

**Understanding global knowledge-dynamics: A case-study of
NFSC's project, *Digital Community Archiving*- does it 'protect or
plunder' the indigenous knowledge of the *Nari Kuravar*
community?**

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Abstract

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Understanding global knowledge-dynamics: A case-study of NFSC's project, *Digital Community Archiving*- does it 'protect or plunder' the indigenous knowledge of the *Nari Kuravar* community?

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The relationship between indigenous knowledge (IK) and intellectual property rights (IPR) is currently mired in violence and abuse. Whether the marriage of two antithetical worldviews- the one of global capitalism and therefore IPR, and that of the 'commons' and therefore the IK- is sustainable, given the monolithic power of the former, is a critical question in many minds today. Looking into the particular case of the *Digital Community Archiving* project that chronicles the IK of the *Nari Kuravar*, allows an understanding of the global knowledge dynamic created when oral, local knowledge is made available publicly for the world on the internet. That this material is freely available without copyright/patents etc., brings in the IPR dimension, and asks whether IPR is at all relevant or necessary to protect this knowledge. In this paper, I try to understand the global power dynamics that accompany the commercialization of indigenous knowledge, the impact on the intellectual commons where IK is produced, and further, whether such projects open up a new space for the exploitation of IK while assuming a democratic, participatory stance.

Keywords: *intellectual commons, indigenous knowledge, intellectual property rights, participatory development, knowledge-power complex*

Digital Community Archiving, Intellectual Property Rights and Indigenous Knowledge, an Introductory Overview

Participatory archiving projects like *Digital Community Archiving*² (DCA) have come to replace the role of the ubiquitous expert anthropologist in chronicling indigenous traditions and histories around the world. While giving agency to indigenous communities that have been historically objectified and subjectified, it allows for both the representation of multiple world-views, and the revival of a culture of knowledge-dissemination. While, historically, indigenous traditions have been passed on orally from one generation to the next, creating visual, audio and textual databases that are made available to both, the community, and the outside world demands an understanding of this global knowledge dynamic hence created. In disseminating the knowledge thus documented, the DCA creates a virtual internet space³ allowing for the *Nari Kuravar*'s indigenous knowledge (IK) to transcend the geographical limits of the nation situated in the global south and reach those in the global north. That this material is freely available without copyright/patents etc, brings in the dimension of intellectual property rights (IPR), and asks whether IPR is at all relevant or necessary to protect this knowledge. In this paper, I try to understand the global power dynamics that accompany the commercialization of indigenous knowledge, and further, if the DCA project opens up a new space for the exploitation or protection of indigenous knowledge while assuming a participatory stance.

In order to approach this multidimensional question effectively, I use the following theoretical complexes. Explicitly, I employ the ideas of ecocentrism, anthropocentrism and plunder, and implicitly, the following: firstly, the idea of nature as central to indigenous knowledge and world views; secondly, the colonial notion of *terra nullis*⁴ (Shiva, 43); and lastly, the idea of the 'intellectual commons' as a prematurely extinct space for the creation and sharing of knowledge (Mies and Shiva, 239). By employing these three theoretical frameworks, I hope to expose the inherent contradiction in the notions of IPR and indigenous knowledge, and subsequently, to understand whether the use of participatory digital documentation transcends this difference.

The Global IPR and IK Debate: An Introductory Framework

A visual representation of the mutual exclusivity of IPR and IK would look like this: two circles that do not overlap, one with 'man'⁵ in the center, and the

² DCA involves processes by which indigenous communities learn to use digital media (film, photography) to record their traditions and lifestyle, primarily for themselves, and for the world at large.

³ While photo and video documentation are the means to *create* documented indigenous knowledge, the internet serves as a space to *share* that knowledge.

⁴ The colonial rationale for taking over land was that it was barren and unused- *terra nullis*. This legitimized their colonization of lands used as (usually) commons by indigenous people around the world.

⁵ I consciously use 'man' to refer to the male gender that is embodied in modern scientific rationality encapsulated in phrases like the 'modern man', the 'rational man' and so on.

other with a network of interdependencies⁶ of which 'man' is only one. To see that there is only a contradictory nexus between IPR and IK, it is necessary to imagine these two worlds- the anthropocentric capitalist one (the first circle), and the *ecocentric*⁷, anticapitocentric (Herod and Wright, 19)⁸ one (the second circle).

In the anthropocentric capitalist world, knowledge is commodified and derives its value from being a monetized 'product'. This intellectual product brings profits when it is commercialized, or introduced into the production process. Given the premise that capitalism is the story of rich men, (if one were to borrow from Carlyle's famous theory that the history of the world is the history of the great men who have lived in it), that sustains itself through the creation of entrepreneurial *individuals*⁹, it is no surprise that the product of the mind, is seen as a profitable, private property. In this worldview, 'life' (as a process), is an essentially economic one, where everyday actions are driven by a profit-maximizing motto centered on the self.

In the other circle lies the *ecocentric* worldview that decentralizes the 'self' and *amonetizes*¹⁰ life. Herein lies indigeneity, and indigenous knowledge. Historically, indigenous communities, much like many eastern philosophies, were not centered on the 'self', or even on the 'human'. Vandana Shiva (2001) argues that indigenous knowledge, is in fact, "centered on co-creation by nature and people" (65)¹¹. Using Shiva's concept not only makes the underlying symbiotic linkages of an indigenous society (between humans and nature) visible, but also emphasizes the fundamental differences between the two circles.

The first circle represents a world where knowledge is privately owned, and where individuals live as islands within a society bound by economic ties. IPR acquires meaning and form in this circle as an offshoot of the original 'private property rights' accrued to land-owners. Creating individual ownership of ideas happens via a process of 'enclosure', much like the enclosure of common land¹². Here, in these enclosed spaces, actions extraneous to the economic cycle are meaningless, and conversely, ideas and crafts acquire meaning when

⁶ I use the imagery of a network of symbiotic linkages between people and nature in the later sections of the paper. This is what I refer to when I use the term 'interdependencies'.

⁷ I define the term *ecocentric* as a worldview that decentralizes the 'human', and instead, sees humans as a mere part of nature. Further, this would entail viewing the world as egalitarian- comprised of beings that are all equal within nature, with equal 'ecorights' (Selvamony, 265).

⁸ I borrow this term from Gibson-Graham to refer to ideas and ways of living that are extraneous to global capitalism, a.k.a, normalized 'economics'.

⁹ I take the neo-liberal phrase 'entrepreneurial individual' to be synonymous with the older, neo-classical, 'self-interested rational man'.

¹⁰ Re: Not attributing monetary value to everything

¹¹ Such a rationale is obviously unimaginable in an anthropocentric world that is built on material relations alone

¹² [I allude to Shiva again, and juxtapose this notion with that of the circles in a later section].

commercialized. One of the ways this happens is when tacit knowledge becomes explicit, or as in the case of *biopiracy*¹³, when tacit knowledge is made explicit via commercialization. This tacit knowledge, however, exists primarily in the second circle.

The second circle can be imagined as having a base (to invoke Marxist imagery) of symbiotic linkages (between humans and nature) that supports a superstructure containing an 'intellectual commons'. The general notion of the 'commons' is that of "resources shaped, managed and utilized through community control" (Shiva, 47). It serves as an inclusive space that is open and egalitarian. "The enclosure of the commons can be a guiding metaphor for understanding the conflicts being generated by the expansion of the IPR systems to biodiversity" (Shiva, 45). In the case of IK, this entails an enclosure of the 'intellectual commons' where ideas are co-created with nature, through time and space and always shared freely amongst people¹⁴.

'Enclosing' the intellectual commons is that material process which gives meaning to the IPR system, which is otherwise meaningless to the second circle. Limiting knowledge-sharing is antithetical to the essentials of indigenous knowledge creation and usage. Such enclosure is also callously oblivious to the *ecocentric* standpoint, enforcing in its place, a contextually meaningless, historically insignificant, 'other' idea that divides, allocates, privatizes, monetizes, plunders and conquers, all at once. The first circle can be taken as spatially representative of the developed world (enclosed; the previously colonial, presently neo-imperial first world); and the second, of the developing world (partially enclosed; mostly previously colonized, now under neo-liberal regimes bound by WTO laws)¹⁵.

This metaphysical division of the world creates two virtual spaces that produce meaning in two (or more) different ways. The global politics surrounding the praxis of IPR, and its interaction with IK essentially happens on a battleground where one group wields sticks, and the other, very fat wallets. The first circle/the developed world has hegemonic and often absolutist influence and control over the second/developing world. What the first circle sees as profitable knowledge, 'lying unused' in the intellectual commons, is stolen and injected into the 'useful', 'rational' process of material production.

This linear, unidimensional economic thinking characteristic of global capitalism is that powerful, creative process that allows for large multinational corporations to extract indigenous knowledge, decontextualize it and monetize it. In this paper, I attempt to use the very binary created by this unidimensional

¹³ Biopiracy is the process by which IK is extracted/stolen from indigenous communities, and made commercially valuable. This is most common in the pharmaceutical industry and is seen as an inherently neocolonial method of plunder.

¹⁴ Indigenous knowledge may be enclosed in certain ways- for instance, the knowledge about certain medicinal herbs may only be passed on generationally amongst healers; However, most ecological knowledge necessary for the survival of the community and its tradition is freely shared with everyone.

¹⁵ However, there has been a simultaneous upsurge of social movements in both worlds that attempt at realising alternatives- at co-creating communal, common worlds.

ontology to understand the relationship between IPR and IK. However, I should make explicit that I am aware of the post-modern skepticism of constructing binaries, but that I use this construction to cast light on the binaries created and sustained by hegemonic systems like the IPR that project a certain rationality as the absolute truth, and further, constitute IK as a mere source for prospecting ideas and resources to create products, thereby widening the north-south divide.

Thus, this monotheistic rationality obliterates the ability to envision the multitudes contained within the second circle. This is supported by the nature of western rationality that has an inherent need to qualify things based on their supposed use-value. For instance, ascribing monetary value to things is seen as the only credible way to approach something as valuable as knowledge. However, on slightly different lines, it can be seen how indigenous communities are either romanticized as the glorious other, or condemned as being 'backward', both within the same logic sequence. While I understand that my portrayal of indigeneity and indigenous knowledge stands to fall into the romantic trap, I only seek to represent IK as a shared, changing, socially-relevant entity, and not as a 'product' or 'object' of desire.

The ideas underlined in the above sections guide my understanding of the global IPR-IK debate and I will use other concepts such as 'plunder' (Nader and Mattei, 2008) that offer a way to define the manner in which the two worlds interact with each other. In essence, I hope to conclusively explore how this interaction occurs, with what outcomes and why it matters that we know. I begin with an introduction of the specific case of *Digital Community Archiving*, the organization undertaking this project and the community that is 'participating' in it. I then go on to analyzing the nuances of the project to contextualize them within my theoretical framework to expose whether this localized interaction is congruent to the one on the global scale.

Digital Community Archiving, The National Folklore Support Center and the Nari Kurava Community

NFSC is a non-profit organization, based in the southern metropolis of Chennai that works for and with several indigenous communities around the country to promote participatory chronicling of folklore and folk tradition. It undertakes several projects with the objective of fostering social change activism and scholarly research. Of these, I was personally involved, over the summer of 2009, with the *Digital Community Archiving* project engaging the *Nari Kuravar* community.

DCA involves processes by which indigenous communities learn to use digital media (film, photography) to record their traditions and lifestyle, primarily for themselves, and for the world at large. Members of the community are trained in-situ at the local office established by NFSC. This office serves as a common space owned, run and maintained by the community where the video/audio equipment is stored and plans are made. The recorded and documented material is then transferred onto a computer at the office by the two NFSC employees (from the village/town, not from the community). Thereon, the material is uploaded to wiki and made freely available to the world.

The *Nari Kuravar* are only one of the communities served by the DCA project. Originally nomadic, the *Nari Kuravar*, are now settled in various parts of Tamilnadu, India. Ethnologists trace their origin to the *Roma* of Europe, but the community believes it came from the state of Gujarat in north-west India¹⁶. Having been peripatetic travelers, their language *Vagriboli* is a mixture of several Indian languages, and their culture (though distinct) is a *mélange* of several Indian communities.

Narikuravar are associated with 'nature' as opposed to the surrounding peasant caste groups which stand for 'culture'; and they are often regarded as still living in the 'Indian past', as opposed to 'Indian modernity' (Alex, 3).

Although still considered 'native', the *Nari Kuravars*' indigeneity is now in a state of flux, thanks to the infiltration of ideologies and values from neighboring settled communities.

The community that I interacted with is situated in *Vilupuram*, and lives in a colony (settlement) called *Ashakulam*. The colony is made up of five lanes (streets) which are inhabited by five clans, headed by their specific leaders. While their ancestors were nomadic hunter-gatherers, their occupations today range from bead-making/selling, catapult-making/selling, hunting and tattooing. This move from their traditional occupation was mandated by the Wildlife Protection Act (1972) that criminalized hunting of every sort. Nevertheless, even within the present occupations, much has changed over the years, in terms of materials, patterns, markets and so on.

The *Nari Kuravar* sport an informal lifestyle, where entertainment is generously interspersed with work in the approximate ratio of 70 to 30. Originally consisting of folk song and dance (now almost prematurely extinct within this particular community), it is now being replaced with television shows, films, film-music and dance. Also common is the game of cards, which often morphs into petty-cash gambling. In all, the community thrives on reveling life, and subscribes intimately to the *carpe diem* philosophy, perhaps as a result of their nomadic culture, and their long history of oppression/criminalization and deep-seated poverty. The most fascinating aspect of this community, however, is their adaptability to change and the subsequent fluidity of their culture and knowledge systems.

Having been nomadic for centuries, their indigenous knowledge has also changed over time. Their ecological knowledge is specifically rich in their understanding of medicinal plants and the use of hunted game for medicinal purposes. While historically they travelled from village to village dispensing herbal medicines, they now run both settled small-scale clinics and travelling camps specializing in sexual healing. Over time, they have borrowed from other indigenous health traditions in India like *Siddha* and *Ayurveda*.

The Notion of 'Protection' and the *Digital Community Archive*

As outlined above, the DCA is a participatory mechanism that allows people to create their own histories, avoiding what Howard Zinn (2003) calls a *historian's distortion* (8). Allowing marginal voices to tell stories, to create

¹⁶ From conversations with the community in June 2009.

histories, overturns the historian's power of selection, distorted by ideology, and instead allows a space for the emergence of a new power-knowledge complex¹⁷. This new space in the context of the DCA has two dimensions. On one plane, it is virtual (i.e., it is on the internet), and on another, it appears as the physical agency captured in photo and video media.

By creating this space for self-preservation and self-documentation, the DCA allows this historically oppressed community its long stolen agency. The project is planned in such a way that there are two community members (Raja and Manickam, hereon, R and M) who act as chief facilitators as well as the link between the community and NFSC. R and M are sons of one of the community chiefs, Lighter, and have considerable knowledge and leverage in the community. They are also (now) knowledgeable about video and photo technology.

In training R and M to use visual technology to document indigenous knowledge¹⁸, the DCA seems to employ two theoretical frameworks, that of *visual anthropology* and *endogenous development*. *Visual anthropology* entails using visual media to document such folklore and IK, and is particularly relevant where there is a need for photographic/film 'evidence' to emphasize the need to protect and bring awareness to the existence and knowledge systems of those communities (Collier and Collier). *Endogenous development* is development that is historically relevant and culturally pertinent to a community that comes from within. The tools provided by *endogenous development*, if used in combination with visual anthropology, will enable the creation of democratic, participatory spaces for the development of indigenous communities. By sharing decision-making powers with the community, the DCA disperses the centralized power characteristic to mainstream development projects, and enables a contextual preservation of IK.

Not only is this participatory style a highlight of IK, so is its ability to 'share' this knowledge. Although, IK is co-created by people and nature, it only acquires meaning when it is shared. Unshared knowledge is insignificant to communities, especially because it primarily exists as a 'collective enterprise'- a product of the community's creativity (Shiva, 21). This creativity finds transnational recognition through the internet where all the documented material is uploaded (onto the wiki portal), giving free and open access to the world. It is essential to remember, at this juncture, that, often, it is such mainstreaming that keeps knowledge alive. A contemporarily 'successful', significant example of this is the Chinese healthcare system that is a nexus of western and indigenous medicine (Sahai et al., 25).

A common argument for the preservation of herbal medicine is that the global market is prospering, currently valued at \$43 billion. "...indigenous communities of India are acquainted with the use of over 9000 species of plants,

¹⁷ The old power-knowledge complex, I take to be what Foucault terms "epistemological power"- one that bestows the power to extract knowledge from and about individuals subject to observation (Re: like indigenous communities). I will explore this notion further in the latter part of this paper.

¹⁸ It is vital to remember that the community's folklore is intertwined with their collective knowledge and therefore, documenting folklore entails documenting IK too.

of which 8000 have medicinal values". Many authors like Suhai et al., suggest integrating the knowledge of local communities into the mainstream, with due compensation as an income-generating activity that also creates empowerment, and/or 'saves' IK (Suhai et al., 4-5).

The notion of 'saving' indigenous knowledge, though a product of the modern, colonial era, continues to find meaning in a rapidly globalizing world. The well-compensated indigenous knowledge can benefit communities via the IPR system that protects their rights to the profits accrued to the use of IK. This is accomplished via 'bioprospecting' contemporarily. "(The) arrangements to explore biological diversity for commercially valuable genetic and biochemical resources have come to be called biodiversity prospecting or bioprospecting" (Moran et al., 506). This method is suggested as both an alternative to 'biopiracy' which is the stealing of IK with neither consent nor compensation; and also as a method of biodiversity conservation (giving monetary compensation to encourage conservation efforts).

The drive towards 'compensated bioprospecting' is the result of resistance to the colonial notion of 'naked extractivism', which found its expression in the 'Declaration of Belem' (Please refer to Appendix 1). This declaration mandates just-compensation and power-sharing with indigenous communities for biodiversity conservation and indigenous knowledge sharing. The common argument for compensation is outlined by Posey (1990):

...traditional knowledge itself must be compensated in financial terms.

Otherwise, native peoples themselves must revert to ecological destruction, associated with atrophy of their own knowledge systems, in order to acquire the economic power they need to survive (Posey, 14).

Such monetary compensation is seen as a developmental act, that is done on the basis of "long-term value, practicability and short-term usefulness" (Benthall, 4).

'Saving' indigenous knowledge, is also seen as intricately connected with the conservation of bio-resources. If traditional knowledge is a culmination of the interaction between people and nature, then it is imperative to protect the ecosystems that co-create knowledge. In this, IK is seen as a reserve for sustainable conservation methods.

For many communities, conserving biodiversity means conserving the integrity of the ecosystem and species, the right to resources and knowledge and the right to the production systems based on this biodiversity. Therefore, biodiversity is intimately linked to traditional indigenous knowledge systems as well as to people's rights to protect their knowledge and resources (Shiva, 48).

In this respect, the DCA provides the mechanism for enabling conservation, and the space for the community to voice its rights to protection. By virtue of its participatory nature, the DCA acts as a spatial and temporal medium that allows the *Nari Kuravar* to protect their traditions, their values and their indigenous knowledge.

In understanding the need to preserve this knowledge, the DCA seems conscious of the difference in the worldview embraced by the *Nari Kuravar*. They belong in what I refer to in my theoretical framework as the 'second circle'. Being an indigenous community, their relationship with nature is complex. Although glorified and essentialised by the mainstream, 'civilized' world, they continue to

depend on, extract from, and respect nature. Their hunting practices are not in accordance with the rule of law (of the first circle), neither is their practice of animal sacrifice. Yet, it is essential to view this relationship in its context- not only do they kill for food and religion; they also worship nature, and give back to nature in their own meaningful ways. Being an originally peripatetic community, their hunting-gathering practices hardly caused a stir in the ecosystem. Perhaps their forced settlement and the ensuing impoverishment has resulted in less meaningful interaction with their ecosystem. Nevertheless, the project attempts to bring to light all of these complex, co-constituted relationships by engaging the community in a process of participatory documentation of their own IK, allowing for a meaningful representation alien to most 'development' projects today.

The Notion of 'Plunder' and the *Digital Community Archive*

The DCA 'protects' the IK of the *Nari Kuravar* by transferring knowledge from the physical realm to the hyper-real realm (re: the internet). In doing so, it also makes visible previously endogenously-protected (communally enclosed) knowledge to the world. This creates a complex network of problems, which I will outline in the following section, using two important concepts- 'plunder', and the disparate notions of 'ecocentrism' and 'anthropocentrism'.

The free-sharing of information on the internet increases the accessibility of information for ethnographic researchers, scientists, and corporate thieves alike. Transcending from the oral medium to the digital medium brings into play a new spatiality and interconnectedness that changes the context of the IK. Previously contextual, historically conceived knowledge like the herbal medicine of the *Nari Kuravar* is alienated from its original intellectual commons within the community and enters the new enclosed commons, ironically, via the open-space, the internet. This process of enclosure itself happens through *bioprospecting*, *biopiracy*, and the underlying corporate disclaimer, IPR.

As outlined in the previous section, *bioprospecting* involves compensating the indigenous community for appropriating IK. Shiva and others like Posey are skeptical of this notion, and offer the term *biopiracy* as an alternative that fits the context better. This term is closely linked with what Nader and Mattei (2008) define as 'plunder'-the "inequitable distribution of resources by the strong at the expense of the weak" (11). In explaining the connection between the ideological notion of 'plunder' and how it translates into action in a neoliberal, globalised, capitalist world, they offer a vivid illustration, that is much in line with Shiva's argument¹⁹.

...take a farmer who has no "legal" right to use the types of seeds he and his forebearers have planted for centuries and trace a line from those seeds to obscene profits now generated by their new corporate owners: plunder (11).

A general google search on the IK of the *Nari Kuravar* brought up a website containing a concise list of all the medicinal plants used in their health-care system (Please refer Appendix 2). It comes as no surprise then, that their

¹⁹ I go into the details of her argument in a later section of the paper.

unmindful willingness to share their IK results in exploitation and manipulation by corporate bodies and governments alike, across transnational space and time.

In a similar vein, Roopnaraine (1998) points out the loophole in the bioprospecting argument as lying within the realm of knowledge proprietorship. He uses the example of the conflict over the patenting of a neem²⁰-based pesticide:

W.R. Grace and Co. hold a patent for a process by which the shelf-life of neem pesticide can be extended. Activists in India argue that this patent will disenfranchise Indian small-scale agriculturalists, who will now (theoretically) have to pay for the right to use the substance (16).

Following this particular case, Merson (2000) says that Grace went onto collaborate with an Indian firm, P.J. Margo, to found a neem-processing plant in India that supplies more than twenty tons of neem seeds a day as input for insecticide production in California. Martin Sherwin, Grace's commercial development president, apparently feels that the Indian industry will benefit greatly from this 'new' product and that the Grace patent "created a more valuable resource from neem" (288).

Needless to say, even the 'commoner' in India is appalled by this statement, which reveals a crucial fact- IPR only protects knowledge that has direct commercial and use-value in the west. Irrespective of the fact that the neem tree is a common appendage to most homes, whose shade is medicinal in summer, whose leaves cure measles, mumps and chicken pox, whose seeds have been used for centuries by farmers to protect their crop, the neem has suddenly found 'value'. Any knowledge with collective, communal, spiritual or other non-material value is neither recognized nor protected by IPR unless it is found to have commercial use in the West. It is this 'logic' that plunders the *Nari Kuravar's* IK, both, by exposing their herbal medicinal knowledge to pharmaceutical giants, and by not mandating protection for their folklore.

However, for their part, in recognition of the need to commercialise their knowledge to survive in a wholly anthropocentric capitalist world, the *Nari Kuravar* have established small clinics where they treat illnesses and sell herbal medicines. Yet, it could be just a matter of time before most of their IK is stolen via *bioprospecting*. Posey (1990) identifies an imminent quandary in the 'just-compensation' argument when he says,

By establishing mechanisms for 'just compensation' of native peoples, are we not also establishing mechanisms for the destruction of their societies through subversion by materialism and consumerism? (15).

The radical opposition between the circles that contain the slowly transforming *Nari Kuravar* and the plundering world cannot be stressed enough. Even with the existence of processes of integration with the mainstream, the battle with the IPR regime only intensifies. Not only are most indigenous communities entirely unaware of the existence of an IPR system, but the idea is simply alien and meaningless to most. While the *Nari Kuravar* are forced by the desperation of their historical oppression and criminalization to open up their societies to the eyes of those agencies like the NFSC and live in close proximity

²⁰

Indigenous plant common to most homes in India and used widely for its healing qualities

to the vastly commercial world, they are still incognizant of the rights to their own knowledge. Perhaps it would be rather elitist to claim that it will always remain meaningless to them, but I can only insist that given their worldview and lifestyle, it will only be out of fear of loss of identity or an extreme external shock that will coerce them to adopt and embrace IPR.

Conclusion

Changing the spatiality of knowledge creates a dangerous shift in the power-knowledge dynamic within indigenous communities like the *Nari Kuravar* leading to 'multiple levels of dispossession'.

At the first level, the creation of the disembodied knowing mind is linked to the destruction of knowledge as a commons (Shiva and Mies, 274).

Such a decapitation is accomplished via the IPR regime that is no more than a loud, patriarchal, capitalist 'impulse to control all that is living and free' (243). IK is embedded within the intellectual commons and therefore, the negation and extinction of the latter, discounts and destroys the former.

Escobar (1998), unlike Shiva, refers to the 'commons' as an all-encompassing economic space when he says,

Community economies are grounded in place (even if not place-bound, as they participate in translocal markets), and often rely on holding a commons consisting of land, material resources, knowledge, ancestors, spirits, etc.. Within a Western framework, profits arise from innovations that must thus be protected by intellectual property rights...there is "a need to place innovations and intellectual property rights in a broader context," that of contrasting cultural models. Without saying that intellectual property rights are inappropriate to all situations, it is important to support local knowledge and innovation "not in the hope of securing individual profit but as a way of helping people to protect their commons." This might require protecting "community spaces outside the market so that the place for local innovation is preserved and the results may be locally enjoyed" (S. Gudeman 1996: 118) (75).

I cite Escobar's argument in detail to show how the capitalist argument extends beyond its bounds. Not only is the IPR argument used to argue for a protection of the commons which it in fact helps to destroy, but to encourage 'innovation' which is inherent to communities that have not required such external prodding for centuries. Yet, Escobar identifies the urgency to prevent complete loss of IK, and the inherent contradiction between the western IPR and the eastern²¹ IK.

Although the DCA attempts to marry these spatial differences via the internet and provide a base for 'saving' IK, it needs to recognize fully its role in the community's transition from alternative to mainstream society. Perhaps, lessons from the field of *endogenous development* will help identify those areas that really need protection, like their knowledge of herbal medicine, and those that need reviving, like their dying musical and dance traditions.

Popular activists for the protection of the 'intellectual commons' of indigenous communities like the *Gene Campaign* insist that there is a significant need for state intervention and policy-change. They vocalize a need for a *sui-*

²¹ I am reluctant to use this binary because Indigenous communities are present in Mexico and South America, and in other regions in the global north. Also, IK is not limited to indigenous communities alone, but extends to all historically evolved societies.

generis approach to protect IK, along with a move towards strict biodiversity conservation and sustainable resource use (ii). Nevertheless, what is imminent is that there are profits to be made in the global North, and that mandates powerful control of resources and knowledge in the South. And this is easy to achieve, given the hegemonic, ahistoric, profit-driven, alien, plundering nature of the IPR regime. The imminent future of the *Nari Kuravar* is a bleak, pastel painting of a community that is waiting to be dispossessed of the only remnant of its roots, its indigenous knowledge.

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Appendix 1

(Source: ise.arts.ubc.ca/_common/docs/DeclarationofBelem.doc)

The Declaration of Belem

Leading anthropologists, biologists, chemists, sociologists and representatives of several indigenous populations met in to discuss common concerns at the First International Congress of Ethnobiology and to found International Society of ethnobiology. Major concerns outlined by conference contributors were the study of the ways that indigenous and rural populations uniquely perceive, utilize, and manage their natural resources and the development of programs that will guarantee the preservation of vital biological and cultural diversity. This declaration was articulated.

As ethnobiologists, we are alarmed that:

SINCE

- Tropical forests and other fragile ecosystems are disappearing;
- Many species, both plant and animal, are threatened with extinction;
- Indigenous cultures around the world are being disrupted and destroyed.

AND GIVEN

- That economic, agricultural and health conditions of people are dependent on these resources;
- That native people have been stewards of 95% of the world's genetic resources, and
- That there is an inextricable link between cultural and biological diversity.

WE, MEMBERS OF THE INTERNATIONAL SOCIETY OF ETHNOBIOLOGY STRONGLY URGE ACTIONS AS FOLLOWS:

- Henceforth, a substantial proportion of development aid must be covered to efforts aimed at ethnobiological inventory, conservation, and management programs;
- Mechanisms be established by which indigenous specialists are recognized as proper Authorities and are consulted in all programs affecting them, their resources, and their environments;
- All other inalienable human rights be recognized and guaranteed, including cultural and linguistic identity;
- Procedures must be developed to compensate native peoples for the utilization of their knowledge and their biological resources;
- Educational programs must be implemented to alert the global community to the value of ethnobiological knowledge for human well-being;
- All medical programs include the recognition of and respect for traditional healers and the incorporation of traditional health practices that enhance the health status of these populations;
- Ethnobiologists make available the results of their research to the native peoples with whom they have worked, especially including dissemination in the native language;

- Exchange of information should be promoted among indigenous and rural peoples regarding conservation, management, and sustainable utilization of resources.

Appendix 2

A List of Medicinal Plants Used by Narikoravas

- *Cynandropsis pentaphylla* (*Singidikibaji*) - Leaf juice used in ear ailments.
- *Portulaca oleracea* (*Thalkabaji*) - Stems and leaves are boiled with tamarind, garlic and chillies. The decoction is used for pain in the joints and for gas trouble.
- *Sida veronicaefolia* - Leaves ground into a paste and applied for thorn poison.
- *Melia azedarach* [Tam: *Malai vembu*] - Leaf juice used for worm troubles and also to encourage conception in women.
- *Dodonaea viscosa* [Tam: *Anaar*] - Leaves boiled with water and the liquid used for fomenting swollen scrotum.
- *Abrus precatorius* [Tam: *Kundu mani*] - For the aching of limbs, first apply neem oil and then cover it with the leaves of this plant and bandage.
- *Caesalpinia coriaria* [Tam: *Ingi maram*] - The dried seeds powdered and mixed with milk and used in the treatment of piles.
- *Cassia auriculata* [Tam: *Aavaram thazhai*] - For a cooling effect, leaves are ground into a paste and applied to the head before bathing.
- *Tamarindus indica* [Tam: *Puliya maram*] - To make bony children healthy, three handful of leaf juice given once in a week for three weeks.
- *Coccinia indica* [Tam: *Kovai thazhai*] - Leaf juice used as eye-drops for eye ailments. Leaf juice mixed with cow's milk is taken in for urino-genital ailments.
- *Trianthema portulacastrum* (*Chiyathkabaji*) [Tam: *Mookkattaver keerai, Cheruppada*] - Leaves made into a paste and applied to fresh wounds and to scorpion sting. Also gives a cooling effect and remedy for gas trouble.
- *Mollugo oppositifolia* [Tam: *Thorakkeera*] - Plant juice is a tonic to mothers soon after delivery.
- *Alangium salvifolium* (*Akhola*) [Tam: *Avinji*] - Leaves ground and applied to tongue or lips crack. For dog-bite young leaves ground with garlic and taken in for three days, thrice a day. Bark ground and taken in if bitten by a rabid dog.
- *Wedelia calendulacea* [Tam: *Manjakkarasalankanni*] - Leaves ground and taken in for jaundice.
- *Vinca rosea* [Tam: *Othaikadalaickaai poo*] - Leaves ground and taken in for leprosy.
- *Hemidesmus indicus* [Tam: *Aan nannari*] - Decoction of root used for anemia in women. This is the plant before flowering showing narrow leaves.

- *Hemidesmus indicus* [Tam: *Pen nannari*] - Decoction of root used for anemia in men. This is also the same plant (previous one), but shows broader leaves and it is the flowering stage.
- *Cryptostegia grandiflora* [Tam: *Pal nanga*] - Root used as an antidote for scorpion sting and snake-bite.
- *Gymnema sylvestre* [Tam: *Chiru kurinchan*] - Plant dried and powdered and taken in for urinary complaints.
- *Rivea hypocrateriformis* [Tam: *Uttha mani*] - For boils, the latex (milky juice) of the plant is applied and dressed.
- *Evolvulus alsinoides* [Tam: *Mookkutlhi poo, Vushna ganthi*] - For ulcers plant ground into a paste and applied.
- *Solanum xanthocarpum* [Tam: *Kandan katthiri*] - Fruits ground into a paste and applied to the head for a cooling effect.
- *Justicia prostrata* [Tam: *Chinna mookkuthi poo, Surya kanthi*] - Leaves made into a paste and applied to fresh wounds and for thorn poison.
- *Ocimum basilicum* [Tam: *Thiru nootthu pachai*] - Decoction of leaves used for stomach upset in children. Also as ear-drops.
- *Ocimum adscendens* [Tam: *Kattu thulasi*] - Leaves dried and powdered, palmyrah jaggery crystals also powdered, both mixed and made into pellets, taken in for rheumatism.
- *Coleus aromaticus* [Tam: *Karpoora valli*] - Leaf juice given to children for cold and fever.
- *Leucas aspera* (*Kadar kumbam*) [Tam: *Thumbai*] - Leaf juice applied for scorpion sting. For cold and cough applied to chest and throat.
- *Leucas diffusa* [Tam: *Thumbai*] - Leaf juice taken in for scorpion sting.
- *Boerhaavia diffusa* (*Siyathsigabaji*) [Tam: *Kozhimuttai keera*] - For scorpion sting, roots rubbed into a paste with saliva and applied. Also roots chewed and the juice swallowed.
- *Celosia argentea* (*Lambrikabaji*) - To be more healthy, the leaves used as greens.
- *Amaranthus viridis* (*Kagalabaji*) - Used as a green for gas trouble.
- *Achyranthes aspera* [Tam: *Navirinji keera*] - Leaves pounded with chillies and administered for dog-bites.
- *Euphorbia hirta* [Tam: *Amman pacharis*] - Decoction of the plant used as a blood-purifier.
- *Phyllanthus niruri* [Tam: *Keela nelli*] - Leaves ground and taken in, gives a cooling effect, encourages conception in women. Also useful against intestinal worms.
- *Acalypha indica* [Tam: *Kuppa mani*] - Pounded leaves taken in for lung complaints.