Chapter 11

Renegotiating Local Values: The Case of Fanjingshan Reserve, China

Stuart C. Aitken, Li An, Sarah Wandersee and Yeqin Yang

Introduction

In the early 1990s, Ragnhild Lund (1993) argued for a place- and people-centred perspective in development theory. In doing so, she was one of the first geographers to recognize the devaluation of place in conventional development studies. Lund points out that guidelines for development during the latter half of the twentieth century were heavily focused on economic rather than social, cultural or ecological issues. Drawing from a range of theories from Marxism to liberalism, she notes that few of these perspectives focused on place as a dynamic factor in societal change. Rather, place was characterized as a relatively passive stage for social and political action and interaction. In a broad-ranging critique of 'modernist' Rostowian and Marxist perspectives, Lund argues against both the popular regionalizing systems theories based on Wallerstein and humanist perspectives that advocated endogenous self-reliance. The former tend towards purely economic solutions and the latter suggest a focus on local practices that are hugely valuable and tie in with perspectives that date back to Ernst Schumacher's famous *Small is Beautiful* (1973), but are also easily conscripted into the service of neoliberal policies that foist way too much responsibility for economic advancement on to the shoulders of people who are least able to bear it. Instead, Lund favours an 'alternative development' that takes account of gender and is influenced by social movements focused on ecology, peace and women (see also Nederveen Pieterse 1998). In so doing, she recognizes:

> … that women and men encounter a variety of external policies and interventions in a given place, and modify and adapt to external influences in accordance to norms, conventions and practices prevalent in the local society. Both internal and external factors are historically and geographically specific. Consequently, it is necessary to understand the relationship between gender and place to realize change. (Lund 1993: 197)

Lund's perspective highlights the need for indigenous women to renegotiate continuously local values in the light of broad structural economic and social transformations. Her poststructural feminism is pragmatically grounded in the realities

of shifting economic and social conditions and how they play out in local landscapes. In a study of working women in Malaysia, for example, Lie and Lund (1995: 10) argue that studies must focus on local values and, from a feminist perspective, '… women's views on the changes taking place in their own lives as well as in their families and the local surroundings.' Lund's focus on women's perceptions and values ties in with 1990s literature on feminist, postmodern and populist approaches to development and postdevelopment (Nederveen Pieterse 1998, Blaikie 2000, Momsen 2004). It also resonates with Arturo Escobar's (2008) interest in the ability of indigenous peoples to create 'figured worlds' in which local practices, culture and identities are deployed effectively enough to create a visible (spontaneous, emotional and corporeal) space for authoring that contest external, hegemonic representations of that place.

With this chapter,[1] we bring Lund's feminism and Escobar's poststructuralism to bear on a participatory mapping project in Fanjingshan National Nature Reserve (FNNR), China (Figure 11.1). A critical issue in FNNR relates to the resource-use relations between local farmers and an endangered snub-nosed monkey species, *Rhinopithecus brelichi*, known as the grey snub-nosed monkey or the Ghizhou snub-nose golden monkey. The United Nations International Fund for Agricultural Development (IFAD) argues that participatory mapping is particularly important when dealing with indigenous peoples and forest dwellers that find their lives disproportionately threatened by reduced access to land and natural resources. The 21,000 farmers within FNNR have an intimate knowledge of their local environment, and participatory mapping is an important tool for accessing this knowledge in the complex gender and child/adult contexts of human–environment dynamics. Based on first impressions and pilot work, we talk about the efficacy of this technique, particularly in terms of how it embraces a place-based sensibility that empowers female, male, child and adult participants. We then discuss local women's participation in interviews and highlight, as examples of Escobar's figured worlds, their roles in a changing world of short-term work and boarding schools for children. We then speculate on ways the FNNR example demonstrates Lund's imperative for renegotiating local values and Escobar's (2008) concern for building on identity, territory and autonomy where they may exist locally.

Post-structural Feminism: A Failure of Heart

Lund's perspective on renegotiating local values in the face of economic and social restructuring presages contemporary poststructural feminism, which is not only critical of patriarchy but forefronts the far more radical idea that development

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1　Some of the ideas in this chapter originated in Aitken and An (2010). The research was made possible by generous funding from the Margot Marsh Biodiversity Foundation and the Zoological Society of San Diego, and through education and facilities support from San Diego State University, the University of California – Santa Barbara, and Fanjingshan National Nature Reserve.
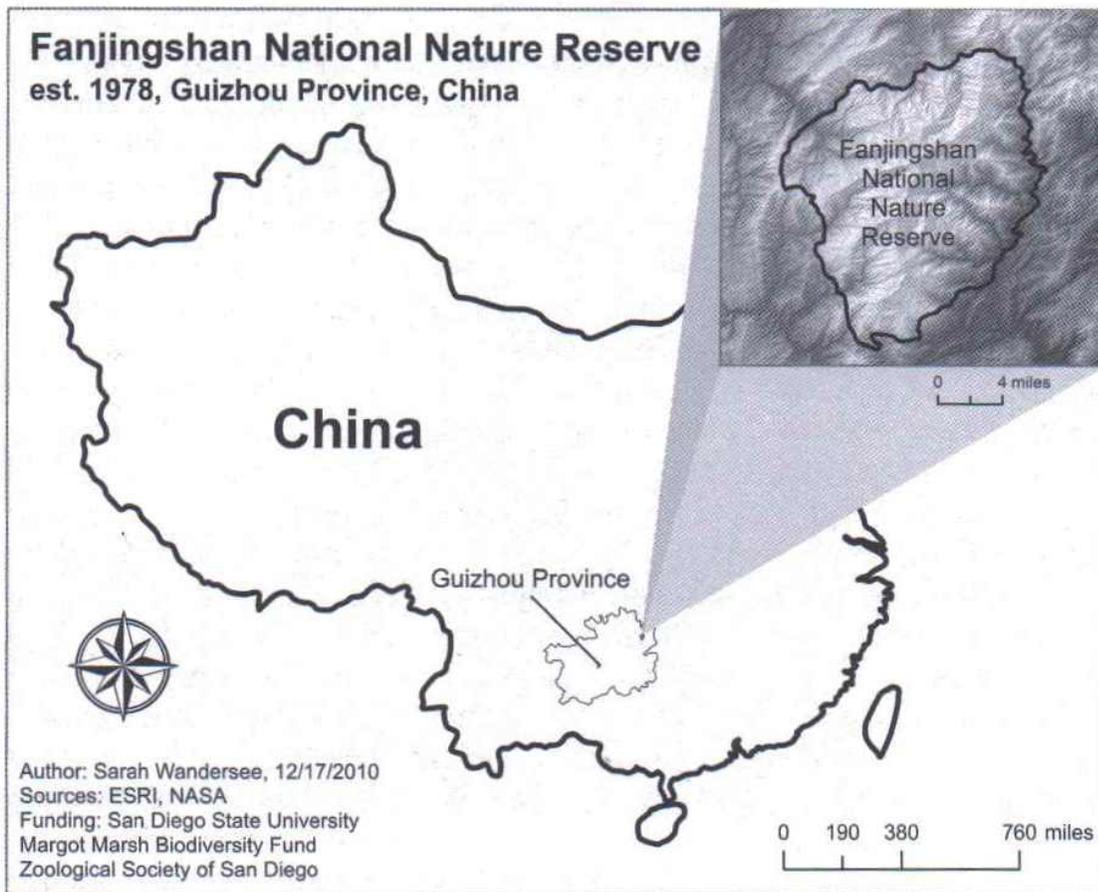
Figure 11.1 Fanjingshan National Nature Reserve (FNNR), Guizhou Province, China

problems actually have their origins in the (male) reasoning of enlightenment thinkers influenced by René Descartes and Baruch Spinoza amongst others.[2] Descartes attributed clear thinking to men and emotion to women. While recognizing the importance of emotions in how we think, Spinoza nonetheless believed that emotions were transformed into intellect through a strong man's detached understanding of grand questions such as universality and transhistorical necessity (Peet and Hartwick 2009). With an understanding that emotions play an important part in creating the complexities of men's and women's lives, Lund (1993: 195) notes that '... gender roles and gender relations are not framed on the basis of patriarchy alone.' By recognizing the importance of emotion- and place-based contexts of development that are not inordinately (and apolitically) humanistic, her work joins with a strand of late twentieth-century feminism that elaborates a poststructural critique of reason and one of its problematic enlightenment products,

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2   Chris Norris (1991) provides a useful elaboration of the numerous works of Spinoza and Descartes in terms of how they influence both enlightenment and modern thinkers. For those interested in the original works, Spinoza's *Ethics* (2008 [1677]) and Descartes' (1998 [1664]) *Le Monde et l'Homme* are amongst their most influential works respectively.

modern development. In an important sense, a poststructural feminism argues that modern development is the problem for women (and men), not the solution.

A focus on local values destabilizes the grand terms of enlightenment-based, universal development that is planned from the Global North and implemented in the Global South. Tropes such as development, modernization, self-reliance and revolution may speak to important parameters of change and transformation, but poststructuralists and feminists argue that they also speak to the dominant policies and practices of international institutions, nongovernmental organizations (NGOs) and revolutionary governments whose bases are predicated upon masculinist endeavours and a male-dominated public sphere (Scott 1995). The ensuing power struggle places rationality, efficiency and optimism at the forefront of a regime that may also characterize women's work as inferior, backward or invisible. In discourses of this kind, social struggles focus on productive activities that exclude gendered power relations and retain notions of a subordinate reproductive sphere and ideas of nature that are seen as feminine.

A problem arises, however, from switching the valences of the discourse by putting women and their work at the centre of development discourses. Too often, accounts of 'women in development' are written in policy language amenable to the ongoing practices of development agencies. Making women central to development practices is here often about changing women (e.g. requiring them to speak bureaucratic policy language) rather than changing institutional practices. Putting women at the heart of development in this way is about fostering development practices that continue to ignore difference, indigenous knowledge and local expertise while 'legitimating foreign "solutions" to women's problems in the South' (Parpart and Marchand 1995: 16). This, in turn, shifts development solutions from local areas to development agency headquarters in Washington, Oslo, Geneva or Ottawa.

Early on, as part of this critique, Lund (1983) argued that placing women at the centre of development efforts while not monitoring larger globalization processes (with a particular concern for the movement of women's power away from the local) did little to further change in the Global South. Globalization is not a homogenizing force, she notes, but is rather a force of differentiation, as some people are integrated into the global economy while others are marginalized, abused or rejected (Lund 2008).

Alternatively, focusing on women *and* development rather than women *in* development draws from dependency theory and neo-Marxist approaches to underdevelopment but, in so doing, it deemphasizes Marxist class relations in favour of social relations between women and men, and the relations between women and the material contexts of their lives (Peet and Hartwick 2009: 259). A basic materialist argument is that women perform most of the labour in many societies of the Global South and a reformulated theory must focus on that as its heart. With women's labour as a central focus, traditional areas of developmental concern are seen from a different orientation. Gender relations become central to understanding productive activities (Figure 11.2). The focus turns to women

Figure 11.2   Women prepare food in Fanjing Valley
Photo: Stuart C. Aitken

workers as part of the turn to industrialization (Lie and Lund 1995). The informal and rural sectors of the economy are emphasized and, as suggested by Gibson-Graham (1996), the reproductive sphere becomes central to the creation of economic communities that foster sustainable forms of development. A central concern of feminist, poststructural and postcapitalist economics is retheorizing the significance of women's empowerment through their work and agency from a relational perspective (Escobar 1995, Gibson-Graham 2006).

Lund's feminism and Escobar's poststructuralism move alternative development theories forward by focusing on a relational understanding of change and transformation with a focus on creating 'locally situated, culturally constructed and socially organized' 'figured worlds' as the sort of spaces 'in which cultural politics are enacted that result in particular personal and collective identities' (Escobar 2008: 218). These kind of poststructural relations are best articulated through Deleuze's (1993) notion of *folding*, wherein people have the capacity to unfold and enfold the spaces and discourses they encounter through the myriad of microbehaviours that comprise everyday actions. Folding suggests important relations with space and other people's relations with space.[3]

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3   It is beyond the purview of this chapter to elaborate the ontological basis of Deleuze's relationality (but see Hayden 1995). In short, identity politics may be thought of

It is a different conception of relational than that elaborated by neopopulist and constructivist development theorists in the 1980s, who tend to focus on dyads such as insider/outsider or core/periphery.⁴ Escobar's relational focus is tied specifically to activism and everyday behaviours as bases for challenging inequality and neoliberal policies.

Changes in behaviour are often strategies to preserve basic elements of lifestyle and traditions: changes seldom occur in the form of dramatic events, and social change may be seen as something that is discursively imposed on people (Lie and Lund 1995: 7–8). However, it is important to understand that from Escobar's relational perspective the material and gender contexts of life change over time and that marginalized peoples can take advantage of these changes:

> … when women enter new fields, such as taking up work in the modern sector,
> this necessarily implies changing relationships to fathers, brothers and husbands
> and may lead to new socio-cultural definitions of what belongs to the male and
> female spheres. (Lie and Lund 1995: 11)

This idea of complex relations being unfolded and enfolded is picked up by Escobar (2008) when he argues for *redes* as networks or assemblages that open up the possibility of transformative action in the face of blistering and relentless attacks by corporate and colonial capitalism.⁵ Life and social change, he points out,

> … are ineluctably produced in and through relations in a dynamic fashion …
> Images of *redes* circulated widely … in the 1990s [in the Global South] …
> represented graphically as drawings of a variety of traditional fishing nets,
> lacking strict pattern regularity, shaped by use and user, and always being
> repaired, *redes* referred to a host of entities, including among others social
> movement organizations, local radio networks, women's associations, and
> action plans. (Escobar 2008: 26)

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in terms of Deleuze's 'folding of forces', which concerns the ability of a body to act upon itself and to produce itself as a subject. This force enables a bending back of power – a self-governance – to emerge. In this way, Deleuze's folding of forces enables a subject to construct actively and shape its own gendered bodily relations to the world: it is a body that is produced, reproduced and naturalized through everyday behaviours. Alternatively, the 'folding of bodies' concerns the body's material relations with space and the 'fold of the line outside the fold' forms when a body connects with the creative potential of pure matter energy, which Deleuze (1988: 104) calls the virtual: a very real but not yet actualized potential. This is the indeterminate space of change.

4   Robert Chambers (1983), for example, uses contemporaneous methodologies such as personal construct theory and the repertory grid, which are epistemologically focused on the dichotomies that were later heavily criticized by feminist geographers amongst others.

5   The Spanish *redes* is most closely related to the English term *network,* but Escobar (2008: 36) uses it to convey the more powerful Deleuzian idea of *assemblages* that constitute folding and dynamic relations.

Escobar (2008: 65) goes on to argue that relational strategies for battling externally imposed structures 'should take as a point of departure an understanding of resisting, returning, and re-placing that is contextual with respect to local practices, building on movements for identity, territory, and autonomy wherever they may exist.' Both Escobar and Lund argue that it is precisely how women and their work are integrated into the global economy by core countries that determines marginalization and oppression. From this vantage point it is important to explore the intersection of various axes of power in relation to participation, vulnerability, class and gender (Lund 2008: 134).

Relational Knowledge and Power

It was not until the 1990s that alternative, antimodernist development theories critiqued development practices for their concerns with fulfillment of basic needs with a focus on indigenous values, neoliberal self-reliance and so forth. Lund (1993) was one of the first to argue that identifying ways to empower the poor and marginalized was more appropriate than focusing solely on fulfilling needs, which were frequently inappropriately identified by 'experts' from elsewhere. Part of this critique questioned how men and women could sensitize themselves and act against oppressive structural forces, including patriarchy (Lund 1993). The structures affecting women's lives – production, reproduction, socialization, motherhood, gender and sexuality – contain different contradictions and dynamics but they nonetheless contain a unity in women's experience. Women are contextualized by the shifting social relations they inhabit and the types of labour they perform.

A focus on gender *and* development argues that the sexual division of labour in a society is one of the relations in which men and women become dependent upon each other, and these relations must necessarily change. Gender power relations rather than 'women in development' are the needed focus of analysis. In addition, a focus on gender and development emphasizes that women are not a homogenous group but rather are divided by class, ethnicity, age and so forth. Women are seen as social actors within wider social contexts, and the state can be an important actor promoting women's emancipation (Peet and Hartwick 2009).

Escobar (2008: 32) approaches power over the production of locality as being tantamount to two conflicting yet at times mutually constitutive 'processes of localization.' On the one hand, there are the dominant forces of the state and capital, which attempt to 'shift the production of locality in their favor,' thus ultimately creating '… a delocalizing effect with respect to places,' and, second, what Escobar refers to as subaltern forms of localization: 'place-based strategies that rely on the attachment to territory and culture; and network strategies.' In the first instance capital and the state mobilize the politics of scale that valorize local endeavours (e.g. some ecotourism programmes are foisted on indigenous peoples and are advertised globally as authentic, traditional experiences that do not hurt the environment). To the extent that these strategies do not originate from

local places (they may come from the state or the Global North), they inevitably induce a delocalizing effect in terms of an unfolding of social and ecological life. In the second instance are subaltern strategies, which follow the Deleuzian notion that 'the oppressed, if given the chance ... and on their way to solidarity through alliance politics ... *can speak and know their conditions*' (Spivak 1988: 25). Escobar advocates two strategies that focus on (1) attachment to place, and (2) attachment to *redes* that empower social networks to enact the politics of scale from below. These latter strategies, as suggested by some of our work in FNNR, engage 'local movements with biodiversity networks, on the one hand, and with other place-based actors and struggles, on the other' (Escobar 2008: 32).

In what follows we highlight the FNNR project in Guizhou Province, China, where complex social and biodiverse relations between the endangered snub-nosed monkey, local hillside farmers and their traditional agricultural practices, tourist policies, economic development and education interweave in ways that highlight Escobar's delocalizing effects and place-based strategies and suggest the importance of Lund's renegotiation of local values on a continual basis.

Lessons from Fanjingshan Reserve, China

Recent decades have witnessed considerable interdisciplinary research and conservation efforts, pointing to a fundamental question of how we can better understand the space–time complexities of humans, protected species and the environment (e.g. Ehrlich and Wilson 1991, Vitousek 1994, Jeffers 1997, Vitousek et al. 1997, Dirzo and Raven 2003, Smith et al. 2003, Turner et al. 2003, O'Connor and Crowe 2005). To address this question from a relational perspective, it is necessary to engage with the policy and practical complexities at FNNR as they relate to the Guizhou snub-nose golden monkey and the farmers who occupy the reserve (Figure 11.3). Humans and monkeys compete for resources and space within the reserve, which features various complex heterogeneities and nonlinear relationships. For example, although some local farmers live in valleys close to roadways, at certain times of the year they may venture into the mountainous snub-nose golden monkey habitat in search of herbs. Other local farmers who are ethnic Tujia are spending time engaged in state-sponsored tourist activities, which takes them away from farming. Still other farmers are involved in grassroots environmental activism (that is not state-sponsored) to protect, for example, the numbers and quality of fish in local rivers. As the farmers' activities flow and change in response to external and internal issues, the location and range of the snub-nose golden monkeys change, but the relationship between human and monkey behaviours is by no means clear.

What is clear is that the Guizhou snub-nose golden monkeys are endangered because of their small population size (700–800 monkeys (Yang et al. 2002)), high infant mortality (20 per cent) and other life-history traits (e.g. three years of weaning and at least three years interbirth interval). Living today in the

increasingly higher reaches of FNNR, this species may be threatened by a rapidly increasing human population within their sole and last habitat. As a national treasure of China and natural heritage of the entire world, the Guizhou has been listed as 'endangered' by the Chinese government and the International Union for the Conservation of Nature.

Figure 11.3 Typical landscape of the FNNR
Photo: Stuart C. Aitken

The project from which the work in this chapter is derived aims to establish a complex relational approach to (1) educate local indigenous people and FNNR staff, and (2) empower farmers, tourists and policy-makers in their conservation knowledge and awareness. The c.21,000 local residents who dwell within or near the reserve boundary mostly live a subsistence lifestyle. These residents are allowed to enter non-key-habitat forests and collect resources (e.g. fuel wood, herbs and mushrooms) and herd oxen.[6] Forests also provide shelter, cover and food sources for snub-nose golden monkeys. Local households primarily use fuel wood for cooking and heating in the winter. Pilot surveys (18 local households in 2007, 69 in 2009) showed that the average fuel wood consumption per household

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6   Report on Participatory Rural Appraisal (PRA) Project, Global Environment Facility, 2003 (in Chinese).

Figure 11.4   Buddhist temples atop the twin peaks of Golden Mountain
Photo: Stuart C. Aitken

amounts to 12,600 kg/year, and local farmers spend 233 days on fuel wood collection. The same surveys showed that local residents collect fuel wood all year round, with greater harvesting rates from late autumn to early spring. Other resource collectors enter the reserve in seasons when specific resources are most available, e.g. collecting bamboo shoots in spring.

Since the reserve was established in 1978, poaching and unintentional killing of snub-nose golden monkeys have rarely occurred. Fanjingshan is a place of natural beauty, with many spectacular scenic views, and cultural heritage, for example many Buddhist temples (Figure 11.4). As of 2009, over 40,000 tourists visited the reserve annually, primarily between April and October with peaks in August and September (Yang, personal communication). The establishment of a cable car service from the east entrance to a place near the Golden Peak in spring 2009 has substantially increased the number of tourists. Some expeditionary tourists avoid the designated sightseeing trails, entering core snub-nose golden monkey habitat areas with aid from local residents as guides.

Human-induced habitat degradation may cause reserve managers to restrict human entry into certain areas of the reserve or at particular times. This may encourage monkeys to return. It is reported that both loss of canopy forests and disruption by human visits (Yang, personal communication) are threatening the

species. However, little is known about when, where, for what purposes and how often local people enter habitat areas, or how snub-nose golden monkeys may change their habitat use patterns as a result. The issue for us was to develop ways to engage local people that empowered their participation in the changing contexts of the FNNR with regard to human occupancy and monkey preservation.

Community Mapping as a Source of Power

IFAD (2009: 2) argues that participatory community mapping is a particularly powerful empowerment and educational tool when working with 'indigenous peoples and forest dwellers that find their lives disproportionately threatened by climate change, environmental degradation and conflict related to access to land and natural resources'. The farmers who reside within or near FNNR have an intimate knowledge of their local environment, and participatory mapping is an important tool for accessing this knowledge in a complex context of human-environment relations.

Participatory mapping amongst indigenous peoples is a widely used technique that dates back several decades (Nahanni 1977, Stull and Schensul 1987, Belyea 1989, Herlihy and Leake 1997). Initially developed by geographers, anthropologists and ecologists, the technique engages ethnographic practice from a multidisciplinary perspective and is recognized as a method that values local expertise. With the advent of spatial technologies for processing, documenting and presenting local information (Craig et al. 2002), participatory mapping has increasingly made use of access to geographical information systems (GIS) and the global positioning system (GPS). Combined with some of the issues we raised earlier, this suggests important possibilities and prospects for local engagement and empowerment (Dana 1998, Craig et al. 2002). Participatory maps are more than traditional cartographic representations; they are powerful spatial visualization techniques that include input from, and ownership by, individuals and local communities. Outputs may include depictions of local resources (Meredith et al. 2002), cultural features (Al-Kodmany 2002), and pathways and an individual's daily rounds (Aitken et al. 2006). In terms of engagement and ownership, it is always best if community members create the maps and control their use, although often researchers, NGOs and development agencies will initially provide maps, technologies and training. To avoid exclusivity, sensitivity to the role of women, elders and children is important as part of the participatory mapping process. It is important to be sensitive to a variety of stakeholders and to avoid making information and people vulnerable to exploitation.

Participatory mapping includes basic mapping methods in which community members draw maps from memory on the ground or on paper. The creation of maps is based upon local cultural and aesthetic practices in an attempt to visualize relations between land use and local communities. Kesby (2005) details a form of community mapping based upon performance that is sensitive to the dance culture of an African village. The incorporation of both temporal and geographical

scales enables a detailed appraisal of information about individual movements, individual and communal resources, and seasonal practices. Participatory 3-D modelling integrates local spatial knowledge that is sensitive to land elevation to produce scaled and georeferenced information. Geographical features are identified on the model using pushpins (points), string (paths) and paint (areas), and may be digitized into a GIS (IFAD 2009).

The larger project at FNNR provides an important opportunity for participatory mapping. The project explores factors that may affect a local community's support for conservation in FNNR. Residents live in villages that are located at various distances from the area's main tourist areas and from the monkey habitat. Village locations differ in their elevations on Fanjing Mountain. The highly variable terrain and educational background amongst residents of FNNR present challenges to participatory mapping but also opportunities for empowerment.

In a pilot survey conducted in spring 2010, two participatory mapping techniques were experimented with and produced varying degrees of success. The first technique involved black-and-white gridded paper maps of the area, using as a base existing land-use maps of the area, complete with landmarks such as rivers and mountains (Figure 11.5, map 1). The intention was to gain an understanding of the high-frequency use areas. Local reaction to the maps was at times one of interest, as most participants had not previously seen land-use maps of their area. However, often participants did not identify with or understand these maps. This could be an educational gap but may also simply be that the type of map did not connect with the way local residents relate to the world around them. Judging distance and location was especially challenging due to the highly variable local terrain that was not immediately identifiable on the maps for orientation purposes. Although the maps raised the issue of local relations to the region and the importance of local experiences and ideas, empowerment opportunity was minimal due to the limited ownership of a base map that was not created by participants. IFAD (2009) argues that maps created by local residents give a sense of ownership and in conjunction with their expertise may lead to empowerment in resource preservation.

The second community mapping technique was more effective, utilizing a 3-D computer model of FNNR visualized on a laptop (Figure 11.5, map 2). Although participants did not create the base of this map either, the visualization model included satellite imagery and a toggle facility that switched between this and a draped location map. Participants were excited by the interactive nature of a model whereby they could zoom into and rotate around local villages and mountains. Furthermore, the colour variation and visible terrain lent themselves well to intuitive interpretation since participants could actually see the extent of villages and recognize ridgelines. The farmers' appreciation of the 3-D computer maps counters wisdom from IFAD, which suggests that technology of this kind should be used with caution. However, it supports evidence from studies in the USA of young children, who have little problem understanding scale changes and map transformations when they are animated on a computer screen (Aitken

1999). Through this technique, educational limitations were minimized because the participants could see and understand the model without much explanation. In addition, since the technique uses computers and mapping technology, it creates a space for the younger, more technologically comfortable generation to get involved in teaching older generations. The 3-D technique seems to cross barriers and opens up the discussion of local knowledge to all community participants. Knigge and Cope (2006) demonstrate the empowerment value of this kind of participatory mapping visualization through utilization of both qualitative and quantitative information.
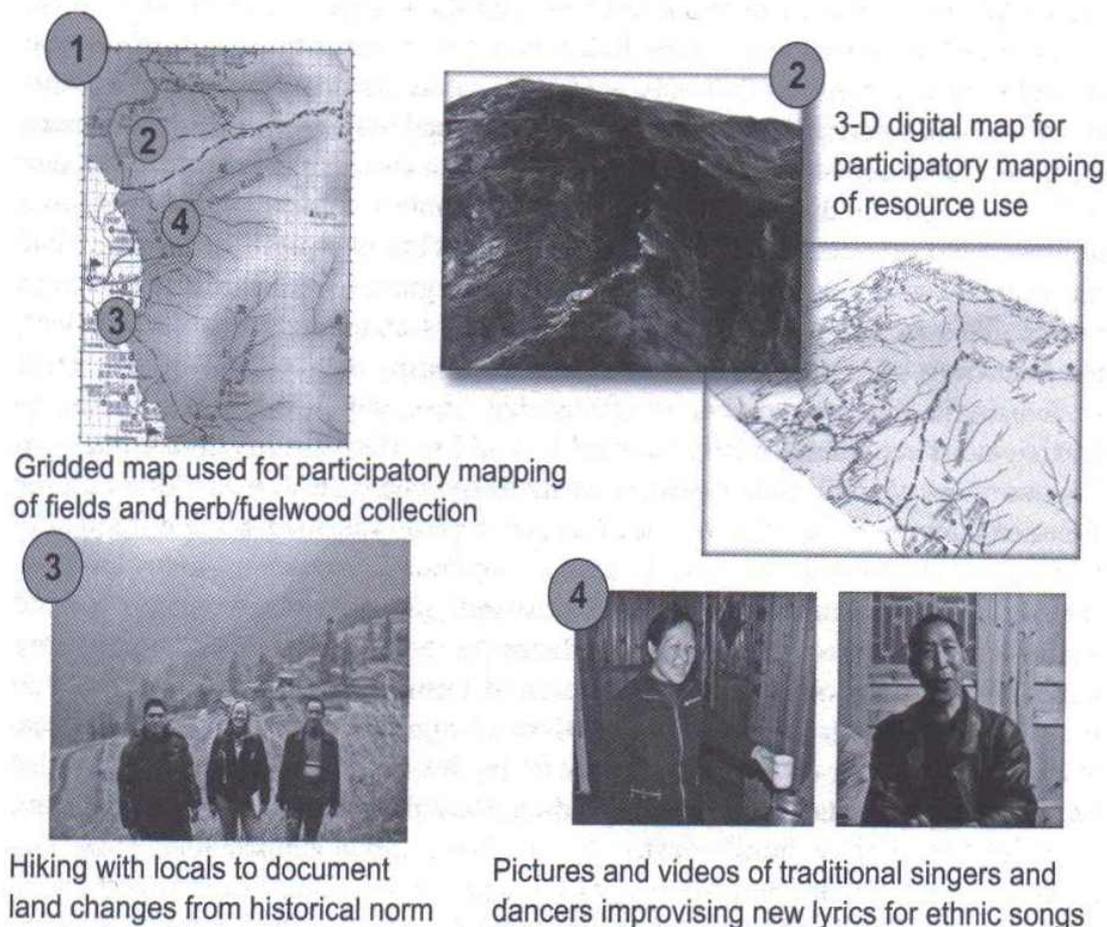

3-D digital map for participatory mapping of resource use

Gridded map used for participatory mapping of fields and herb/fuelwood collection

Hiking with locals to document land changes from historical norm

Pictures and videos of traditional singers and dancers improvising new lyrics for ethnic songs

Figure 11.5 Multimedia participatory mapping in FNNR using qualitative information

Photos: Stuart C. Aitken. *Compilation*: Sarah Wandersee

The potential of computer-based multimedia 3-D participant mapping seems large but it is, as yet, untested in FNNR beyond the pilot work of spring 2010. Clearly the importance of inclusivity in any community mapping project relates to issues of gender, age and other power relations. In what follows, we look more

closely at how the gender power relations in the FNNR relate to Lund's and to Escobar's work on development and transformation by considering the roles of local women in interviews and in the context of the FNNR.

Women in Interviews

A total of 263 interviews were conducted in spring 2010. Households were randomly chosen from lists of reforestation participants, with available and willing interviewees recruited on arrival since sometimes people had moved or were busy working. Of the interviews, 201 were with men and 62 were with women. Men are commonly the head of the household and their names were usually on the lists from which participating households were chosen. Often, the assumption was made by our male guides that only men made good interviewees or that we only wanted to talk with husbands and not wives, so it had to be made clear that women were also to be included. Although communication issues may have played a part in this misunderstanding, it is not entirely attributable to translation error. At times guides would say the wife would not be able to answer our questions when we had not even asked her, and when she was asked the guides were sometimes proven wrong. This is perhaps an indication of women's changing roles. Nonetheless, the behaviour of participants varied hugely depending on gender. Women tended to remain in the background, interested but busy with work unless asked to participate. They often initially claimed lack of knowledge, even before knowing the interview content. Some women seemed shy when questioned. Although the focus of the interviews related to local expertise, less educated women frequently remained subservient to their husband's opinions. However, many women interjected with information when their husbands gave what the women perceived as inaccurate or wrong answers. Furthermore, women were sometimes more knowledgeable about local resource use and farming patterns, partially due to the sharing of labour but also because of the changing role of women in the area. With the prevalence of temporary work taking husbands and older sons to cities and boarding schools taking young children away for periods of time, women are often in control of the family farms.

Women's and Children's Changing Roles

Women have strong roles in present-day China, both in terms of labour requiring physical strength and in terms of socioeconomic power. They take part in construction crews, and at times men readily admit that women are for the most part in charge of the household. There is social pressure for women to marry, but their roles extend beyond the traditional ones of wife and mother. Women are farmers, professionals in a broad range of fields, graduate students and valuable contributors of opinions. In FNNR, migration is additionally challenging past roles, along with education. As in other rural areas of China, the system of residence registration (*hukou*) demands that rural labour-oriented

migrants – called a 'floating population' by many population researchers (Liang 2001) – only 'temporarily' stay (on a scale of weeks and sometimes years) in their migration destinations (often cities). Such 'temporary' migrants keep their *hukou* and possessions (e.g. farmland and houses) in their original villages and often come back to celebrate spring festivals at the Lunar New Year. Based upon interviews in spring 2010, we determined that an average of one third of family members in each household have done or are doing temporary work outside of FNNR, living in cities and interacting with a more cosmopolitan worldview. Sometimes women stay behind with children and run the farm, but it is also common to leave children with grandparents, especially as the children spend most of their time away at boarding schools. This provides women with more opportunities to participate in city work and invest in their own education and professional development. Even with older generations, women and men who participated in our pilot surveys had the same median education level of grade school. With newer generations, educational levels are increasing as girls and women are encouraged to continue their studies.

Children's education is a high current priority for families in FNNR compared with other rural areas in China. This is regardless of the interviewees' gender. Due to cost and infrastructure limitations, older generations had lower educational levels and recognized the importance of a good education for their children's and grandchildren's futures. Future priorities differ for men and women. Women show higher concerns for family issues than educational issues. This does not mean that women do not value education but that parents see their children's future success as linked with education. This is evidenced by the large numbers of fathers and mothers who, in order to get better education for their children, migrate away from remote areas with them for years at a time (interviews, spring 2010). In some areas, it was difficult to find households to interview since families had moved into the city for, we were told, better jobs and better education for children. Focusing on children's education not only improves their lives but also empowers families by equalizing gender and generational standing and exposing remote areas to new ideas. In FNNR, women may have little knowledge of climate change, but children can teach their parents about issues that they learn in school and on television. Education is not the only value imparted by parents and grandparents in FNNR. By staying alternately with grandparents and in boarding schools for much of the year and reuniting with parents on family holidays such as the Lunar New Year, children learn the importance of nuclear and extended family while also gaining autonomy. Migration and boarding schools expand and equalize women's roles through broadening horizons, redefining duties and increasing education.

The Gendered and Generational Politics of Human–Environment Complexities

Both Lund's discussion on local values and Escobar's views on identity, territory and autonomy connect with dynamics in FNNR. Strong values of education, self-

sufficiency and family are present in the communities with which we are working. Families share views on protecting species, but women also pass on to their children a different approach to environment values. For example, when asked why snub-nose golden monkeys should be protected, more women than men said they did not know, but when giving specific answers, women focused less upon law and rarity (common answers for the men) and more on the harmlessness of the species and upon human-ecological connections, such as protecting the monkey being good for people. These values are being incorporated into women's evolving relationships within a shifting society in a way that suggests an appreciation of habitat loss and need for preservation, and how these issues may relate to the practicalities of education and resource use. With the predominance of ethnic minorities such as the Tujia and Miao in FNNR, local identity includes a history of marginalization and strong government involvement but also a growing dedication to preserving traditional songs, dances and costumes (Figure 11.6).

Figure 11.6   Tujia (an ethnic minority in China) performing a traditional dance in FNNR – the sticks historically held money at each end, creating a rattle from the coins
Photo: Stuart C. Aitken

Locally, women are at the heart of this change as coordinators, teachers and the majority of performers in cultural groups. Tourism development in the area encourages the preservation of traditional cultures, and migrant families have an opportunity to learn from examples elsewhere and apply new ideas in their traditional homes. Thus migration, in conjunction with education, is contributing to developing women's and children's identities in new directions, enabling them to realize expanding opportunities while their values preserve their family connections. Migration also increases the sense of family self-sufficiency already present from surviving in a remote area such as FNNR. Under the circumstances of migration, a family functions as a team by sharing household and family duties but with periods of separation that highlight personal growth and create a foundation for future development in FNNR by meshing tradition with innovation. Escobar's (2008) idea of *redes* as a traditional net that is constantly repaired and rearranged finds particular force with women's and children's work in FNNR

Conclusion

In this chapter, we speculate on the ways the FNNR example demonstrates Lund's imperative for renegotiating local values and Escobar's (2008) concern for building on identity, territory and autonomy where they may exist locally. Although our work is in its infancy, it nonetheless seems clear that short- and long-term migration patterns and changing educational opportunities are important for the place of women's and children in FNNR. As the project develops, we will test this supposition locally using interactive multimedia 3-D community mapping technologies because they seem appropriate tools for empowering residents, especially children. The technique was particularly attractive to young men and women who had little difficulty with computer-generated geovisualizations.

The project team is buoyed by Lund's feminism and Escobar's post-structuralism because each moves alternative development theories forward by focusing on a relational understanding of change and transformation that accounts for local contexts while also embracing less parochial changes. We are still developing the theoretical and empirical bases of the project, but the pilot work documented in this chapter gives some important insights. From feminist geography, Lund's ideas that renegotiation of local values are often inspired by changing gender politics are borne out in large part by women's work in the FNNR. The impact of webs of grassroots activism petitioned by Escobar is also suggested by some of the local contexts of environmental education. At the same time, state and multinational enterprises are beginning to develop traditional tourist and ecotourist facilities. While acknowledging that changes in behaviour are often strategies to preserve basic elements of lifestyle and traditions, we note that FNNR has seen an increase in national and global attention while continuing to embrace traditional ethnic cultural practices, albeit in different ways, and often in connection with tourism. Regarding the benefit and empowerment of women, women are taking on more

community management roles and becoming more likely to develop education strategies for their children and for wider ecological understanding. Given that changes seldom occur in the form of dramatic events and almost always move forward as an amalgam of the old and the new, it is important to remember that from a relational perspective the material and gender contexts of life change over time and marginalized peoples can take advantage of these changes in unexpected ways.

References

Aitken, S.C. 1999. Scaling the Light Fantastic: Geographies of Scale and the Web. *Journal of Geography*, 98, 118–27.

Aitken, S.C. and An, L. 2010. Figured Worlds: Environmental Complexity and Affective Ecologies in Fanjingshan, China. *Ecological Modeling: An International Journal on Ecological Modeling and Systems Ecology*, 229, 5–16.

Aitken, S.C., Estrada, S.L. Jennings, J. and Aguirre, L. 2006. Reproducing Life and Labor: Global Processes and Working Children in Tijuana. *Childhood*, 13, 365–7.

Al-Kodmany, K. 2002. GIS and the Artist: Shaping the Image of a Neighborhood though Participatory Environmental Design, in *Community Participation and Geographic Information Systems*, edited by W. Craig, T. Harris and D. Weiner. London and New York: Taylor and Francis, 320–29.

Belyea, B. 1998. Inland Journeys, Native Maps, in *Cartographic Encounters: Perspectives on Native American Mapmaking and Map Use*, edited by M. Lewis. Chicago: University of Chicago Press, 135–55.

Blaikie, P. 2000. Development, Post-, Anti- and Populist: A Critical Review. *Environment and Planning A*, 32, 1033–50.

Chambers, R.1983. *Rural Development: Putting the Last First*. London and New York: Prentice Hall.

Craig, W.J., Harris, T.M. and Weiner, D. 2002. *Community Participatory Mapping and Geographic Information Systems*. London and New York: Taylor and Francis.

Dana, P.H. 1998. Nicaragua's 'gPSistas': Mapping their Lands on the Caribbean Coast. *GPS World*, 9(9), 32–42.

Deleuze, G. 1988. *Spinoza: Practical Philosophy*. San Francisco: City Light Books.

Deleuze, G. 1993. *The Fold: Leibniz and the Baroque*, translated by T. Conley. Minneapolis, MN: University of Minnesota Press.

Descartes, R. (1998 [1664]). The Treatise on Man, in *The World and Other Writings,* edited by S. Gaukroger. Cambridge: Cambridge University Press, 99–169.

Dirzo, R., and Raven, P.H. 2003. Global State of Biodiversity and Loss. *Annual Review of Environment and Resources*, 28, 137–67.

Ehrlich, P. R., and Wilson, E.O. 1991 Biodiversity Studies: Science and Policy. *Science*, 253, 758–62.

Escobar, A. 1995. *Encountering Development: The Making and Unmaking of the Third World*. Princeton NJ: Princeton University Press.

Escobar, A. 2008. *Territories of Difference: Place, Movements, Life, Redes*. Durham NC and London: Duke University Press.

Gibson-Graham, J.K. 1996. *The End of Capitalism (As We Knew It)*. Minneapolis: University of Minnesota Press.

Gibson-Graham, J.K. 2006. *A Postcapitalist Politics*. Minneapolis: University of Minnesota Press.

Hayden, P. 1995. From Relations to Practice in the Empiricism of Gilles Deleuze. *Man and the World*, 28, 283–302.

Herlihy, P.H. and Leake, A.P. 1997. Participatory Research Mapping of Indigenous Lands in the Honduran Mosquitia, in *Demographic Diversity and Change in Central America*, edited by A.R. Pebley and L. Rosero-Bixby. Santa Monica, CA: Rand Books, 707–37.

IFAD 2009. *Good Practices in Participatory Mapping* [Online: International Fund for Agricultural Development]. Available at: http://www.ifad.org/pub/map/ PM_web.pdf [accessed: January 11, 2011].

Jeffers, J.N.R. 1997. Ecological Consequences of Biodiversity Loss. *International Journal of Sustainable Development and World Ecology*, 4, 77–8.

Kesby, M. 2005. Re-theorising Empowerment-Through-Participation as a Performance in Space: Beyond Tyranny to Transformation. *Signs: Journal of Women in Culture and Society*, 30, 2037–65.

Knigge, L. and Cope, M. 2006. Grounded Visualization: Integrating the Analysis of Quantitative and Qualitative Data Through Grounded Theory and Visualization. *Environment and Planning A*, 38, 2021–37.

Liang, Z. 2001. The Age of Migration in China. *Population and Development Review*, 27, 499–524.

Lie, M. and Lund, R. 1995. *Renegotiating Local Values: Working Women and Foreign Industry in Malaysia*. Richmond: Curzon Press.

Lund, R. 1983. The Need for Monitoring and Result Evaluation in a Development Project – Experiences from the Mahaweli Project. *Norsk Geografisk Tidsskrift*, 37, 169–86.

Lund, R. 1993. *Gender and Place*, Volume 1: *Towards a Geography Sensitive to Gender, Place and Social Change*. Trondheim: Department of Geography, University of Trondheim.

Lund, R. 2008. At the Interface of Development Studies and Child Research: Rethinking the Participating Child, in *Global Childhoods: Globalization, Development and Young People*, edited by S. Aitken, R. Lund and T. Kjørholt. London and New York: Routledge, 131–49.

Meredith, T., Yetman, G. and Frias, G. 2002. Mexican and Canadian Case Studies of Community-Based Spatial Information Management for Biodiversity

Conservation, in *Community Participation and Geographic Information Systems*, edited by W. Craig, T. Harris and D. Weiner. London and New York: Taylor and Francis, 205–18.

Momsen, J. 2004. *Gender and Development*. New York and London: Routledge.

Nahanni, P. 1977. The Mapping Project, in *Dene Nation – The Colony Within*, edited by M. Watkins. Toronto: University of Toronto Press, 21–7.

Nederveen Pieterse, J. 1998. My Paradigm or Yours? Alternative Development, Post-Development, Reflexive Development. *Development and Change*, 29, 343–73.

Norris, C.1991. *Spinoza and the Origins of Modern Critical Theory*. Oxford: Blackwell.

O'Connor, N.E., and Crowe, T.P. 2005. Biodiversity Loss and Ecosystem Functioning: Distinguishing Between Number and Identity of Species. *Ecology*, 86, 1783–96.

Parpart, J. and Marchand, M. 1995. Exploring the Canon, in *Feminism/Postmodernism/Development*, edited by M. Marchand and J. Parpart. London: Routledge, 1–22.

Peet, R. and Hartwick, E. 2009. *Theories of Development: Contentions, Arguments, Alternatives*. New York: Guildford Press.

Scott, C. 1995. *Gender and Development: Rethinking Modernization and Dependency Theory*. Boulder, CO: Lynne Riener.

Schumacher, E.F. 1973. *Small is Beautiful: A Study of Economics as if People Mattered*. New York: Blond and Briggs.

Smith, R.J., Muir, R.D.J., Walpole, M.J., Balmford, A. and Leader-Williams, N. 2003. Governance and the Loss of Biodiversity. *Nature*, 426, 67–70.

Spinoza, B. de. 2008 [1677]. *Ethics*, translated from the Latin by R.H.M. Elwes (1883) [Online: eBooksBrasil/Project Gutenberg]. Available at: http://www.ebooksbrasil.org/eLibris/spinoza.html [accessed: 22 January, 2013].

Spivak, G.C 1983. Can the Subaltern Speak? in *Marxism and the Interpretation of Culture*, edited by C. Nelson and L. Grossberg. London: Macmillan, 24–8.

Stull, D.D. and Schensul, J.J. (eds) 1987. *Collaborative Research and Social Change: Applied Anthropology in Action*. Boulder, CO: Westview Press.

Turner, B.L., Matson, P.A., McCarthy, J.J., Corell, R.W., Christensen, L., Eckley, N., Kasperson, J.X, Luerse, A., Martellog, M.L., Polskya, C., Pulsiphera, A. and Schiller, A. 2003. Illustrating the Coupled Human–Environment System for Vulnerability Analysis: Three Case Studies. *Proceedings of the National Academy of Sciences*, 100, 8080–85.

Vitousek, P.M. 1994. Beyond Global Warming: Ecology and Global Change. *Ecology*, 75, 1861–76.

Vitousek, P.M., Mooney, H.A., Lubchenco, J. and Melillo, J.M. 1997. Human Domination of Earth's Ecosystems. *Science*, 277, 494–9.

Yang, Y., Lei, X. and Yang, C. 2002. *Ecology of the Wild Guizhou Snub-nosed Monkey*. Guiyang: Guizhou Science and Technology Press.