have touched Rs 50 crore (\$28.5 mln) in three years” (Rao and Bist 1990).⁴

² This site, which was known in the 19th century as the Panasapada *aurang* (salt manufacturing center), is located less than five kilometers north of where the Tatas had contemplated placing a salt factory during World War I (Aggarwal 1976: 332) (See Chapter 6). The area was traditionally leased by Bhalabhadrapur as part of their Sidua Nadi fishing grounds.

³ Ten per cent of the ISFP was owned by the Honolulu-based Aquatic Farms Ltd (Rao and Bist 1990: 84).

⁴ This is based on an exchange rate of Rs 17.5 for 1990.

Initially, there were local suspicions that Meet the Students harbored ulterior motives and Sarangi's outreach efforts were not reciprocated (Mohanty 2003: 189). With the exception of the non-fishers of Panasapada, there was no public opposition to the company's plans (Mishra 1996: 173).⁵ The reason the local fishing communities remained hesitant was because they had already lost their access to these fishing grounds twenty years earlier when the villagers of Gombhari erected an embankment bisecting the Sidua Nadi fishing grounds (See Chapter 6). As such, there was very little sympathy for the Panasapada villagers who had then proceeded to muscle their way into these jano grounds.

The Tata Group also proved to be savvy enough to anticipate the need to cultivate local allies. Early on, it made a concerted effort to curry favor with the local fishers by strategically donating money for the construction of clubhouses, and by distributing medicines free of charge. They tantalizingly held out the promise of jobs in the aquatic farms and associated industries (Mishra 1996: 173; Mitra 2007: 100; Rao and Bist 1990: 84) and dispatched company agents to purchase prawn directly from local fishers at inflated prices. For these reasons, "for the poor fishers, the Tatas were not the first enemy. They considered the private encroachers, the local non-fishers and traders to be invincible enemies, and they always felt powerless before them. These encroachers had money, more power and connections with [the] local police and administration" (Mishra 1996: 175).

Opposition to the proposed project initially came at the urging of youth groups in the local fishing villages that were eager to assert their historical rights to the lake. The government's ill-timed announcement in December 1991, that it would not renew the fishery

⁵ In a modern-day example of synecdochal hegemony (See Chapter 5), the Indian government informed the non-fishers of Panasapada that they could not raise any objections to the government plans since they were not fishers and had no legal rights to the lake (Mishra 1996: 177). At the same time, the authorities informed the fishers that the area was an officially designated "wasteland" and therefore they had no legal rights over the area that was leased out to the Tatas (See Chapter 6).

policy along traditional lines, was a turning point that upset the local fishing communities and spurred them to action. This new lease policy (See Chapter 7), dramatically increased the rent for fishing grounds⁶ and, for the first time, designated “capture” and “culture” fisheries to be auctioned to the highest bidder (Mahapatra and Barik 2004: 180-81; Mohanty 2003; Ray and Ray 2007). From the fishers’ perspective, these changes were nothing short of an existential threat that undermined their traditional rights to the lake. They latched onto opposition to the Tata project as a way to publicly assert their discontent with the government and its policies surrounding prawn aquaculture (Mishra 1996: 176).⁷ As was explicitly noted in the official history⁸ of the anti-Tata struggle, for the fishing communities, “The Tata project is not the central point of attack of this people’s movement. The prime focus of opposition is the policy of the government towards Chilika and its people, and the Tata project is only an instance of this policy” (Mohanty 2003: 186).

In September 1991, Meet the Students convened a public meeting in Bhubaneswar where they publicly announced the launch of a campaign against the ISFP. Following this announcement, the activists embarked on a *padayatra* (pilgrimage by foot) around Chilika in order to organize the local communities and educate them about the government’s plans for the lake (Down to Earth 1992d). Along the way they gathered over 8,000 people who joined in a long march to the capital to *gherao* (encircle) the State Assembly building on the expiration date

⁶ From 1965 to 1991, there was a 10% annual increase in lease price. Under the new lease policy of 1991, this increased to 27% annual increase. This was justified as a 10% annual increase, 10% administrative charges to the newly formed Orissa State Fishermen’s Co-operative Federation Ltd. (FishFed) and a 7% stamp duty. The steep increase in price was compounded by the fact that the lake’s productivity bottomed out in the late 80s and early 90s (Berkes and Nayak n.d.).

⁷ At the same time, the government’s decision to subsume the Central Fishermen Cooperative Marketing Society (CFCMS) into FishFed, a newly created state-level fishing body, was locally interpreted as a way to mute local concerns regarding the new lease policy (Pattanaik 2003).

⁸ The quote comes from the brochure *Chilika: Voice of the People* (CBA 1995) published by the *Chilika Bachao Andolan* (Save the Chilika Movement) and *Krantadarshi Yuva Sangam*, both successor organizations to MTS.

of the old fishery lease policy (Dogra 1993: 21; Mishra 1996: 164; Mohanty 2003: 187). The crowd demanded the renewal of the existing lease policy and, for the first time, publicly voiced their opposition to the ISFP.

Although the MTS activists were careful to frame the Tata project as the common enemy of both the fisher and non-fisher communities, during this early stage of the protest, there was minimal non-fisher involvement. On the one hand, 26 Outer Channel villages, including several non-fisher villages, were directly affected by the Tata's plans (Mohanty 2003: 183).⁹ On the other hand, the built-in ambiguity in the new lease policy favored the non-fishers by offering them an unprecedented opportunity to formally legalize their activities in the lake. Even the non-fisher villages of Panasapada and Siara, that were the first to openly come out against the project, proved initially reluctant to join hands with their fisher neighbors. In part, this also had to do with some lingering resentment against the fishers for not coming to their assistance when they first expressed their reservations about the ISFP. At the urging of MTS and youth leaders in these two villages, they put aside these differences to join the campaign about a month after the September rally. This decision opened the door to wider participation by the non-fisher community and its umbrella organizations.

These social divisions came as a surprise to the MTS activists and, in response, they attempted to discursively frame the Tata project as detrimental to the lake environment and thus the common enemy of both communities. In their printed materials they eschewed the terms *matsyajibi* and *ana-matsyajibi* in favor of *Chilikabasi* (Chilika native) and encouraged both sides to focus their energies on mobilization efforts against the proposed project. This approach received a big boost when Banka Behary Das, a former Revenue Minister of Orissa (1973-4),

⁹ It was estimated that the ring embankment would directly affect 25,000 people living in the Outer Channel (Down to Earth 1992c).

long-running Member of Parliament, and head of the Orissa Krushak Mahasangh (Orissa Farmer's Union or OKM) joined the cause. A shrewd political survivor, Das immediately recognized the anti-Tata campaign as a way to revive his flagging political career (Pattanaik 2003: 63). Within a few months of his participation in the campaign, he single-handedly reframed the discourse from an issue of "traditional rights" and local livelihood concerns to a broader environmental campaign to protect the lake's fragile ecosystem.¹⁰ He accomplished this by cleverly portraying the Tata project as being in contravention of the state's international obligations under the Ramsar convention (Mishra 1996: 186-90). This aroused a great deal of interest among the local media and turned Chilika into a cause célèbre among India's intellectual elites (Down to Earth 1992d).¹¹

As a result, in early January 1992, Meet the Students, Orissa Krushak Mahasangh and the Chilika Matsyajibi Mahasangha (Chilika Fisher Federation or CMM) joined hands to form the Chilika Bachao Andolan (Save Chilika Movement) (Pattanaik 2003: 59-60; Singh 2003: 125).¹² Within weeks, they organized a huge public rally followed by a procession to the ISFP site which they symbolically occupied through the hoisting of flags. Based on conversations with fishers who were active in the CBA at that time, following the rally, a large contingent set out by train to protest in front of the national parliament in New Delhi.¹³ During this trip, the train,

¹⁰ There were fears that effluent from the ISFP would pollute the lake and destroy the flow of run-off silt (Iwasaki, et al. 2009; Samal 2007: 177).

¹¹ Mishra (Mishra 1996: 193-4) rightly notes that Chilika holds a special place among Oriyas "not only because of its scenic beauty, migratory birds, hills, blue waters, sunrise and sunset but because historically, legends and epics have given it a sanctity and charm which persists even today in Oriya imaginations." Many refer to *Chilika abega* (a deep concern for Chilika) as the motivation for their involvement in the anti-Tata struggle.

¹² The name clearly echoes the Narmada Bachao Andolan (Save the Narmada Movement) that was well known for its opposition to the Sardar Sarovar Dam (Baviskar 2004; Drèze, et al. 1997).

¹³ Much of this account is based on interviews with Mr. Sadashiv Jena, Secretary of *Chilika Purbanchala Matsyajibi Mahasangha* (Chilika Eastern Fisher's Federation) of Raipur village and Mr. Pabitra Jally of Bhalabhadrapur who were active in the anti-Tata agitations. In addition, I interviewed Mr. Kanungo of Krantadarshi Yuva Sangam in

which passed through the Tatanagar train station in the industrial city of Jamshedpur,¹⁴ was set upon by local *goondas* (ruffians). When the train stopped, several CBA members were pulled out of the rail cars and onto the train platform where they were beaten unconscious.

In response to this escalation, the activists returned to the project site to tear down a section of the ISFP embankment (Mishra 1996: 165). Several communities along the access road joined the protest and prevented the entry of heavy machinery by barricading the main highway. The Orissa government, which had chosen restraint up to this point, unleashed the police on the CBA activists and their supporters. Dozens of people, including Chitaranjan Sarangi and his brother, were arrested and manhandled. Even Sarangi's father was arrested from his Bhubaneswar home and carted off to jail for a fortnight (Dogra 1993: 21).

Unfortunately for the government, this impressive display of force backfired since it only invited even more media scrutiny. This greatly increased the public pressure on the Indian government and it was shortly thereafter that the Union Ministry of the Environment and Forests (UMEF) stepped in to formally reject the Tata commissioned Environmental Impact Assessment (EIA) (Down to Earth 1992b; Down to Earth 1993). The Ministry directed the state government authorities to undertake another, more thorough, EIA prior to authorizing any further activities (Down to Earth 2002; Mohanty 2003: 190). Ultimately, the death knell for the ISFP arrived with the 1993 Orissa High Court ruling banning all but "traditional extensive" aquaculture in the lake (Down to Earth 1994). This forced the Tata Group to announce its decision to scrap the project

Puri on the role of that Mr. Sarangi and his organization in the CBA. Unfortunately, Mr. Sarangi was in London when I visited his offices.

¹⁴ The city of Jamshedpur in Jharkhand is the headquarters of Tata Steel and Tata Motors. The quintessential "company town," it was founded in the 1920s by the Tata Corporation. To this day, although the city has well over a million inhabitants it does not have a municipality and city affairs are run out of the Tata offices.

(Down to Earth 2002).¹⁵ Soon thereafter, the government backed away from aquaculture in Chilika (Krishnakumar 1997) as the Supreme Court of India prohibited all prawn culture within 1000 meters of the lake's high water mark (S. Jagannath v Union of India 1996: §51A(g)7).

In contrast to the previous chapter, which demonstrated how the shift from agriculture to fishing (among non-fishers) resulted in conflicts between the lake's communities, the case of the Chilika Bachao Andolan provides a striking example of a successful collaboration by fishers and non-fishers. Was this cooperation simply a momentary convergence of interests or does it signify underlying changes in communal relations? Does this example provide us with evidence that caste prohibitions surrounding interaction between members of different jatis are on the wane? Is this related to the phenomena of ethnicization and de-ritualization of caste discussed in the previous chapter? Or is this simply an example of Blau's (1977a: 43) "primitive" theory that "social associations are more prevalent among persons in proximate than between those in distant positions"?¹⁶ Could this be evidence of Allport's (1954) "contact hypothesis," (Pettigrew 1998) which states that interaction works to break down barriers between groups? After all, the fishers and non-fishers at my field site have lived in close proximity for generations. They interact regularly in *deba-neba* (barter) relationships (e.g. for fish, fruits, and rice), they sit together in local *panchayat* councils and have long attended the same schools where they interact with one another from an early age.

Perhaps the entry of non-fishers into the fishery and the "subsistence convergence" that this has engendered represents a tipping point that is effacing the differences between the

¹⁵ By this point, the Tatas had already invested a great deal of money to complete the embankment in the lake (Agarwal 2002: 271; Mohanty 2003). Though parts of this embankment were destroyed during the CBA campaign, this area was almost immediately taken over by the non-fisher community with the departure of the Tatas (Pattanaik 2008: 8).

¹⁶ This is reminiscent of Tobler's (1970: 236) First Law of Geography, which states that "'Everything is related to everything else, but near things are more related than distant things.'"

groups? Could the de-ritualization and ethnicization discussed in the last chapter result in caste being stripped of its religious character and signal a decline in its essentialist connotations? Ever since the time of Marx, economists have predicted that technological innovations (such as represented by prawn aquaculture) would invariably lead to the conversion of caste into class and do away with caste prohibitions on inter-group relations (Marx and Engels 1972: 41, 85).¹⁷ Even without major changes to caste practices, the cooperation witnessed during the anti-Tata campaign might simply be an example of what social psychologists (Sherif 1961) have termed “superordinate goals” i.e. mutually beneficial goals that encourage people to overcome their differences.¹⁸ Since Chilika is presently the primary source of livelihood for both fishers and non-fishers, it would not be unusual to expect a convergence of attitudes and collaborative behaviors to protect the lake’s habitat.

This chapter employs social network analysis as a window onto communal relations in the Chilika basin. Specifically, it looks at cross-caste friendships to test the extent to which caste (jati) has a positive correlation with respect to social relations in light of recent developments in the lake such as ethnicization and de-ritualization.¹⁹ To accomplish this, I review thirty-one egocentric networks collected during fieldwork from participants in the fisher, non-fisher and Dalit communities. The discussion will focus on friendship networks, homophily and the strength of ties as well as previously undocumented ritualized friendships across caste. Finally, I will conclude with some thoughts on social geometry (Black 2000; Simmel 1902a; Simmel

¹⁷ For example, Marx stated that “Modern industry, resulting from the railway system, will dissolve the hereditary divisions of labour, upon which rest the Indian castes, those decisive impediments to Indian progress and Indian power” (Marx 1972 [1853]: 85).

¹⁸ Long before Allport or Sherif, Weber posited that, since caste was a closed status group, it would lose its importance as a status marker in interpersonal relations through education and increased interaction between people (Weber 1958: 30). It is unclear from Sherif’s work if the overcoming of differences has long-lasting effects on social relations or is only temporary.

¹⁹ By “social relations” I mean friendship networks based on egocentric and sociocentric data.

1902b), the enduring relevance of caste, and its important role as a social network that structures people's everyday lives.

Egocentric Networks – Methodology and Informant Selection

Faced with the great degree of similarity across a range of demographic, educational, and socioeconomic indicators as well as conclusive evidence of a “subsistence convergence” with regards to the fishery, I resolved to investigate friendship networks in my field site. As noted above, this involved collecting egocentric networks to see whether increasing similarity between fishers and non-fishers over the last fifty years has resulted in increased social interactions (as measured by bonds of friendship). In general, I was hoping to gauge whether increasing ethnicization and secularization was manifesting as friendships and whether years of close proximity and increased similarity had resulted in a reduction in caste divisions.

Data collection was accomplished using EgoNet (McCarty 2006), a freeware program I downloaded from the Internet. The program allows for the creation of multi-layered questionnaires to collect attribute data on ego's (the participant's) alters (friends), as well as the collection of sociocentric (full network) data from egocentric networks by creating “alter pair” questions (McCarty 2002). For example, if Ego lists three alters (A, B and C), then EgoNet automatically creates a list of questions such as “Does A know B?”, “Does A know C?” and “Does B know C?” (See Appendix C for questionnaire). The responses are then placed in a matrix with the value “1” representing a tie (i.e. a friendship bond) and “0” representing no tie. This matrix was then input into the UCINET program (Borgatti, et al. 2002) where it was statistically analyzed and visually plotted based on multi-dimensional scaling using the NetDraw

program (Borgatti 2006). Apart from the “alter list” and “alter pair” questions, data on Ego was collected as well as attribute data on each alter listed.

The majority of participants from Bhalabhadrapur were selected using the simple random sample method of informant selection (Bernard 2005: 149). The household plot numbers for all of those that listed fishing as their primary source of income in the census were written down on a folded piece of paper and placed in a hat. Thirty pieces of paper were randomly selected from the hat and the members of these households were contacted in the order they were selected and invited to participate in the study. In addition, four Bhalabhadrapur households were selected using the respondent-driven-sampling (RDS) method (Bernard 2005: 192) based on suggestions from a focus group that identified these individuals as particularly knowledgeable and effective fishers. In the end, twenty people agreed to participate in the study and two dropped out for a 90% retention rate.²⁰ Similar criteria were used for informant selection in Satapada Gada, though all of the participants were selected using the RDS method due to time constraints.²¹ Finally, during the process of census collection in Bhalabhadrapur, it became evident that the dalit community was subject to social exclusion by their fisher neighbors. In order to further explore this phenomenon while at the same time providing a control group, a small sample of five networks from dalits of the Hadi and Doma castes living in Bhalabhadrapur were also collected.²² Though numerically small, the respective sample sizes represent 12% of

²⁰ Of these eighteen, fourteen were selected using the “simple random method” (78%) and four were selected using the “respondent-driven sampling” (22%) method.

²¹ Obviously, using different sampling techniques was far from ideal, but it was necessary due to the change in research design and time limits. It was also necessary since there were fewer people in Satapada Gada who practice fishing. I am confident that the data is representative of non-fishers engaged in subsistence fishing since the data was consistent throughout all the networks.

²² Dalits also regularly fish in the lake using *khepa jala* (cast nets). However, this is for daily subsistence purposes and does not constitute more than half of their income.

Bhalabhadrapur, 13% of Satapada Gada, and 33% of the Hadi and Doma households in the study area.²³

Depending on the size of people's networks, interviews typically lasted two to three hours and were often broken up into two parts – e.g. Ego and Alter attribute questions on day one, and “Alter Pair” questions on day two. All interviews were conducted in the field on a battery-powered laptop and input directly into EgoNet. The alter attribute section included questions about residence, caste affiliation, affection, relationship to ego, as well as hypothetical questions regarding commensality, barter relations, and willingness to fish together.

A total of thirty one egocentric networks were collected during fieldwork. Eighteen of these networks were collected in 2006 and are from participants residing in Bhalabhadrapur who self-identified as fishers of the Kaibarta jati. Eight networks were collected during a follow-up visit in 2007 and are from individuals residing in Satapada Gada who self-identified as non-fishers from the Khondayat jati. In addition, five networks were collected from among the dalit (Hadi and Doma jatis) residents of Bhalabhadrapur in 2007. On average the participants from Satapada Gada were younger, since fishing is a more recent activity and tends to be carried out by the younger generation (Table 8.1). Due to the nature of the fishing profession²⁴ in Orissa and the fact that, as a man, it would be difficult for me to interview women and conduct participant-observation to better understand their social networks, only male informants were interviewed for social network analysis.²⁵ Nonetheless, in future research, it would be interesting

²³ This is based on census sample frame of both villages, which showed that there were 156 Kaibarta households, 60 Khondayat households and a total of 15 dalit households of the Hadi and Doma jatis.

²⁴ Women are prohibited from fishing because of a belief that they scare away fish. This is attributed to the fact that women menstruate and hence contain an element of ritual pollution. When one of my informants was stung by a stingray, the menstruating women of his household were kept their distance because of the belief that his injury would heal more slowly in their presence.

²⁵ The fact that in all of the male networks only one female was listed as an alter is evidence to the practice of sexual segregation in Oriya society.

to see if women’s friendship networks mirror or complement their husbands’ social networks. Based on the fact that women regularly barter for household and kitchen supplies it is possible that they have more bridging ties.

In order to test whether the subsistence convergence discussed in the previous chapter was translating into increased cross-caste contact and friendship between Kaibarta and Khondayats, social networks in these two groups were only collected from individuals with a vested interest in the lake fishery (Johnson 1990). This was operationalized as being individuals who were long-time residents of their respective villages and actively involved in the fishery for a minimum of ten years. For all of the non-fisher and fisher participants, their primary source of income derived from fishing in Chilika. “Fishing” was defined as the twice-daily setting of *khanda jala* (box trap) nets in the lake (early morning and afternoon) and “primary income” was defined as being more than half of one’s earnings.

Table 8.1 Egocentric Network Participants.

Egocentric Network	Number of Participants	Residence	Primary Income	Average Age	Avg. No. Years Fishing
Fisher	18	Bhalabhadrapur	Fishing	51	26
Non-Fisher	8	Satapada Gada	Fishing	32	14
Dalit	5	Bhalabhadrapur (Hadi and Doma Sahi)	Wage Laborers	44	0

All of the fisher and non-fisher participants market their fish through a *mahajan* (middleman) who collects the fish in a local *godown* (warehouse) where he records the catch and

provides a monthly salary based on the amount of fish caught.²⁶ The census, which was referred to in the previous chapter, was used as the sampling frame for this research and potential participants were initially screened based on their response to the question “Primary income of household from...?” (See Appendix C). The actual networks were solicited based on the following question which prompted participants to freelist their friends and acquaintances: Please provide a list of your friends and acquaintances. This is meant to be a list of the people who form your "friends circle" - i.e. people you are close to and are close to you. Knowing means that you know them and they know you by sight and that you have had some contact with them in the past year to two years. It also implies that when you meet you will talk to one another. This can be literally anyone - fisherman or non-fishermen, man or woman, from the "highest" to the "lowest" caste and from the village or from elsewhere.

Comparative Analysis of Egocentric Networks

In all classes, however, the difference of cast (sic) leads to a want of sociability. A soldier, or any one away from his family, cooks his solitary meal for himself, and finishes it without a companion, or any pleasures of the table, but those derived from taking the necessary supply of food. – Sir Montstuart Elphinstone (1843: 339), *The History of India*

Considering the numerous points of convergence between Bhalabhadrapur and Satapada Gada that were revealed by the census data, it was slightly surprising to find that this was not reflected to a greater degree by the participant’s social networks. Rather, the social networks revealed that, regardless of close proximity and similarity on a broad range of demographic, educational, and socio-economic criteria, their friendship networks were, for the most part, mutually exclusive. Not only are people in my field site segregated based on jati and residence,

²⁶ The mahajan’s serve an important role as the informal banking sector in the Chilika area. Local fishers and non-fishers may borrow money from these middlemen to buy boats or gear and for social events such as weddings. In return they commit to selling their catch at a loss for a predetermined period of time.

as the following discussion demonstrates, the respective networks appear to be organized around completely different principles.

Network Size: No guidance was given with regards to optimal network size and the participants were given as much time as they needed and were encouraged to list as many or as few people as they desired. Overall, across all thirty one networks, 1637 alters²⁷ were listed and the average network size across all thirty-one networks was 53 alters per network. However, as a breakdown of this figure into the respective networks demonstrates, this average masks the great deal of variability that exists within and between groups. For example, though the average network size among Bhalabhadrapur fishers was identical to the overall average of 53 alters, this ranged from a low of 31 to a high of 100. Among the non-fishers of Satapada Gada, the average network size was 72 alters and ranged from a low of 51 to a high of 97, while the average among dalits was only 21 alters and ranged from 16 to 24 individuals (Figures 8.1-8.3).²⁸ These findings are slightly surprising when one considers that Bhalabhadrapur's population is three times larger than Satapada Gada (1482 vs. 544) and thus contains a larger possible pool of alters for Ego.

²⁷ Of these, 1203 or 73% were discrete names. Names were deemed to be discrete if at least two of the following criteria were different – spelling, village residence, jati, and/or family affiliation.

²⁸ Since it would be unnecessarily cumbersome, if not impossible, to reproduce images for all thirty-one of the collected networks for each and every one unit of analysis discussed in this section, I present only illustrative examples.

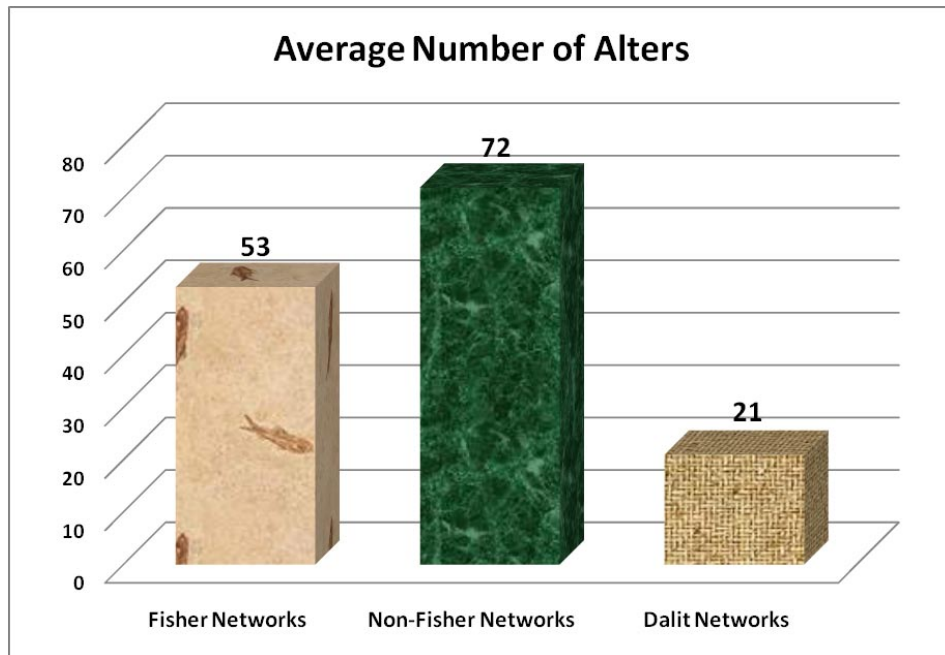


Figure 8.1 Average number of alters in the respective networks by jati.

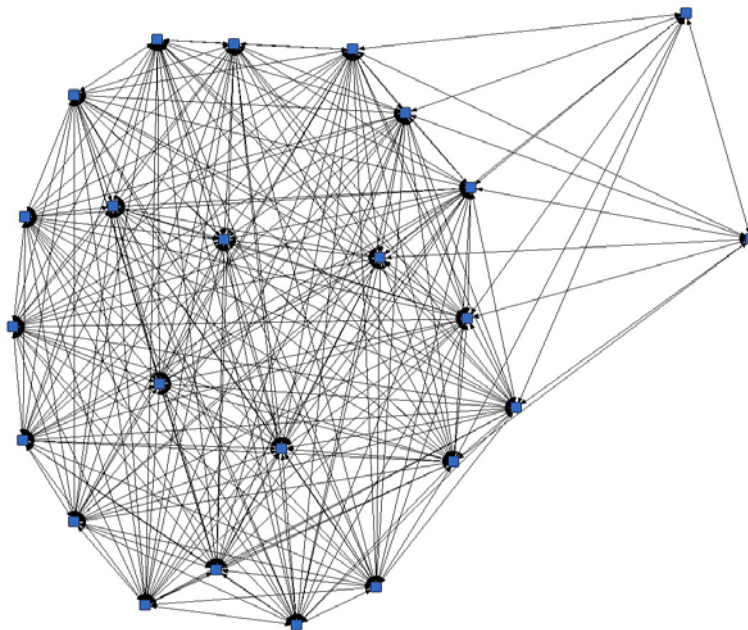


Figure 8.2 Example of small Egocentric Network (24 alters) from a member of a dalit caste residing in Bhalabhadrapur.

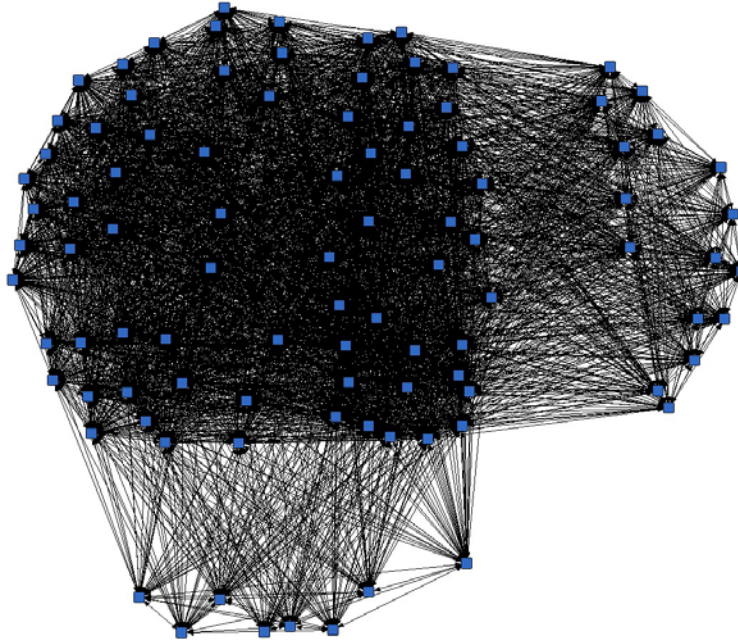


Figure 8.3 Example of a very large Egocentric network (97 alters) from a member of a non-fisher caste residing in Satapada Gada.²⁹

Family Affiliation: Slightly more than half (54%) of alters across all 31 networks were identified by ego as family members.³⁰ While there was some variability within the respective networks, the greatest differences can be seen across networks, with only 33% of alters in fisher networks being family members compared to 77% for non-fishers and 91% of those among dalit networks (Figures 8.4-8.7). Although the number of family members who were alters in egocentric networks was the lowest among fishers, analysis revealed an interesting pattern. It was discovered that the fishers of Bhalabhadrapur almost exclusively marry women from one of six other Kaibarta jati villages that are located around Chilika Lake. From a network perspective, this is a significant finding because it is through these marriages that they not only befriend their in-laws, but also other fishers who they meet during regular visits. Considering

²⁹ The above figures graphically represent these network ties by drawing a line between alters who are reported to know one another. The shape of the network is a result of multi-dimensional scaling which clusters people who know each other into groups.

³⁰ Oriya kinship terminology is complex and broad while at the same time very specific. Individuals listed as “cousin brothers” as well as members of their *kutumba* (i.e. second cousins) resident in the village were counted as relatives.

that seventy three percent of alters listed by fishers reside in Bhalabhadrapur or one of these six villages,³¹ it seems clear that this custom strengthens social solidarity among Kaibarta fishers and structures their friendship networks.³²

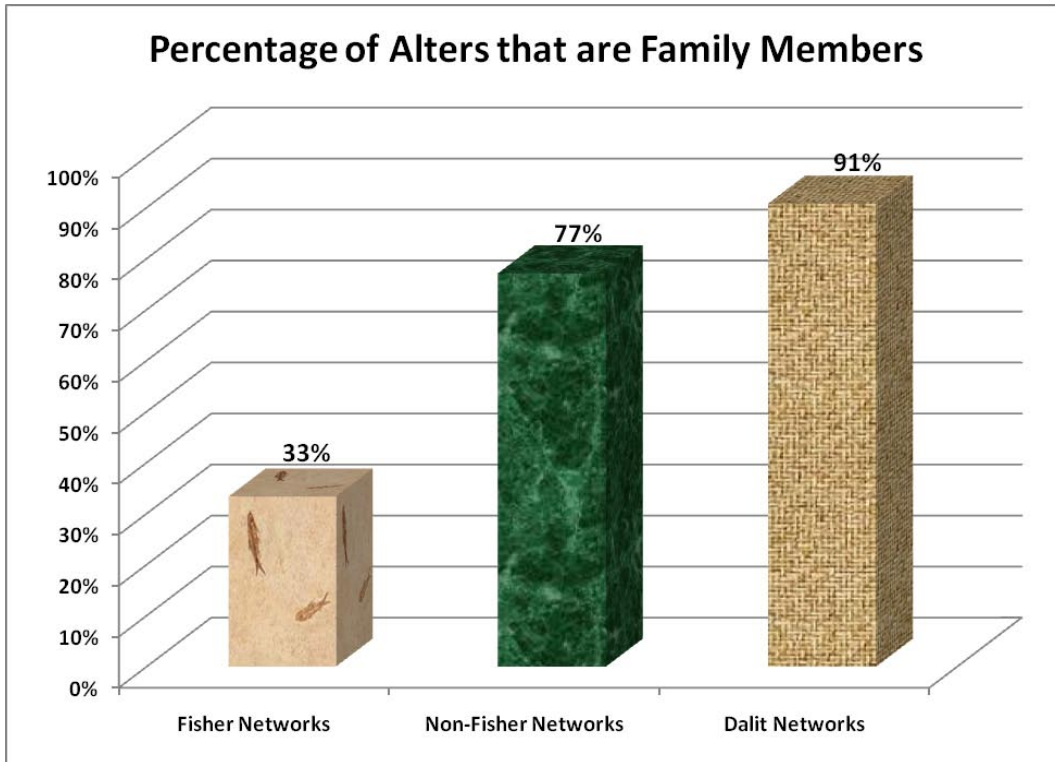


Figure 8.4 Percentage of alters who are family members.

³¹ This divides up as 53% in Bhalabhadrapur and 20% from the six other Kaibarta villages.

³² The six villages are Mahisa, Alandapatna, Chedapader, Gabapader, Barkul, and Balinasi. During fieldwork, I visited all of these villages on various occasions.

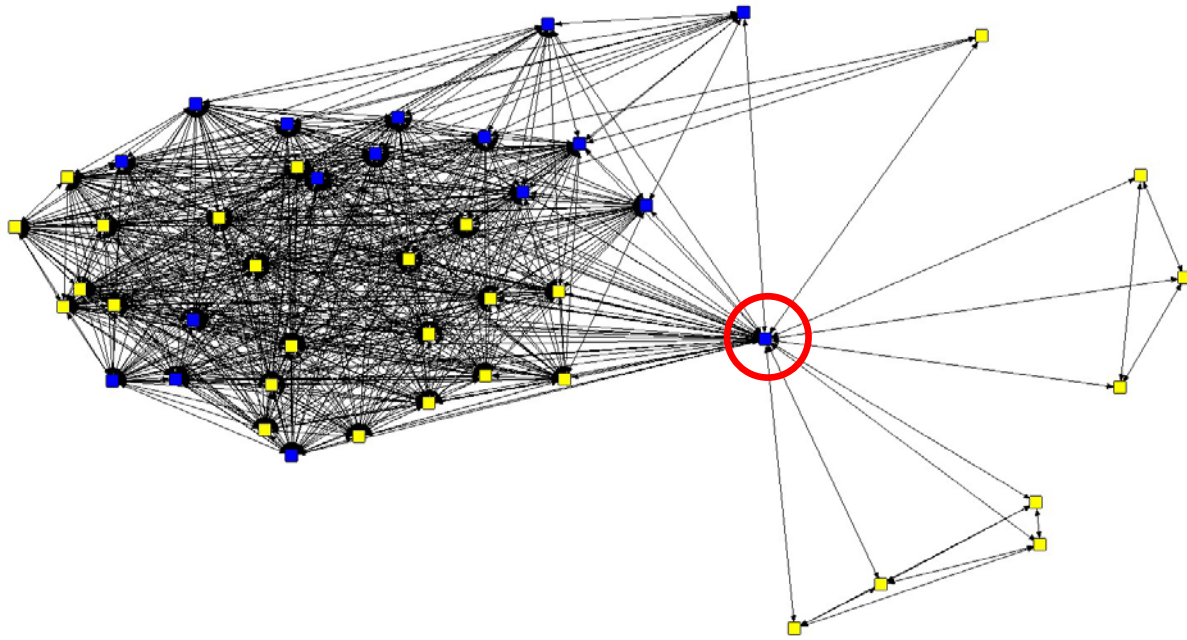


Figure 8.5 Egocentric network (fisher) indicating familial relationships to their alters. Alters in blue are family members (37%). Note that the individual (circled) with the highest betweenness and centrality measures helps to link the tight-knit village network with several other cliques.

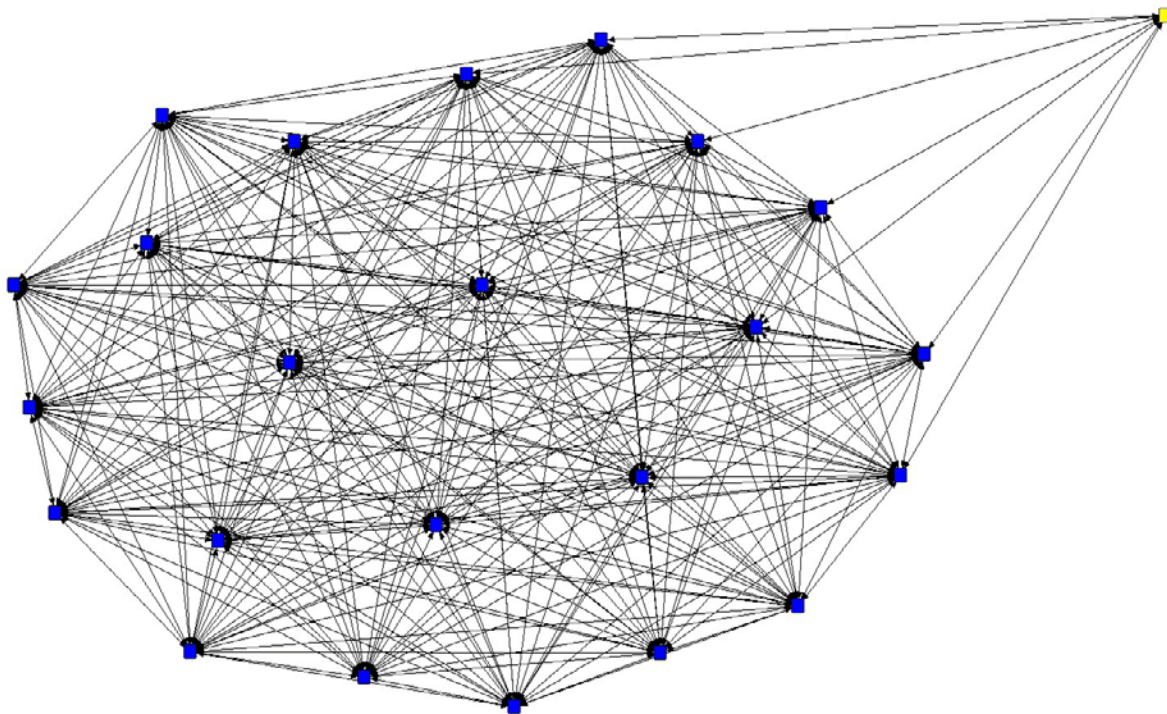


Figure 8.6 Egocentric network (dalit) depicting a familial relationship to their alters. Alters in blue are family members (96%).

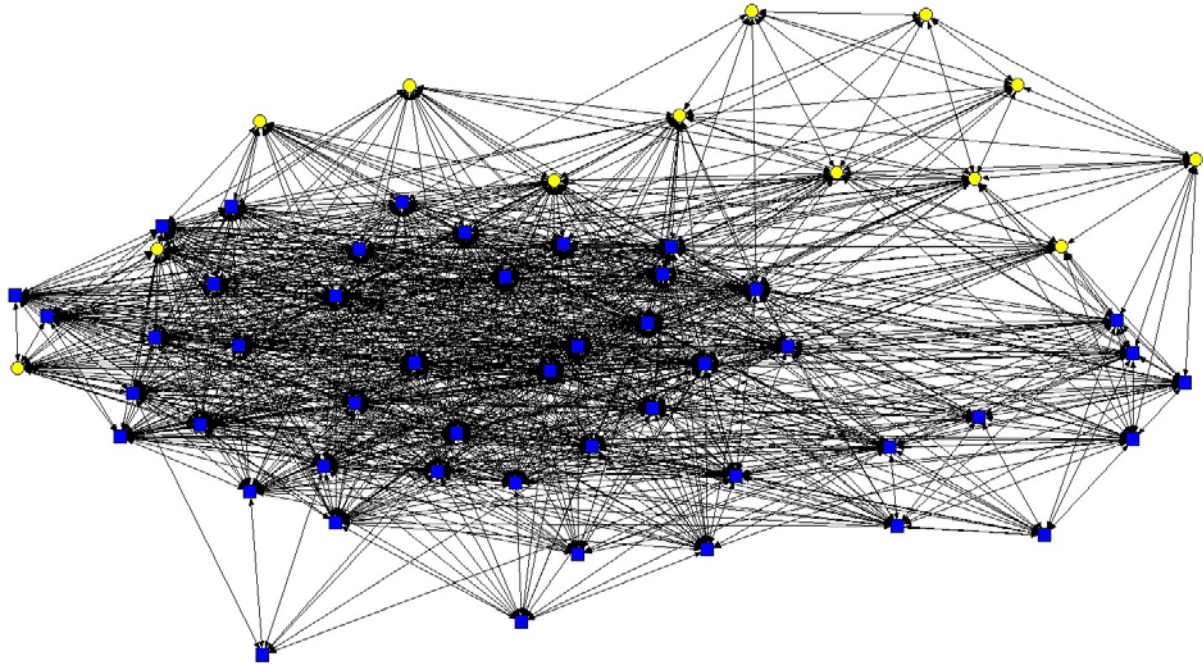


Figure 8.7 Egocentric network (fisher) depicting village residence of alters. The square blue nodes (78% of the network) are alters who reside in Bhalabhadrapur or one of the six Kaibarta villages. The yellow nodes reside in other villages.

Caste Affiliation: Seventy-three percent of alters in the Bhalabhadrapur fisher networks are members of the Kaibarta caste. This figure is identical to that of alters who originate in Bhalabhadrapur or one of the lake’s six Kaibarta villages. This indicates that there are no friendship ties with other Kaibarta living in Orissa and that, for all intents and purposes, the Kaibarta of Chilika could be seen as their own separate group. Based on the broader criterion of “fisher,”³³ 83% of alters in the Bhalabhadrapur networks are from ego’s jati and other fisher caste jatis. While this represents a high degree of homophily, “the tendency of people in friendship pairs to be similar” (McPherson and Smith-Lovin 1987: 370), this research found that, in the area of my field site, the percentage of alters who are from the same jati as Ego was typically higher. For example, Khondayats reported that 92% of alters in their networks are individuals from their

³³ By this, I mean individuals who are members of one of the other fishing castes that have traditionally fished in the Chilika basin.

jati while dalits reported that no fewer than 97% of their alters are also Hadis or Doma (i.e. dalits). Such high levels of homophily signify the degree to which cross-caste ties remain limited.

Though the respective groups live in close proximity to one another, Figure 8.8 demonstrates that fishers report only 10% of their alters are members of the Khondayat community. Among the non-fisher respondents there was even less cross-caste interaction and only two percent of the 579 alters listed in their networks were Kaibarta fishers (Figure 8.9). In fact, even though there are relatively few members of other scheduled castes (e.g. Barik, Bhoi or Telis) in the area of my field site, non-fishers reported more friendships with members of these groups than with their Kaibarta neighbors (15 Kaibarta alters vs. 17 from other scheduled castes).

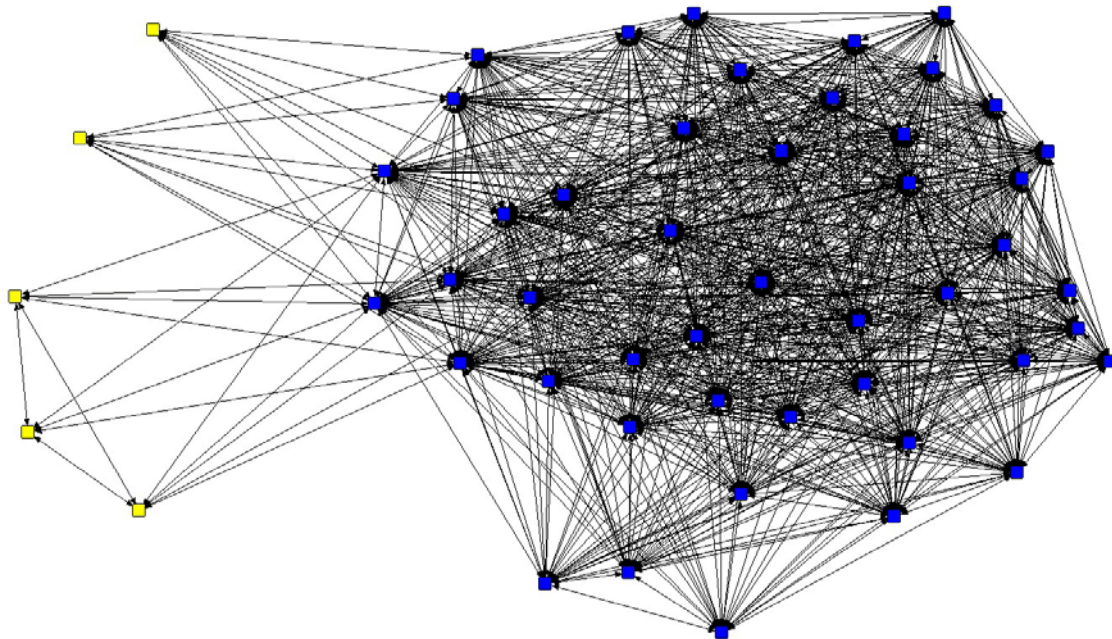


Figure 8.8 Egocentric network (fisher) depicting alter based on caste. Blue squares depict members of fishing castes (90%) and yellow squares depict members of non-fishing castes (10%).

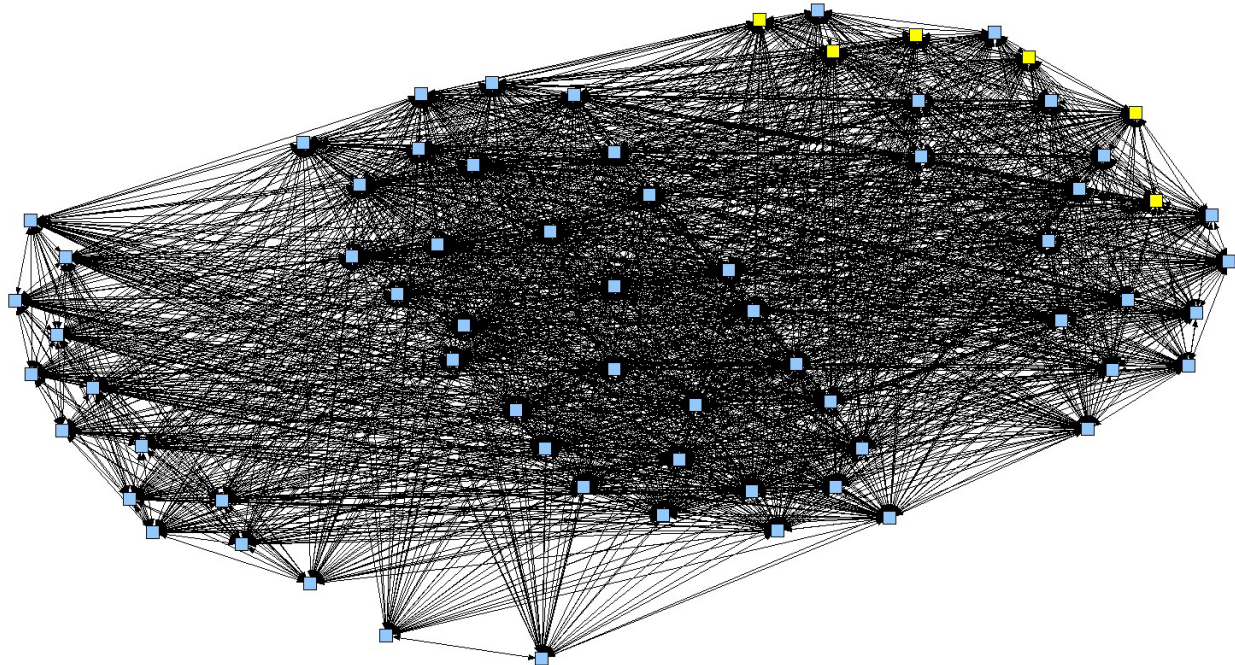


Figure 8.9 Egocentric network (non-fisher) depicting alters based on caste. Yellow squares depict members of fishing castes (7%) and blue squares depict members of non-fishing castes (93%).

For their part, dalit respondents listed similar percentages of Kaibarta (1%) and Khondayats (2%) in their egocentric networks. Yet, of the 1532 alters listed by fishers and non-fishers respondents, not even one of those listed was a dalit from the Hadi or Doma jatis! It also bears mentioning that, although they are a relatively large caste in the Chilika basin, not even one member of the “low caste” Khandara fishing jati was mentioned in any of the egocentric networks (Figure 8.10).³⁴ Individuals from the Nolia jati, who arrived from Andhra Pradesh and have been fishing in Chilika for over two hundred years, were also not mentioned. In a similar vein, of the 1637 alters reported, only one woman was named across all networks.

³⁴ Until the Indian government began promoting the export of prawn, Khandaras were the only jati that fished for prawn.

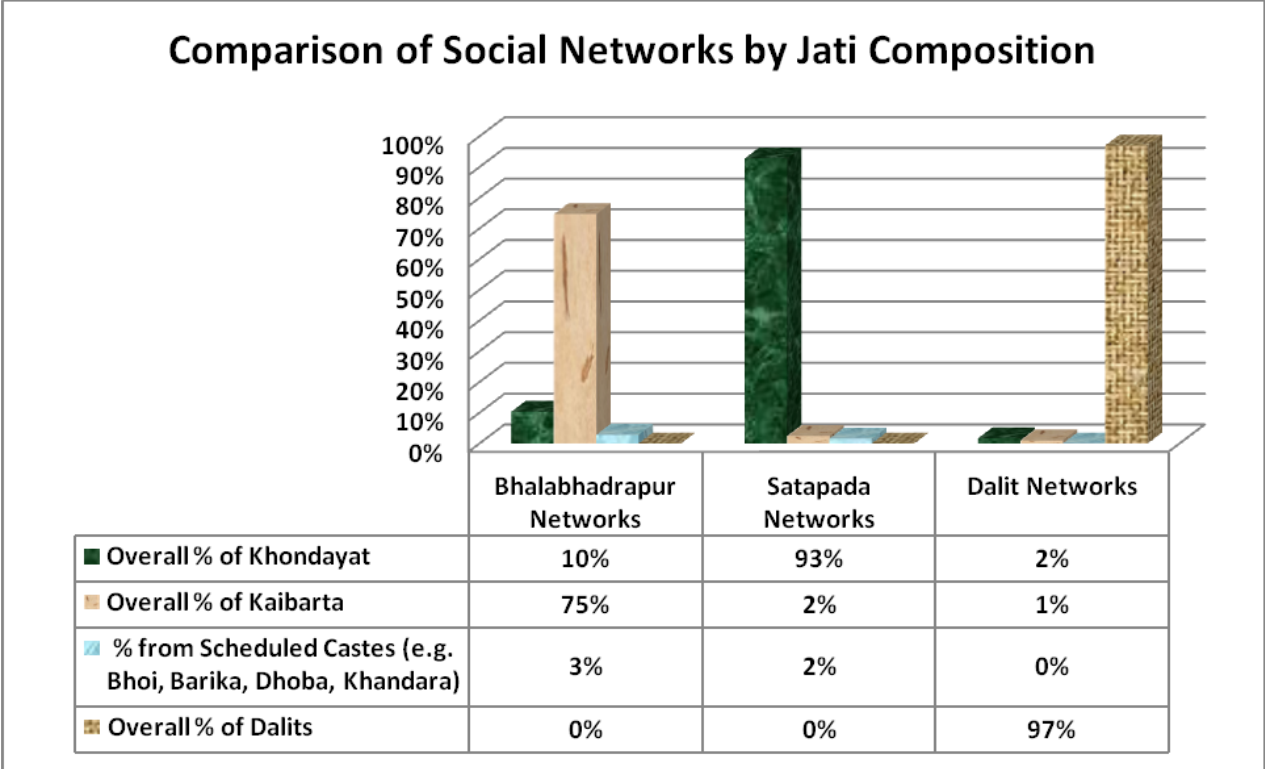


Figure 8.10 Comparison of Social Networks by Jati Composition.

Alter Village Analysis: In-Group Homophily as Separate Spheres of Friendship

In terms of residence, slightly more than half of all alters (55%) reside in the same village as Ego (this ranges from 44% for dalit networks to 62% for those living in Satapada Gada). As mentioned in the previous chapter’s discussion of the census, although Satapada Gada had fewer number of people born outside of the village than Bhalabhadrapur (133 vs. 175),³⁵ these individuals hailed from a greater number of villages (57 vs. 40). Precisely for this reason, it is a bit surprising that, based on their Egocentric networks, the Satapada Gada participants, on average, reported a smaller number of alters who reside outside the village i.e. *fewer* external links (38% vs. 44% in Bhalabhadrapur). Similarly surprising is that, although fishers reported

³⁵ Percentage-wise Satapada Gada has a much higher percentage of the population born out of the village. 24% vs. 12%.

10% of their alters as being Khondayats, of these only 3% percent reside in the adjacent village of Satapada Gada.³⁶ Looking in the other direction, only six alters (i.e. one percent) were listed by the non-fisher respondents as residing in the neighboring fishing village of Bhalabhadrapur.

A detailed analysis of village residence strikingly reveals the degree to which the egocentric networks of these three groups are mutually exclusive. As Table 8.2 shows, when one analyzes the pattern of village residence for the respective groups' alters, it is evident that there is no overlap among the top five alter villages. Clearly, respondents are drawing their friends from completely different communities.

These data also reveals a lack of reciprocity between the various groups. For example, a simple ranking of residence reveals that among fishers, Satapada Gada came in sixth place in terms of number of alters. By contrast, among non-fishers, Bhalabhadrapur ranked in eighth place (out of a possible twelve). For both the Hadi and Doma networks, alters from Bhalabhadrapur or Satapada Gada ranked in seventh and last place (See Appendix D). Interestingly, a review of the alter lists reveals the extent to which friendships are being culled from completely different sources. Whereas twenty percent of alters listed in the fisher networks are from one of the previously mentioned six fishing villages, only one alter from these Kaibarta villages is mentioned among the 684 alters mentioned in the other two networks.

Of the three networks, those of the Dalit respondents show the least amount of overlap, with 80% of the villages mentioned by Ego appearing only in their alter list.³⁷ The Dalit

³⁶ Only eight alters from Gombhari appeared in all of the fisher networks. Gombhari, is the village that spearheaded the entry of non-fishers into lake fishery (See Chapter 6).

³⁷ This is after the large cities of Bhubaneswar and Cuttack were removed. These were removed because they are not villages and the Hadi and Doma areas of these cities could hardly be considered to be "shared" spaces in any way. In addition, there is the likelihood that any of the other networks would list alters from these urban areas is relatively high if one considers that they are nearby and populous. When these alters are not removed from the calculation, 71% of villages in the dalit networks were unique to their network. In reality, the social isolation of dalits tends to be almost complete and wherever they reside, they are expected to remain separate and their residences are physically removed from the rest of the village.

networks were also not localized, but rather drew their friends from the larger population centers and from outside of the Chilika basin. Even though the dalit participants were born and have spent their entire lives on Satapada Island, these findings unequivocally demonstrate that they are socially isolated from their neighbors and typically have to travel long distances to meet up with their family and friends.

Table 8.2 Analysis of alter villages across the three network types.

Village Ranking	Fisher Alters	Non-fisher Alters	Hadi/Doma Alters
1	Bhalabhadrapur 60%	Satapada Gada 63%	Hadi/Doma Sahi 44%
2	Mahisa 7%	Naubadi 7%	Malud 10%
3	Chedapader 4%	Gombhari 7%	Ambapada 7%
4	Alandapatna 4%	Banki Jalla 6%	Pirisipur 6%
5	Barhampur 2%	Chandiput 2%	Gada Rodanga 5%
		Jharakata 2%	Krushnaprasad Gada 5%
		Parala 2%	Puri 5%
	Total % of Alters 77%	89%	82%

Affection and Cross-Caste Friendships

Even in the case of study participants who listed a relatively high number of alters from other jatis, a closer examination revealed some telling patterns. In addition to listing their alters and supplying information on caste affiliation, the participants were asked to rank each of their alters based on the following question: “On a scale of 1 to 5, how close would you say that you and [name] are - where 1 is not very close and 5 is very close?” For the purpose of analysis, those alters who were scored “four” or “five” were re-categorized as “close friends,” while those

marked “three” were considered “friends,” and those that were ranked “one” or “two” were re-categorized as “acquaintances.” Though there was once again a great deal of variability³⁸ across all thirty-one networks, the average was a surprisingly high 47% of all alters who were ranked as “close friends.” Once again, an analysis of the data suggests that this is due to a high degree of network homophily and multiplexity, “the overlap of role, exchanges or affiliations in a social relationship” (Verbrugge 1978: 1286), in all three networks (Figures 8.12 & 8.13). Further analysis illustrates that those networks re-categorized “close friends” were largely family members and/or residents of Ego’s villages.

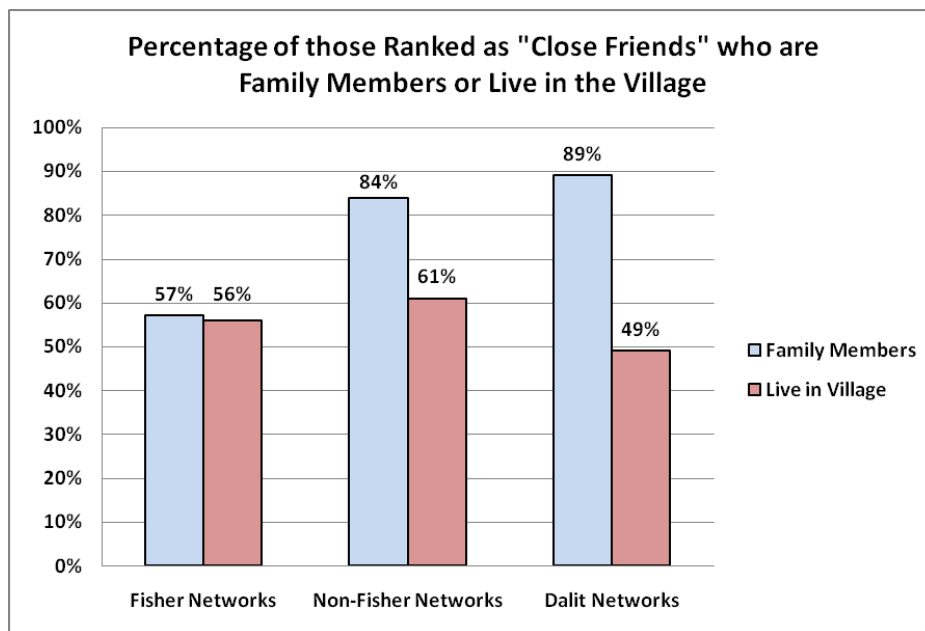


Figure 8.11 The high percentages of those ranked as “close friends” who are also family members and resident in the village is indicative of a high level of multiplexity.

This data was then further scrutinized to see how many of those alters categorized as “close friends” were not members of Ego’s jati. As Figure 8.11 demonstrates, study participants from Bhalabhadrapur had four times as many “close friends” from other jatis than either non-

³⁸ This ranged from 10% of alters to 80% of alters being ranked as “close friends.”

fishers or dalits in my field site. This clearly demonstrates that even when individuals of other jatis were listed as alters, the vast majority of them were “acquaintances” and not close friends. Even when this category is expanded to include people who received a rank of three (i.e. “friends”) in addition to those ranked “close friends” (i.e. ranked “4” or “5”), the data indicate that friendships between castes are few and far between. For example in Bhalabhadrapur, 157 people, or 16% of alters were ranked “friends” or “close friends” (i.e. scored “3” or higher). Of these, only 97 alters (or 10% across all fisher networks) were from non-fisher jatis.

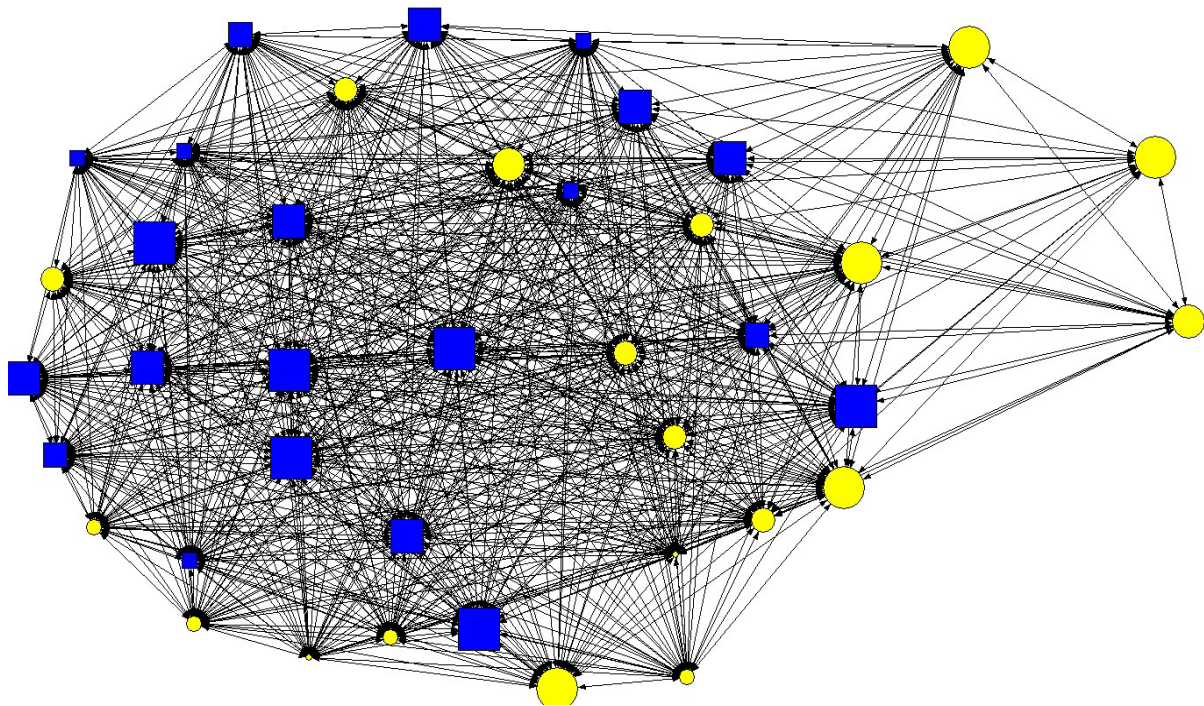


Figure 8.12 Egocentric network (fisher) depicting multiplexity. Blue squares represent family members and yellow circles represent other alters. Size of node represents affection on a scale of one to five, indicating that the higher scores correlate with kin group members.

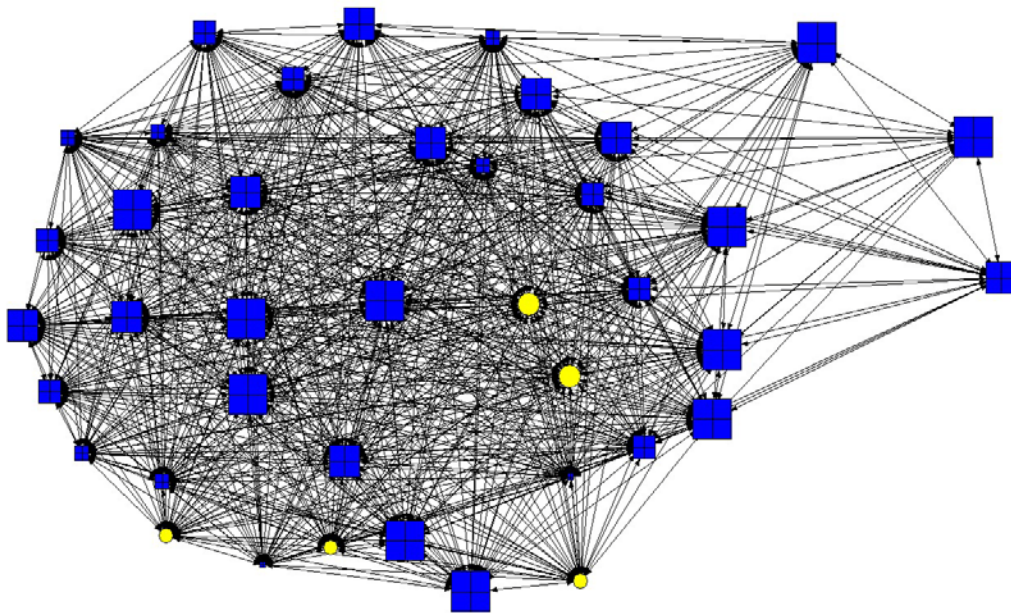


Figure 8.13 The same network separated by fisher and non-fisher jatis. Blue boxes are members of fishing castes and yellow circles represent alters from non-fisher jatis. None of the non-fisher alters receives an affection score above 2.

It is important to note that these averages hardly do justice to the internal variability of this data. In reality, of these 97 non-fisher alters, 54 were listed in the egocentric networks of only two respondents. One of these (with 30 non-fisher alters) has long been active in local politics, first as a member of the Congress Party and now as a member of the Bharatiya Janata Party (BJP). The other (with 24 non-fisher alters) lived and worked for many years across the lake in the market town of Balugaon where he was a fishmonger for the community. This data points to the important role of these individuals as brokers between the Kaibarta fishers of Bhalabhadrapur and members of other castes (cf. Krishna 2003). Further research is necessary in order to determine if these are outliers or evidence that cross-caste friendships are more common among the political and merchant classes.³⁹

³⁹ Future research on caste relations in the Chilika basin (or in India) should explore the role of participation in party politics or friendship among economic migrants to the large cities and market towns.

The above examples demonstrate that there are, in fact, examples of close cross-caste friendships. Notwithstanding this fact, it bears noting that, even when *all* possible rankings (i.e. any score from “1” to “5”) were considered across the twenty three networks collected in Bhalabhadrapur (i.e. Kaibarta, Hadi and Doma jatis), only 24 alters, or 2% of these were residents of neighboring Satapada Gada. This paucity of neighborly contact was even true in the case of the aforementioned brokers. Between them they listed only two alters from Satapada Gada. Astonishingly, an analysis of Satapada Gada non-fisher networks reveals an even more pronounced separation. Out of a total of 579 alters listed, only twenty-four people (i.e. 4%) from jatis other than Ego’s were considered “close friends” or “friends” (i.e. ranked “3” or higher). Of these, sixteen are from fishing castes, nine are Kaibarta and only three (i.e. one-half of one percent) reside next door in Bhalabhadrapur (Figure 8.14).

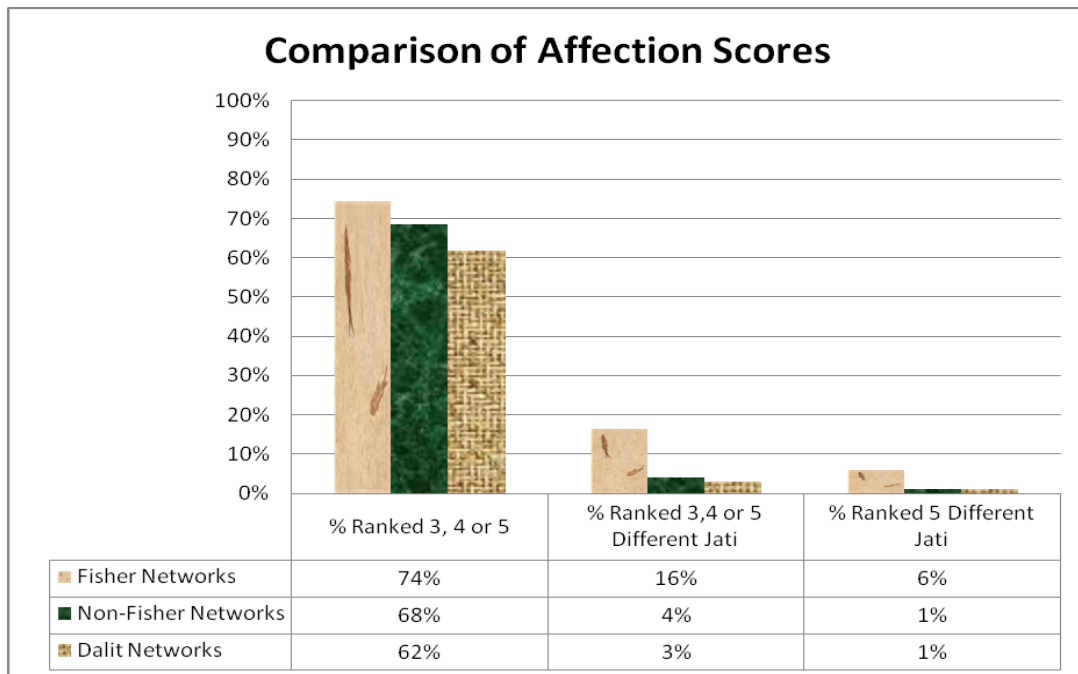


Figure 8.14 Comparison of those ranked “friends” or “close friends” across three networks.

Structural Measures across Egocentric Networks

In addition to the analysis of individual egocentric networks, structural measures such as degree, closeness and betweenness centrality were calculated (Appendix E). Centrality measures are important in social network analysis and they are, “commonly described as indices of prestige, prominence, importance, and power — the four Ps” (Borgatti 1995: 111). In order to enable cross-network analysis, the alters of each egocentric network were divided into two groups – ego’s jati and all other jatis. Averages for structural measures were then calculated within these two groups and compared to see to what extent caste affiliation was a salient measure in social relations and predictive of friendships.

For example, in the case of the fishing village of Bhalabhadrapur, the average degree centrality, or “the number of ties incident upon a node,” (Borgatti 2005: 62; cf. Freeman 1979) was 35.6, while that of those belonging to other fisher alters was 20.5 and only 18.6 for non-fishers. While it is impossible to assess the friendship choices of alters based on an egocentric network, it is possible to extract a friendship matrix based on reported values. This data suggests that there is an in-group friendship preference which manifests as people within the group have a higher degree (i.e. number) of alters on average compared to those alters who are members of an out-group. This pattern is evident among the non-fishers of Satapada Gada, where the average degree of non-fisher alters was 40.2, whereas that of all fishers was 28.43. In addition to demonstrating the in-group preference, it implies that even when a network includes members of another jati, those friendships remain compartmentalized and do not become friendships that are shared across the egocentric network. Among members from the Hadi and Doma dalit

communities, this phenomenon was most pronounced – the average degree among dalits was 19.4 while those for non-fishers was only three.⁴⁰

Closeness centrality calculates the distance of each alter from all other alters in a network or the number of network spans they would need to traverse in order to contact every other person in a network (Borgatti 1995). Higher closeness scores implies that an alter has easier access to resources and is able to make contact with all members of a network more quickly. Across all networks, members of Ego's jati had higher closeness scores, demonstrating the extent to which the respective networks were tight-knit and caste-based. Because of the greater number of non-fishers in fisher networks, the difference between the two groups in the Bhalabhadrapur networks was only 78.9 compared to 70.5. Across all non-fisher networks, the average closeness of non-fisher alters was 85.9 while those of members of other jatis was 50.7 (for fishers it was only 36.4). Among dalits, the average closeness within the caste was 97.5 compared to 23.6 for the few non-dalits.

Lastly, betweenness centrality, “views an actor as being in a favored position to the extent that the actor falls on the geodesic paths between other pairs of actors in the network” (Hanneman and Riddle 2005). This is the advantageous position of a broker who can mediate between two factions. As such, the greater the betweenness of an alter, the more people depend on that person to bridge two groups and the more power that alter has. An analysis of all alters revealed that in only one case did someone from a caste different than Ego's have a higher betweenness score than members of the same caste. This occurred in a fisher network and the alter with the high betweenness is a political leader from another fishing caste. At the aggregate level, among fisher networks, the average betweenness of all fisher alters was 10.3, while that of

⁴⁰ There is no comparable number for fishers since none were listed in any of the dalit egocentric networks.

non-fishers was 5.2. Among non-fishers this was more pronounced, as the betweenness of Khondayats averaged 7.3 compared to only 5.7 among all other castes and a .25 average betweenness for alters from fisher caste.⁴¹ This seems to suggest that the non-fishers who appear as alters in fisher networks are much more likely than fishers to serve as brokers between two groups than vice versa.

Examples of Cross-Caste “Ritual Friendships”

Though the above patterns suggest that the respective networks are mutually exclusive and the few cross-caste relationships mentioned tend to be acquaintances, I noticed that in some cases it was precisely alters from other jatis that were considered by the respondents to be their closest friends. This led me to conduct semi-structured interviews with all of the respondents in order to ascertain the exact nature of their relationship to all of their alters. During these interviews I inquired as to how these relationships were formed, whether they were engaged in “*deba-neba*” (give-take) barter relations, and when relevant I asked to what extent caste prohibitions prevented them from socializing together in activities such as card play, weddings, religious ceremonies, etc. To my surprise, these interviews revealed that, though there were generally few cross-caste relations between fishers and non-fishers (and even fewer between both of these groups and dalits) that some of these friendships were religiously sanctioned “ritual friendships.”

Whereas friendship has been defined as a voluntary, dyadic relationship with reciprocal obligations and mutual affect (e.g. confidence, reciprocity, etc.) (Srivastava 1960: 247), “ritual friendships” are symbolically formulated through ceremonial observances. These friendships are

⁴¹ Unfortunately, the betweenness scores of two of the collected non-fisher networks became corrupted in transcription and had to be removed from this comparison. As such, these figures are based on the average of all the alters in seven rather than nine networks.

(by definition) always between non-kin and, in the case of my field site, bridge caste divisions. At the same time, these friendships have strong elements of “fictive kinship” and once they are solemnized they are binding on all other family members (Ebaugh and Curry 2000; Ferdinand 1957; Freed 1963a; Norbeck and Befu 1958; Vatuk 1969). On several occasions, respondents noted that their relationship with a particular alter was based on a ritualized friendship through another family member.

Skoda (2004) contends that these friendships should be seen as different from “fictive kinship” since individuals are permitted to select their ritual friends on their own accord. More to the point, the bonds that are formed in this way do not have any equivalents in the kinship sphere. “Although people sometimes explain it by saying that it is like the relationship between brothers, they also say that these friends are equal in a way that is not so of brothers, with their differences in age and more importantly status” (Skoda 2004: 167-68). Several respondents asserted that their ritual friends were as close, if not closer than, their family members. Or as Bailey (1994: 21) observed, “In times of real adversity, people said, a *maitro* [type of ritual friend] is better help; kinfolk can be fractious.”

The little that has been written about ritual friendship in India is largely based on anecdotal accounts from various ethnographies of Indian tribal communities (Srivastava 1960).⁴² Skoda (2004; 2005) recently described several types of ritual friendships among the Aghria, a “peasant caste” in the northwestern Sambalpur District of Orissa. Based on this fieldwork, he constructs a dichotomy between the tribal and coastal belts of Orissa. According to this schema, ritual friendships among the Aghria is evidence of the adoption of tribal practices typified by inter-caste ritual relations whereas similar relations in the coastal belt are typified by intra-caste

⁴² Srivastava (1960) conducted a survey and found that of some twenty monographs related to tribals in India, twelve mentioned some form of “ritual friendship.” Of these, the Santals, Bonda, and Oraon reside in the hilly tracts of Orissa.

bonds. He describes this as the “adaptation or transformation of ritual friendship between a rather segmentary tribal society in the south, on one hand, and a more complex, transitional society, with hierarchies resembling the caste society, on the other” (Skoda 2004: 167).

My own research contradicts this assertion and conclusively demonstrates the existence of inter-caste ritualized friendships in the coastal belt. This confirms Tanabe’s (2007: 519) suspicions that what “he [Skoda] cites as representing tribal features may be regional characteristics – either Orissan or middle Indian.” While Skoda has enumerated many forms of ritual friendship, the following list that I collected while in the field contains several forms that were not mentioned in his study. More importantly, it also appears to be the first time that the existence of this cultural practice has been documented among caste Hindus in coastal Orissa. The information on ritual friendships presented below is based on interviews with the study participants as well as with the resident Brahmin of Bhalabhadrapur.

1. *Songata* - This relationship involves two men of any caste who publicly announce their desire to ritually formalize their friendship under the auspices of a Brahmin. Both of their families are invited to attend a ceremony in small village shrine where a banyan tree has merged with a “survey tree.”⁴³ After taking a ritual bath they exchange expensive and newly made clothes and come dressed to the ceremony in this attire. A *mudi* (ring) made of a special grass called *kusa ghasa*⁴⁴ is placed on the ring finger of each songata (Figures 8.15 & 8.16) . According to the Brahmin, the ring is tied with a special knot that represents six gods – Brahma, Vishnu, Shiva (Maheswara), Savitri, Gayatri and Saraswati. Following the placement of rings, both songatas hold a special *pitāla dhala* (brass pot) in which the Brahmin places some holy

⁴³ I was told by villagers that “Survey trees” (usually *Shorea robusta*) were those that were used by the colonial government for triangulation purposes when making local maps.

⁴⁴ According to the Brahmin, this grass is available locally, but is more widespread in Tamil Nadu and Andhra Pradesh and is often imported from there.

water (Figure 8.17). This is followed by the exchange of *mahaprasad* (literally “great gift of the gods”), which is typically a type of sweetmeat that has been sanctified by Lord Jagannath after having been presented as an offering at the temple in Puri. These sweets are then shared by placing them in each other’s mouths in front of both families and the presiding Brahmin.⁴⁵



Figure 8.15 The village Brahmin is holding a bunch of dried *kusa* grass in his hands.

The entire ritual closely mimics the marriage ceremony and the two songatas are symbolically wedded through this gift giving and sharing of food. As Pintchman (2007) points out in her discussion of *sakhi* friendships, this public exchange of food that is polluted by saliva is a crucial

⁴⁵ Pintchman’s insight would seem to derive from Marriott’s (1976) observations of the “dividual” nature of people in Hindu tradition. Based on this interpretation, people are constantly shedding parts of themselves and this has the ability to affect or “pollute” their surroundings. For example, when asked about a hypothetical case of a Brahmin entering into a songata relationship with a dalit, I was told by the village Brahmin that he would have no problem inviting a dalit into his house to share in meals. Nonetheless, he was clear that under no circumstance would he eat food prepared by an untouchable for fear of being polluted and thus unable to perform his duties. He was quick to note, however, that this was only true of Brahmins and individuals from other jatis who entered into songata relationships regularly ate food prepared by one another.

step in the ceremonial performance, as it publicly signifies that henceforth there is no hierarchy between the two participants. As such, songata friendships are possible between any two males from any caste, up to an including a songata friendship between a Hadi and a Brahmin. After the ceremony, the two songatas are considered brothers and all the members of their respective families are henceforth considered to be related to one another. I was informed that, assuming a case where two songata happen to be from the same caste, the sister of one songata would be prohibited from marrying the brother of the other songata since they are also considered to be sister and brother. When one of the songatas die, the other will shave their head in mourning (as is customary in Hindu tradition) and actively participates in the funeral and other mourning rituals. According to the village Brahmin, in a typical year, two or three songata ceremonies are performed in the village. But, as he was quick to point out, this was undoubtedly an undercount since most people make the journey to Puri in order to conduct this ritual in front of Lord Jagannath.

Though Skoda (2005) does not specifically discuss Songata relations, these seem to fall under the category of what he describes as *Mahaprasad* relations in his field site. To further add to the terminological confusion, he notes that Mohanty (1973/4) refers to Mahaprasad as a type of *maitar* or *sangat* relationship (see number 5, below) among men in the Gadaba tribe and as a *baula* (see number 3, below) relationship among women (Skoda 2004: 173).⁴⁶ Whatever the case may be in other parts of Orissa, in my field site, a songata bond was considered closer than a *mahitra* friendship and the two were considered separate cultural practices.

⁴⁶ It is also possible that the *Sangi* or *Sahiya* custom among the Oraon tribe is a version of a songata relationship (Shashi 1997: 136). Similarly, Skoda (2004: 173) notes that Choudhury describes *Sangi* or *Sahiya* relations among the Munda tribe of Orissa.



Figure 8.16 The *kusa* grass *mudi* (ring) used during the ceremony. Note that it is made of three strands representative of the Hindu trinity.



Figure 8.17 Holding the ceremonial brass pot, with the ends of the *kusa* grass *mudi* (ring) sticking out from the front.

In an example of a songata relationship, one of the study participants recounted how he came to be a songata with an “untouchable” from the *bhoi* (herder) jati. After years of suffering from terrible migraines, the participant sought out a *vaidya* (local healer) who, through *ayurvedic* medicines managed to permanently cure him of his ailment. As a result, he offered to become songata with him and they approached the village Brahmin who presided over the ceremony. In addition, this participant listed as “close friends” two other members of the *bhoi* jati, including a sibling and an affinal kin of his songata. According to the participant, all three of these alters were frequent guests at his house.

2. *Abhada* – This is a literal reference to Mahaprasad such as rice, lentils or vegetables that have been cooked in the Jagannath Temple in Puri. In practice, this type of friendship is a Mahaprasad friendship like songata that has been compacted at the temple in Puri. As such, the services of a Brahmin are not necessary. Rather, what matters is the type of Mahaprasad, which has been transformed through fire and the sanctity of the venue. None of the respondents I interviewed mentioned having this type of relationship with their alters, but I include this here because it was mentioned by the village Brahmin as a relatively common practice.

3. *Baula* – This is considered a type of songata relationship, with the exception that it only exists between two women and it is not formalized either in a temple service or through the auspices of a Brahmin. *Baula* literally refers to the flower of the mango tree and this bond is solemnized on *Baula Amavasya*, which falls on the day of the new moon during mango blossom season. Both parties prepare sweets which they exchange and then place a mango flower in each other’s hair to signify their ritualized bond of friendship. Though less formal than the female *sakhi* bonds described by Pintchman (2007: 55), they are similar in that they “are ritually sealed, highly valued and self-consciously maintained after marriage” (cf. Flueckiger 1996: 40; Jay

1973).⁴⁷ Skoda observed baula friendships in his field site and noted that they are “only possible for women in the month of *Phagun*,”⁴⁸ and were symbolized by the exchange of mango flowers (Skoda 2004: 171).

4. *Makara* - This is much like Songata, except that there is no exchange of clothes and no need for a Brahmin and the ritual objects. It occurs only once a year during the festival of *Makar Sankranti*,⁴⁹ which falls on January 14 and only involves the placement of food⁵⁰ in each person's mouth in front of the deity. Located in the central sector of the lake, Kalijai Island (see Chapter 2), is considered to be one of the most auspicious places in Orissa to carry out this ritual. In 2006, I spent Makar Sankranti on the island and personally witnessed how tens of thousands of people in hundreds of boats arrived to worship the goddess Kali and receive *prasad* (food offerings) at the temple (Figures 8.18 & 8.19). In my field site there were several people (including a few women) who informed me that they went to the island for the specific purpose of becoming *makara* friends.

47 Ray (2002) refers to Sakhi Pata (establishing friendship) as a practice that was common among men in North Bengal till the 19th century. Rather than being solemnized in a temple, this friendship involved taking snan (a holy dip) in a river with the potential friend. According to Ray, cross-religion friendships were common and “to choose a Muslim as a *sakhi* was as common as choosing one of his or her own religion” (Ray 2002: 59).

⁴⁸ It is not entirely clear why Skoda is referring to the Punjabi Nanakshahi solar calendar, but this month begins on February 12 and goes through March 14.

⁴⁹ *Makar Sankranti* is a pan-Indian festival perhaps best known as *Lohri*, as it is called in Punjab. It is dedicated to the sun god Surya and, from an astrological perspective, it celebrates the transition of the sun from the house of Sagittarius to the house of Capricorn. This marks the point during which the Sun moves northward and the days begin to warm and lengthen.

⁵⁰ This is a type of *kheer* that is typically a sweet made of rice, milk, curd, sugar, bananas, ginger and black pepper.



Figure 8.18 Photo of Kalijai Island and Temple, New Year, 2006.



Figure 8.19 Photo of Kalijai Island on the day immediately before Makar Sankranti, taken from behind the temple. The polythene covered huts to the right were erected by pilgrims who arrived a day early.

This bond is often enacted between members of two different castes, but can also be with people from within the same caste. Interestingly, it was asserted by several people that it may even be between a man and a woman, though I was unable to confirm any cases of this happening in the village. Skoda (2004: 169) also makes reference to this form of ritualized friendship and terms it *Makra*. He attributes the auspiciousness of the day on a legend in which Lord Jagannath and Lord Shiva met and became ritual friends on this day. One of Pintchman's (2007: 59) informants also reported that the most auspicious day to formalize sakhi bonds in Varanasi (Benares) falls on Makar Sankranti.

5. *Mahitra* - When two people have the same first name, that bond can be ritually reflected in front of the deity with the assistance of a Brahmin. Bailey (1959a: 84), who terms this custom *maitro*,⁵¹ first witnessed this type of relationship during his fieldwork in Bisipara in the 1950s. He described it as “a relationship entered into during boyhood or adolescence with a person of another caste. This is a solemn bond, contracted before a Brahmin and cemented and publicized by a feast, but the reasons for picking a particular person are often trifling. The most frequent one is coincidence of name.” Like fictive kinship, Bailey contends that the bond can often pass on to subsequent generations. Mahitra bonds also entail many responsibilities, and are “notionally absolute and uncalculating; the person helps unconditionally” (Bailey 1994: 20). It appears however, that in my field site, mahitra relationships were not as formalized and did not entail the same degree of reciprocal obligations. For example, one of the participants in this study was a mahitra with my field assistant, but the two were not close friends. This was not because the two were from separate castes, but because my field assistant insisted that his

⁵¹ At the risk of stoking even more confusion, among the Bondo tribe, it is called moitor and is considered equivalent to the aforementioned mahapasrad relationship (Mohanti 2004: 20).

mahitra was his junior (with regards to age) and thus not someone he would regularly associate with. Nonetheless, there was general agreement that two mahitras could not marry each other's sisters or brothers since they are considered to be equivalent to family members. This tradition may also explain why given names tend to be unique and rarely overlap in the village.

6. *Sa'i* – This seems to be a general appellation that encompasses several types of ritual relationships. For example, the fathers of two boys who become songata are publicly known as *Sa'i*. This likely came about because songata bonds do not necessarily reflect individual choices, but are often made strategically at the family level. Jay (1973: 146) found this to be the case in Chattisgarh, where, “in order to perpetuate their own relationship with each other, the fathers and grandfathers of two individuals arrange such a relationship between their children or grandchildren.” Skoda (2005: 153) refers to a specific custom named *sahi* presided over by a Brahmin and during which goods and foods are exchanged. Subsequently, this friendship is reaffirmed every year on the day of *Nua Khai*, the eating of the first rice.

7. “*Bikiba*” or Ritual Child “Sale” – This type of relationship does not appear to have an indigenous name and is simply referred to as *bikiba* (selling), though the participants are thereafter known to each other as *Sa'i*. If a couple suffers successive miscarriages, a *gyoti* (astrologer) may recommend that they sell their unborn child to a member of the Hadi jati (the caste responsible for preparing the dead for burial). The Hadi symbolically purchases the unborn child from the expectant parents for 5 Rupees in the temple and in the presence of the deity.⁵²

When the child is born, it is raised by its birth parents, but is technically a member of the Hadi's

⁵² Though Skoda (2005) writes that he has been unable to uncover a similar custom of ritual child sale anywhere else in the world, there is actually a Jewish custom that is quite similar. “The loss of children is usually ascribed to the malign influence of the author of evil or of his satellites. Strange to say, they [the Jews] think that they can often cheat the devil. Thus a Jew who has lost several children sometimes pretends to sell his next child to a friend, in order that the devil (or the “angel of death”) may overlook it” (Masterman 1903: 250). Compare this to “a Kandh – who was sold in his childhood to a Harijan – [who] explained that Yama, the God of Death, would not prefer low status or ‘untouchable’ children” (Skoda 2005: 132).

family. One example of this kind of ritual relationship was uncovered during interviews with a Hadi residing in Bhalabhadrapur who had entered into a bikiba relationship with a Khondayat from Satapada Gada. According to my interlocutor, the two families maintained kinship ties that were no different from any of their other kinship ties.

Based on interviews with numerous villagers, as long as the child is unmarried, the Hadi who purchased the child is treated like a family member and can even sit and eat together with the birth family in the child's home. Before the child can be married off, the birth parents buy back their child from the Hadi or risk forfeiting their right to sit beside their child at the time of his or her wedding ceremony. Typically, just prior to the wedding ceremony, the birth family invites the entire village to a large feast and temple ceremony. The birth family publicly compensates the Hadi with a payment of no less than 10,000 Rs and the child is formally readmitted into their caste. Interestingly, even after this transaction is completed, the two families continue their relations as before.

Skoda (2005) discusses this custom among the Aghria and provides several case studies that involve the sale of a child to a dalit family. In all of the cases referenced by Skoda, it appears that the sale is only transacted after the birth of the child. Usually the family selling the child has suffered previous deaths and their child is visibly ill. In almost all the cases documented by Skoda, the children were transferred to the other community for a period of time. Similar to the case in Bhalabhadrapur, the child is raised by the birth parents, but is considered to be a member of the other "low caste" jati. As Skoda (2005: 128) explains, "for a full reintegration, a feast for the members of one's own group is obligatory – a reintegration in turn is unavoidable if one wants to marry. Thus, usually the reintegration takes place immediately before a marriage."

It is important to point out that, although the social network analysis exposed how rare cross-caste friendships are in my field site, it also exposed ritual friendships that serve as bridging ties. Bailey (1994: 21) suggests that these types of relationships are, “as if we were to have customary covenanted friendships that had to be between Jew and Catholic, black and Hispanic, Anglo and Asian, and so on.” Although in my field site there does not seem to be any obligation that these relations be limited to people from another caste or from outside of the village, in practice they typically were. This is likely because several of these relations (i.e. songata, baula, abhada, sahi, “bikiba”) cannot be established between family members, or those who are already closely related through songata ties, thus effectively placing them outside the village and its tight network of ties. The existence of these practices shatters the notion that caste prohibitions are an insurmountable obstacle to cross-caste friendships and show that there are traditional practices that circumvent the traditional prohibitions to sanction such ties.

It is important to recall that the existence of these customs of ritual friendship among non-tribal fisher and agricultural communities in coastal Orissa suggests that the phenomenon is far more widespread than was hitherto believed. It also conclusively demonstrates that this custom is not limited to Adivasi or tribal communities and therefore not necessarily emblematic of tribal traditions. Although I am not advocating one position over the other, there does not seem to be any reason to hold, as Skoda does, that the existence of these customs among the peasant Aghria community is proof of a pervasive tribal influence. Lastly, as Jay (1973: 154) discerned, these cross-caste relations “are a means of bridging the gap between castes when two individuals wish to establish a dyadic relationship other than the normal one characteristic of members of different castes.” Although cross-caste relations continue to be bounded by ritual,

there are clearly numerous socially sanctioned ways around caste considerations that lead to both friendship and cooperation.

Social Geometry – Predicting In-Group and Out-Group Ties

Following in the footsteps of Radcliffe-Brown (1940) and Gluckman's Manchester School of Anthropology (Bott 1957a; Mitchell 1969), the sociologist Peter Blau, explained that: Whatever else the term as used by various social theorists may encompass, social structure nearly always includes social positions, patterns of social relations, and a nexus between the positions of people and their social relations. Social structure is conceptualized in terms of these elemental properties: different social positions, the numbers of their incumbents, and the implication of differentiation among positions for social relations. (Blau 1977a: ix)

In *Inequality and Heterogeneity*,⁵³ Blau's (1977a) landmark study of social structure, he proposes a simple and universal typology based on these two broad parameters. He defines "inequality" as an element of status, or a ranked variable such as class or income, and "heterogeneity" as membership in a particular group, or a nominal variable designating such social categories as religion, sex or caste. From these, he proceeds to elucidate a body of macrosociological theorems that attempt to account for the ways in which seemingly psychological tendencies such as in-group preferences in dyadic friendship formation are constantly being modified by underlying structural conditions. The following discussion attempts to analyze the patterns of social relations in the Chilika basin predicated by Blau's social geometry (cf. Blau 1974; Blau 1977a; 1977b). Based on the egocentric network data analyzed above, the following discussion will employ several of his theorems in order to shed

⁵³ According to Google Scholar, this seminal study in social geometry spawned an entire sociological tradition and has been cited 1135 times.

light on my findings, demonstrate their relevance to the study of social structure in India, and question the determinism of the social geometry literature.

The first social theorist to recognize the importance of group size on social relations was Georg Simmel (Mills 1958; Ritzer 1992; Simmel 1902a; Simmel 1902b), who attempted to understand how different configurations such as dyadic and triadic relationships affected conflict and cooperation in society (Kasarda 1974). Building on these observations, Blau alleges that the importance of this simple measurement has been underappreciated in the study of social structure and group relations. He claims that group size provides social theorists with the basic structural condition which is the key to understanding why some groups tend to be insular and self-associating while others are more interactive and open to out-group ties. This insight is presented as his first theorem of social structure, i.e. that, “if society is divided into two groups that differ in size, and if there is any social associations between members of the two groups (which is assumed to be the case) it logically follows that the rate of intergroup associations of the smaller group must exceed that of the larger” (Blau 1977a: 21). As logical propositions, he presents these as:

- T-1 For any dichotomy of society, the small group has more extensive intergroup relations than the large.
- T-1.12 For any dichotomy of society, the mean number of intergroup associates is an inverse function of group size.
- T-1.2 Minority groups are more involved in intergroup relations with the majority than the majority is with them.

As a self-proclaimed “structural determinist” Blau (1977a: x) insists that these phenomena are independent of individual, cultural, ideological or psychological values. Rather, these theorems are “deterministic propositions about group differences in rates of intergroup associations, not probabilistic ones, though the implications of such rates for individuals are

naturally probabilistic” (Blau 1977a: 22). The “salience” of the defining parameter (e.g. religion, ethnicity, class, etc.) may be important at the individual level but is ultimately irrelevant to the overall pattern described in the theorem. Rather, the structural fact of disparities in the size of groups predicates certain mathematical conditions through which it is possible to predict group interactions.⁵⁴ Simply put, this is due to the fact that individuals from smaller groups are constrained by the number of possible in-group ties and are thus statistically more likely to have contacts and ties with out-group members.⁵⁵ For example, research in the United States on marriage has conclusively demonstrated a strong inverse correlation between group size and intermarriage – something that held true even when race and religion were factored into the equation (Blau, et al. 1982). According to Barnes (1949), this relationship is evident even in “simple societies ... [where] the smaller the residential, ethnic, or religious group, the higher its rate of outmarriage” (Blau 1977a: 25). Similarly, other researchers have demonstrated that smaller groups tend to be exogamous and much stricter about enforcing this exogamy (Ardener 1954).

Returning to our case study, it is therefore surprising that the data I collected among fishers, non-fishers and dalits in coastal Orissa does not support Blau’s theorems. Even though the fisher village of Bhalabhadrapur has almost three times as many inhabitants as the adjacent non-fisher village of Satapada Gada (1482 to 544), 77% of alters in Bhalabhadrapur were members of the fisher Kaibarta jati while 92% of alters in Satapada Gada were members of the Khodayat agricultural jati. The dalit (Hadi and Doma) residents of Bhalabhadrapur, who represent the smallest minority group (76 individuals), were the least involved in intergroup

⁵⁴ Blau (1977a: 22) explains these are “deterministic propositions about group differences in rates of intergroup associations, not probabilistic ones, though the implications of such rates for individuals are naturally probabilistic.”

⁵⁵ For mathematical confirmations of Blau’s hypothesis, see Segal (1977), Sampson (1984), Rytina and Morgan (1982), and Skvoretz (1983).

relations with either of the majority groups. No less than 97% of the 105 alters listed in their egocentric friendship networks were also dalits. This not only goes against the theoretical constraints related to group size, it directly contradicts Blau's T-1.7 proposition (based on numerous case studies) that, "If there are several minorities, the smaller minority will have an especially high number of ties with the majority group" (Blau 1977a: 30).

While it might be countered that this discrepancy is simply a matter of scale and that throughout Orissa Khondayats are a majority group when compared to Kaibarta, this argument must be rejected on several grounds. To begin with, Khondayat's are a distinct minority on Satapada Island where non-fishers are outnumbered by fishers almost three to one. Secondly, research has shown that propinquity does matter and that "proximate people should have more social relations. This is not an absolute number, but an excess over the expected" (Blau 1977a: 36). This has been confirmed in studies on voluntary organizations, which found that, "face-to-face groups have substantial effects on the formation in social networks"(McPherson and Smith-Lovin 1987: 377). Indeed, studies of housing communities in the United States demonstrated that, "increases of a few yards in the distance between residences reduce the likelihood of friendships" (Blau 1977a: 90).

Furthermore, Feld (1982: 797) has argued that research on social structure and homophily has greatly overestimated the importance of personal choice. Rather, he has shown that "foci of activity"⁵⁶ such as occupation and residence are organizing constraints that are sufficient to account for friendship choices. The large 1966 University of Michigan Detroit Area Study of social networks (N=1013) found that, even though there is a general trend of class homogeneity in friendship choices, this was dependent on and "constrained by the availability of socially

⁵⁶ Feld (1981: 1016) explained "foci of activity" as follows: "A group's activities are organized by a particular focus to the extent that two individuals who share that focus are more likely to share joint activities with each other than two individuals who do not have that focus in common."

similar individuals within the environment” (Huckfeldt 1983: 651). Neighborhood residence, defined as being within a ten minute driving radius (Huckfeldt 1983: 659-60), was found to be a greater predictor of friendship ties than any other factor, including class, ideology, and education. As Blau explained, “the spatial distribution of people, which reflects the differences in propinquity among them, influences social life profoundly. It is in some ways an element of social structure and in others a condition that shapes it” (Blau 1977a: 91).

Considering these findings, one would expect egocentric friendship networks on Satapada Island to provide more evidence of cross-cutting ties between the various local communities. After all, fishers, non-fishers and dalits spend their entire lives in close proximity with one another. Less than 100 feet of open space separates Bhalabhadrapur and Satapada Gada and opportunities for interaction abound. Among others, this includes: sending their children to a shared elementary school; mutual dependence on a shared market; political leaders who serve together on *gram panchayat* councils; identical subsistence strategies; dependence on the lake fishery; barter relations for fruit, fish and grain; and joint lobbying efforts. Lastly, the de-ritualization of caste discussed in the previous chapter, implies greater agency with regards to caste prohibitions and could be expected to manifest in individual friendship choices.

Homophily, Multiplexity, and Strength of Ties and Cross-Caste Friendship Ties

So why are social relations on Satapada Island not consistent with these theoretical expectations? I believe that an analysis of the egocentric networks provides some important clues to answering this question. To begin with, even though the respective egocentric networks are almost mutually exclusive, each set exhibits high levels of internal homophily and multiplexity. Homophily, a term that was first proposed by Lazarsfeld and Merton (1954: 23),

refers to “a tendency for friendships to form between those who are alike in some designated respect,”⁵⁷ or “a deviation from what a baseline model of random assortment would predict” (McPherson, et al. 2001: 419). Multiplexity, on the other hand, has been defined as the “overlap of roles, exchanges, or affiliations in a social relationship” (DeGenne and Forsé 2006: 45-54; Mitchell 1975; Verbrugge 1978: 1286). These two concepts are related in that there often is a great deal of overlap in close-knit social networks. For instance, in the case of Chilika, the social network analysis repeatedly demonstrated that friends are not only more homophilous in terms of caste but also exhibit multiplexity as kin, coworkers and neighbors.

The importance of homophily is that it acts to strengthen ties between group members. In their study of cross-racial friendships in the American school system, Hallinan and Williams (1987: 658) showed that the rate of these relationships was far below the expected rate based on population and that even when friendships were reported, the “ties that are cross-sex or cross-race are more likely to be dropped than ties among demographically similar friends” (McPherson, et al. 2001: 436). By comparison, overlapping, or multiplex ties are typically strong ties that form stable bonds. In large part this is undoubtedly because any rift would have far-reaching repercussions beyond the immediate bond and this could negatively affect work, kinship and village ties. Verbrugge (1978: 1297) terms these “sticky” ties and notes that in the Detroit Area Study people reported that they consciously tried to avoid such ties because of their obligatory nature (Figures 8.20 & 8.21).⁵⁸ On the other hand, Verbrugge also found that multiplex ties have multiplier effects and that those who reported multiplex friendships were more likely to have friends who also reported multiplex ties.

⁵⁷ As McPherson, et al. (2001: 416) point out, this is hardly a novel idea. Aristotle observed that people “love those who are like themselves” and Plato wrote that “similarity begets friendship” (cf. Kandel 1978).

⁵⁸ Multiplex ties were reported 75% less than what would be expected (Verbrugge 1978: 1297).

When dyadic ties are both homophilous and multiplex, this is an example of what Granovetter (1973: 1361) referred to as “strong ties,” that are typified by a “combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie.” Strong ties are stable and supportive relations that imply an overlap in friendship circles of the various members. “Weak ties,” on the other hand, connect separate social circles and thus serve as bridges between respective groups (Schensul, et al. 1999). In Granovetter’s research on a group of “recent professional, technical, and managerial job changers living in a Boston suburb,” he demonstrated that individuals with more weak ties were able to find employment faster than those who had many strong ties. This suggested that weak ties are especially important in fostering cohesion at the community level because they bridge social distance and promote the flow of information between groups.⁵⁹ In Blau’s words:

Intimate relations, like those in the conjugal family and between good friends, are the main source of social support for individuals. Since intimate relations tend to be confined to closed social circles, however, they fragment society. The integration of the various groups in society depends on people’s weak bonds, not their strong ones, because weak ties extend beyond closed social circles and establish social connections among groups.⁶⁰

⁵⁹ For an excellent study on the importance of weak ties for the prevention of ethnic conflict in India, see Varshney (2001).

⁶⁰ Echoing Durkheim’s (1947) notions of mechanical and organic solidarity, Blau (1977a: 85) goes on to say that, “This is the price we pay for the greater tolerance and opportunities that distinguish modern societies, with all their grievous faults, from primitive tribes and feudal orders.” Granovetter (1973: 1378) termed this a paradox since “weak ties, often denounced as generative of alienation (Wirth 1938) are here seen as indispensable to individuals’ opportunities and to their integration into communities; strong ties, breeding local cohesion, lead to overall fragmentation. Paradoxes are a welcome antidote to theories which explain everything all too neatly.”

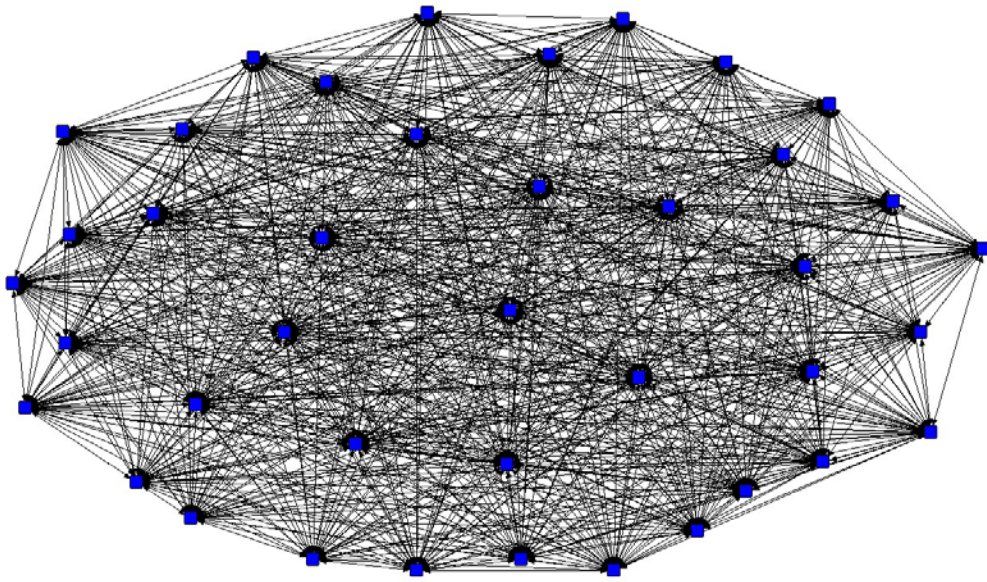


Figure 8.20 An example of a homophilous egocentric (fisher) network. In this network, 100% of alters are fishers, live in Bhalabhadrapur, and are of the same (Kaibarta) jati. Betweenness, closeness and degree centrality is identical for all alters.

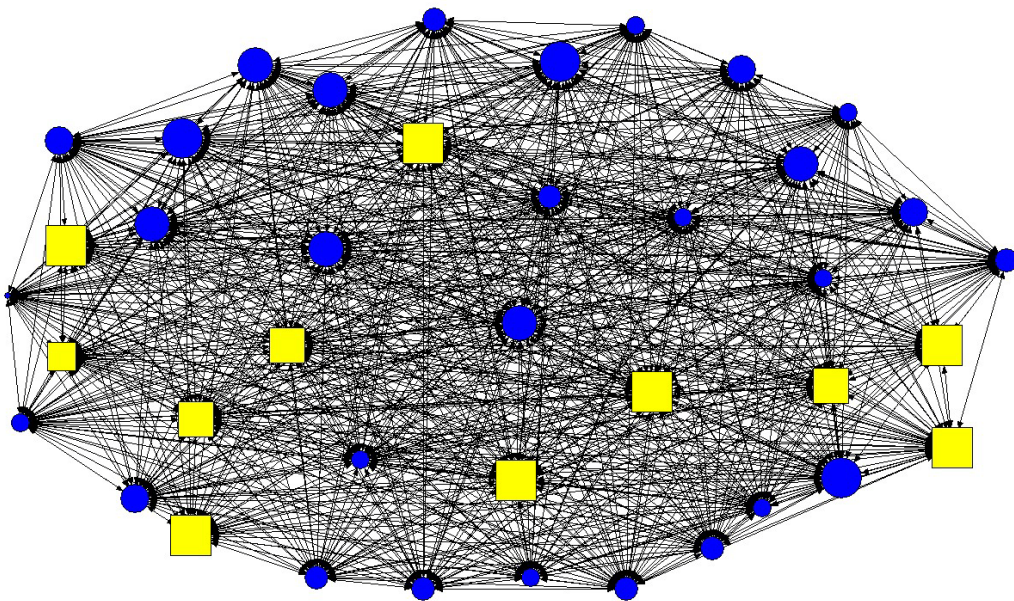


Figure 8.21 This is the same as the egocentric network (fisher) shown above with yellow squares representing family members and blue circles non-family members. The nodes have been scaled based on affection scores. This demonstrates the high occurrence of multiplexity and the strength of these ties. All but one of the family members are ranked four or five in terms of affection.

In the case of Chilika, the existence of strong ties (evident from the high levels of homophily and multiplexity) account in no small part for the continued separation between the fisher and non-fisher communities. Even with increased social contact, subsistence convergence in the fishery, and a reduction in caste prohibitions due to the de-ritualization of caste, the multiplexity of most relationships makes it extremely difficult for people to establish cross-caste friendships. In sociological circles, this phenomenon is known as “Social Balance Theory,” (Cartwright and Harary 1956; Davis 1963; Heider 1946), or the tendency for societies to seek cohesion and stability. According to this theory, “a friend of a friend will be a friend, as enmity among one’s friends leads to strain and is avoided” (Moody 2001: 684). This especially holds true in the case of what Blau (1977a: 24) termed “consolidated parameters” that are typified by *both* inequality and heterogeneity. Caste, which is held up by Blau as the quintessential example of such parameters, has greater salience due to its consolidated nature.⁶¹ Lastly, strict spatial segregation, such as described in the previous chapter, further increases this salience while physically manifesting and maintaining the social distance between the respective groups.

Unlike individuals in Western societies, who might typically see themselves as independent and capable of manifesting agency,⁶² the fishers and non-fishers of my field site are to a much greater extent dependent on their families, kin, and social networks for survival. Multi-generational “joint households” composed of several brothers sharing a common courtyard with all of their wives and children are the norm. As might be expected of people living in such close quarters, conflicts over access to resources are a regular occurrence (e.g. over shared fruit trees, fire pits, tubewells). At the same time, resources are pooled and the family kinship networks serve as a safety net in times of need (e.g. a medical crisis).

⁶¹ In a similar vein, Blau (1974: 619) floated the suggestion that “American blacks and whites are quasi-castes.”

⁶² For a damning critique of this Western conceit, see Emirbayer and Goodwin (1994).

This obviously acts as a limit to individual agency, as deviations from normative values are typically circumscribed by family and business considerations. For example, the practice of endogamy continues to be strictly enforced through social sanctions against the transgressing individual as well as their close kin. In one case of cross-caste marriage (hypergamy) observed in my field site (Kaibarta/Brahmin), this has made it difficult for the family to find suitors for their daughters while also greatly complicating the joint family's efforts to marry off the other unmarried women residing in the household.⁶³ In the case of Khondayat's, close friendships with "low" caste fishers and dalits would undoubtedly result in similar sanctions.⁶⁴

Considering the general lack of bridging ties between the respective communities, how do we account for the collective action witnessed during the anti-Tata Chilika Bachao Andolan campaign? Was this an example of mutually beneficial, "superordinate goals" (Sherif 1961) that encouraged fishers and non-fishers to set aside their differences to protect the lake and its fishery? Though not initially perceived as a threat, it is undoubtedly true that the arrival of the ISFP helped rally the two communities to oppose Tata's grandiose plans. Yet, as was alluded to in the introduction to this chapter, this does not necessarily mean that fishers and non-fishers shared the same goals. Whereas fishers were opposed to the project because it infringed on their traditional rights to the fishery, the non-fishers expressed opposition as a way of demonstrating their connection to the lake while re-asserting their claim to rights in the *jano* fishing grounds.

⁶³ In another case, the elopement of a younger sister has made it difficult for the family to marry off the other women. Samal (2007: 227-28) also mentions this phenomenon, noting that "the customary rules and traditions are strictly observed in the fishermen's villages. Any violation by any inhabitant of the village is punished by the community. If a person disobeys the old caste rules, for example marrying a person belonging to other caste, he is ostracized from the community. This is prevalent in the Keuta [Kaibarta] community."

⁶⁴ Marriages are not typically transacted by individuals, but rather by families. During marriage negotiations it is not uncommon for people to use their kin and friendship ties to investigate the bride or groom's family and all of their acquaintances. On several occasions, even I was pressed into service to conduct reconnaissance on a potential suitor for my field assistant's daughter. This scenario is a common motif in Bollywood movies, e.g. the star-studded *Na Tum Jano Na Hum* (2002) (Neither You or I Know).

This was particularly evident in their different framing techniques during the anti-Tata campaign. The fishers and their supporters in organizations such as Krantadarshi Yuva Sangam, spoke emotionally from a “traditional rights” and livelihood perspective. During rallies and in their printed materials, they typically referenced Chilika Mata (Mother Chilika), as “our pot of rice, the giver of our livelihood” (Mishra 1996: 180). Non-fishers, under the leadership of Bankababu and the Orissa Krushak Mahasangh, used ecological appeals that referenced the lake’s special status as a Ramsar Wetland of International Importance that is “the property of all mankind” (Mishra 1996: 188). This allowed non-fishers to stake a claim in the lake while presenting themselves as stewards and protectors of the ecosystem. While the OKM expressed opposition to prawn farming, it focused its attacks on intensive large-scale aquaculture rather than the traditional and extensive variety. Moreover, the non-fishers maintained that prawn farming was largely due to *benami* (third-party leases), and they pointed out that fishers were equally to blame for this practice. In the end, the non-fisher’s framing strategy proved successful in attracting media attention and led to the intervention of the Union Ministry of the Environment and Forests (UMEF). Unfortunately, these differing approaches also culminated in a public split between the OKM and KYS. In December 1992, Sarangi “manipulated the fishermen’s leaders of the Chilika Bachao Andolan to publicly disown Banka Behary Das, and accused him of imposing his leadership on the fishermen. They also accused him of diverting the real issue of livelihood by raising that of ecology” (Mishra 1996: 187).

The departure of the Tatas and the 1991 lease policy paved the way for the unimpeded entry of non-fishers into the lake. The prawn ponds or “mini-Tatas” that have proliferated throughout the lake now cover an area almost twice as large as was originally planned under the ISFP. The embankment built for the Tata project, which was destroyed by the CBA, has been

repaired; hundreds of prawn ponds have been built within the enclosed space. The lakes' non-fishers have clearly been the main beneficiaries of the anti-Tata campaign, as they have been able to appropriate large swathes of shallow jano lands while improving their economic standing. Most importantly, this has allowed them to reassert and maintain their dominant role in the local social structure.

Dominance and the Bonds of Friendship

I believe that it is precisely the historic economic dominance of the Khondayat community is the key to understanding the difference between the data I collected and the predictions of social geometry with regard to heterogeneity and group size. As explained above, “consolidated parameters” and segregation (both physically and through endogamy) greatly increase the salience of caste in the Chilika basin. Together with the forces of homophily and multiplexity, this goes a long way towards explaining the lack of ties between the respective communities. Yet, these explanations fail to address the underlying causes for the discrepancy between my data and the predictions of social geometry. Rather than seeing caste as an exception to the rule, I reject Blau’s determinism and argue instead that the dearth of cross-caste friendships is a product of traditional Khondayat dominance in the Chilika basin. In my assessment, this dominance, based as it is on ritual, historical, economic, and cultural forces, accounts for the unexpected patterns in the data.

To begin with, Blau’s (1977a: 107) notion that caste should be seen as fundamentally different from any other social parameter because it is the product of both inequality and heterogeneity is inherently problematic. Aside from the implied orientalism of such an assertion, I think that this is unconvincing because one would be hard pressed to find social parameters that

do not have elements (and degrees) of both social inequality and group affiliation. To argue, as Blau does, that “consolidated parameters” “have the opposite effect of making group barriers cumulative, which reinforces their inhibiting effects on intergroup relations” is to say, in effect, that they are in a class of their own. More than anything, this brings to mind Lowie’s (1938) rebuke of Radcliffe-Brown and functionalism – “Whoever heard of a law that works in certain specific but unspecified conditions? Is it a law that some societies have clans, and others have not? Newton did not tell us that bodies either rise or fall” (Quoted in Harris 1968: 533). Unlike Lowie, I believe that a structural approach can provide important insights to understanding culture. Nonetheless, based on my findings, it appears that Blau’s social geometry of group size should be seen as probabilistic at *both* the level of individuals and groups.

While a structural approach sheds light on the existing social relations in the Chilika basin, it is only through the in-depth exploration of how these communities developed over time that it become possible to fully understand how these social forces play out in people’s everyday lives. To appreciate the dominance of the Khondayat community, it is necessary to first trace its roots back to the dissolution of the “system of entitlements” and the colonial imposition of capitalist property rights (see Chapter 4). Whereas in the pre-colonial system land ownership was largely irrelevant and could be obtained through service to the king, under the British, caste identities became fixed and land ownership became the *sine qua non* of status in society. Another underlying reason for non-fisher dominance is a product of their ability to muster social capital through their caste networks.⁶⁵ As Samal (2007: 219) explains, in Orissa, “caste network,

⁶⁵ In an unpublished study based on the Indian Human Development Survey, 2004-2005, Vanneman, et al (2006b) analyzed social network data regarding ties to medical institutions, the educational system, and Indian government. The authors found that, all else equal, social networks were better among rural landholders.

though not visible, plays a very important role in the administration of the state government.”⁶⁶ This is confirmed by the alter village analysis (above) which clearly showed that, even though fewer residents of Satapada Gada were born outside the village, they were drawn from a larger pool of villages. Since every last one of these individuals were women, this indicates that the Khondayat’s kinship network is more widely dispersed than that of Kaibarta fishers. It is precisely these types of diffuse networks that are advantageous with regard to the exploitation of resources, sharing of information, and the cultivation of political patronage. In short, it is what Granovetter (1973) famously referred to as the “strength of weak ties.”

In his introduction to *Inequality and Heterogeneity* Blau asserts that “the structures of objective social positions among which people are distributed exert more fundamental influences on social life than do cultural values and norms, including ultimately the prevailing values and norms.” Yet, the data from my field site contradicts the theoretical expectations of social geometry and suggests that cultural and psychological factors do, in fact, play an important role in the formation of cross-cutting ties.⁶⁷ This suggests that, due to the historical dominance of Khondayat’s and the Kaibarta sense of inferiority, Khondayat’s perceive themselves (and hence act as if) they are the majority group, while the Kaibarta networks indicate that they are acting as if they are in the minority. The higher percentage of bridging “weak” ties between Kaibarta and Khondayat clearly shows that the fishers are seeking out friendships with non-fishers. This

⁶⁶ Lin (1999: 467) demonstrated that social networks are the means by which people mobilize social capital and that “social capital, in terms of both access and mobilization of embedded resources, enhances the chances of attaining better statuses.”

⁶⁷ Sampson (1984: 636) critiques “cultural theorists [who] have often failed to analytically distinguish between culture and social structure, thereby thwarting attempts to disentangle the effects of either. Perhaps because elements of social structure such as group size appear deceptively simple they have been treated not as variables, but as constants.” While this undoubtedly true, all of the sociological studies that have investigated group size have been carried out in Western contexts and hence implicitly take culture to be a constant. My critique of social geometry is not intended to be a repudiation of the notion of social structure or its importance to our understanding of social processes; rather it is a rejection of the explicit determinism and tendency to pursue nomothetic laws (cf. Blau 1990; Kroeber and Parsons 1958).

proved effective in mobilizing the two communities in the anti-Tata campaign (Swain 2000), but is also a clear sign of Khondayat dominance. This fundamental inequality in relations between the groups also explains why Allport's (1954: 281) "Contact Hypothesis" is not applicable in this situation. As he noted, for prejudice between groups to be reduced, there must be "equal status contact between majority and minority groups in the pursuit of common goals."⁶⁸

In a fascinating World Bank-sponsored study by Hoff and Pandey (2004: 2), the authors sought test the hypothesis that belief systems that give rise to prejudicial treatment may be so internalized that they manifest in behaviors that reproduce these inequalities. Inspired by Banerjee and Iyer's (2005) study of the lingering impacts of the *ryotwari* and *zamindari* land tenure regimes (See Chapter 4) and a growing body of literature (Loury 2002; Rao and Walton 2004) which argues that "culture may perpetuate inequality in a society as individuals internalize their statistical chances of success or failure and transform them into aspirations and expectations" (Hoff and Pandey 2006), the authors sought to test the salience of caste on a group of junior high school students. The students were given the task of solving mazes under three conditions: 1) Caste was not publicly revealed; 2) Caste was publicly announced; 3) The students were divided into "low" caste and "high" caste groups. The research demonstrated that when caste was made a salient feature, the average number of mazes solved by the "low" caste students was reduced by a dramatic 23 percent. The authors interpret this as evidence that making caste salient causes individuals to fall into expected caste roles since they anticipate that their efforts will be poorly rewarded. In other words, "mistrust undermines motivation" (Hoff and Pandey 2004: 3) and reproduces social inequalities.

⁶⁸ In his discussion of the "Contact Hypothesis," Moody (2001: 687) explains that "if the setting is structured such that positional hierarchy is correlated with race, then interracial friendships are unlikely and stereotypes about inherent group differences will be magnified." Insert the word *jati* in place of *race* in the case of the Chilika basin communities.

The egocentric friendship networks I collected suggest that due to factors such as multiplexity, endogamy and historical dominance, caste continues to structure relations in the Chilika basin. Moreover, by mediating access to resources, information, and the bureaucratic establishment these social networks function much like race to perpetuate longstanding inequalities. As Reddy (2005) observed, caste discrimination is “systemic and institutionalized, rests on ethnocentric theories of cultural superiority, results in social segregation, causes sometimes horrific violence and untold forms of social suffering, has specific material consequences, comes attached to notions of purity and pollution – and so for all these reasons, is not only comparable but in fact tantamount to racial discrimination.”⁶⁹ Though religious considerations continue to play a role in cross-caste relations (e.g. ritually sanctioned friendships), the increasing de-ritualization and ethnicization of caste as well as the entry of non-fishers into the fishery imply that traditional notions of purity and pollution are less salient than in the past. Rather, the egocentric friendship networks collected for this study suggest that caste will continue to play an important role in social relations because it is primarily being maintained and perpetuated through people’s social networks.

⁶⁹ The view of race as caste has a long pedigree in American sociology (Cox 1942) and was critiqued for being ahistorical and for disregarding the history of class exploitation in US race relations (Cox 1945). While caste continues to maintain some religious undertones, recent scholarship on the history of caste (See Chapter 7) has demonstrated that Cox’s criticisms are no less true for caste than for race.

CHAPTER 9

CONCLUSION: CASTEING A WIDER NET, OR CASTE AS SOCIAL NETWORK

I now beg leave of thee, O, Chilika,
For return I now must to the world of afflictions
In vain had I yearned to pass by thy western shore,
The western part of my life and to quench my thirst,
By drinking in thy beauty!
Had my fortune been in tune with my taste,
To thy lovely shores I would have clung and
At the foot of the *Jatia* passed my last days in solitude.
But, it has proved to have been a delusion
And for me it will ever remain a pious hope.

– *I Beg Leave of Thee Chilika!* By “Kavibar” Radhanath Ray (in 1969: 471)

Few concepts have aroused as much interest or caused as much contention among scholars of South Asia as the concept of caste. Whether presented as a timeless and religious category rooted in India’s primordial past, disparaged by reformers as an impediment to modernization, or a colonial invention designed to squash civil society, caste has long been considered central to the understanding of Indian history and society. More than that, as Dirks (2001: 3) pointed out, “caste has become a central symbol for India, indexing it as fundamentally different from other places as well as expressing its essence.” For the past generation, this view of caste has been directly challenged by historians and anthropologists (Appadurai 1986; Bayly 1999; Cohn 1987a; Cohn 1996; Dirks 2001; Inden 1986; Inden 2000; Raheja 1988a) who have demonstrated the extent to which “it is a modern phenomenon [and] that it is, specifically, the product of an historical encounter between India and Western colonial rule” (Dirks 2001: 5).

This reassessment is not meant to suggest that caste did not exist prior to the arrival of the British. Numerous pre-colonial accounts by European travelers to India provide conclusive evidence that Indian society has a long history of segregation into separate, hierarchical groups (e.g. Barbosa, et al. 1989; Dubois 1706; Megasthenes, et al. 1877). Yet, it was not until after the Indian Mutiny in 1857 that the colonial obsession with land revenue administration, which had dominated the first half of the 19th century, was superseded by the overriding concern to better understand Indian civil society. Specifically, the British took a keen interest in identifying those groups that they could count on to be loyal subjects. To this end, scholars such as Max Müller (1889; 1900), W. W. Hunter (1887; 1956; 1908; 1875; 1877; 1872), Sir Herbert Risley (1903; 1981; 1915) and many others were provided generous commissions to pore through temple documents, to translate religious texts, and to compile comprehensive gazetteers of British India (cf. Dirks 2006). The unstated purpose of this monumental undertaking was, first and foremost, to ensure stability and the continuity of British rule. The colonial authorities reasoned that through the proper identification of Indian rules and customs, they could promulgate laws that would bolster their legitimacy by casting them as the upholders of “authentic” tradition.

In actuality, however, the British often confused customs for traditions and “reduced vastly complex codes and their associated meanings to a few metonyms” (Cohn 1996: 162). In addition, they completely overlooked the fact that, by the late 19th century, their own rule had largely restructured Indian society. As this dissertation clearly demonstrates, bureaucratic decisions regarding land revenue administration, “led to fundamental structural changes in Indian social relations” (Cohn 1996: x). In the case of Chilika, I have attempted to show that, in the pre-colonial era, land ownership was less important than a portion of the grain heap under the “system of entitlements” (Mizushima 2006; Tanabe 2005). Since India was perennially

underpopulated, the advantage of this system was that it did not tie the ryots to the land and allowed them to put new lands under cultivation. This arrangement also permitted the king, as “chief sacrificer” to apportion lands and assign caste to those who provided services to the state or served as *paikas* (foot soldiers) in the militia.

Following the British invasion of 1803, land ownership was reconfigured based on the principle of capitalist property rights. With the imposition of zamindar rule, the government effectively created a landed class along with new forms of inequality. Well-placed individuals such as *sarbarakars* (village accountant) and *padhans* (headman of the village) often took advantage of these changes to further their own interests, and land ownership became the key to political and social dominance at the local level. Groups such as fishers and tribals, who contributed their services under the “system of entitlements” for a share of the agricultural yield became landless and thrust into the emerging market economy. By the late 19th century, the remnants of this pre-colonial system of local exchanges came to be known as the jajmani system (Wiser 1936). Characteristically, this was (mis)interpreted by the British as a quintessential example of traditional India in need of preservation (Fuller 1977).

British decisions surrounding land revenue administration in coastal Orissa did not just fundamentally restructure social relations and society’s relationship to land; it effectively restructured what was meant by “land” as a category. For example, in pre-colonial times, riparian waters were considered part of the village lands and known as *jalker* and Chilika was considered an enclosed lake, or *hrada*. Due to the perpetual search for new streams of revenue to fund the colonial enterprise, in 1886, the Calcutta Board of Revenue summarily declared the entire lake an “arm of the sea” and proceeded to decouple the lake’s waters from the adjacent land. This decision paved the way for the British to designate the land beneath the waters of the

lake “crown lands” that were separate from the adjacent zamindar estates. Yet, in another example of “synecdochal hegemony,” this designation of the lake as “crown *lands*” did not translate into a land settlement with the local fisher communities. Even though the records clearly indicate that the lake’s fishers have been paying *dafait* rents for fishing grounds since at least 1805, they were not granted title to these territories. Rather, the fisher communities have no choice but to continue abiding by the logic of the 1896 land settlement that effectively consigned them to perpetual landlessness.

This discursive reconfiguration of the lake and decoupling of land and water has had far-reaching repercussions and unforeseen consequences. Due to the fact that the lake greatly fluctuates in size between the monsoon and summer seasons, in reality, there is no discernible “shoreline.” In the first comprehensive scientific study, Anandale and Kemp (1915) best described the fluctuating nature of the lake. The lake’s margins, they write, were “so ill-defined that, when the floods are high and the water in consequence fresh, there is no perceptible boundary between rice fields and lake; the former terminate only at the point where the water becomes too deep for rice to grow” (Anandale and Kemp 1915: 2). As the waters receded during the sweltering summer months, fishers built *janos* in these shallow waters to trap large numbers of fish. In the summer season, the same areas were used for salt production, an important source of supplemental income for the farming communities. By separating the water from the land, this multi-use marginal zone were redefined as *nunichar*, or government administered “wastelands” that were officially placed off-limits to the lake’s agricultural communities.

The loss of these territories and the shuttering of the salt manufacturing industry slowly pauperized the lake’s agricultural communities and eroded their traditional economic and

political dominance. Based on court records uncovered during field work, it is clear that the entry of non-fishers into the lake fishery was not solely due to the introduction of prawn aquaculture, but rather anteceded it by a quarter of a century. In what appears to be an attempt to reengage with these territories, the non-fishers of the Outer Channel, led by the villagers of Tua and Gombhari, began fishing in the near-shore waters following Indian independence and the abolishment of zamindar rule in 1952.

Aquaculture and Utilitarian Dharma

As the historical evidence clearly shows, Chilika Lake and the surrounding areas have been important trading centers that were integral to what Gupta (2005) has termed the Bay of Bengal Interaction Sphere since prehistoric times. To a large degree, this was a consequence of its geographic location, which made it an ideal place to cross over to Burma and from there on to Indonesia and beyond. At the same time, thanks to its proximity to the Harida Mulaghati pass, the lake was the quintessential *échelles* (Barendse (2000), Quoted in Pearson 2003: 7) where land and sea routes met. Since this mountain pass provided the only crossing point along the Eastern Ghats it has traditionally been recognized as the dividing line between north and south India. In addition, the lake facilitated the ferrying of goods into the Orissa hinterland thanks to its connection to the Mahanadi River, the primary waterway of Orissa.

The oppressive Salt Monopoly and Salt Tax policies introduced by the British not only devastated the local economy of Chilika, but also had far reaching effects on the Orissa economy. This was because salt was essential for the curing of fish and, prior to the arrival of the British, Oriyas engaged in long-distance trade in salted fish to Burma and the Northeast. The end of salt manufacture meant that these traders, who depended on the salt trade to make their

trading activities profitable, were put out of business. In addition, colonial land policies such as the introduction of capitalist property rights and the imposition of zamindar rule ravaged the state's economy. Whereas the Chilika coastal town of Manikapatna was a major port of call at the time of the British invasion in 1803,¹ by the turn of the 20th century, the lake's role as a major trading center faded into obscurity.

This state of neglect came to an abrupt end in the early 1980s with the serendipitous discovery of the lake's suitability for prawn aquaculture. The government quickly recognized that the export of prawn would be a lucrative source of hard currency. To accomplish this goal, the state aggressively promoted the industry through loan programs and the opening up of large tracts of "wastelands" for prawn production. These policy changes were fortunate for the non-fisher communities since these government policies converged with their demands for greater access to the lake. As a result, the flood gates were opened and members of non-fisher castes entered the lake en masse. Over time, this resulted in a "subsistence convergence" between the fisher and non-fishers as the former have shifted from a focus on prawn aquaculture to the takeover of fishing grounds and the setting of traps in the lake.

These recent changes are dramatic evidence of the de-ritualization of caste in the Chilika basin and once again demonstrate that "relations in land could never be isolated from other relations" (Mizushima 1996). As recently as the mid-1980s, even those non-fishers who were involved in the lake's fishery would typically hire fishers rather than ritually pollute themselves by catching fish for anything other than tarkari. With the government decision to promote the aquaculture trade, non-fishers were not only granted unfettered access to the nunichar and jano

¹ The importance of Manikaptana is evident from the fact that in the 19th century the British saw fit to maintain a permanent presence there. Toynbee (1873:80) notes that, "In 1827 a bungalow for the use of the Master-Attendant was built at Manikpatna, and a surf boat also stationed there with a crew."

areas for the first time in almost two-hundred years, they were given plots of land in the nearshore waters of the lake. This provided them with the opportunity to enter the lake and redefined both their relationship to the lake and their fisher neighbors.

The willingness of the non-fishers to take up fishing as a profession is yet another example of how seemingly timeless religious notions such as *dharma* and *adharma* which are presently being redefined along utilitarian lines. Indeed, the non-fishers argue that their actions are actually dharmic since their personal enrichment means that they are now better able to serve their deities. Numerous newly built temples dot the landscape in a conspicuous display of the financial benefits of the prawn trade. As a close friend once explained, the ultimate question was not whether it was good or bad that non-fishers entered the fishery. Rather it revolved around the question of whether or not money should be considered a good or bad thing.

Seeing Caste for What it Does

Caste forms the cement that holds together the myriad units of Indian society ... Were its cohesive power withdrawn or its essential ties relaxed, it is difficult to form an idea of the probable consequences. Such a change would be more than a revolution; it would resemble the withdrawal of some elemental force like gravitation or molecular attraction.
– Sir Herbert Risley (Quote in Dirks 2001: 50)

The importance of the historical approach to our understanding of South Asian society cannot be underestimated. Prior to the emergence of this perspective, there was serious debate among South Asian scholars as to whether or not India merited its own Sociology based on classical Indology (Bailey 1959b; Dumont and Pocock 1957). These Orientalist arguments presented India as a unique case in world history with enduring and timeless categories such as caste that survived largely unchanged since Vedic times. Based on these Orientalist

assumptions, other scholars of this era pursued a wholly synchronic approach to caste and village life which intricately explored the everyday workings of caste (e.g. Freed 1963b; Marriott 1968; Marriott 1976; Marriott and Inden 1974). With the historical turn of the last thirty years, we can now more properly assess the role of colonial interventions and reject these ahistorical and static views of caste. Most importantly, this revolution in South Asian scholarship has brought to light the underlying relationships between epistemic categories and power that have, for too long, remained unproblematized.

At the same time, an exclusively historical approach is not without pitfalls. To begin with, by demonstrating that these categories are social constructions and inherently contingent phenomenon, it invites interpretations questioning whether these categories exist in any “real” sense (Dirks 1997). Even Dirks (2001: 288) has lamented this interpretation of his own work and the way it has been politically appropriated by Hindu nationalists opposed to the affirmative action policies of the Mandal commission.² Recently, this has come to the fore once again, since the Social Justice Ministry has requested that caste be included in the decennial census for the first time since 1931. The Ministry officials have argued that this is necessary to ensure that government welfare schemes are being properly implemented. “In the eight decades since the last caste-based census,” they reasoned, “there would have been dramatic changes in caste compositions and conditions. There are opportunities for addition and deletion. But all this will be clear only if we have correct data” (Paul 2010). However, those opposed to this suggestion have publicly lamented the naïveté of these assertions and insist that, “caste does not really have

² The Mandal commission was established in 1979 by the Janata Party government and recommended raising the percentage of government jobs and university slots for individuals from scheduled castes and “other backward castes” from 27% to 49.5%. In 1989, attempts by the government of V. P. Singh to implement these recommendations were met with fierce protests and shelved by the government. Nonetheless, portions related to quotas for “other backward castes” in government and higher education were implemented in 1993 and 2008 (Jaffrelot 2003; Maheshwari 1991; Srinivas 1996).

the kind of certainty and rigidity frequently attributed to it. This is the burden of much of social science research that has developed during the last sixty years or so” (Shah 2009).

This historical focus, with its emphasis on how caste has developed over time, diverts our attention from the equally important question of how caste is actually lived today. In its emphasis on ultimate causes and attempts to answer the perennial question of “What is caste?” it elides the equally important question of “How do people *do* caste?” Though Dirks (2001: 7) is rightly “critical of the British role in the reification of caste,” the historical approach equally reifies “caste” as a category by failing to theorize it as the product of a set of actual relations. Similarly, Dirks (2001: ix) critiques earlier scholarship for not addressing the ways in which caste “was profoundly embedded within political society,” yet does not address the question of how caste is maintained or politically mobilized in practice.

As I have attempted to show in this dissertation, the story of caste identities and cross-caste relations in the Chilika basin *is* based on a particular history that is specific to this region and due to underlying ecological conditions and colonial interventions. At the same time, the recent entry of large numbers of non-fishers in the lake fishery, as revealed by the census data I collected, is indicative of pan-India changes to caste practices. As noted above, the changing meanings of dharma and adharma, evident in the reduced valence of notions of purity and impurity, is clearly part of a larger pattern of de-ritualization or secularization of caste. While this might be expected to do away with caste, the increasing ethnicization of caste suggests that, rather than disappear, caste categories remain entrenched in people’s sense of identity. In addition, the rise of class consciousness, and increasing importance of wealth, accounts for the “subsistence convergence” I witnessed in the Chilika fishery. So long as agriculture remains a marginal subsistence strategy in the lake’s Outer Channel and fishing remains economically

profitable, the Khodayat community will continue its engagement with the fishery as a way to maintain their historical dominance over the other communities of the lake.

At the same time that increasing ethnicization is entrenching caste identities, de-ritualization and the changing notions of dharma suggests the possibility of new opportunities for cross-caste interaction and friendship. Specifically, I hypothesized that these processes would result in greater individual agency and manifest in an increase in voluntary relationships such as friendships. Moreover, the increased similarity due to “subsistence convergence” suggested that friendship networks would be one of the first indicators of changes in caste practices. However, based on a social network analysis of 31 egocentric networks, I found that there continues to be a positive correlation between caste affiliation and friendship choices. Though the two communities in my field site are separated by less than one hundred feet and people have numerous opportunities to interact from an early age, the incidence of cross-caste friendships ranges from relatively low to non-existent. The only exception to this rule is the practice of ritualized friendships that was discovered during fieldwork. These traditional relationships appear to be socially acceptable and ritually sanctioned means to circumvent caste prohibitions.

Based on statistical techniques of social network analysis, numerous measures such as network size, degree centrality, alter residence and attribute data were scrutinized. This revealed, for example, that on average, dalit networks were considerably smaller than their neighbor’s networks and most of their alters were living outside of the village. Taken together with the almost complete lack of interaction with members from other jatis (with the exception of ritual *bikiba* relations) these networks provide an unambiguous picture of their social isolation. On the other hand, Khodayat’s, maintained very large social networks with alters who were dispersed over many villages. Kaibarta had a larger percentage of alters residing

outside of Bhalabhadrapur, but these alters were almost exclusively drawn from one of the lake's six Kaibarta villages. However, in general, Kaibarta networks tended to be more diverse with regards to jati affiliation. Since this is in contrast to Blau's (1977a) predictions regarding group size and interaction, I argue that this is an interesting example of Granovetter's (1973) "Strength of Weak Ties." Although fishers are the majority group on Satapada Island, they appear to be making an effort to maintain avenues of communication with the locally dominant Khondayat non-fishers. While the respective collections of networks are characterized by some degree of internal variability, they appear to follow certain patterns or ordering principles.

A social network analysis approach also provides important insights into how caste is maintained at the individual level. Clearly, in coastal Orissa, the practice of endogamy seems to be an important factor that is propelling the institution of caste.³ While this is hardly an original insight (cf. Blunt 1931; Davis 1941; Dumont 1970; Gould 1963),⁴ to date, endogamy in India has been largely studied from a functionalist and tautological perspective predicated on Hindu notions of purity and impurity. Due to the intimate nature of marriage, scholars have argued that endogamy was necessary because of the impossibility of maintaining the requisite social distance from those who were not of the same caste. As Davis (1941) explained, "If some persons are 'untouchable,' they must also be unmarriageable, and if the food which they cook is 'uneatable,' they must also be 'unusable' in the kitchen."

³ Unlike other parts of India which have a tradition of hypergamy, I did not find any examples of this practice in my field site. Caldwell, et al. (Caldwell, et al. 1983: 346) contend that the lack of hypergamy is typical of South India in general and claim that this was due to the "high incidence of marriages between relatives, perhaps because of greater socio-economic homogeneity within castes, and possibly, as Dumont argues, because of an emphasis on the need for alliances."

⁴ Davis (1941: 380) wrote that, "Looking at the orthodox Hindu caste system, we find the rule of endogamy to be its most important feature."

This interpretation fits nicely into the view of caste as timeless and primordial while at the same time perpetuating an atomistic view of Indians living under the caste system. As Arora and Sanditov (2009: 10) recently wrote, it “allowed the positioning of an Indian as a collective man.” Or as Cohn (2007: 15) first put it, “This way of thinking about a particular caste was useful to the administrator because it gave the illusion of knowing the people; he did not have to differentiate too much among individual Indians – a man was a Brahman, and Brahman’s had certain characteristics.” Caste was thus reified as an essential and enduring category that permitted for generalizations. In this spirit, Risley and Crooke (1915) even helpfully offered an entire section of *The People of India* on “Caste in Proverb and Popular Sayings” so that administrators could better understand their subjects.⁵

While endogamy and caste have been intertwined in the minds of scholars for generations, this has been predicated on the existence of strict ritual separation. Yet, the recent entry of Khondayats into the Chilika fishery is clear evidence that ritual concerns are on the wane. Although fishing was historically considered a ritually defiling profession, at present questions of pollution do not appear to factor into the calculations of non-fishers who subsist from the fishery. The clearest evidence of this is that it does not appear to negatively impact their marriage prospects in any way. In addition, endogamy persists even though for over a generation fishers and non-fishers have been regularly interacting with one another from an early age. Almost all of the people I interviewed readily admit to friendships with members of other castes during their childhood years. Under such conditions, one would expect, as Davis (1941:

⁵ For example, we are informed that the “stupidity of the weaver, especially the Muhammadan weaver (Jolaha), is the staple subject of proverbial philosophy” and that Baniyas (the merchant class) are “less to be trusted than a tiger, a scorpion, or a snake” (Risley and Crooke 1915: 131). For fishers, he begins by explaining that, “the occupation of fishing ranks rather low because it involves the taking of life.” Of the several proverbs that he recounts, “three clouts from an oilwoman are better than three kisses from a fishwife,” (Risley and Crooke 1915: 136) is perhaps the most colorful.

378) suggested, that “when intimate relations do arise, they tend to mitigate the caste inequality, as seen for example in the better treatment of house slaves as against field slaves.”⁶

Using social network analysis, it becomes possible to actually track the ways in which caste endogamy reinforces social solidarity by creating opportunities for the formation of friendships. For instance, as previously mentioned, an analysis of fisher networks reveals the existence of affinal ties with fishers in one of the lake’s six Kaibarta villages. What the egocentric social networks also reveal is that these affinal ties regularly translate into friendship ties with other (non-kin) members in those villages. This results in multiplier effects as these friendships are consequently reinforced through marriage. In turn, these marriages impact the rates of multiplexity, creating networks with many strong ties that translate into high levels of homophily on a broad range of criteria.⁷

Even though there has been a steady de-ritualization of caste and waning interest in notions of purity and impurity, such high levels of multiplexity present an obstacle to the formation of cross-caste friendships for two reasons. First of all, as Cartwright and Harary (1956) observed in Social Balance Theory, societies seek cohesion and stability. In what might be termed as a kind of social transitivity, friends of friends tend to be friends. Individuals police their networks and are cautious about relations with members of other castes unless these are socially approved and/or ritually sanctioned ties. Secondly, in the absence of state institutions that reduce vulnerability to risk, friends and family typically serve as the main sources of

⁶ Davis (1941) is referring here specifically to African and American studies of slavery.

⁷ Karve (1958) made a similar assertion that caste is extended kin and fictive kinship. Since my view of jati centers on social networks, one could argue that it is both broader and narrower than what was proposed by Karve. It is broader, because it explores all possible friendship ties, and narrower because it identifies multiplexity as a decisive factor. In addition, Karve’s suggestion is based in an ideological formulation while mine is grounded in the workings of actual network ties.

support. This is borne out by Boshier, et al.'s (2007: 636) recent study along the Andhra Pradesh coast, in which they found that, "caste appears to have a significant influence on who does and who does not have access to the resources that can reduce levels of vulnerability and increase resilience to major disasters such as cyclones, but also to the everyday crises that continually disrupt the lives of people in coastal India." This is undoubtedly true in the case of Chilika, which is cyclone prone and has suffered from steady reductions in fish catch for the past quarter of a century. In short, I argue in this dissertation that the historical dominance of certain groups, increasing ethnicization, and competition over natural resources are all factors that account for the social divisions in the Chilika basin. It is, however, through social networks that these caste identities become solidified and perpetuated.

Social Networks and the Study of Caste

Now I wish to move beyond that formulation of caste systems and, in response to the spirit of Levi-Strauss' recent critique of those who study kinship systems simply to classify into types and subtypes, "try to find out how they work, that is what kind of solidarity they help to establish within the group..." (Berreman 1967: 352)

The theoretical roots of social network analysis have a long pedigree and can be traced back to Simmel's (1902a; 1902b) ideas surrounding social geometry and Moreno's (1934; 1937; 1942) groundbreaking work on what he termed "sociometry" (cf. Scott 2001). However, it was through the work of British social anthropologists J. A. Barnes and Elizabeth Bott in the 1950s that this method began to take shape as a coherent paradigm. Barnes (1954), who was the first to refer to groups as social networks based on patterns of ties, studied class divisions in a small Norwegian fishing village. Based on this research, he concluded that the village was "much less

characterized by class divisions, than by a relatively homogenous mesh of personal relations,” (Fuhse 2009: 55) based on “kinship, friendship, and neighbouring in the production of community integration” (Scott 2001: 28). Similarly, Bott (1957b: 216) looked at gender division of labor in British households and demonstrated that, “one set of factors affecting these variations in degree of conjugal segregation is the pattern of relationships maintained by the members of the family with external people and the relationships of these external people with one another.”

Though Barnes, Bott, Mitchell (1969; 1974), and others, were products of the Manchester School and greatly influenced by Radcliffe-Brown’s ideas of social structure, their research called into question his conclusions. By mapping out individuals’ actual networks, they found that group boundaries were shifting and inherently unstable rather than typified by “a high degree of consistency and constancy” (Evans-Pritchard 1947: 262). More importantly, they argued that interpersonal relations structured people’s lives to a greater extent than these “enduring groups,” i.e. that relations took priority over categories. Known as the “anti-categorical imperative” (Emirbayer and Goodwin 1994),⁸ the significance of this perspective to South Asian anthropology was immediately grasped by Srinivas and Beteille (1964). Based on these ideas, they called for studies of village India that did not merely focus on “a set of enduring groups and categories such as castes, sub-castes, and economic classes” (Srinivas and Beteille 1964: 165). Rather, they proposed that:

... the abstract relations between groups and systems of groups can be better understood by mapping out the concrete relations between individuals in their diverse roles. This may be achieved by making a shift from a study of groups within a system of groups to a study of social networks. What are the concrete relations which an individual has in his

⁸ “This imperative rejects all attempts to explain human behavior or social processes solely in terms of the categorical attributes of actors, whether individual or collective” (Emirbayer and Goodwin 1994).

capacity as Brahmin, landowner, and panchayat member with other individuals? The concept of social network paves the way to an understanding of the linkage existing between different institutional spheres and between different groups and categories. (Srinivas and B eteille 1964: 165).

Up until very recently, this suggestion to employ social network analysis in the study of South Asian society remained unrealized (cf. Arora and Sanditov 2009; Vanneman, et al. 2006a). In large part, this was undoubtedly due to the previously discussed Dumontian influences and subsequent historical turn in South Asian anthropology. In addition, the reluctance to pursue such an approach probably stems, at least in part, from a reaction to the synchronic caste studies and transactionalism of the 1950s and 60s. It is not difficult to see how the collection of social network data might be overly reminiscent of the particularistic studies of commensality and endogamy that were typical for that era. The transactionalist methods were eventually superseded because they tended to be not only ahistorical, but implicitly assumed Brahminical authority and hence inadvertently perpetuated the colonial practice of confusing custom and tradition. Lastly, practical considerations likely account for the reluctance to embrace social network analysis by South Asian scholars. Social networks are notoriously exponential in character as large numbers of alters translates into literally thousands of possible ties. Aside from the fact that this can be a time-intensive process, it is only with the recent availability of laptops and advances in modeling software that it has become practicable to conduct such studies under field conditions.⁹

Thanks in large part to the historical reassessment of caste, the timeless and otherworldly view of Indian society has finally been relegated to the past. By shifting the discourse away from ultimate causes, social network analysis provides the opportunity to model actual social

⁹ This explains why in large N studies such as the 1966 University of Michigan Detroit Area Study discussed in Chapter 8, the interviewees were limited to a maximum of three friends (Huckfeldt 1983).

relations to improve our understanding of how individuals negotiate caste categories in their everyday lives.¹⁰ “To study caste as social structure and to study its social functions,” Berreman (1967: 360) suggested, “it is crucial that it be understood as a manifestation of interaction, of choices and decisions by people in situations defined by themselves in terms of their experience, their culture and society. That is, caste systems must be studied as social process.” Though caste is constantly changing as a social institution, there is no denying that it encapsulates relations and ties that continue to have valence in people’s lives. Social network analysis provides a grounded methodology and “anti-categorical imperative” that avoids the simplifications of a synoptic perspective and the assumption of timeless, “enduring groups.”

For these reasons, SNA holds out great promise that it will help us to better understand the role of caste in contemporary South Asia. For example, the ability to conduct multilayered analysis while modeling dynamic relations may shed light on the study of caste and politics to elucidate how individuals obtain access to resources and patronage. Network theorists have long argued that “what you know is who you know” (Crona and Bodin 2006) based on research suggesting that, “people in tightly knit networks form similar beliefs and attitudes and have the same information at their avail” (Fuhse 2009: 64). In the case of caste groupings it would be interesting for future research to investigate whether there a relationship between network, caste, identity and knowledge exists (cf. Erickson 1988; Kadushin 1966).¹¹ Social network analysis is uniquely suited to answer such questions because it can be used in comparative studies (e.g.

¹⁰ There have been studies over the past few years that have tried to address the question of how caste is actually lived in today’s India (Alsop, et al. 2006; Hoff and Pandey 2004; Hoff and Pandey 2006; Munshi, et al. 2008; Munshi, et al. 2009; Rao and Ban 2007; Rao and Walton 2004). At present, most of these studies are being carried out by economists, many of whom are associated with the World Bank. This is mentioned only to allude to the fact that these studies tend to be focused on the goal of development. Based on the example of Chilika Lake, it is important that anthropologists and other social scientists add their voices to this growing literature.

¹¹ In the future, I hope to explore this question in Chilika Lake. Namely, I plan to see if there are any differences in knowledge of the fishery between the fisher and non-fisher groups who presently fish in the lake.

rural/urban, male/female, different regions, etc.), longitudinal surveys, and because it lends itself to replication.

Just as past changes in land relations profoundly affected the Chilika basin communities, recent changes surrounding the introduction of aquaculture, “subsistence convergence,” de-ritualization, and the ethnicization of caste promise to reshape social relations in the basin. Even though the egocentric friendship networks collected in my field site demonstrate the continuing relevance of caste to people’s lives, they also suggest a political component to social relations such as friendship. For example, the higher percentage of cross-caste ties among fishers appears to be part of a conscious effort on their part to cultivate such relations. Since the “subsistence convergence” between fishers and non-fishers implies shared interests between the two groups (as evidenced by the Chilika Bachao Andolan movement) and de-ritualization has removed longstanding obstacles to interaction, it seems likely that, over time, this will manifest in an increase in cross-caste friendships. Using the data collected for this study as a baseline, it will be possible to track these changes in the future.

As a final note, studying caste as social network provides the opportunity to further our understanding of both caste *and* social networks. As I showed in Chapter 8, Blau’s theorem that, “For any dichotomy of society, the small group has more extensive intergroup relations than the large” is not supported by my data. Though Blau (1977a) attempted to account for such discrepancies by isolating caste as a “consolidated parameter” in a separate class of its own, this argument was ultimately unconvincing. To accept such a view would be to say, in effect, that “structural determinism” is valid only in (specific) Western contexts. My purpose here is not to single out Blau, but rather to bring attention to the fact that almost all of the social network studies carried out to date have been conducted in Western societies. While this observation

does not, in any way, imply that these studies lack merit, it does call into question their nomothetic and deterministic assertions.

In a recent reminiscence about the formative years of social network analysis, Mark Granovetter recalled that, in part, the field emerged as a rebellion against Parsonian concerns with, “symbols, values, norms and culture in society, as we thought of these concepts as being associated with somewhat vacuous and circular reasoning.” Under the tutelage of Harris White, these earlier theorists sought, instead, to look solely at concrete networks and individual actions. Aside from the inherent assumption that the “individual” is an unproblematic and cross-cultural concept, this approach essentially represented a rejection of the Weberian notion that Geertz (1973: 5) famously aphorized as, “man is an animal suspended in webs of significance he himself has spun.” I believe that it is precisely by demonstrating how social structures are infused with meaning and should be “seen not merely as locations for, or conduits of, cultural formations, but rather as composed of culturally constituted processes of communicative interaction” (Fuhse 2009: 57) that anthropologists can make important and timely contributions to our understanding of social networks.

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APPENDIX A

GLOSSARY AND ABBREVIATIONS

- Abhada:** Mahaprasad such as rice, lentils or vegetables that have been cooked in the Jagannath Temple in Puri.
- Abwab Pataki:** (See also *chandina*) A 19th century cess levied on fishermen, among others.
- Abwab:** A miscellaneous cess.
- Adharma:** (See also *Dharma*) Unnatural, unrighteous and against the way of the world.
- Adivasis:** Tribals
- Ahimsa:** Non-violence
- Amil:** District head
- Amli San:** Pre-colonial calendar of Orissa that was adopted by the British during their rule.
- Ana-Matsyajibi:** Non-fisher.
- Ana-Paramparika Matsyajibi:** Non-traditional fisher.
- Anchal Adhikar:** Circle Officer. A gazetted officer of the Revenue Department.
- Anna:** One-sixteenth of a Rupee in 19th century Orissa.
- Aurang:** Salt manufacturing center.
- Ayurveda:** Traditional Indian medicinal system.
- Bada Chilika:** Main body of the lake.
- Bada Jal:** Great net. A type of beach seine.
- Bagada:** Black Tiger prawn (*Penaeus monodon*).
- Bahano:** A type of night fishing that uses lights to lure fish into the waiting nets.
- Bakshi:** Paymaster General of the armed forces.
- Bali Yatra:** Bali festival commemorating long-distance sea voyages.
- Balia Matal:** Salt-infused, loamy soils.
- Banker:** Tax on forest produce.
- Barapalli:** (Literally “twelve villages”) Refers to the Oriya system where one fort was responsible for twelve villages.
- Bartana:** A type of service relation that existed between Khondayats and service castes.
- Baula Amavasya:** A holiday that falls on the day of the new moon during mango blossom season.
- Baula:** A type of ritual friendship between two women. Literally refers to the flower of the mango tree.
- Beedi:** A type of Indian cigarette.
- Benami:** Refers to “nameless” or third-party contracts.
- Beparis:** Licensed salt merchant.
- Bethi:** Forced labor.
- Bhadralog:** The “highest” castes, e.g. Brahmins and scribes.
- Bhai:** (Elder) brother.
- Bhekta:** Sea bass.
- Bhekta Jala:** Sturdy, rope net used for catching sea bass.
- Bhida Jala:** Another name for *Bhekta jala*.
- Bhoi mul:** Accountant
- Bhoi:** A *jati* of herders in the Chilika basin.

Bigha: One-third of an acre.

Bikiba: The practice of ritual child “sale” from a “higher” caste to a member of a dalit caste.

Boita Utsav: See Bali Yatra.

Bosare: Black elephant.

Brahmana Dana: Donation to Brahmins.

Brahmin: Priest (See *chaturvarna*).

Brahmattar: Lands granted rent free to Brahmins so that they can devote themselves to learning.

Bundh: Earthen embankment.

Carom: Indian finger billiards.

Chai: Spiced milk tea.

Chala: Traditional coastal Orissan house with thatched roof and mud walls

Chandana: Outsiders

Chandina: Homestead rent (See Abwab Pataki).

Chasa Zamin: Agricultural land.

Chaturvarna: The “four-part” caste system comprised of Brahmins (priests), Kshatriya (Warriors), Vaishyas (Merchants) and Shudras (Untouchables). Harijan or dalits comprise the “outcaste” fifth part of this system.

Chaudhuris: A local name for talukdars. (See also Qanungo)

Chena Padho: Literally “burnt milk.” A sweet reminiscent of cheesecake, though more dense.

Chila: Sea eagle (in Sanskrit).

Chilika abega: A terms for the deep concern for Chilika shared by many Oriyas.

Chilika Ana-Paramparika Matsyajibi Mahasangha: Chilika Non-Traditional Fisher’s Society

Chilika Bachao Andolan: Save the Chilika Movement.

Chilika Matsyajibi Mahasangha: Chilika Fisher’s Federation.

Chilika Purbanchala Matsyajibi Mahasangha: Chilika Eastern Fisher’s Federation. An association of fishers living in the Outer Channel region of the lake.

Chilikabasi: Chilika native.

Chilla: Eye socket (in Sanskrit).

Chingudia: Fishing grounds where prawn are plentiful.

Chinguri Chasa: Prawn aquaculture.

Chinguri: Prawn

Chhota Chilika: The creeks and channels of the lake.

Chowkey: Guard post.

Chula: Stove

Dafadar: Police sergeant.

Dafait: A type of rent paid in addition to rights to the land, often for fishing.

Dalit: Literally the “oppressed.” A term used by activists to describe untouchables.

Danga: Country boat.

Dangua: Village headman.

Debaha: See Debattar.

Deba-Neba: (Literally “give-take”) Barter relations.

Debattar: Temple lands, given by the king to temples for revenue purposes. (Also known as *debaha*.)

Desa Heta: Village service lands.

Dharma: (see also Adharma) Legal or moral duty, law.

Dhaudi: A bamboo trap to catch large prawn.

Dian: Shallow areas adjacent to *jano* fisheries, where fishing was allowed.

Diwani: The right to levy taxes.

Doma: A dalit jati traditionally responsible for preparing the dead for burial.

Dvijya: Literally “twice-born.” Members of the three “higher” castes in the four-part varna system (Brahmins, Kshatriya, and Vaishyas) who are eligible to wear the sacred thread.

Gada Sevaka: Fort servants.

Gada: Fortress

Gajapati: Literally “Lord of the Elephants.” Honorary title granted to the King of Khurdha.

Gamucho: All-purpose towel.

Garhjat: Hilly tracts.

Garhwari: Fort-wise land settlement.

Gherao: To encircle. A protest tactic wherein protesters encircle a building to trap those inside.

Gherrie: From the same root as gherao. It means (prawn) enclosure, in the lake.

Godown: Warehouse sorting centers where fish are brought prior to export.

Gohira: Deepest parts of Chilika lake.

Gokhas: A fisher jati known for their use of drag nets and cast nets.

Golas: Government warehouse.

Gomastha: Officer used by zamindars to collect rent.

Goondas: Ruffians, thugs.

Gora: Oriya term for white man.

Gotra: Clan or lineage.

Gram Panchayat: Type of local government comprised of leaders from five to seven area villages.

Hadi: A dalit jati traditionally responsible for burying cattle.

Halia: A type of service relation that existed between Khondayats and agricultural servants.

Harijan: (Literally “children of God”) A name conferred on untouchables by Mahatma Gandhi.

Hilsa Jal: A gill net used to catch shad.

Hotar: The reciter of invocations and litanies.

Hrada: Lake

Hustabood Jumma: Land revenue assessment made on the produce harvested.

Ijaradars: Revenue farmers.

Jagannath Mandir: Jagannath Temple in Puri.

Jagannath: (Literally “Lord of the Universe”) The name of Lord Krishna as he is worshipped in Puri, Orissa.

Jagir: A type of tenure common under Mughal rule in which the land revenue of a particular tract was made over to a servant of the state.

Jagirdar: The person granted a *jagir* (see above).

Jajmani: A system of exchange of goods and services.

Jalker: A perquisite on fishing grounds.

Jama: (Also Jumma) Assessment of land revenue.

Jano: A cruive-like enclosure.

Jatakas: Folklore like stories concerning the previous births of the Buddha.

Jati: Subcaste

Jumma: See Jama.

Jyoti: Astrologer

Kabuliyat: Signed contract.

Kaibarta: Fisher *jati* that traditionally only used nets.

Kala Pani: (Literally “black waters”) Refers to the sea and the prohibition on crossing the seas.

Kali Patta: (See also *patta*) Title to land given on a leaf by the British to the cultivators.

Kalinga: The name for Orissa in antiquity.

Kankada Khadia: A crab trap.

Kartia: A fisher *jati* that operated bamboo screen traps.

Keuta: Fisher. May also refer to *Kaibarta* (see above).

Khadi: Cotton, traditionally homespun on a *charkha*, or spinning wheel.

Khainchi: A hand-held fishing device shaped like a “horn of plenty” for catching small fish.

Khamja: A system of entitlements in the Khurdha Kingdom.

Khanchan Dhaba: (Literally ‘house of turtles’) Abandoned house that may have been a British custom’s house.

Khanda Jala: Box trap.

Khandara: A fisher *jati* that was traditionally considered “lowest” in the local hierarchy and known for catching prawn.

Kharosthi: An alphasyllabary script used from 3rd BCE until 3rd CE to write Sanskrit.

Khas Mahal: A government run district.

Khatia: A fisher *jati* that used box nets, trawl nets and purse nets.

Kheer: Rice pudding.

Khepa Jala: Cast net.

Khera: Dolphin

Khodayat: Largest agricultural *jati* around Chilika lake.

Kila: Fort

Kismat: Hamlet

Kontala: White prawn (*Penaeus indicus*).

Kshatriya: Warrior caste in the four-part varna system (See *chaturvarna*).

Kulthi: Horse gram (*Macrotyloma uniflorum*).

Kurkutch: A type of salt made through solar evaporation.

Kurta Pyjama: Traditional South Asian attire consisting of a long tunic and a pair of pants.

Kusa ghasa: Kusa grass. Used in ritual friendship ceremonies.

Kutumba: Members of one’s extended family. Roughly translates into second cousins.

Lathi: Baton

Lavana Karadhikari: Salt revenue officer.

Lavana Sulka: Duty on salt.

Lungi: A type of sarong worn by men.

Lunichar: See nunichar.

Maa: Mother

Machadias: Fishing grounds.

Magar: Shark (See also *Mugger Mukh*).

Mahajan: Middleman

Mahal: Estate

Mahalwari: Estate-wise land revenue settlement.

Mahanadi: (Literally “great river”) The largest river in Orissa.

Mahaprasad: (Literally “great gift of the gods”) Typically, a type of sweetmeat that has been sanctified by Lord Jagannath after having been presented as an offering at the temple in Puri.

Mahitra (also maitro): A type of ritual friendship based on a shared first name.

Makar Sankranti: A pan-Indian festival best known as Lohri dedicated to the sun god Surya.

Malangi: Saltworker

Malik-i-Zamin: Proprietor of the land.

Mandir: Temple

Mansab: Rank

Mansabdari: A ranking system conferred by the Mughal government.

Mansabdars: A position above jagirdars in the Mughal system.

Matsyajibi: Fisher

Matsyajibi Log: Fisherfolk

Maund: 84 pounds.

Mauza: Smallest revenue unit in the Mughal land revenue system.

Mirasi: Pre-colonial system of entitlements in South India.

Mofussil: Refers to the countryside. Implies provinciality and a lack of sophistication.

Mosari Jala: (Literally “mosquito net”) Refers to a very fine meshed net (See “zero net.”)

Mudi: Ring

Mugger Mukh: The inner channel of Chilika lake>

Mughalbandhi: Crown lands.

Muqqadam: The headman of a village.

Murti: Idol

Mussahira: Amount paid by colonial government to zamindars in lieu of salt revenue.

Muteharfa: A tax collected on trade.

Nadi: River

Nala: Reed

Nanda: Bald

Nazarana: A gift from an inferior to a superior.

Nua Khai: The ceremony during which people eat the first rice of the harvest.

Nunichar: Salt lands.

Nunmati: Salt lands.

Orissa Krushak Mahasangh: Orissa Farmer’s Federation.

Padayatra: Pilgrimage by foot.

Padhan: (Also *pradhan*) Headman of the village.

Pahi Ryot: Migrant farmer.

Paika Bartana: Payment for foot soldiers.

Panchayat: Village level system of government (See *gram panchayat*).

Panga: Boiled earth method of salt manufacture.

Pargana: A revenue unit under the Mughals made up of several *mauzas*.

Parwana: Official agreement for trade.

Paritand: A transit fee on boats.

Parwana: A warrant or license.

Peshkash: Tribute.

Patta: Title to land or deed of lease (See also *kali patta*).

Phalkur: A tax on orchards.

Pitala dhala: Brass pot.

Poco: Insect

Poida: Green coconut.

Pokhori: Pond. In Chilika basin this refers to prawn pond.

Poluha: Bell-shaped fishing device traditionally used by non-fishers.

Pradhan: (Also *padhan*) Headan of the village.

Prasad: Food that has been offered in to the gods in a temple.

Puja: Religious ceremony.

Pukka: Meaning “proper” and referring to a house made of bricks and flat concrete roof.

Purohit: Priest

Pyazi: Onion fritters.

Qanungo: A local name for talukdars (See also Chaudhuri).

Raja: King

Raksha: Devil

Ryot: (Also raiyat) A cultivator, peasant.

Ryotwari: A land settlement system made with the individual cultivators.

Sa’i (also sahi or sahiya): A type of “secondary” ritual friendship that comes into being through a songata relationship.

Saanta – Sevaka: Master - servant relations.

Sadhaba: A trading jati in Orissa.

Sadr Qanungo: An administrative officer in Mughal times who oversaw several *parganas*.

Sahi: Alley

Sairat: Lease areas. Refers to fisheries.

Sakhi: A type of ritual friendship between two women.

Samosa: A triangular-shaped stuffed patty eaten as a snack.

Samudra Kara Bandha: (Literally “sea tax gate”) A coastal custom’s house.

Sanad: A document of rights or privileges.

Sanatana Dharma: The eternal path. An indigenous name for Hinduism.

Sankucha: Stingray

Saradh: Winter crop.

Sarbarakar: (Also sarbarkar) In Mughal times, this was a village accountant who received a percentage of the land revenue to manage the tax collections.

Sarkar: In Mughal times this meant district. Today it means government.

Sarkari: Government-run or owned.

Sasana: Villages established by Khurdha Raja for Brahmins of the Jagannath Temple.

Satyagraha: Nonviolent resistance as advocated by Mahatma Gandhi.

Satyagrahi: A person who practices or advocates non-violent resistance.

Seer: (Also *sir*) Unassessed lands cultivated by Zamindars.

Shreni: Guild

Shudra: The “lowest” rank in the four-part *chaturvarna* caste system.

Snan - A holy dip in a body of water.

Songata (also *sangat*): A type of ritual friendship between two men of any caste.

Subah: Province in Mughal times.

Subedar: Provincial governor in Mughal times.

Suruf: A 7½ % surcharge on salt for “warehouse establishment” costs.

Tahsil: A revenue unit akin to a county.

Tahsildar: Revenue officer.
Talukdars: An administrative official who oversaw a pargana.
Tarkari: Meals
Thanadar: An officer in charge of enforcing the system of revenue.
Thani Ryot: Permanent cultivator i.e. one who is permanently settled on the land.
Tiffin: A between meal snack.
Uttapani: Nearshore fisheries.
Vaidya: A local healer.
Vaishya: Merchant (See *chaturvarna*).
Vanaprasta: Hermit
Varna: See *chaturvarna*.
Varuna: God of the sea.
Yajña: Fire sacrifice.
Yavanas: A foreigner.
Zamindar: Landholder.
Zero Net: See *mosari jala*.

Abbreviations

CBA: *Chilika Bachao Andolan* (Save the Chilika Movement).
CMM: *Chilika Matsyajibi Mahasangha* (Chilika Fisher's Federation).
ISFP: Integrated Shrimp Farming Project.
KYS: Krantadarshi Yuva Sangam.
MTS: Meet the Students.
OKM: *Orissa Krushak Mahasangh* (Orissa Farmer's Federation).
SNA: Social Network Analysis
UMEF: Union Ministry of the Environment and Forests.

APPENDIX B

CENSUS FORM USED FOR DATA COLLECTION

Plot # _____	Type of House: (pukka) (chala) (asbestos)
# of People _____	# Male _____ # Female _____
# Living outside of Village _____	If Living outside, Where? _____
# Born in Village _____	# Born out of Village & Where _____
# Wives NOT born in Village? _____	Where born? _____

Age of Household Member:	Education:	Age of Household Member:	Education:

Primary Income of Household from _____

If Fishing: Daily? Net in Lake? _____

Own Livestock? (Yes) (No) _____	Own Land? (Yes) (No) How much Land? _____
Own Home? (Yes) (No) _____	# of Rooms in Home? _____
Electricity? (Yes) (No) _____	Water Source? _____
Own Boat? (Yes) (No) # of Boats? _____	Own Shop? _____

APPENDIX C

EGOCENTRIC NETWORK QUESTIONNAIRE¹

EGO QUESTIONS:

Age:

1. How old are you?
 - a. Numerical

Residence:

2. Where do you live?
 - a. Text

Fishing:

3. How many years have you been fishing?
 - a. Numerical

Nets:

4. Do you own your own nets?
 - a. Yes
 - b. No

Boat Ownership:

5. Do you own your own boat?
 - a. Yes
 - b. No

Co-Fishing:

6. Do you share your boat/go fishing with anyone?
 - a. Yes
 - b. No

Villager/s:

7. Is he/they from this village (Bhalabhadrapur)?
 - a. Yes
 - b. No

Which Village/s:

8. Which village is/are he/they from?
 - a. Text

Fishing Ground (Inside):

9. Have you ever let someone from outside of the village (friend/family member) fish together with you in the Bhalabhadrapur lease areas or fishing ground?
 - a. Yes
 - b. No

¹ This is an example of a complete survey. Because of the excessive amount of time necessary to ask all these questions, those questions that proved, after several interviews, to be empty sets were removed. Those questions are not statistically analyzed in this chapter, though some of these findings were mentioned where appropriate.

Friend or Family:

10. Is this a friend or family member?

- a. Friend
- b. Family

Fishing Ground (Outside):

11. Have you ever (for whatever reason) fished in the lease area or fishing ground of another village?

- a. Yes
- b. No

How Often (Outside):

12. How often would you say that you have fished in a fishing ground or lease area of another village?

- a. Text

ALTER PROMPT QUESTION:

Alters

1. Please provide a list of your friends and acquaintances. This is meant to be a list of the people who form your "friends circle" - i.e. people you are close to and are close to you.

Knowing means that you know them and they know you by sight and that you have had some contact with them in the past year to two years. It also implies that when you meet you will talk to one another.

This can be literally anyone - fisherman or non-fishermen, man or woman, from the "highest" to the "lowest" caste and from the village or from elsewhere.

- a. Text

ALTER QUESTIONS:

Bhalabhadrapur:

2. Is \$\$ living in Bhalabhadrapur?

- a. Yes
- b. No ⇒ Q2

6 Villages:

3. Is \$\$ from a Kaibarta village?

- a. Yes ⇒ Q3
- b. No ⇒ Q4

Kaibarta Villages:

4. From which of these villages is \$\$ from?
 - a. Mahisa
 - b. Alandapatna
 - c. Chedapader
 - d. Gabapader
 - e. Barkul
 - f. Balinasi

Other than BBPUR:

5. Which community is \$\$ from?
 - a. Text

Family Member:

6. Is \$\$ a family member?
 - a. Yes
 - b. No

Profession:

7. Is \$\$ from a traditional fishing community or from a traditional non-fishing community? (By "community" what is meant here is jati.)
 - a. Fishing Community ⇒ Q7
 - b. Non-Fishing Community ⇒ Q8

Fishing Jatis:

8. What is \$\$'s jati?
 - a. Kaibarta
 - b. Khatia
 - c. Tiara Bilua Keuta
 - d. Nolia
 - e. Behera
 - f. Niary
 - g. Khandara
 - h. Gokha
 - i. Kartia
 - j. Other

Non-Fishing Jatis:

9. What is \$\$'s jati?
 - a. Brahmin
 - b. Khodayat
 - c. Karana
 - d. Gudia
 - e. Teli
 - f. Barika
 - g. Bhoi
 - h. Doma
 - i. Hari
 - j. Bangladeshi
 - k. Dhoba
 - l. Other

Closeness:

10. On a scale of 1 to 5, how close would you say that you and \$\$ are - where 1 is not very close and 5 is very close.

- a. Likert Scale of 1 to 5.

Trade or Barter:

11. Do you trade or barter (deba neba) with \$\$? (For example, do you give them fish in return for fruits or rice?)

- a. Yes ⇒ Q11
b. No ⇒

Goods:

12. What do you trade or barter with \$\$?

- a. Text

Comensality Possibility:

13. Would you eat food prepared by \$\$? (This includes cooked and uncooked food.)

- a. Yes
b. No

Commensal Eating:

14. Have you and \$\$ ever eaten together?

- a. Yes
b. No

Marriage:

15. Would you invite \$\$ as a guest to a marriage or religious ceremony you were organizing?

- a. Yes
b. No

Visit (your house):

16. Has \$\$ ever been to your house for a visit?

- a. Yes
b. No

Visit (their house):

17. Have you ever been to \$\$'s house for a visit?

- a. Yes
b. No

Fishing Possibility:

18. Would you go fishing together with \$\$?

- a. Yes
b. No

Fishing Reality:

19. Have you ever gone fishing with \$\$?

- a. Yes
b. No

Relationship:

20. How would you describe your relationship with \$\$?

- a. Text

ALTER PAIR QUESTION

Know Each Other:

21. Do \$\$1 and \$\$2 know each other? (Where "know" is defined as recognizing each other by sight and having met at least once in the past two years.)
 - a. Yes
 - b. No

APPENDIX D

ALTER VILLAGE ANALYSIS

Villages of Fisher Networks			Total for all Villages	Percentages	Villages of Non-fisher Networks			Villages of Hadi/Doma					
1	Dhalabhadrapur		533	55.9%	1	Satapada Gada	360	62.0%	1	Hadi/Doma Sahi	46	44%	
2	Mahisa		64	6.7%	2	Naubadi	41	7.1%	2	Malud	11	10%	
3	Chedapader		41	4.3%	3	Gombhari	38	6.6%	3	Amhapada	7	7%	
4	Alandapatna		35	3.7%	4	Banki Jalla	35	6.1%	4	Pirispur	6	6%	
5	Barhampur		25	2.6%	5	Chandput	9	1.6%	5	Gada Rodanga	5	5%	
6	Satapada Gada		24	2.5%		Bharakata	9	1.6%		Krushnprasad Gada	5	5%	
7	Alooptna		22	2.3%		Parala	9	1.6%		Puri	5	5%	
8	Gabapader		14	1.5%	6	Alooptna	7	1.2%	6	Cuttack	2	2%	
9	Naubadi		12	1.3%		Balugaon	7	1.2%		Gada Kokala	2	2%	
	Rhol Sahi		12	1.3%		Barhampur	7	1.2%		Sahanikera	2	2%	
10	Banki Jalla		11	1.2%	7	Baulapatna	6	1.0%	7	Arakhakuda	1	1%	
11	Gombhari		8	0.8%		Bhol Sahi	6	1.0%		Bedrapada	1	1%	
12	Barkul		7	0.7%		Puri	6	1.0%		Bhalabhadrapur	1	1%	
	Panacapada		7	0.7%	8	Bhalabhadrapur	5	0.9%		Bhubaneswar	1	1%	
13	Konarpur		6	0.6%		Chandikhil	5	0.9%		Charichak (Parikud)	1	1%	
14	Balugaon		5	0.5%		Babana/Nugaon	5	0.9%		Changana	1	1%	
	Haripur		5	0.5%	9	Bagha Munda	4	0.7%		Guruba	1	1%	
	Hata Baradi		5	0.5%	10	Dhoba Sahi	3	0.5%		Haladi Diha	1	1%	
	Sipakhuda		5	0.5%	11	Balkhera	2	0.3%		Katsuarady	1	1%	
15	Balinas		4	0.4%		Brahmana	2	0.3%		Khalakanta	1	1%	
	Barakudi		4	0.4%		Gada Kokala	3	0.5%		Manikapatna	1	1%	
	Brahm agni		4	0.4%	12	Anatrup	1	0.2%		Rohas (Dist. Jagatsinghpur)	1	1%	
	Damodarapur		4	0.4%		Barudi	1	0.2%		Satapada Gada	1	1%	
	Khoiraci		4	0.4%		Ghansa pama	1	0.2%		Suna Muhin	1	1%	
	Laubari		4	0.4%		Maittota Puri	1	0.2%					
	Nathapur		4	0.4%		Sana Banda Khera	1	0.2%					
	Phulabadi		4	0.4%		Mahisa	1	0.2%					
	Puri		4	0.4%									
	Rebana/Nugaon		4	0.4%									
	Sorana		4	0.4%									
16	Baulapatna		3	0.3%									
	Bhagalandi		3	0.3%									
	Krushnprasad Gada		3	0.3%									
	Mirzapur		3	0.3%									
	Padm am oti		3	0.3%									
	Pirispur		3	0.3%									
17	Bagha Munda		2	0.2%									
	Bhubaneswar		2	0.2%									
	Budhanga		2	0.2%									
	Gop		2	0.2%									
	Jaguli Pader		2	0.2%									
	Kalupada		2	0.2%									
	Mangalajodi		2	0.2%									
	Matalapur		2	0.2%									
	Nuapada		2	0.2%									
	Sundar Garh (Kaibarta Village)		2	0.2%									
18	Balason		1	0.1%									
	Balia		1	0.1%									
	Benitapur		1	0.1%									
	Bimpur		1	0.1%									
	Banpur		1	0.1%									
	Chandikhil		1	0.1%									
	Chandraput		1	0.1%									
	Gabakunda		1	0.1%									
	Garjam Berhampur		1	0.1%									
	Geerala		1	0.1%									
	Corapur		1	0.1%									
	Coudipadar		1	0.1%									
	Hasinapur		1	0.1%									
	Hata Mohendipur (near Kanak)		1	0.1%									
	Jaddipur		1	0.1%									
	Jaripada		1	0.1%									
	Kalkabari		1	0.1%									
	Kendrapara		1	0.1%									
	Kespur		1	0.1%									
	Khuti Sahi		1	0.1%									
	Khurda		1	0.1%									
	Lendu		1	0.1%									
	Mudhirath		1	0.1%									
	Nachuni		1	0.1%									
	Porari		1	0.1%									
	Rajpur		1	0.1%									
	Sevakpur		1	0.1%									
	Sikhula (Garjam)		1	0.1%									
	Suna Muhin		1	0.1%									
	Unkaypuru (Pipili)		1	0.1%									
	Total		983	100.00%		Total	575	100.00%		Total	105	100%	
	% of Total Alters		100%			% of Total Alters	99%			% of Total Alters	100%		

Note: Alter village list by percentage and ranked on left. Note the lack of overlap across all three lists. Color coding indicates those villages that appear in the other two networks. In the first column, the light blue color represents the top five villages listed as well as other large fisher villages. Yellow represents those from farming communities and pink represents those that appear in the dalit networks.

APPENDIX E

STRUCTURAL MEASURES

Degree, Closeness, and Betweenness Centrality of Alters Separated by Jati

go BBPUR	Averages Across All Networks (N=18)	Ego Satapada Gada	Averages Across All Networks (N=6)	Ego Bhalabhadrapur (Hadi/Doma)	Average Across All Networks (N=5)
Degree (Non-Fishers)	18.62	Degree (Non-Fishers)	40.27	Degree (Non-Fishers)	3
Degree (All Fishers)	35.61	Degree (Fishers)	28.43	Degree (Dalit)	19.43
Degree (Only Other Fisher Jatis)	20.57			Degree (Fishers)	0
Closeness (Non-Fishers)	57.05	Closeness (Non-Fishers)	73.55	Closeness (Non-Fishers)	23.6
Closeness (All Fishers)	82.63	Closeness (Fishers)	41.86	Closeness (Dalit)	97.5
Closeness (Only Other Fisher Jatis)	75.30			Closeness (Fishers)	0
Betweenness (Non-Fishers)	3.32	Betweenness (Non-Fishers)	7.45	Betweenness (Non-Fishers)	0
Betweenness (All Fishers)	9.85	Betweenness (Fishers)	0.25	Betweenness (Dalit)	0.49
Betweenness (Only Other Fisher Jatis)	5.51			Betweenness (Fishers)	0
Degree (Ego's Jati - Kaibarta)	35.82	Degree (Ego's Jati - Khodayat)	40	Degree (Ego Jati)	19.43
Degree (All Other Jatis)	22.81	Degree (All Other Jatis)	36.55	Degree (All Other Jatis)	3
Closeness (Ego's Jati - Kaibarta)	78.95	Closeness (Ego's Jati - Khodayat)	73.4	Closeness (Ego Jati)	97.5
Closeness (All Other Jatis)	70.56	Closeness (All Other Jatis)	52.61	Closeness (All Other Jatis)	23.6
Betweenness (Ego's Jati - Kaibarta)	10.32	Betweenness (Ego's Jati - Khodayat)	7.27	Betweenness (Ego Jati)	0.49
Betweenness (All Other Jatis)	5.22	Betweenness (All Other Jatis)	5.67	Betweenness (All Other Jatis)	0