NATURAL ENVIRONMENT AND CULTURAL CHANGE:

THE IMPORTANCE OF WAGHJAAI SACRED

GROVE TO THE LOCAL PEOPLES

THESIS

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Master of SCIENCE

by

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CHAPTER I

INTRODUCTION AND BACKGROUND

Natural forests are home to great genetic biodiversity and many of the world's species. This diversity represents a compelling bank of natural resources for human development. Because of their resource utility to humans, natural forests throughout the world continue to face overexploitation and deforestation. Modern forest management practices, government regulations, and worldwide conservation efforts have provided some protection to these forests. Some forests are protected for reasons other than human development or biological conservation. Many forests, or at least remnants thereof, are considered sacred places and are therefore conserved in honor of their symbolism, rather than their potential economic output.

One forest type that has been preserved on account of religious beliefs and folk traditions are the sacred groves of India. Approximately 14,000 sacred groves have been documented all over India (Gadgil 1998), forty percent of which are located along the Western Ghats (Waghchaure et al. 2006; Gadgil 1998). The sacred groves are an important part of cultural life of various communities throughout India. A majority of the groves are found near villages and are associated with the village communities who dedicate these groves to the local deities. It is a common belief that both deities and the spirits of ancestors reside in these groves. In some groves, all resource extraction is strictly prohibited, while in others people are permitted to collect non-timber forest products in limited quantities. For instance if a fire destroys a village, local people are often allowed to extract wood from the grove for reconstruction with special permission from the deity (Vartak and Gadgil 1981). Certain medicinal plants, unique to sacred groves, might be extracted only with the common consent of the village (Chandrakanth et al. N.d.).

Ownership and management of the sacred groves vary among regions and individual villages. Some groves are associated with and managed by distinct caste groups within a community, some by the village as a whole while others are controlled by neighboring districts within a larger geographical area. Some groves are under the forest or revenue department but managed by the village communities (Singh 2006). Other groves are owned by individuals while some are common property of more than one village.

"Sacred groves harbor vegetation in its climax formation, and probably constitute the only representation of forest in near-virgin condition" (Vartak and Gadgil 1981). The border of such sacred groves tends to be distinct, even when surrounded by forests from all sides (Vartak and Gadgil 1981). Sacred groves are thought to be rich sources of rare and endemic plant species (Sukumaran, Jeeva, Raj and Kannan 2008). They shelter a great diversity of medicinal plants and have more vigorous regeneration of trees than formal forest reserves (Bhagwat et al. 2005; Boraiah et al. 2003).

Beliefs, taboos and restrictions have kept these forests intact for generations. While some groves are in good condition, most of them are under threat from anthropogenic activities. Agriculture and human settlement are slowly encroaching on the sacred groves (Chandrakanth, Bhat and Accavva 2004). Cultivation in cleared areas of the groves, inappropriate ornamental planting and planting trees for harvest in the cleared patches are causing serious threats to these forests. Due to logging, grazing and collection of non-timber forest products by locals, the sacred groves are degrading at a rapid rate (Anthwal, Sharma and Sharma 2006). In many places, the cultural identity of these traditional forests is fading under new governmental policies. Government of India has nationalized many forests around India, thus taking the land rights of the sacred groves away from locals (Chandrakanth, Bhat and Accavva 2004).

Scholars have noted a weakening of rules and beliefs, and a diminishing faith in the sacredness associated with the sacred groves. Taboos associated with the sacred groves have begun to weaken in recent times: the previously prohibited removal of dead wood and leaf litter, for example, is now a common practice almost everywhere in the Western Ghats (Gadgil and Vartak 1976).

The younger generation does not believe as strongly in the institution of sacred grove as the older generation. Rules and regulations that were strictly followed earlier are being treated rather casually by the young generation (Singh 2006). Interaction with tourists, who sometimes regard the beliefs associated with the groves as superstitious, can influence the local people's perceptions, and lessen their faith towards the deity and grove (Anthwal, Sharma and Sharma 2006; Singh 2006).

The sacred groves of India are under pressure from encroaching urban development. Without a better understanding of how they fit into the fabric of community life, any proposal to manage the groves would be problematic. While the significance and importance of each grove varies across different communities, this research aims at developing a better understanding of the groves as part of the village entity and the plural meanings attached to this unique environmental feature.

This study attempts to determine whether one sacred grove in a village in the outskirts of Pune has lost its socio-cultural and religious importance. Previous research has indicated that attitudes reflect underlying values which in

turn influence concern for natural environments (Larson 2009). In this research a content analysis is performed on field-interviews with local populations regarding the importance of the sacred grove. This analysis will illuminate the underlying religious, social, political and economic importance of the sacred grove to local residents.

This research proposes to address the following questions.

Primary question.

1) To what degree and in what ways, do local populations value their sacred grove?

Sub-question.

1) Does the current condition of the grove reflect the beliefs and sentiments of the locals towards the grove?

Hypothesis

In my research I propose the following hypotheses:

1) The sacred grove will be identified as important religious, cultural and sociopolitical place.

2) The significance of the grove will not differ notably amongst people of different age, sex and education.

3) The villagers will perceive the *"existence value"* of the grove to be greater than the economic value.

4) Management of the grove will not be commensurate to the value placed on it by the villagers.

Study Area

The Western Ghats stretch 1600 kilometers north to south, from the Tapi River in the north to Kanyakumari in the south, parallel to the west coast of the Indian Peninsula (Gadgil 1996). These mountains cover almost six states extending from Gujarat in the north to Tamil Nadu in the south. They cover an area of approximately 160,000 square kilometers and have an average elevation of 800 meters, though individual peaks are much higher (Singh 2006; Grossman and Durran 1984). The eastern hills of the Western Ghats descend gradually, merging into the Deccan Plateau which is at an elevation of about 500-600 meters.

The western coast of India is one of the highest rainfall areas in India owing to the monsoon winds coming from the southwest (Grossman and Durran 1984). The Western Ghats that are approximately fifty kilometers inland from the coast also receives high rainfall. Rainfall in the Western Ghats varies from an average annual of 2500 mm to a maximum of 7000 mm in some places, between June to October (Jha, Dutt and Bawa 2000; Daniels 1992). The southern regions of the Western Ghats receive more prolonged rains than the northern regions on account of the pre monsoons and the winter showers (Daniels 1992). The rainfall declines as one moves from the western slopes of the ghats to the eastern slopes. As a result of variation in rainfall during the monsoon season and the complex geography of the region, the vegetation throughout Western Ghats is extremely diverse, with mostly evergreen and semi-evergreen forests in the western part and high altitudes, to dry deciduous and scrub vegetation on the eastern side of the ghats and lowlands (Jha, Dutt and Bawa 2000). Similarly the diversity of plants also increases as one moves south along the Western Ghats, due to the high rainfall in the southern regions of the ghats (Gadgil 1996).

Approximately 14,000 sacred groves have been documented all over India (Gadgil 1998), forty percent of which are located along the Western Ghats (Waghchaure et al. 2006; Gadgil 1998). The Western Ghats are among the twentyfive Global Biodiversity Hotspots on account of their high degree of species richness and endemism (Cincotta, Wisnewski and Engelman 2000). Twentyseven percent (4000) of all the plant species documented in India are found in the Western Ghats (Singh 2006) of which 1500 plant species are considered to be endemic to the Western Ghats (Ramesh, Menon and Bawa 1997).

Pune is one of the largest cities in the rain-shadow region along the eastern edge of the Western Ghats. Pune city is the headquarters of Pune District, which is a fairly urban district as compared to the other districts in the state of Maharashtra. Additionally, it has one of the highest numbers of sacred groves within the state of Maharashtra. Although a large number of groves have been documented in this region, very little research has actually been conducted here (Singh 2006).

My area of study is a sacred grove located on the eastern side of the Western Ghats in the Mulshi Taluka of the Pune District. At 18° 33' 45.34" N and 73° 28' 55.92" E, the Waghjaai Sacred Grove, which is approximately 2.5 kilometers from the Shedani Village, is about forty five kilometers west of Pune City and is close to Lake Mulshi. Mulshi is a recreational center for visitors from Pune City and is well connected to Pune and Mumbai by a small road, highway and a regular bus service. A newly constructed theme park called Amby Valley is northwest of the Waghjaai Sacred Grove and is visible from the Shedani Village. Proximity to Pune City and presence of recreational places such as Amby Valley and Lake Mulshi close to Shedani Village are likely to present a different set of attitudes of local people towards the sacred grove in this particular village, as compared to the attitudes of the people who live in a predominantly remote village. This study will be conducted in Waghjaai Sacred Grove and the adjacent Shedani Village (See Figure 1).

Shedani Village is approximately fifteen kilometers northwest of the Mulshi Dam (see Figures 2 and 3). A tar road connects all the villages in this area. During the construction of the Mulshi Dam in the 1920's under the British rule, the Shedani Village was relocated from the valley to the hilly regions northwest of the dam (Nayak 2010; Interviews 2009). People claim that the Waghjaai Grove has been where it is even before the British era, the villages that were in the valley before the construction of the dam moved closer to the grove. The Shedani Village has a population of approximately 375 and consists of predominantly people from the Maratha and Mahadev Koli castes, with Sutar, Sonar and Harijan as the minor castes. The primary sources of income in the village are animal husbandry, dairy and labor. The Mulshi area is a popular recreational center for the residents of Pune and Mumbai Cities. These city dwellers buy property in the areas surrounding the villages of Shedani, Nandivali and Vadavathar. Such investments create employment for the people in the villages as construction workers, helpers, gardeners, care takers, and maid servants. Agriculture in the village is rain-fed and mainly subsistence, with rice as the only cultivated crop. Although Finger Millet (Nachni) and Samo Seeds (Vari) are also desirable crops to be cultivated, they are generally avoided because pigs destroy them, which cause losses. The agricultural fields are approximately two kilometers from the village,

but nothing significant grows here. In general the older generation continues to live in the village while younger generation either moves to Pune for work or finds meager jobs in larger villages such as Paud and Mulshi. Hence labor intensive farming has taken a backseat in Shedani as well as other nearby villages. There is a weekly market in Paud approximately twenty to twenty-five kilometers east of the Shedani Village. The villagers get their groceries, which include Sorghum, Pigeon pea, lentils and vegetables, from such weekly markets. There is a primary public school within the village boundary (see Figure 4). After the fourth grade, the children commute to the Mulshi Village to attain further education.

The Waghjaai Sacred Grove was established in the area even before the British came to India. It was gifted to a *Gurav* from Vadavathar Village during the British era. A *Gurav* is a person who keeps herds of livestock. Milk obtained from the livestock is mostly consumed by the families, the surplus obtained if any is sold to the dairy in the Vadavathar Village. The grove is closest to Shedani Village- 2.5 kilometers further west, and approximately four kilometers and three kilometers from Vadavathar and Nandivali Villages respectively (see Figure 5). The grove is about 3.8 acres and is the abode of the Goddess Waghjaai. There is no constructed temple for the deity; instead an uniconic rock smeared with saffron color depicts the Goddess Waghjaai (see Figure 6). One side of the *devrai* (a sacred grove is called *devrai* in the local language) ends on a hill slope while the other end joins the tar road. The tar road cuts through part of the *devrai* (see Figure 7). The grove is surrounded on the remaining sides by mostly open land with scattered patches of vegetation. There is no water body in the form of a stream, spring or pond present in the grove. Livestock are left grazing in the open area around the village. During our survey cattle were grazing in the grove (see Figure 8).

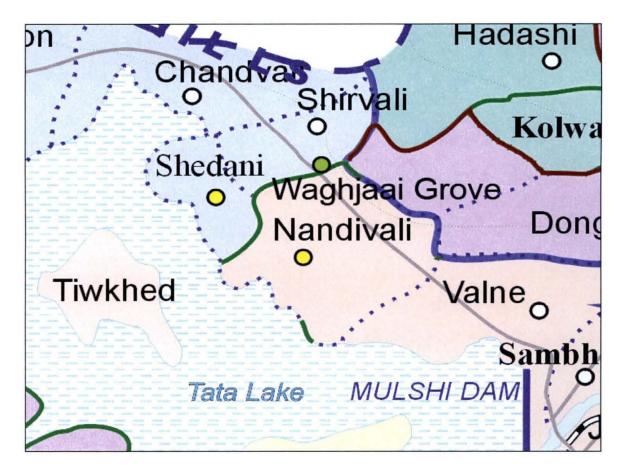


Figure 1: Location of Waghjaai Sacred Grove and Shedani Village.

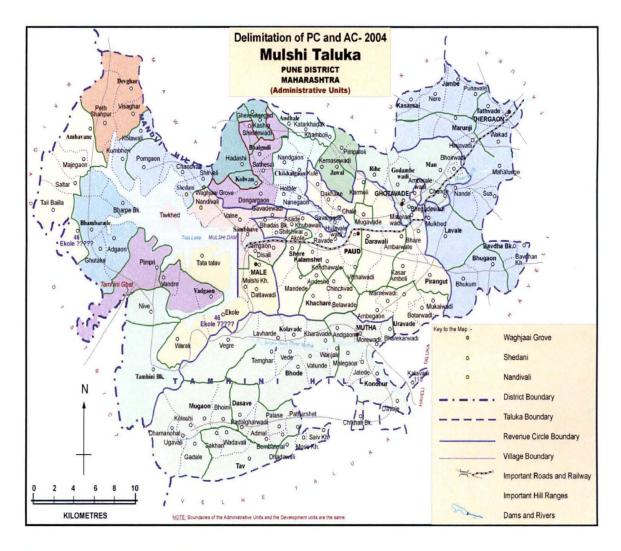


Figure 2: Map of the Study Area.

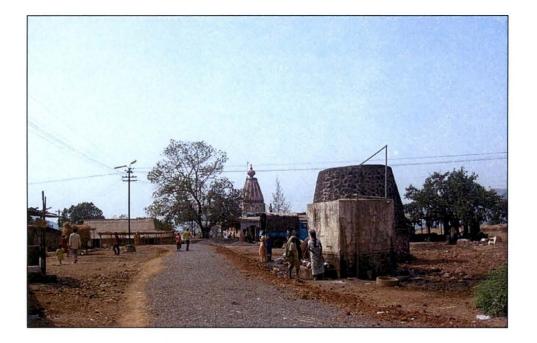


Figure 3: Study Site: Shedani Village.

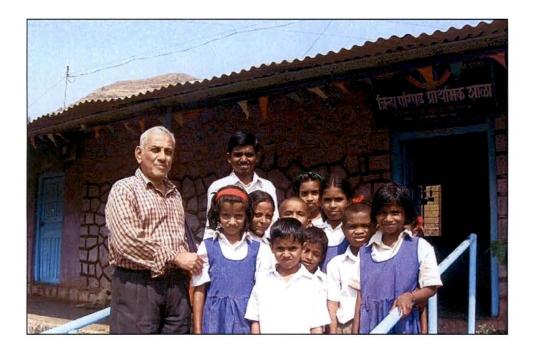


Figure 4: Study Site: Primary School in Shedani Village.



Figure 5: Location of Shedani Village, Waghjaai Sacred Grove and Other Nearby Villages.



Figure 6: The Uniconic Rock Representing Goddess Waghjaai Situated at the Edge of the Grove, Adjacent to the Road.



Figure 7: Study Site: Waghjaai Sacred Grove on Either Side of the Road.



Figure 8: Cattle Grazing in the Grove Noted during the Survey.

CHAPTER II

LITERATURE REVIEW

IMPORTANCE OF THE SACRED GROVES

Historical Perspective

Nature worship is a common practice in India (Swamy, Kumar and Sundarapandian 2003; Gadgil and Vartak 1976). The early people considered individual lakes, animals, and trees as sacred (Deb and Malhotra 2001; Gadgil and Vartak 1976) and believed that animistic forces were present in natural habitats (Swamy, Kumar and Sundarapandian 2003). Early Tamils, for example, believed that such reverence towards living beings and inanimate objects in nature was important to ensure their own safety and well-being (Swamy, Kumar and Sundarapandian 2003). Preservation of a forest patch in the name of a deity was quite distinct from the preservation of individual trees as Peepal (Ficus *religiosa*), which was often preserved and worshiped even without any association with a deity (Gadgil and Vartak 1976). The animistic institution of sacred species and groves was characteristic of the tribal culture of ancient India and was quite distinct from the mainstream Hinduism (Deb and Malhotra 2001).

However, over the centuries, numerous tribes were drawn to the fundamentals of the Hindu religion and society (Deb and Malhotra 2001; Hunter 1984). Such tribes practiced rituals and followed certain beliefs that were quintessentially Hindu, at the same time remaining attached to their tribal ethos. Reciprocally, the Hindu religion borrowed and adopted a range of features from these tribal cults: icons, myths, and rituals (Deb and Malhotra 2001; Kosambi 1975).

In order to understand the importance of sacred groves in contemporary rural societies in India, one needs to understand the reasons and motivations behind their conception. One school of ecological history argues that the dependence of the indigenous people on nature, specifically the forests, was institutionalized through the medium of sacred groves. This cultural and religious institution protected the forests through informal yet well defined rules and taboos. Prohibition on the exploitation of the groves was not expressed as deliberate attempts to maintain populations of plants and animals of value to the tribes. Instead these practices were rationalized in religious taboos through the institution of the sacred grove (Gadgil 1985).

Sacred groves are a legacy of shifting cultivators. They acted as storehouses of endemic species that perished from the surrounding forests due to the practice of slash and burn agriculture (Gadgil and Subashchandran 1992). Gadgil and Vartak (1976) assert that the origin of some sacred groves could be a

product of conscious environmental decisions by the early village people to preserve valuable trees and climbers that were relatively rare in the locality. The ecological and economic significance for the origin of the sacred groves as popularized by environmentalists is quite distinct from the other school of thought who believed that environmental prudence that has been suggested by ecologists as the reason for the origin of sacred groves, is only a consequence of the socio-religious delimitation that developed on account of the religious sentiments and sacredness attached to the groves (Arora 2006). In her works on the sacred groves of Sikkim, Arora (2006) argues that the sacred groves are important religious entities. "The groves in Orissa are regarded as the locus of regeneration of the body, the land and the peasant" (Arora 2006). The religious activities in the groves revitalize the identity of the indigenous people and reinforce the connection of the ancestors to the land (Arora 2006).

The institution of sacred groves may have originated with a view to ensure a sustained resource base for posterity (Deb and Malhotra 2001). However, the original significance of the groves became less important and was eventually forgotten, although the religious sentiments and associated rituals have been carried on over centuries. In contrast, other customs, norms and rituals have originated on purely religious grounds and their implications

relative to resource use and preservation, if any, may be totally incidental (Deb and Malhotra 2001).

Religious Importance

Sacred groves play an important role in the socio-cultural, religious, economic and political lives of the indigenous people (Swamy, Kumar and Sundarapandian 2003; Malhotra 1998). Dedicating groves to deities on account of their religious importance is common in India (Vartak and Gadgil 1981). Religion makes a place sacred by giving it symbolic meaning (Ruback, Pandey and Kohli 2008; Mazumdar and Mazumdar 2004) that not only helps people differentiate sacred places from ordinary places but also evokes feeling of devotion, spirituality and attachment (Ruback, Pandey, Kohli 2008). Such symbolic significance of sacred groves is manifested through existing beliefs, folklore, taboos and rituals (Gadgil and Vartak 1976).

Deities associated with the groves are usually mother goddesses and are believed to be extremely ferocious. Removal of any plant material, even dead wood, from the grove is a taboo (Vartak and Gadgil 1981). Cattle grazing and throwing trash is prohibited in majority of the groves in the state of Maharashtra (Pruthi and Burch 2009). The villagers seem to respect these taboos with near complete sincerity even today (Vartak and Gadgil 1981). Any disbelief expressed through violation of existing rules and regulations protecting the groves can cause harm to the infidel (Singh 2006).

Folklore plays an important role in confirming such beliefs. Narratives in the form of folklore depict the social and culture life of the local inhabitants. Folklore in the form of folktales and folksongs defines the standards of behavior, suggests conventional norms in everyday life and point out rewards to the conformists and punishments to the infidel (Vartak and Gadgil 1981).

The oral liturgies of the Teyyam cult in the sacred groves of Kerala record the lives, activities and circumstances of their hero-deities from the pre-modern period. Such liturgies also contain information on the social constituency and life conditions of the community and represent the attitudes and beliefs of the worshippers (Freeman 1999).

Liturgical songs popular among the tribal people of the sacred groves in Kerala express an emphatic concern towards the destructive powers of the Gods that encourages their worship. The religious attitude towards the sacred groves is one of ambivalence as to whether the supernatural agencies present in the groves are noxious or beneficial. The main religious efforts are directed towards protecting the local communities from forest fires, wild animals and blessing the community with good crops (Freeman 1999).

There have been numerous stories narrated by the local people about the ill luck such as violent death, illness and bad crops caused by violation of the rules of the groves. These stories suggest that most of the folklore and beliefs of the tribal culture are relevant to the history of the community and its environs (Vartak and Gadgil 1981). For example, in the village of Dapsare in Maharashtra, a villager wanted to build a temple for the deity. The deity was known to not tolerate any felling of trees from the grove for construction. Nonetheless the villager, with the help of three woodcutters, started cutting a Jambhul (*Syzygium Cumini*) tree to construct the temple. The tree fell unexpectedly on the woodcutters and caused their death (Vartak and Gadgil 1981).

Individual and communal rituals are performed to propitiate the deities in the sacred groves (Malhotra et al., 2001). When a child is born or desired, the village people tie toy cradles to the tree branches in the groves to please the deity. Various offerings are made by the people in return for material, moral and social well being. Community rituals to appease the deities, in the form of animal sacrifice and prayers are performed during the annual village festival (Swamy, Kumar and Sundarapandian 2003).

According to an attitudinal study conducted by Singh (2006), the sacred groves command respect and a sense of devotion in the villages. The interviewees in the villages of Tamini, Ahupe, Ajeewali and Aghane located in western Maharashtra referred to the groves as God's abode, place of worship and God's land.

Religion connects people to places through sacred acts, and these places connect people to religion because they are where religion is learned and experienced (Ruback, Pandey and Kohli 2008; Mazumdar and Mazumdar 1993). During a study conducted by Singh (2006) in the sacred groves of the Mulshi region, the interviewees expressed that a situation where the stones depicting the deity were shifted to another forest and the current grove lost its sacred status to the new forest, was unimaginable. Comments such as "the entire grove is sacred not just the area of the deity" and "the gods cannot be shifted" highlight the connection of the people to the groves as well as the deity.

Study of the sacred groves in the Jaspur district in the state of Chhattisgarh revealed that a village can have one or several groves within the village boundary. The deities in these groves are either protective or productive. The productive function of the deities is related to agricultural productivity whereas the protective function is related to protecting the community from disasters such as fires and famines. The productive deities are generally female goddesses of fertility and hence are believed to ensure a good agricultural crop. The protective deities on the other hand are usually male gods who protect the community from disasters (Pandey and Rao 2002). Malhotra et al. (2001) analyzed six dimensions of the role of sacred groves in the lives of village people: religious, socio-cultural, political, economic, health and psychological. They grouped the socio-cultural, political, economic, health and psychological importance of the sacred groves under secular functions. The non-secular function of the sacred groves, the religious, is to appease the deity, the ancestral spirits and the totems. Although this study categorizes the roles of sacred groves in distinct groups it fails to analyze the relative importance of each to the indigenous communities.

Socio-cultural Importance

Sacred groves are humanized landscapes. The forest-dweller with his beliefs and practices forms an inseparable part of such a landscape (Arora 2006). Sacred groves may not be used for direct economic benefits (Singh 2006). For example, the villagers of Tamini, Ahupe, Ajeewali and Aghane in western Maharashtra are heavily dependent on the non-sacred forests for firewood, wild edible plants, medicinal plants and timber for house construction. However, they do not depend on the sacred groves for fodder and fuel (Singh 2006). The groves nonetheless provide cultural space to the village community as a common property resource (Malhotra et al. 2001).

Sacred places are important because religious socialization occurs there in the form of rituals and pilgrimages (Ruback, Pandey and Kohli 2008). Sacred groves and associated deities are an important part of various events, especially the annual village festival (Waghchaure et al. 2006). The annual village festival is usually performed in the sacred groves, where food is cooked and served for the entire village (Waghchaure et al. 2006; Singh 2006; Swamy, Kumar and Sundarapandian 2003; Malhotra et al. 2001). The village people participate in such festivals either by volunteering to organize or by way of monetary contributions (Waghchaure et al. 2006). During a week-long festival in the sacred groves in the villages of Tamil Nadu, folk tales and epics are enacted (Swamy, Kumar and Sundarapandian 2003). Indigenous people from the Parinche Valley who have migrated to nearby villages and cities join the celebrations and rituals during the annual festivals (Waghchaure et al. 2006).

During the annual village festival in the Parinche valley of Pune District, animal sacrifice is commonly observed in the groves, to protect the community from problems such as infertility, snake bite and bad harvests (Waghchaure et al. 2006). In some sacred groves animal sacrifice is no longer practiced. In such groves earthen models of tigers, hunting dogs, horses and elephants are offered to the deity in lieu of actual animals (Chandrakanth, Bhat and Accavva 2004). In the Tamini Sacred Grove, offerings made to the deity are traditionally distributed in the village after being blessed (Singh 2006).

In some sacred groves, it is an established custom for newly married couples to pay their respect to the deity in the grove. Wooden or silver cribs, for women's fertility and replicas of wooden horses for prosperity are also offered to the deity (Waghchaure et al. 2006). Wedding ceremonies are also conducted in the sacred groves (Malhotra et al. 2001). Sacred groves also serve as meeting places for the village community to discuss socio-religious and economic issues and personal grievances (Pandey 1998).

Continuity of ancestral tradition is one of the reasons why the groves are revered by the local villagers. Failure to adhere to the ancestral tradition by disobeying the informal rules and regulations governing the sacred groves, leads to societal disapproval. Pressure through informal channels such as neighbors is the primary way of handling situations of violation. Thus the institution of sacred grove is woven into the socio-cultural life of the people (Singh 2006).

Rules associated with the groves can be either biased against women or ignore them completely (Singh 2006). Women in the Tamini Village do not get a share of the offerings made to the deity that are distributed among the villagers (Singh 2006).

1

Usually it is taboo for women and children to enter the groves (Pandey and Rao 2002). It appears that generally women are not permitted into the groves after attaining puberty (Malhotra et al. 2001). The deity is intolerant towards even the sound of the bangles (usually worn by women) in some groves (Singh 2006). In most groves women are not allowed in the temple but they do have access to the grove itself. In the Ahupe Grove however, young girls and old women are allowed inside the grove temple (Singh 2006).

Socio-political Importance

Sacred groves are political entities that are important for affirming identity and authorizing control over resource use among social groups (Arora 2006). The ownership rights of the sacred groves have been classified as private, community, state and open access rights. Some sacred groves in the Kodagu District of Karnataka such as *Kaimadas* and *Nemmale* are privately owned whereas the Devarakadus are owned by the state government (Chandrakanth, Bhat and Accavva 2004). Right to resource use within the sacred groves can be divided into right to own, right to use, right to dispose and right to exclude. In some cases right to use and right to own do not reside with a single entity. For example, a grove could be owned by the revenue department but managed and used by the village community, as in the case of the community *Devarakadus* in the Kodagu District of Karnataka. Such mixing of property rights causes resource-use related conflicts in the groves (Chandrakanth, Bhat and Accavva 2004).

The deities and the associated sacred groves belong either to a single village or a group of villages or to a specific endogamous group restricted to a relatively limited geographical area. In their anthropological records of the Western Ghats, Gadgil and Malhotra (1979) illustrate the association of four distinct caste groups: Marathas, Kunbis, Kolis and Dahngars, with distinct deities and associated groves, in distinct geographical areas. The folklore in each village narrates the conflicts between the deities which is symbolic of the social conflicts between the caste groups (Gadgil and Malhotra 1979). Gadgil and Vartak (1976) remark that any two villages could have the deities with the same name, however the two deities sharing the same name are often considered as separate entities. For example, two *Kalkai* deities of two different villages are considered different entities by the villagers of the respective villages. Sacred groves are thus considered as symbolic dimensions of self identity and indigeneity (Arora 2006).

In some places, the entire social and economic systems of a village are governed by the sacred grove culture, as illustrated by Pandey and Rao (2002) in the Jaspur district of Chhattisgarh. The annual festival in these groves has two motifs, first is enjoyment and second is making important decisions related to

agriculture management based on the rainfall predictions made by the priest (Pandey and Rao 2002). Paranjapye (1989) highlights the function of the sacred groves in maintaining a caste hierarchy within a village.

Sacred groves are used as common areas where the local governing body of the village summons to deliver judgments. Judgments given in these sacred places are considered to be honest and if any biased judgment is given in the grove, the deity punishes the dishonest with the loss of his/ her family members or a bad agricultural season (Pandey and Rao 2002).

Economic Importance

Several communities derive direct economic benefit from the sacred groves (Singh 2006). There are several examples where dead wood and dry leaf litter are collected from the groves and used as fuel (Singh 2006). In several sacred groves, collection of non-timber forest products such as fallen fruit is permitted, however such products are only allowed to be consumed in the grove itself (Singh 2006).

Sacred groves are a storehouse of Ayurvedic, tribal and folk medicine (Malhotra et al. 2001). An inventory of plants in the sacred groves of Kodagu District reveal that plants such as *Ageratum conyzoides* and *Jatropha curcas* are extensively used by the locals for curing wounds, *Ervatamia heyneana* (Apocynaceae) for treating respiratory disorders and snakebites, *Ardisia solanacea* for acute dysentery in infants and livestock, and *Memecylon umbellatum* for hepatitis (Chandrakanth, Bhat and Accavva 2004).

An ethnobotanical study in the Parinche Valley of Pune District recorded minor forest produce from a variety of plant species with medicinal value (Waghchaure et al. 2006). Among the Meitei community of Manipur, 96 percent of the plants from the sacred groves are used as medicines for treating various ailments (Khumbongmayum, Khan and Tripathi 2005). The bark of a leguminous climber called Gaidhari (*Entada phaseoloides*), found predominantly in the Western Ghats, is used to treat cattle against snake bites (Gadgil and Vartak 1974). Such plants contribute much towards the health care of indigenous people in remote rural areas, who have no alternative to traditional health care (Khumbongmayum, Khan and Tripathi 2005).

Utilization of plants for medicinal purposes is closely related to the culture and ritual practices of the indigenous people (Khumbongmayum, Khan and Tripathi 2005). Although certain medicinal plants are not restricted to the sacred groves and are abundantly found in the forests around, the locals still prefer to extract the medicinal plants from the groves based on the belief that these plants possess better healing properties (Waghchaure et al. 2006). Among the Meitei community of Manipur, any bitter tasting medicinal plant or vegetable

is collected before noon based on the belief that the medicinal property of such plants is lost if collected in the afternoon (Khumbongmayum, Khan and Tripathi 2005). Traditional practices of utilizing plants for medicinal purposes have been developed by the forefathers of the indigenous people and passed on to the future generations through oral tradition, folklore and unpublished manuscripts (Khumbongmayum, Khan and Tripathi 2005).

The sacred grove of Tamini is associated with the extraction of *Maadi*, which is a form of local liquor extracted from the sap of Fishtail Palm (*Caryota urens*) that is found abundantly in the grove. Popularly consumed as liquor, *Maadi* is also believed to have medicinal properties and hence its consumption is not looked down upon. The contract to extract sap from Fishtail Palm is auctioned every year to someone in the village itself. Villagers believe that the main reason for the survival of the grove is the economics behind the *Maadi* contract (Singh 2006).

Kavus (sacred groves in the local language) in Kerala are a major source of ground water to the local villagers (Freeman 1999). Narratives by Freeman (1999) elucidate the local beliefs that the ancestors, the Rishi's of Sanskritic Hinduism, must have known the value of forests and mandated the maintenance of *kavus* for the environmental well-being of the entire community, specifically to ensure adequate water for the village. In various areas within the Western Ghats, the sacred groves remain the only perennial source of water for the local inhabitants (Singh 2006). The sacred groves in Tamil Nadu are associated with ponds, streams and springs. Many sacred groves are located in the catchment areas near the origin of springs or streams. Such groves act as local-area microwatersheds which help to meet the water needs of the local inhabitants (Swamy, Kumar and Sundarapandian 2003).

The rituals performed in the groves to appease the deity could be considered as activities with economic implications, since such ritualistic activities are believed to bring good rainfall and health to livestock (Malhotra et al. 2001).

Existence Value

Although this study is primarily concerned with the religious, sociocultural, socio-political and economic importance of the sacred groves, one also needs to understand the existence value of the sacred groves. These are explored through the theoretical models of Krutilla's (1967) "Sentimental Value", Deb's (2001) symbolic recognition of existence value and Monaka's (2003) noneconomic preferences: social, ethical and moral values.

According to Krutilla (1967), existence value is the benefit people receive from knowing that particular environmental resources such as wilderness,

species or other objects in nature exist. Krutilla (1967) used the term "Sentimental Value" to represent the utility derived from simply knowing that the resource exists. He also recognized that the concept of existence value is applicable to man-made resources as well. Monaka (2003) analyzed different categories of existence values found in the literature: bequest value, cognitive value, non-paternalistic altruism, paternalistic altruism, option value, intrinsic value, ethical, moral and social values. These categories were further grouped into economic and non-economic existence values.

Economic existence value is a non-use or passive use value because the individual does not derive direct or indirect use. However, the value is measureable in economic terms (Chandrakanth et al. N.d.). A survey in the Kodagu district of Karnataka revealed that the coffee planters derive non-use values from sacred groves. About 26% of the respondents were willing to contribute an average 0.49 hectare of their own land per family toward sacred grove expansion without expecting any monetary return (Chandrakanth, Bhat and Accavva 2004).

Intrinsic, moral, ethical and social preferences grouped together under non-economic value do not reflect economic motives and are non-measurable. People may value diverse habitats and diverse wildlife intrinsically because of moral or spiritual/religious convictions about nature and the inherent worth of non-human entities. For some people the knowledge that 200-year-old groves of trees remain standing and flourishing is a source of joy in and of itself (Dana 2003).

The indigenous people associated with the sacred groves recognized the "bequest value" of the elements of biodiversity (Deb and Malhotra 2001; Gadgil 1995; Gadgil and Guha 1992). "Bequest Value" is the willingness to pay for the satisfaction derived from providing the future generations with a natural environment (Greenley, Walsh and Young 1981).

The attachment of religious values to species or ecosystems, regardless of their economic use value, could be a symbolic recognition by the local cultures of its "existence value" that seems to be unaccounted for by mainstream economics. "Sentiments of affinity" and moral attitude of the indigenous people towards sacred sites and individual elements in nature do not have direct use value to the locals. These are nonetheless revered in indigenous cultures and hence have existence value on ethical, moral, social and religious grounds (Deb and Malhotra 2001).

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CHAPTER III

METHODS

Data Collection

Survey of village people

The first step in the investigation involved surveying 30 residents of Shedani Village. The surveys were conducted outside individual houses, the village temple, and common areas of the village. The interviews were conducted in Marathi, the native language of the villagers. Initially the idea was to take a random sample of 30 people from those that were present at the time of the interviews. However, since most women and old men were reluctant to answer, I interviewed 30 people who were present and willing to talk. Questionnaires and informal interviews helped gauge the importance of the Waghjaai Sacred Grove to the people of the Shedani Village. The questionnaires contained direct and indirect questions probing the importance of the sacred grove to the village community. I graded the responses of the 30 village interviewees on a scale from 1 to 3, 1 indicating the grove is not at all important to the people, 2 and indicating that the grove is somewhat important and very important respectively.

Interview with the village school teacher

General information on the village, including data on population size, average education, occupation and source of income of the villagers was collected by interviewing a local school teacher in Shedani Village.

Discussion with the village children

Group discussion with the village children helped me to understand their attitude towards the sacred groves, urban visitors, restrictions on the access to the sacred grove and their knowledge of the folklore of the grove. This informal discussion took place in the school premises after classes.

Field Observations

I observed the landscape surrounding the Waghjaai Sacred Grove which consisted of agricultural areas, villages, roads, non-sacred forests, urban construction and open land. Additionally, features within the sacred grove, including presence or absence of temple, streams, springs, ravines as well as access to cattle in the grove were recorded.

Data on Environmental Variables within the Grove

I collected data on certain environmental parameters namely bamboo clusters, damaged trees, canopy density, tree density, presence of trash and leaf litter depth in the Waghjaai Sacred Grove. These data were collected to determine if there existed a disparity between the sentimental value of the grove to the villagers and the current condition and use of the grove. I have not tried to suggest any causality but rather to note any correlation between the importance of the grove to the villagers and the different variables describing the current condition of the grove.

Bamboo clusters

I took a count of bamboo clusters in the Waghjaai Sacred Grove. Presence or absence of bamboo is a very good indicator of the state of a forest. Bamboo is usually present in disturbed, secondary forests (Jong, Chokkalingam and Perera 2001). Observations on the coppicing of bamboos were also noted. Bamboo is integral to the culture of India. It is traditionally used in various ways by the rural people for their day to day activities and needs (Sarkar and Sundriyal 2002). The count of the bamboo clusters indicated if the forest was old growth or secondary forest and observations on the coppicing of bamboos shed light on their use from the grove if any.

Damaged trees

Counts were taken of tree stumps, trees with coppiced branches and trees that were seen fallen on the forest floor. Damaged trees are a good indicator of human interference.

Tree density

Three zones, namely interior, pathway and edge were demarcated in the sacred grove. Here, interior is defined as the area in the center of the grove. The pathway zone is the area around the walkway that traverses through the grove. The pathway zone however does not include the actual walkway. The edge zone is the area of the grove close to the road and the open land surrounding the grove. Two quadrats of five by five meters were taken in each of the three zones. Further, count of trees per quadrat for each zone was noted.

Presence of trash

A count of trash within five meters of nine randomly selected points was taken in the grove. The nine randomly selected points were divided between three zones, namely edge interior and pathway, with each zone consisting of three points. Trash is a very good indicator of the level of human activity.

Canopy density

A closed canopy is an indicator of a well-preserved sacred grove. Canopy cover affects temperature, humidity, sunlight, rainfall, and helps in the creation of micro-climatic environments (Singh 2006). Canopy density was recorded at each of the three zones: edge, interior and pathway. Three random points were selected in each zone and the canopy density was measured as follows: 0 when there were no overhead, 1 when canopies from adjacent trees barely met, 2 when canopies overlapped with the sky still showing through and 3 when the sky was no longer visible from the overhead foliage (Gadgil 1996). Data on canopy density along with data on tree density and damaged trees were used to explain the current state of the sacred grove and the level of human activity in it.

Leaf litter depth

Leaf litter depth is an important indicator of the quality of soil and general health of the grove (Pruthi and Burch 2009; Singh 2006). The thicker the leaf litter the better the soil quality will be. Leaf litter not only retains moisture in the soil but also helps increase the level of decomposition of organic matter at the forest floor (Pruthi and Burch 2009; Singh 2006). In addition, leaf litter is an important indicator of the health of the soil of the agricultural fields surrounding the grove. Human and animal intrusion reduces leaf litter (Pruthi and Burch 2009; Singh 2006). A simple ruler was used to measure the depth of the leaf litter from the forest floor. Measurements were taken at five random points in each of the three zones: the edge, interior and pathway.

Species inventory

An inventory of plant species in the grove was taken to see if there were any rare or endemic species present. The end uses of different plants were noted through interviews with the village people to see if there were any economically useful species and if those species were harvested from the grove.

Discussion of the Methods

I analyzed the data collected through different methods separately and later compiled the results to answer the research questions.

I calculated the percentage of the interviewees who scored "3" (the highest score, indicating the grove is very important) on the direct and indirect questions probing the importance of the grove to the village people. Similarly, responses of males and females were compared to see if there was any difference in their scores pertaining to the importance of the sacred grove. The questions were designed to identify the nature of the importance of the sacred grove: What aspect of the grove was the most and the least important, be it religious, social, political or economic? Any common themes or unique perspectives noted during the interviews were later analyzed and complied with the rest of the findings.

The environmental parameters were examined to verify if the responses of the village people reflecting the importance of the grove were consistent with the current condition of the grove. For example, from the interviews with the village people it was apparent that throwing trash in the grove was strictly prohibited. Taking a count of the trash in the grove helped me to verify if there was any obvious disparity between the restrictions the people said they followed and the number of trash pieces found in the grove. Taking a count of trash across three distinct zones: the edge, interior and pathway, determined what part of the grove was the most affected by human activity.

Limitations of the Methods

In this research general attitudes are conceptualized as the expressed degree of importance of the sacred groves. These attitudes reflect underlying values which in turn influence judgments about the environment (Larson 2009). This study, however, is primarily concerned with the underlying importance of the sacred groves, particularly their religious, socio-cultural and economic importance. The survey in the village was conducted around noon. Since most villagers were out working on the field or out to run errands, the potential interview pool itself was limited. Since most women and old men were unwilling to talk, the sample pool mainly consisted of men. Although a few women did agree to answer my questions, they were only willing to do so in a group.

CHAPTER IV

RESULTS AND ANALYSIS

In this chapter I have presented and analyzed the responses of the interviewees pertaining to the importance of the Waghjaai Grove to the villagers. I have also reviewed the environmental parameters that either concur or conflict with the expressed importance of the grove. The significance of the grove as expressed by the locals has been categorized into four main headings: Religious, socio-cultural, socio-political and economic importance. The relative importance of each type has been sequentially assessed. While the responses of the interviewees directly display the nature of the importance of the grove, the environmental factors observed in the grove demonstrate inconsistencies between the expressed importance and the actions of the villagers.

Survey of the Village People

When asked directly how important was the grove to the village people, 96.6 percent responded very important. Responses on the ten indirect questions probing the importance of the grove to the villagers provided similar results. 95.6 percent of the total people surveyed scored a 3 (highest score) on the indirect questions, indicating that the grove was very important to them. There was insignificant variation in the responses between the male and the female interviewees. Additionally, all respondents scored uniformly high irrespective of their age and education.

Significance of the Sacred Grove to the Village Children

Children under the age of ten were interviewed to assess the importance of the grove to them. All the kids that I interviewed had the knowledge that there is a deity in the grove and stated that the grove should be saved because of the significance of the deity. Some kids said that the grove should be preserved because of the *Jungle (Jungle,* as explained by the villagers is a non-sacred forest which contains densely tangled trees, vines, lianas and herbaceous plants). Although none of them were aware of the stories and folktales related to the grove, the kids unanimously agreed that they follow the restrictions in the grove because if they do not the deity will punish them. Fear of the punishing nature of the deity for misconduct was a common theme among the children. When asked if they like the sacred grove, most of them said they do because of the *Jungle*. Others did not have any particular reason for their attachment to the grove.

The Religious Importance of the Grove

The sacred grove evokes feelings of love, respect and devotion among the villagers. Although "Faith" and "Devotion" were the common feelings expressed towards the grove, the villagers were unable to differentiate between the two. They referred to the grove as a community temple and domicile of gods. The sacred grove has a distinct identity in the minds of the villagers. The locals could clearly differentiate between the sacred grove, the non-sacred forest (which consisted of mainly large trees, lianas and herbaceous plants) and the open lands with scattered patches of vegetation which included shrubs, grasses and some short trees. They associated the sacred grove with the Waghjaai Deity and identified it as *Baan*, whereas the non-sacred forest was commonly called a *Jungle,* and the open land with scattered patches of vegetation where cattle was usually left to graze was referred to as *Raan*. The distinct identity of the grove was also apparent from the separateness between the deity in the grove and the gods and goddesses worshipped in the house, that are usually family gods ("Kuladaivat" in the local language). The god *Bahiri* from the village temple is also different from the deity in the grove. Whereas the gods in the village temple and houses are considered benign and forgiving, the grove is the abode of the protective yet potentially destructive goddess Waghjaai. Responses of the villagers such as "She will punish us if we do not follow the rules", "We will lose

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our eyesight if we do not abide by the rules", "Something bad will happen", "the deity might wish us ill", "breaking the rules of the grove can cause personal loss of some sort", suggests a deep ambivalence about the protective and simultaneously destructive power of the goddess.

It is a common belief among most villagers that the deity protects them, their children and their livestock from threats. One villager said that even if they go late at night in the grove they are sure to be protected by the deity from ghosts, snakes, scorpions and even leopards. "We will not even get a thorn prick while in the grove" was her way of expressing the protective nature of the deity. However, the previously widespread belief that the deity protects the people from ghosts has attenuated considerably. Now, the overall faith is that the deity guards the people and livestock from wild animals. This signifies a shift in the beliefs of the people.

Locals seek blessings from the deity to start any new ventures, fulfillment of wishes, and for the arrival of good rains. These can be considered as the productive functions of the deity. Although fear was not the usual feeling expressed by the villagers, they believed that failure to abide by the rules of the grove can lead to the loss of eyesight, harm to their livestock and children and failure of monsoon rains, all suggesting an underlying fear towards the punishing nature of the deity. It is a common belief among villagers that any change that needs to be made to the grove cannot happen without the consent of the deity. In this context the locals noted that the construction of the tar road would not have happened without the permission of the deity. The villagers agreed that the road has made transportation of milk and other products to the cities easier, the weekly markets at Paud and Mulshi more accessible and life in general in the remote villages more accessible to cities. The road has however caused the grove to shrink considerably. The villagers however ascertained that they did nothing that caused the grove to shrink. "If the deity had not agreed to the construction of the road she would not have let it happen".

There are certain informal rules and restrictions associated with the grove and are strictly followed by the villagers. Certain rules are well defined while others are rather loose. There are several restrictions associated with the grove. 1) Logging, cutting and coppicing of trees and plucking fruits, flowers or leaves from the grove is prohibited. Although naturally fallen fruits and flowers are allowed to be collected.

2) Since it is imperative to keep the "home" of the deity clean, throwing trash or relieving oneself in the grove is prohibited. Despite the taboo on dirtying the grove, it was evident that the restriction on relieving oneself in the grove was

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strictly followed than littering the place with plastic and paper. The prohibition on spitting in the grove was also strictly adhered to.

3) Shoes are not allowed in the grove and this rule is followed by everyone.

4) Consumption of alcohol in the grove is strictly prohibited and this rule is followed by the villagers with sincerity.

5) Women are not allowed to enter the grove during their menstruation cycle. However, violations have been noted in the past. Yet such violations are believed to be fixed by making a coconut offering to the deity. Approaching the area where the actual stone deity is located is considered a bigger taboo and violation against it is unheard of.

6) The 14th day of the waning moon, which is a day prior to the full moon or new moon according to the Hindu calendar, is dedicated to the Waghjaai Deity. On that day, the farmers do not plough their fields. Additionally, eating non vegetarian food on "Chaturdashi"- the 14th day, is considered a taboo.

Various rituals are performed in the grove to appease the deity. 1) Coconut is a common offering made to the deity before starting a new venture, on fulfillment of individual wishes, or even as an expression of apology to the deity for some misconduct. Women are not allowed to enter the grove during their menstruation cycle. However, if they accidentally enter the grove, they have to offer a coconut to the deity after having a head bath as a symbol of their apology to the deity.

2) The *Gurav* from the Vadavathar Village performs prayers in the grove during the Navratri festival. His family has been performing these rituals for generations and its part of his duty on behalf of the Vadavathar and the neighboring villages: Shedani and Nandivali.

3) Individual rituals in the form of prayers are performed in the grove. The frequency of the visits to the grove for praying differ from individual to individual and are extremely variable. Some individuals, especially the Guravs, visit the grove practically every day to pray. *Guravs* are known to have a deeper faith in the deity because it's their belief that the deity protects their livestock from wild animals. Some individuals visit the grove once every month or once every two months. For others the frequency of visits is much lower-once or twice each year during the Navratri Festival. Although deliberate visits to the grove for prayers vary among individuals, locals generally offer a quick prayer to the deity whenever they pass by the grove. Generally, the frequency of visits to the grove and the deity increases during the monsoon season. Logically, the Monsoon is the harvest season for the farmers and good rains mean a good harvest. Hence prayers are often directed to the deity to bless them with good rains. In general it was observed that the males visit the grove more often than the females-there

were a few females who had not visited the grove in ten years. The villagers expressed that such rituals have not changed over the years.

Socio-cultural Importance

Sense of place

Adopting Relph's (1976) concept of unselfconscious sense of place where he suggests that the relationship between person and place is mutual, the relationship between the village community and the sacred grove can also be considered reciprocal. The deity is believed to protect the people in the village from various hardships in return for following the restrictions and rituals associated with the grove. As Relph (1976) suggests, "such relationship to place is most strongly developed in primitive people, because their survival depends upon knowing their natural environment well and because their world is peopled with inexplicable forces which have to be propitiated". Such relationship is apparent in the context of the sacred grove because people believe that once they propitiate the deity and follow her rules, she will look over their cattle and children and their safety is the responsibility of the deity. Such a reciprocal relation stems from the complex and unforgiving nature of their environment that is apparent from the villagers reactions: "We cannot keep an eye on our cattle all the time, the deity keeps them safe from leopards", "She

keeps us away from snakes, scorpions and bad omens", "If some serious injury happens to someone we have to travel a minimum fifteen kilometers for medical assistance". Such a reciprocal social interaction between the locals and the deity is implicit yet emphatically understood by all the villagers.

The sacred grove has been revered and respected in the village for generations. The villagers believe that their roots are in the Shedani Village and the associated Waghjaai Grove, and that they are emotionally connected to the place. The grove seems to be the locus of their existence. Reactions such as "why should we be here if the deity ceases to exist" and "we are here because of the faith in her" prove that the existence of the people and the associated villages: Shedani, Vadavathar and Nandivali are contingent upon the presence of the grove and its deity. Responses of the villagers signify that the well being of the villages is almost the responsibility of the deity.

Festivals

Religious socialization occurs in the grove during the Navratri Festival. This festival celebrates the worship of the goddess Durga, goddess Saraswati and goddess Laxmi. The *Gurav* from the Vadavathar Village performs the rituals during the festival on behalf of the three villages. During Navratri the *Gurav* lights a lamp in front of the goddess all nine days of the festival. He also offers nine garlands to the goddess Waghjaai-one garland for each day. Food is offered to the goddess on the first and the last day of the festival: this is called "Naivedya".

Funds to buy the paraphernalia for the rituals are raised from the residents of the three villages: Vadavathar, Nandivali and Shedani. Relatives and friends who have moved to cities like Pune for jobs visit the villages specifically for the festival in order to seek the blessings of the Waghjaai Deity. Although the grove is owned by the *Gurav* from the Vadavathar Village, the people from the Shedani Village participate in the rituals of the grove with complete dedication and support.

Socio-religious fencing

The sacred grove has been revered and respected in Shedani village for generations. Villagers make a marked association between the sacred grove and the belief of their forefathers that signifies a deep cultural importance of the grove. It was clear from the interviews that most villagers believed in the deity and the institution of the sacred grove. However, there were a few interviewees who expressed that they hardly believed in the grove and the deity, and the only reason they adhered to the rules of the grove was because of their elder's beliefs. They also expressed that a violation of the rules of the grove would upset the villagers and would cause disapproval from the people of Shedani, Nandivali and Vadavathar villages. Those who do not believe in the deity do not visit the grove regularly, but they follow the rules of the grove with near complete sincerity due to informal pressure from the elders in the family and the neighbors. Thus the institution of sacred grove is protected through such social delimitation and is seamlessly woven into the socio-cultural life of the villagers.

Socio-political Importance

The sacred grove is legally owned by a *Gurav* from Vadavathar Village. The grove was gifted to him during the British era. Although the ownership rights are with the *Gurav*, the right to use is with no one, whereas the right to manage the grove is with all the villagers from Vadavathar, Shedani and Nandivali. Performing the rituals in the grove is considered the honor of the *Gurav*, not so much his right. Since the grove is not open to any kind of resource use, it is believed that the ultimate rights are with the deity itself. The *Gurav* used to get a salary of forty rupees, previously from the British and later from the state government to perform the rituals in the grove. He also received an honorary house from the village Panchayat of the Vadavathar Village. However, for the past few years the state government has been inconsistent in giving him the salary, let alone any adjustments for inflation. Additionally, he has to travel forty kilometers to Pune each month to collect the salary from the government office. "It is simply uneconomical to travel each month to Pune to get the forty rupees", said the disappointed *Gurav*, who now performs meager jobs in the village to earn his daily fare. This however does not deter him from performing his duties related to the grove, primarily prayers during major festivals and cleaning the area around the deity and watering the trees every now and then. It also does not motivate him to use any resources from the grove owing to his immense faith in the deity.

Any changes or modifications related to the grove cannot be addressed without the permission of the *Gurav*. Drawn from the narrations by the villagers, there seem to be hardly any significant change made to the grove since the villages were established in the area eighty years ago. The most noteworthy change was the construction of the tar road cutting through the grove, for which a few acres were taken off from the grove. The people are however certain that the construction of the road was with the permission of the deity.

Another change the people greatly desire is the construction of a temple for the deity instead of an open space. Such temple would have multiple uses: It would keep the deity protected from exposure to elements, it would keep the area around the deity clean and it would serve as a comfortable place for people to gather and pray. However, according to the legend the deity will allow such a change only if the temple could be built in one night. Although the right to warrant such a change is with the *Gurav*, his role seems to be more of an executor than an owner. "Who are we to do anything here; it's the deity's wish. If she does not want a temple, we cannot do anything" was the response of the *Gurav*, which reiterates his role as a mere administrator. During the interviews, I asked the villagers from Shedani about the ownership of the grove, interestingly, hundred percent of the respondents said that the grove is jointly owned by the three villages: Vadavathar, Shedani and Nandivali. As a result any changes that are desired pertinent to the grove required the permission of the three villages. Although the grove is in the name of the *Gurav* on paper, villagers from Shedani were totally oblivious to the fact.

Economic Importance

No locals derive any economic benefit from the grove due to the restrictions on resource use. Fuel wood for household purpose is derived from the *Raan* (open lands with scattered patches of vegetation). Logging or even collecting fallen branches from the grove for cooking, heating or other household uses is not allowed. *Maadi* is a common form of local alcohol which is derived from the sap of Fishtail Palm. There are *Maadi* trees present in the village as well as the grove. The villagers never extracted any *Maadi* from the trees in the grove.

However illegal removal of *Maadi* by people from other villages was noted by the locals. Recently the *Maadi* trees in the grove have dried up as they become old and hence the sap from the trees is no more extractable. Additionally, the removal of *Maadi* requires a certain amount of expertise; it is becoming increasingly expensive even for the intruders from nearby villages to hire people to illegally extract *Maadi*.

Some of the rituals performed in the grove to appease the deity can be considered as activities with economic implications. Garland offerings are made to the deity for the arrival of good rains and coconut is broken in front of her before starting any new venture. There appears to be an economic motif associated with such rituals. Although people do not derive any direct economic benefit from the grove, such activities hint towards an underlying economic significance of the grove.

The locals of the Shedani, Vadavathar and Nandivali Villages are extremely poor. The average cash income per year in these villages is very low and is obtained mainly by performing meager labor jobs. In such poverty stricken villages, buying fruit like mangoes and guavas is a luxury and is certainly not a regular affair; yet freely available fruits from the grove are not plucked. Based on the rules in the grove, only fallen fruit is consumed. The *Gurav* from the Vadavathar Village, who himself earns his living by selling his labor finds it tough to get money for buying the paraphernalia for the deity. Hence, sometime, wood from fallen trees in the grove is sold and the money obtained thereof is used to buy such paraphernalia. Clearly, the money generated from the grove is used towards the deity only.

Existence Value

Despite the infrequent visits to the grove the villagers expressed that the grove was very important to them. Some females from Shedani Village had not visited the grove in ten years, yet expressed profound emotional attachment to the grove. Adapting Krutilla's (1967) "Sentimental Value", the utility derived by simply knowing that the sacred grove exists is representative of its existence value. Even if the grove does not have direct use value, it is nonetheless revered by the indigenous people and hence has existence value on ethical, moral, social and religious grounds.

Monaka (2003) categorized existence value into economic and noneconomic value: Economic existence value is a non-use or passive use value because the individual does not derive direct or indirect use. However, the value is measureable in economic terms. To account for such economic existence value of the grove I proposed the idea to the villagers of turning the grove into a tourist place and charging people five rupees to visit the grove. About 95 percent of the respondent suggested that they would like people visiting the grove so that the visitors would know the importance of the goddess, but putting a charge on such visits was unacceptable, because it was perceived as putting a charge on the goddess which was unacceptable on ethical grounds. Hence the five rupees that could have been earned but were denied by the villagers as unacceptable can be considered as a measure of the economic existence value of the grove.

Environmental Parameters

Cattle grazing

A villager reported that livestock are left to graze in the open area around the village. Grazing in the grove is allowed to a certain degree as it is impossible to keep an eye on the animals all the time. Cattle grazing in the grove were witnessed during the survey.

Animal husbandry and dairying are the main sources of income in the village. People believe that the deity protects their livestock from leopards and nothing can harm their animals without the permission of the deity. One story is popular in this context. Once when a pregnant goat was caught by a leopard while grazing, the lady who owned the goat prayed to the deity and helplessly exclaimed, "God, why are you doing this, please help", and the leopard released

the goat with only a few scratches on its neck. An interviewee vouched that such stories and experiences reinforce the beliefs of the villagers in the deity. According to a few villagers, the belief in the protective nature of the deity is fairly ubiquitous. However, the *Guravs* who keep large herds of livestock and whose only source of income are their animals are believed to have a deeper faith in the deity. The restrictions relevant to grazing in the grove are more forgiving, possibly due to the importance of the deity for the safety of the livestock. Moreover the difficulty in keeping a watch on the livestock all the time must have led to the easing of restrictions on grazing as compared to the restrictions on logging in the grove.

Bamboo clusters

Forty clumps of bamboo were recorded in the grove. Interactions with the villagers indicated that they are found naturally and have always been predominant in the area. Bamboo is found naturally in the landscape outside of the grove. There were fewer bamboo clusters in the interior of the grove as compared to the pathway and edge zones. Occasional cutting and coppicing of bamboo was witnessed in the grove.

Damaged trees

Although there was no specific distribution pattern observed, occasional cutting and coppicing of trees was evident. Some fallen trees indicated a natural death. "The trees dry away and die naturally as they get old" was the usual observation of the interviewees. Since one side of the grove ended in a hill, there had been landslides in the past that had washed off the *devrai* considerably. There was a major landslide in 1988 when almost 75 percent of the trees were destroyed. According to the villagers, occasional rolling boulders and rocks from the hill also damage the trees to a certain extent. Yet naturally fallen trees and damage caused by landslides does not explain the coppiced and cut branches recorded in the grove. Two points stand out here:

a) There is no active management of the grove: for example, measures that could have been taken to prevent landslides. One villager expressed that when the trees get old and die there is no initiative taken by the villagers to replace the fallen trees.

b) Interviewees agreed that the restrictions on the use of wood from the grove were stricter earlier but have considerably eased over the years. The villagers occasionally use wood from the grove for common village work by offering a coconut to the deity. The sacred grove has witnessed an easing of rules and regulations. Whether the cutting and coppicing noted in the grove was with the consent of the entire village for common village use or was secretly done by individuals for private consumption, hinting illegal use of the grove will remain unresolved. However having witnessed these coppiced branches, confirms that either the restrictions have in general become less strict or the villagers do not take the taboos related to the grove that seriously.

Trash frequency

Amongst the three zones: the walkway (an actual path traversing through the grove), interior and edge, the greatest amount of trash was found on the walkway on an average of five pieces per surveyed point (see Table 1). There was no trash recorded in the interior of the grove, whereas an average of less than one piece per point was recorded in the edge zone of the grove (see Table 1). Trash consisted of mainly paper and plastic. This could indicate that the interior is a relatively less accessed region of the grove while walkway that is the most used had clearly more trash. Interestingly, the edge where I expected to see more trash, as its adjacent to the tar road, had far less trash than expected. The reason for this could be that the deity is situated at the edge of the grove, adjacent to the tar road. Absolutely no trash was seen in the area near the deity. Principally, cleanliness of religious places is a prerequisite in the Hindu religion (Kong 1993). Hence, certainly, the deity that is revered and respected in the village is kept

clean. The interviewees unanimously mentioned that the restrictions on throwing trash in the grove were strictly followed by everyone. However, there was evidence of trash in the grove as mentioned above. Although throwing trash was restricted, by trash the interviewees generally meant toilet-related trash. Evidently, most of the trash recorded in the grove was plastic and paper, and no toilet trash was seen in the grove. During festivals the grove accumulates more plastic and paper trash than on other days.

Leaf litter depth

The average depth of leaf litter at random points in each of the three zones, interior, edge and pathway was recorded to be 2.5 centimeters. In some places, specifically in the interior of the grove, the depth of the litter measured 3 centimeters. There was almost no leaf litter on the actual walkway that traversed through the grove. The average leaf litter depth in the edge zone was found to be 2.5 centimeters, except the demarcated area around the Waghjaai Deity, where there was no leaf litter and no trees so that people could sit in front of the deity and pray. This generally indicates that most parts of the grove were relatively unaccessed, other than the actual walkway and the area around the deity. The reduction of leaf litter caused due to human and animal intrusion seems to be insignificant. People did mention during the interviews that they hardly visit the grove, and the few times they do, especially during the Navratri Festival activity is confined to the area around the deity. The villagers mentioned that the cattle are left grazing in the area around the village. Although grazing was witnessed in the grove, there was no significant difference in the leaf litter depth due to trampling by the cattle. There was no leaf litter in the areas around the grove. Since the rest of the landscape was either open land or grassy patches, with almost an absence of big trees, there was no leaf litter in the surrounding areas.

Species inventory

There are tropical evergreen and deciduous trees present in the grove (see Table 2). Most prevalent are *Terminalia, Bridelia* and *Ficus* species. According to the villagers and my own survey, it was apparent that there are no rare or endemic species found in the grove. Bamboo is a predominant species in the grove as well as the surrounding landscape. It is clear from the conversations with the villagers that the bamboo used for construction in the village is derived from the landscape surrounding the grove. Bamboo in the grove remains untouched. The bamboo species present in the area are predominantly thorny and hence have no demand in the cities for commercial purposes. During my survey I noted some medicinal plants such as *Entada, Yela, Hirda, Beheda* in the grove, however the villagers I interviewed had no knowledge of any medicinal

properties of such plants. Fishtail palm (*Caryota urens*), a source of *Maadi* was also noted in the grove. It is a source of a popular local alcohol called *Maadi*. Mango (*Mangifera indica*), Guava (*Psidium guajava*) and Jambhul or Indian Blackberry (*Syzigium cumini*) are some of the tropical evergreen fruit trees that were documented in the grove. Although readily available the fruits from such trees were not consumed unless they had fallen on the ground.

Canopy openness and tree density

Referring to the Gadgil's (1996) method of measuring canopy openness, the overall canopy openness score in the grove was 1.6 (canopies of two or more trees overlap but the sky is still visible through the canopies). All the places in the interior scored a two for canopy openness (see Table 1), whereas a few places in the edge and the pathway zones scored a zero (no overhead canopy present) and one (adjacent trees barely meet) respectively. Contrary to my expectation of a score of three (sky is no longer visible from the overhead foliage), the canopy openness score at the place of the actual deity was two as well. The vegetation in the area surrounding the deity, approximately fifteen by ten feet was completely cleared to demarcate the area of the deity and differentiate it from the rest of the grove as well as to keep the area around the deity clean. The grove that is considered the domicile of the gods and a shelter that protects the deity from exposure to the elements, was observed to not completely cover the actual stone depicting the deity.

The average tree density in the grove was six, seven and four trees per five by five meter quadrat in the interior, pathway and edge zone respectively (see Table 1). The significantly lower density of trees in the edge zone could be the result of the "edge effect". In the edge effect the ecological processes near habitat edges often differ from processes away from the edges. Hence the tree density in the edge zone could have been significantly different from the density in the interior and pathway.

The interviewees claimed that the construction of the tar road has caused the grove to shrink considerably. Approximately 53 percent of the respondents expressed that the number of trees in the grove has reduced considerably and the grove has become less dense. Villagers claimed "It used to be dark inside the grove even during the day, but now the density of trees has reduced quite a bit". From such responses and the overall consensus among the villagers regarding the reduction in the tree density over the years, we can infer with some certainty that the canopy openness score, at least in certain areas of the grove in the past, could have been three (the sky is no longer visible from the overhead foliage). Thus we can infer that the grove is experiencing degradation despite the strong religious beliefs and the existence of rules and restrictions preventing the use of

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the grove. While majority of the respondents stated that the trees usually dry out as they age and finally die, three respondents suggested that anthropogenic activities in the form of illegal cutting of trees have caused the reduction in the number of trees in the grove. The villagers, however, expressed that the current condition of the grove is sufficient to keep the "God's home" safe and guarded and they would plant more trees if needed, but they will not let the grove be destroyed completely.

	Zone 1 (Interior)		Zone 2 (Walkway/ Pathway)		Zone 3 (Edge)		Overall	
	Mean	Standard Deviation (SD)	Mean	Standard Deviation (SD)	Mean	Standard Deviation (SD)	Mean	Standard Deviation (SD)
Tree Density (count)	6.5	2.121	7.000	1.414	4	0	5.833	1.835
Canopy Openness (score from 0 to 3)	2	0	1.667	0.577	1.333	1.155	1.667	0.707
Trash Frequency (number of objects)	0	0	5	4.359	0.667	1.155	1.889	3.257

 Table 1: Environmental Parameters Measured within the Grove.

Scientific Name	Local Name	Туре	
Syzigium cumini	Jambhul	Evergreen	
Terminalia tomentosa	Ain	Deciduous	
Bridelia retusa	Asana	Deciduous	
Lagerstroemia	Nana	Deciduous	
Terminalia chebula	Hirda	Deciduous	
Terminalia bellerica	Beheda	Deciduous	
Carissa carandus	Karvand	Evergreen	
Ficus benghalensis	Wad	Evergreen	
Ficus religiosa	Pimpal	Evergreen	
Bombax ceiba	Sawar	Deciduous	
Ceiba pentandra	Pandhari Sawar	Deciduous	
Ixora brachiata	Lokhandi	Evergreen	
Butea monosperma	Palas	Deciduous	
Careja arborea	Kumbhal	Deciduous	
Mangifera indica	Amba	Evergreen	
Curcuma aromatic	Ranhalad	Deciduous	
Ficus glomerulata	Umbar	Evergreen	
Cassia fistula	Bahava	Deciduous	
Woodfordia fruticosa	Dhayati	Evergreen	
Caryota urens	Mad	Evergreen	
Grewia tiliaefolia	Dhaman	Deciduous	
Erythrina sp.	Pangara	Deciduous	
Psidium guajava	Peru	Evergreen	
Anogeissus latifolia	Dhavda	Deciduous	
Entada rheedei	Garambi (Liana)	Evergreen	

Table 2: Partial List of Plant Species Documented in the Grove.

CHAPTER V

DISCUSSION

This chapter discusses some varied and complex variables that give us an insight into the dynamics between the villagers and the grove. Although the sacredness associated with the grove is the most important factor that defines the relationship of the people to the grove, there are other non-religious factors that are perhaps affecting the status quo of the grove. Additionally, the nature of the rules and restrictions of the grove with deep religious underpinning also define and affect its current condition.

Use of the Grove-Ecological Significance

The significance of the Waghjaai Sacred Grove is centered on the deity. The grove is important in so far as it protects the deity from exposure to elements. The responses of the villagers to the following two questions: 1) "What are the changes you would like to see in the grove?" 2) "What would you prefer: the deity intact but the grove shrinks or the grove intact but the deity is shifted somewhere else?" suggest that majority of the people want the deity to be intact and desire a temple for her (see Figure 9). Thus the deity was of utmost importance. There were only a few people who suggested planting more trees in the grove (ecological significance) and only a handful expressed that the trees in the grove should be intact no matter what happens to the deity. In general, however, the deity is the locus of the grove and the existence of all other things in the grove do not matter without the existence of the deity.

The villagers however acknowledged the ecological value of the grove, and expressed that they like visiting the grove because of the trees and the sense of peace found in the grove. During the interviews some people explained how trees bring rains and hence the grove has ecological value. However, such ecological importance of the grove as expressed by the villagers is only an afterthought next to the religious and socio-cultural sensibilities primarily associated with the grove. At the same time certain reactions such as "the deity settled here in the first place because of the trees" suggest an underlying ecological significance of the grove that perhaps motivated the deity to settle here and caused the establishment of the grove in the first place, which discursively hints towards an indistinct separation between the religious implication and the ecological merit associated with the grove. Such fuzzy perceptions associated with the grove are particularly important for the debate regarding the origin of the sacred groves in the current literature, where religious considerations have been suggested as the basis for the origin of the sacred groves on the one hand while ecological insight is considered as the primary reason for the conception of the groves by the other school of thought (Arora 2006; Singh 2006; Gadgil and Vartak 1976).

Restrictions and Human Interference

Most of the rules and restrictions associated with the Waghjaai Grove were loosely defined. Logging in the grove was the only oft mentioned and evidently well established taboo in the village. Restrictions on consumption of alcohol, spitting and relieving oneself in the grove were some of the other restrictions that were seemingly well-defined and taken seriously. Although the cutting and coppicing witnessed during the survey did contradict the restrictions against logging in the grove mentioned by the villagers, such observations, as defended by the villagers were a result of natural death of the trees and illegal intrusion by outsiders. Some villagers expressed that logging for common village use was allowed to a certain extent while others denied any such exception to the rule against logging. There was an overwhelming inconsistency in the responses of the villagers regarding the rules of the grove that in turn reinforced the informal and "loosely defined" nature of such restrictions. Moreover, majority of the villagers expressed that the rules of the grove have not changed over the

years, yet from discussions with the village elders it was apparent that certain rules such as cutting trees and grazing have become less strict. Such changes in the restrictions appear to have happened casually yet organically and got seamlessly integrated in the village system, again reinforcing the informal nature of the rules in the grove. Additionally, the enforcement of these informal rules was also quite informal. Villagers did not actively punish people for not conforming to the rules; instead they believed that the judgment against the infidel is the right of the deity who is known to punish the intruder as she wanted. Moreover the rules of the grove were administered through informal channels such as neighbors and family who obligated the villagers to follow the rules on moral, sentimental and ethical grounds.

Socio-political Context

The political setting of the grove is perhaps the primary reason why the grove still exists. The notion of the villagers that the grove is jointly owned by the three villages supported by the *Gurav's* (owner) immense faith and respect for the deity are the overarching reasons for the existence of the grove. The *Gurav's* faith that the deity is the ultimate authority encourages him to keep a low profile regarding his possession of the grove and prevents him from encroaching upon the grove. His love for the deity also prevents him from restraining other

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villagers from entering the grove. In fact, there are no restrictions keeping anybody from entering the grove. The villagers' belief that the grove is common property of the three villages evokes a sense of belonging among them, yet maintaining a sense of responsibility based on the commonality of the grove, despite its private ownership.

Having said this, the current socio-political setting of the grove is extremely fragile and is primarily dependent on the *Gurav's* faith. Any change in attitude towards the deity in the minds of the future generations (of the *Gurav*) could possibly weaken this political setting. The money that the Gurav received from the state government for conducting the rituals in the grove almost seems like a price the government was paying to prevent him from reclaiming his ownership on the property and preventing the use of resources from the grove. However, not having received the money from the government for a long time (which I have explained in the results section) had almost certainly disappointed the Gurav and his family. Yet, his faith prevents him from encroaching on the grove. However, the reaction of his children to this situation will remain uncertain and then the fate of the grove could almost entirely be considered dependent upon the whims of the future owners.

Distance from the Villages

Apart from following the rules of the grove, visits to the grove for prayers and rituals are also an expression of the people's faith and respect for the deity. Such visits to the grove for prayers varied from individual to individual and were quite infrequent except for the communal rituals during Navratri. The villagers from Shedani hinted that the visits to the grove would have been more frequent if the grove was located closer to the village. The grove is located three kilometers on average from the three villages, which makes it relatively far for deliberate visits by foot. Alternatively, those individuals who had a deeper faith in the deity but found it tough to visit the grove on a daily basis, kept a small picture of the deity in their home altar along with other gods and goddesses for daily prayers.

It is clear that the daily visits to the grove are contingent on the distance of the grove from the villages. Ironically, however, the nature of the groves in India is such that they are located at a distance from the villages and almost never within the village boundary (Gadgil and Vartak 1976). In the ethnographical studies done by Kosambi (1962), he maintained that the groves were located on pre-agrarian trade routes and were hence found outside the village boundaries. Such groves were established by the king-priests to extend protection to the traders (Burman 1992). No matter what the historical reason for the distance of the grove from the villages might be, such geographical setting reinforces the ambivalence of the villagers towards the deity: they do not want to be physically very close to the deity who is considered to be ferocious and has the potential of punishing, yet close enough for her to look after the safety of the people and the cattle. People also generally avoid going in the grove at night owing to its mysterious and hallowed nature. The significant distance of the grove from the villages could then be considered a symbolic representation of the religious perception of the people. Yet the distance of the grove from the villages is a significant factor that affects the frequency of religious activities in the grove.

Distance from City

Shedani Village and the associated Waghjaai Grove are located at the periphery of Pune City with easy access and transportation. Additionally, proximity of Shedani to semi-urban villages such as Mulshi and Paud also facilitates easy access to daily necessities. Although firewood is obtained from the "*Raan*" surrounding the villages, it is not the only and certainly not the primary source of fuel in the village. Access to cities has facilitated easy transportation of kerosene to these "semi-remote" villages. Kerosene is available in the Shedani Village and is supplemental to firewood. Hence although collection of firewood from the grove is not allowed, availability of alternative

sources of fuel reduces the likelihood of illegal use of firewood from the grove and in fact helps to inadvertently follow the rules of the grove.

Variations in the Beliefs of People of Different Age and Sex

Shedani Village is predominantly occupied by elders above the age of 55. Although the elders were reluctant to talk to me during interviews, from conversation with other villagers it was apparent that the younger generation from the villages move to cities for job and it is common for at least one youngster from each family to move to Pune. Thus the older generation from the village who has managed to maintain their belief in the grove for the past few decades still continues to be the dominant group to influence the general attitudes towards the grove through social pressure. Reactions of the younger generations such as "we follow the restrictions of the grove because of the faith of the elders towards the deity" and "We do not wish to let down our parents by violating the rules of the grove" confirm the influence of their elders. Some elders expressed that their belief in the deity is stronger as compared to the newer generation. It is possibly easy to maintain the faith in the deity in a village dominated by older generation with stronger beliefs and relatively less control from the less dominant groups: young men who move to cities are neither

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involved nor affected by the affairs of the grove and men who stay back in the village continue to adhere to the beliefs instilled by their elders.

Majority of the women do not make any deliberate visits to the grove, while some visit the grove once in six months. Few women interviewees expressed that they have not visited the grove in ten years. These responses conform to the arguments of some male interviewees who expressed that the males generally visit the grove more often than the female counterparts and hence have a deeper faith in the deity than the females in the village. Although hundred percent of the interviewees responded that there was no bias against any caste or sex with regard to the grove, certain rules of the grove confirmed gender bias. Women do not have a say in the affairs of the grove and they are restricted from entering the grove during menstruation cycle. However such taboos are also widely prevalent in mainstream Hinduism, where women are not allowed to approach even the home altar during their menstruation cycle. Such a taboo against women is so fundamental to Hindu cultural rules that although the villagers mentioned the restrictions on the entry of women in the grove, it did not occur to them that such taboos in fact evinced a gender bias-hinting a subliminal integration of the taboo in their belief system.

Leaf Litter Depth

The amount and variation in leaf litter depth helps reflect the extent of human activity in the grove. The thicker the leaf litter depth, the lesser is the human impact on the grove. Leaf litter depth was uniformly thick across the grove, despite slight encroachments, which reflects the preserved nature of the grove and contradicts my initial hypothesis that there is disparity between the reverence expressed towards the grove and its current degraded condition.

Absence of leaf litter in the demarcated area around the deity can be very well be simplified as an inconsistency in the preserved nature of the grove. However, the method of keeping the area around the deity litter free is integral to the religious ethos of the grove, and is in fact a symbolic representation of their religious beliefs. In Hindu tradition, area around religious figures is considered "hallowed spaces" and is differentiated from the rest of the space either consciously or unconsciously (Kong 1993). Hence the absence of leaf litter near the deity can be considered as an outcome of religious human activity. Although such activities reflect interference in the grove they are integral to the religious code of the grove. Additionally, the absence of leaf litter in the landscape surrounding the grove suggests that although the grove is subject to a host of religious and social activities, it is less impacted when compared to the rest of the landscape.

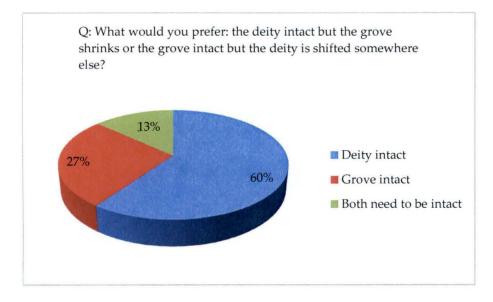


Figure 9: Responses of the Village People on the Question Above.

CHAPTER VI

CONCLUSIONS

Sacred groves are humanized landscapes (Arora 2006). Although visibly distinct from the rest of the landscape, the Waghjaai Sacred Grove is integral to the religious, socio-cultural and political life of the local peoples and hence a defining feature of the cultural landscape of the region. The grove is part of the cultural fabric of the people of Shedani, Vadavathar and Nandivali Villages. The deity is the locus of the grove. The grove is the primary reason for the existence of the people in the area whereas the grove itself is mostly meaningless without the deity. This sentiment was expressed by one of the villagers: "Trees can grow back, the deity cannot", "What is the use of the grove without the deity?"

The Waghjaai Sacred Grove is devoted to the Mother Goddess Waghjaai. It is considered a hallowed space by the villagers, where the deity is believed to reside and where people can engage in religious activities associated with the deity. The religious significance of the grove to the villagers was explicit and clearly expressed through words such as devotion and respect. Fear of the punishing nature of the deity, as a visible facet of people's religious beliefs was similarly expressed through specific words such as destruction, punishment, harm, loss and ill-wish. Rituals and restrictions practiced in the grove are a manifestation of such religious beliefs. While the rituals are present to appease the deity, the informal rules act as a social fencing for a religious cause. Additionally, stories and narratives associated with the grove reinforce such religious beliefs and consequently assure their continuity.

The socio-cultural significance of the grove is manifested through communal prayers and visits by relatives during festivals. Such religious socialization is also a mode of enjoyment for the people where they sing, dance, and enact plays in the village in honor of the deity. Considering the relatively relaxed rules in the grove during festivals which is evident from the excess trash the grove collects during festivals; it appears that the ferocious deity is more forgiving during festivals, when rituals are performed and offerings made by the people to appease her.

The reciprocal social relationship between the deity and the people seems to be empathically understood by the villagers and is based on their religious beliefs. Although the village is only forty kilometers from a major city, it can be considered a "semi-remote" region with hilly terrain, open lands and presence of wild animals. People living in this region occasionally experience leopard attacks, scorpion bites and other mishaps that are believed to be avoided through a mutual relationship with the deity.

People do not derive any direct economic benefit from the grove. Yet some of the rituals performed in the grove can be considered as religious activities that have an underlying economic motive.

It was clear from the inventory of the grove that valuable fruit trees such as mango, guava and indian blackberry, teak and bamboo that are valuable for construction and *Maadi* trees that are a source of local alcohol were readily available. Yet they remained untouched owing to the restrictions on resource use based on the religious beliefs of the locals.

The small size of the grove also limits the potential economic benefit of the grove to the villagers. One villager expressed, "even if we were allowed to extract wood and other forest products from the grove, the grove is very small for it to be of any significant use". Such reactions indicate that people understand that the resources available in the 3.8 acres of the grove are insufficient for all the villages and will not last long.

Occasionally wood from fallen trees in the grove is sold and the money derived is used to buy the paraphernalia for the deity. While religious considerations prevent the economic use of the grove, certain economic transactions in turn have a religious undertone, indicating that religious significance is fundamental to any activity or decision regarding the grove.

While the rules associated with the grove limit the extent of human impact on the grove, its socio-political setting clearly stands out as a fundamental reason for the existence of the grove. The fact that the villagers were ignorant about the real ownership of the grove evoked a sense of belonging in them based on their belief that the grove was a common property of the three villages, and yet was not "free for all". At the same time the *Gurav's* belief that the deity was the ultimate owner of the grove restrained his right on the grove. Looking at this socio-political framework of the grove as an outsider it was clear that if the *Gurav* began to reclaim his rights the current dynamics of the grove would alter significantly. Although the political context of the grove is not consciously understood by the villagers, it is the fundamental factor that maintains harmony within and between villages and pledges the existence of the grove.

The rules associated with the grove are the key reason for limiting human impact on the grove. Despite the rules and religious beliefs of the people towards the grove, certain human intrusions were observed in the grove in the form of occasional cutting and coppicing of trees, cattle grazing and littering. Additionally, the state of certain environmental parameters within the grove such as canopy openness and tree density bolstered human intrusions. However such intrusions observed hint more towards negligence and lack of active management of the grove. For example, villagers reasoned that some of the intrusions in the grove such as cutting and coppicing were done by people from other villages, while some said that people do not plant more trees once the old trees die both indicating negligence and lack of management of the grove. Yet it cannot be said with certainty that such negligence and lack of management are factors that undermine the importance of the grove to the villagers.

Distance between the grove and the Shedani Village is a significant factor affecting the religious activities in the grove which is evident from the infrequent visits and rituals. Inability to keep a constant eye on the grove due to the significantly large distance also causes negligence in the grove. One respondent expressed that "We cannot visit the grove everyday for prayers because it is far from the village; hence keeping a constant eye on intruders in the grove is impossible". Yet the villagers follow the rules of the grove, practice rituals and follow their religious ethos with near complete sincerity. Hence using negligence and lack of management as the reasons to justify people's disbelief or unimportance of the grove is debatable.

The locals differentiate the sacrosanct space surrounding the deity from the rest of the landscape by keeping it clean and litter free. Hence trees surrounding the deity are cut so that no leaf litter falls in that area and the leaf litter fallen close to the deity is also cleared. Such practice can be interpreted as contradicting the preserved nature of the grove. Yet keeping the area around the deity clean is integral to the Hindu Religion. For example, the area around religious places is cleaned with particular care (Kong 1993). Hence the activity of clearing the area around the deity that is diligently performed by the *Gurav* in fact bolsters my hypothesis that the sacred grove indeed has religious importance.

Distinct appearance, informal rules and plural meanings are the overarching themes that define the sacred groves. These aspects create a framework in which the groves are subject to a host of religious and social activities and yet are less impacted than the rest of the landscape.

APPENDIX

Survey of the Villagers in Shedani

Three groups

- 1) Children age<=10
- 2) 10<Young population<=55
- 3) Elderly population>55

PART 1

- 1) Name:
- 2) Age:
- 3) Sex:
- 4) Education:
- 5) Occupation:
- 6) Sources of income:

PART 2

- 1) How important is the sacred grove (*devrai*) to you? Why?
- a) Very important
- b) Important
- c) Quite important
- d) Not so important
- e) Not at all important
- 2) What comes to your mind the moment you think about the sacred grove?

- 3) Has that thought/perception about the grove changed over time? How?
- a) Yes
- b) Somewhat
- c) Don not know
- d) No
- 4) What are your feelings about the grove?
- a) Fear
- b) Respect
- c) devotion
- d) Awe
- e) Do not care
- f) Any other____
- g) All of the above
- 5) How will you feel if the grove ceases to exist? Why?
- a) Good
- b) Feel nothing at all
- c) Bad
- d) Terrible
- e) Do not know
- 6) Were there any incidences that made you believe/ disbelieve the folklore?
- 7) Do you think that the deity/spirits actually protect you? From what does the deity protect you? How?
- a) Yes
- b) Perhaps
- c) No
- 8) If you think the deity protects you, do you abide by the rules?
- a) Totally
- b) To a certain extent
- c) Not at all
- d) Cannot answer

- a) yes
- b) no
- c) do not know
- d) maybe

10) What will happen if you do not abide by the rules of the grove?

11) If you are given an option of turning the grove into a tourist attraction where the tourists can visit the grove will you like it? Why?

- a) Yes
- b) Depends
- c) No

12) If there is an option of turning the grove into a tourist attraction with a visiting fee attached to it for each tourist, would you agree to it? Why?

- a) Yes
- b) Do not know
- c) No

13) Will you use from the grove if there is no other source of firewood or grazing left in the nearby forests?

- a) Yes
- b) Do not know
- c) No

14) Does the younger generation feel the same way about the grove as you do?

- a) yes
- b) no

15) If no, what is different about their feeling? What do you think the reasons are?

16) Religious significance of the grove: (rituals/ prayers) How?

17) Social significance of the grove: (festivals/ gathering) How?

18) Economic importance of the grove: (wood, medicines, water, wild fruits etc) How?

19) Do you think the grove has shrunk in size? Do you think the grove is degrading? How?

- a) yes
- b) do not know/ maybe
- c) no
- 20) What is better? Why?

a) Grove (trees, water body) ceases to exist or is shrinking in size but the deity is well guarded

b) Grove intact but the deity is shifted somewhere else (perhaps outside the grove).

21) Which is the closest big city?

22) How often do you commute to city (Pune)?

- a) regularly
- b) frequently
- c) not so frequently
- d) not at all

23) How would you feel if your village was not close to a city?

- a) very bad
- b) bad
- c) would not matter
- d) good
- e) very good

24) Choose one of the following? Why?

- a) Proximity to the sacred grove
- b) Proximity to a big/ accessible city

25) If there is one thing about the grove you would want to change, what will it be?

26) How often do you go to the sacred grove to pray to the deity? Has that changed over time? If yes, why?

27) Are the deities in your *devghar* (Idols in your house) same as the ones in the grove? If no, why are they different?

28) Do you feel like having a big temple for the deity in the grove instead of a small shelter? Why?

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a) yes

b) maybe/ perhaps

c) no

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