

Chapter 6

Nature’s Legacy: Children, Development,
and Urban Access in Fanjingshan, China

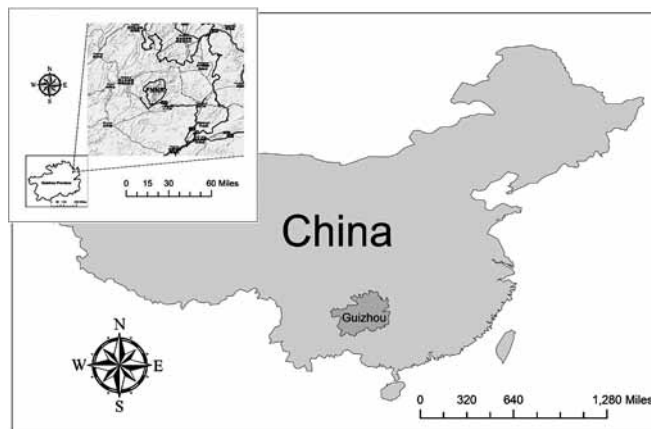
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When we love the earth, we are able to love ourselves more fully. I believe this. The ancestors taught me it was so. As a child I loved playing in the dirt, in that rich Kentucky soil, that was a source of life. Before I understood anything about the pain and exploitation of the southern system of sharecropping, I understood that grown up black folks loved the land. (hooks, 2002: 28–9)

In a short essay about her childhood, bell hooks speaks to the importance of nature in a time of great transition for the black population of the rural south in the United States. She speaks of nature’s legacy as part of something passed down to her emotionally, materially, and biologically; it is something poignant that she feels at the very source of her being. hooks’ childhood was a time of agricultural transformation in the rural south of the US that, in combination with a burgeoning industrial expansion in the north, motivated the migration of many African Americans to a place where they faced abject poverty and a capitalist system that cared little for connections to nature: “Without the space to grow food, to commune with nature, or to mediate the starkness of poverty with the splendor of nature, black people experienced profound depression” (hooks, 2002: 31). These consequences of development and the mass movement of poor people are not unique to particular times and places, and at this moment similar processes play out on a huge scale in contemporary China, where massive industrialization and urbanization, in conjunction with changes in rural areas, are resulting in significant modifications to human/nature dynamics.

This chapter engages complex human/environment changes for young people and their families wrought by rapid development in Fanjingshan National Nature Reserve (FNNR), a part of Guizhou Province that is experiencing rapid economic development and urban growth (Figure 6.1). We explore how complex human/environment dynamics can be visualized in simple and effective ways, employing ethnographic and participatory mapping techniques, and we comment on the legacy of centuries of indigenous local people working intimately with nature. The work is theoretically contextualized by Arturo Escobar’s (1995; 2008) idea of “figured worlds,” as a political ecology construct for how people understand and write their part in the world, which we marry with a form of deep mapping that is currently emerging from the US National Endowment for the Humanities

1 (NEH) digital humanities project. The digital humanities project elaborates the 1
2 ways people connect to nature in meaningful ways through stories, history and 2
3 pictures (Bodenhamer, 2010). 3
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19 **Figure 6.1 The location of Fanjingshan National Nature Reserve within**
20 **Guizhou Province and China, showing major urban areas** 20

21 *Source:* Shang Yang, edited from Google Maps, 2014. 21
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23 We broach the topics of local environmental policy implementation, social and 23
24 spatial equity, and the legacy of nature passed down to children. Our empirical 24
25 focus is young people whose life trajectories, daily lives, and perspectives on 25
26 nature differ markedly, and for whom the context of development and policy 26
27 implementation is emblematic of the struggles that are unfolding in FNNR. Before 27
28 we get to their stories we spend some time with development issues in FNNR, our 28
29 theoretical base, and attendant methodological considerations. 29
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31 32 **Working with Nature and Development at Fanjingshan National Nature** 32 33 **Reserve** 33 34

35 China's 12th Five Year Plan of 2013 marked the moment when the top-down 35
36 orthodoxy of "urbanize and develop first, clean up later" was not only challenged 36
37 but set aside as part of official rhetoric. At the National People's Congress in March 37
38 2013, a new official orthodoxy was adopted, of "sustainability and circular economy, 38
39 of inclusion and more rounded growth" (Hilton, 2013: 12). Much of the new concern 39
40 arises from decades of industrial growth accompanied by lax environmental concerns 40
41 and limited pollution controls, but also from the leadership of Pan Yue as Minister of 41
42 Environmental Protection. Pan Yue is one of the Communist Party's most outspoken 42
43 advocates of environmental protection and a more careful approach to industrial 43
44 modernization and development. These changes in attitudes towards development at 44

1 the highest level of Chinese government portend fundamental changes at the local 1
 2 level, and especially in urban fringe areas with potential for rapid change. In the past, 2
 3 and to a large degree still today, development in China was top-down and usually 3
 4 comprised massive infrastructural changes, which resulted in excessive urban 4
 5 growth. Accompanying the 12th Five Year Plan is a commitment to offering more 5
 6 autonomy to local areas in the ways that development and infrastructural monies 6
 7 are used. While the political scene in Beijing shifted, we were working with young 7
 8 people and their families in FNNR on a multi-year project focusing on human–nature 8
 9 complexities and dynamics. 9

10 FNNR was established as a national reserve in 1978 to manage the resource–use 10
 11 relations between local people and an endangered snub-nosed monkey species 11
 12 (*Rhinopithecus brelichi*). Our project brings together a team of researchers with 12
 13 expertise in landscape ecology, remote sensing, biology, demography, education 13
 14 technology, anthropology, and geography (Aitken and An, 2012; An et al., 2012; 14
 15 Aitken et al., 2014). The overarching goal of this project is to shed light on how 15
 16 the reciprocal relationships between government development programs and 16
 17 coupled natural and human systems interact with each other and evolve over space 17
 18 and time. Human–nature complexity is defined from the different disciplinary 18
 19 perspectives engaged in the project in order to understand better some of the 19
 20 practical implications of Chinese environmental policies that relate to some of the 20
 21 dramatic changes underway in the region. Many of the nearly 16,000 people who 21
 22 live within or close to FNNR have intimate knowledge of their local environment, 22
 23 and participatory ethnographic mapping is an important tool for accessing this 23
 24 kind of expert knowledge. 24

25 This chapter speaks to some of the anthropological and geographic components 25
 26 of the larger project, with a specific focus on development (particularly education, 26
 27 mobility, and tourist/economic development), and urban access to young people 27
 28 and their families. At this time, we define urban access simply in terms of the 28
 29 creation of paved roads and note that it is paired in complex ways with tourism and 29
 30 education, and raises contentious environmental concerns. It was evident when we 30
 31 began the project in 2008 that access to urban amenities was a singular focus of 31
 32 county administrators and local farmers, while officials at FNNR were concerned 32
 33 about maintaining a natural aesthetic and protecting the endangered snub-nosed 33
 34 monkey. The 12th Five Year Plan shifted the rhetoric in favor of FNNR, but 34
 35 several local access development projects were already completed or underway. 35
 36 The irony of the proclamations emanating from Beijing was not lost on us as we 36
 37 talked to young people and families whose ancestry, and intimate connection to 37
 38 nature through subsistence farming in this area dates back hundreds of years. 38

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40 *Access and Urban Development* 40

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42 Our work in FNNR began in 2008 with a pilot study that broached the issue of the 42
 43 area's transformation with a conceptual framework focusing on preserving human/ 43
 44 environment complexity to understand better the relations between development 44

1 and environmental policy making (Aitken and An, 2012).¹ The area is one of 1
 2 China's primary Buddhist heritage sites and has huge potential for tourism. Just 2
 3 before we arrived to begin our pilot work, a Chinese company, using Austrian 3
 4 cable-car technology, completed an extensive aerial gondola system to transport 4
 5 tourists to the top of Golden Peak, one of the highest mountains in the reserve 5
 6 that boasts ancient temples atop craggy peaks. Rapid development has occurred 6
 7 adjacent to the visitor center that was created at the base of the gondola. In the five 7
 8 years since the opening of the gondola system, the number of visitors to Golden 8
 9 Peak increased to 100,000 annually, with a capacity for 4,000 people per day.² 9
 10 Urban and tourist development continues apace, with access roads, private hotels 10
 11 and a golf course (funded by a Canadian company) under construction on the 11
 12 margins of the reserve. The focus of this chapter is with the southeast segment of 12
 13 FNNR, the area closest to the visitor center that is developing the most rapidly. 13
 14 The question of how well development serves the local people is complex 14
 15 in terms of equity and geography. During our 2013 fieldwork, we witnessed the 15
 16 destruction of a dozen homes adjacent to the reserve boundary to make way for 16
 17 the golf course. On our return for fieldwork in 2014, we noticed that the destroyed 17
 18 homes had been replaced by a club house for the golf course. At Jiangkou, the main 18
 19 urban area adjacent to the reserve, a multi-million dollar superhighway system, 19
 20 which stretches from Shanghai to the Burmese border, is under construction 20
 21 through the main north to south valley in the area just to the east of the reserve.³ 21
 22 Once finished, this highway will make the region substantially more accessible 22
 23 to mega-cities elsewhere in China. A palpable tension in the area, then, brings 23
 24 together FNNR's focus on nature preservation and long-term sustainability on the 24
 25 one hand, and on the other the county government's focus on the kind of fast- 25
 26 paced development afforded by the superhighway. These tensions highlight the 26
 27 old "urbanism and development first, clean up later" mantra, and at this time it is 27
 28 not entirely clear how the new environmental sensitivity of 12th Five Year Plan 28
 29 trickles down to the local level. Clearly, there are significant issues of scale at 29
 30 work here that result in tensions between government projects and local wellbeing. 30

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 32 *Figured Worlds: Affective Ecologies, Urban Transformation and Young People* 32
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34 To help with these issues of scale, we engage theoretically with Arturo Escobar's 34
 35 (1995; 2008) interest in the ability of local people to create "figured worlds" in 35
 36 which local practices, cultures, and identities are deployed effectively to create 36
 37 a visible (spontaneous, emotional, and corporeal) model that is translatable to 37
 38 38

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 40 _____ 39
 40 1 The model is now expanded to incorporate young people's activism and resistance 40
 41 to environmental and developmental changes (see Aitken, 2014, Chapter 4). 41

42 2 At this time, the tourists to the area are almost exclusively Chinese nationals. 42

43 3 To imagine the aesthetic and environmental impact of this highway, it is not out 43
 44 of place to think of Yosemite Valley in California with a six lane elevated super-highway 44
 44 down its middle. 44

1 officials and policy makers. As we discuss in Aitken and An (2012), when the 1
 2 world is figured by its local people, its legibility is rendered in such a way that life 2
 3 and political -projects are readable and can be readily translated at different scales. 3
 4 The question of how nature shows up and changes in the figuring of young people 4
 5 is of particular interest. To help address this issue, we reorient Escobar's model 5
 6 using Ragnhild Lund's concerns about young people's presence and practices 6
 7 (Lund, 2008; Azmi et al., 2013). 7

8 Figured worlds focus on people's autonomy in the face of external forces 8
 9 and the power of state development programs. Escobar uses a relational 9
 10 understanding of change and transformation through "locally situated, 10
 11 culturally constructed and socially organized" figured worlds as the sort of 11
 12 spaces "in which cultural politics are enacted that result in particular personal 12
 13 and collective identities" (Escobar, 2008: 218). With his work on "alternatives 13
 14 to development" in Colombia, Escobar's relational focus is tied specifically 14
 15 to everyday behaviors as bases for challenging inequality and state-sponsored 15
 16 neoliberal urban and economic policies. To the degree that community and 16
 17 networks of knowledge are very much part of Escobar's figured worlds, we 17
 18 overlay Lund's (2008) concern for the presence and political involvement of 18
 19 young people, and whether or not they are given a voice. Azmi, Brun, and Lund 19
 20 (2013: 107) place young people's political spaces at the interface of two axes: 20
 21 an axis of political presence/involvement and an axis of voiceless/vocal politics. 21
 22 These axes are developed in part from Kallio and Häkli's (2011) non-reflexive/ 22
 23 reflexive political alignment for children's actions performed politically. Azmi, 23
 24 Brun, and Lund (2013) differ from Kallio and Häkli with their concerns about 24
 25 the ways that young people's actions are situated in wider notions of politics 25
 26 at the national and global scale, and so they align nicely with Escobar's 26
 27 political ecology. In addition, Azmi, Brun, and Lund (2013: 107) note that 27
 28 "[a]lthough vocal refers to having a voice and being able to speak out, it does not 28
 29 necessarily mean that one is heard. By contrast voicelessness refers to utterances 29
 30 made without a sound; one remains silent, but this does not necessarily mean that 30
 31 one is being overlooked; however, one can be silenced." In sum, the conceptual 31
 32 model that we embrace addresses young people's presence, agency, and politics 32
 33 from Lund (2008) and Azmi, Brun, and Lund (2013), and their connection to a 33
 34 local social, political, and ecological networks from Escobar (2008).⁴ 34

35 Mapping and visualization are important ways of giving voice to Escobar's 35
 36 notion of figuring. It is important that young people are not only invested in 36
 37 their local spaces, but that they are able to articulate clearly the ways that they 37
 38 connect not only to their immediate natural environment but also to the larger 38
 39 processes that may impinge upon that landscape. As some spatial theorists 39
 40 note, place identity is complicated and requires more than just placing what 40
 41 is important on a map, it requires an understanding of the shifting valences of 41

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 43 4 This conceptual model is detailed and diagramed in Aitken et al. (2014) and Aitken 43
 44 (2014). 44

1 places and politics, and a nuanced appreciation of the ways nature is produced 1
 2 (Lefebvre, 1991; Massey, 2005). Post-structural theorists take this argument 2
 3 further, suggesting that the work that nature and people do in terms of creating 3
 4 a complex set of human–environment dynamics is not necessarily stable or 4
 5 predictable, but the overall goal of policy making is to contrive an affective 5
 6 outcome for those whose lives are intimately tied to local places (Escobar, 2008; 6
 7 Grosz, 2011). 7

8 Figuring implies working out underlying complexities such as affective 8
 9 outcomes and spatial inequalities—the benefits and disadvantages of urban 9
 10 development—and it suggests the creation of a figure, which for the purposes of 10
 11 this chapter is a mapping of lives in terms of the stories that young people and 11
 12 their families tell us about the ways they are connected to natural processes and the 12
 13 policies that impinge upon those processes. A figured world is a form of landscape 13
 14 visualization that, in our project, uses the stories of young people to create maps 14
 15 that represent their deep attachments to place. The ethnographic process through 15
 16 which these maps are contrived is called deep mapping. 16

17 18 *Deep Mapping* 18

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20 In words that are remarkably similar to Escobar’s description of landscape 20
 21 visualization through figured worlds, a major promoter of the NEH’s digital 21
 22 humanities initiative, David Bodenhamer (2010), argues for a deep mapping 22
 23 that is about spatial stories, memory, images, knowledge, and identity. Our 23
 24 FNNR fieldwork in Spring 2013 and 2014 was a push to map moments, 24
 25 movements, and pieces of humanity through emotions and the political, and to 25
 26 create visualities that in some way represent the lives of those affected by urban 26
 27 development. It pulls from methodologies that attempt to visualize and map 27
 28 ethnographic materials, which portray young people’s emotional and storied 28
 29 lives (Aitken, 2014). 29

30 Ethnographic mapping amongst indigenous peoples is a widely used 30
 31 technique that dates back several decades (Nahanni, 1977; Stull and Schensul, 31
 32 1987; Belyea, 1989; Herlihy and Leake, 1997). Ethnographic maps move beyond 32
 33 traditional cartographic representations; they are powerful spatial visualization 33
 34 techniques that include input from, and ownership by, individuals and local 34
 35 communities. Outputs may include depictions of local resources (Meredith et al., 35
 36 2002), cultural features (Al-Kodmany, 2002), pathways and individual’s daily 36
 37 rounds (Aitken et al., 2006). Geographic Information Systems (GIS) and Global 37
 38 Positioning System (GPS) mapping technologies combine to provide important 38
 39 possibilities and prospects for local engagement so that residents can represent 39
 40 powerfully their place in the world to administrators and policy makers who 40
 41 may be far removed from their particular contexts and livelihoods (Dana, 1998; 41
 42 Craig et al., 2002). 42

43 To the degree that we use experimental three-dimensional mapping and 43
 44 visualization methodologies, the FNNR project broaches potential, innovative 44

1 ways to get at Escobar's figured worlds and the issues he raises about translating 1
2 the complexities of human/environment relations. As part of our pilot work, we 2
3 explored the possibility of using GIS and Google Earth as a canvas upon which 3
4 to construct ethnographic mappings. In Spring 2010, we experimented with two 4
5 participatory mapping techniques to varying degrees of success (Aitken et al., 5
6 2014). The first technique involved black and white gridded paper maps using 6
7 as a base existing land use maps of the area, complete with landmarks such as 7
8 rivers and mountains. The intention was to gain an understanding of frequently 8
9 used areas such as farmed land parcels and family tombs. Local reaction to 9
10 the maps was at times one of interest, as most participants had not previously 10
11 seen land use maps of their area. But often participants did not identify with 11
12 or understand these representations because the type of map or aerial view did 12
13 not connect with the ways they related to nature. Distance and location were 13
14 especially challenging to judge due to the highly variable local terrain that was 14
15 not immediately identifiable on the map. The second mapping technique was 15
16 more effective, utilizing a Google Earth three-dimensional rendering of local 16
17 FNNR areas on a tablet computer. Although participants did not create the base 17
18 of this map either, the visualization model included satellite imagery and a toggle 18
19 facility that switched between this and an over-laid location map. Children 19
20 we worked with were excited by the interactive nature of a visualization with 20
21 which they could zoom into, and rotate around local villages and mountains. 21
22 Furthermore, the color variation and visible terrain lent themselves well to 22
23 intuitive interpretation, since participants could actually see the extent of 23
24 villages and recognize ridgelines. Our participants' appreciation of the three- 24
25 dimensional computer maps counters wisdom from the UN, which suggests that 25
26 technology of this kind should be used with caution (IFAD, 2009). Participants 26
27 in the interviews noted places in their immediate Google Earth area within which 27
28 they traveled and that were of interest, and we then quizzed them on the stories 28
29 that related to these places. 29

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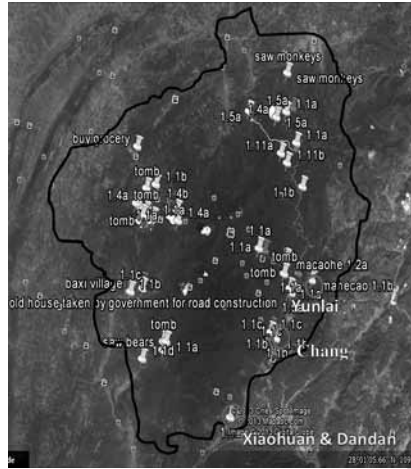
32 **For Want of Roads: Education, Access and Nature's Legacy** 32

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34 In what follows, we use case studies to create visualizations based on the 34
35 ethnographic mapping and interviews with young people and families living close 35
36 to the rapidly developing part of FNNR. It is clear that interactive multi-media 36
37 three-dimensional ethnographic mapping technologies are appropriate tools for 37
38 highlighting the storied lives of residents. Of course, it is impossible to depict in a 38
39 two dimensional rendering, the dynamic visuality of the data base, which includes 39
40 videos, pictures, transcripts, field notes, and hand-drawn maps. Moreover, access 40
41 to this data is restricted by ethical and federally-mandated Institutional Review 41
42 Board (IRB) regulations to the extent that we can offer only anonymous stories 42
43 that protect people and locations. 43

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16 **Figure 6.2 Google Earth data indicating deep mapping locations**

17 *Source:* Authors, 2014.

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19 The Google Earth database represented in Figure 6.2 comprises 21 interviews 19
 20 conducted in Spring 2013, and augmented with more interviews and focus groups 20
 21 with school children in Spring 2014.⁵ By zooming in to a particular interview site it 21
 22 is possible to access videos, photographs, field notes, and digital audio interviews. 22
 23 The representations below are a poor rendition of the automated maps that we create 23
 24 for participants, which enable rotational, perspective, and attitudinal changes as well 24
 25 as clicking on pictures to activate videos and field logs. The maps include important 25
 26 places and paths in the interviewees' experiences of their local area. Nearby schools 26
 27 and clinics, markets for selling herbs and mushrooms, and forests where young 27
 28 people encounter protected animals show some of the ways in which FNNR is lived. 28
 29 Included are family and village connections, like the locations of ancestral tombs 29
 30 and which family members go there regularly during the annual tomb sweeping 30
 31 holidays. The paths traveled by young people to get to these places, often on foot 31
 32 over several kilometers, add to existing understandings of the FNNR's infrastructure 32
 33 by highlighting the alternate, sometimes exhausting, journeys. 33

34 Nuances in stories are important to deep mapping. One example highlights a 34
 35 clash between wild nature, children's daily journeys, and their opportunities for 35
 36 better education. A path leading from a fast-growing town at the western entrance 36
 37 to the reserve to the small village of Tuanlong, now an official Tujia Minority 37
 38 Cultural Village, is the only way for students to walk to school a few kilometers 38
 39 away (Figure 6.3). The narrow dirt road meets at one point with the territory of 39
 40 a troop of Macaque monkeys, who have learned to linger near the road and wait 40
 41 for treats from tourists stopping their cars on the way to Tuanlong. While the 41
 42 construction of the new school in town nearby means more opportunities for 42
 43 _____ 43

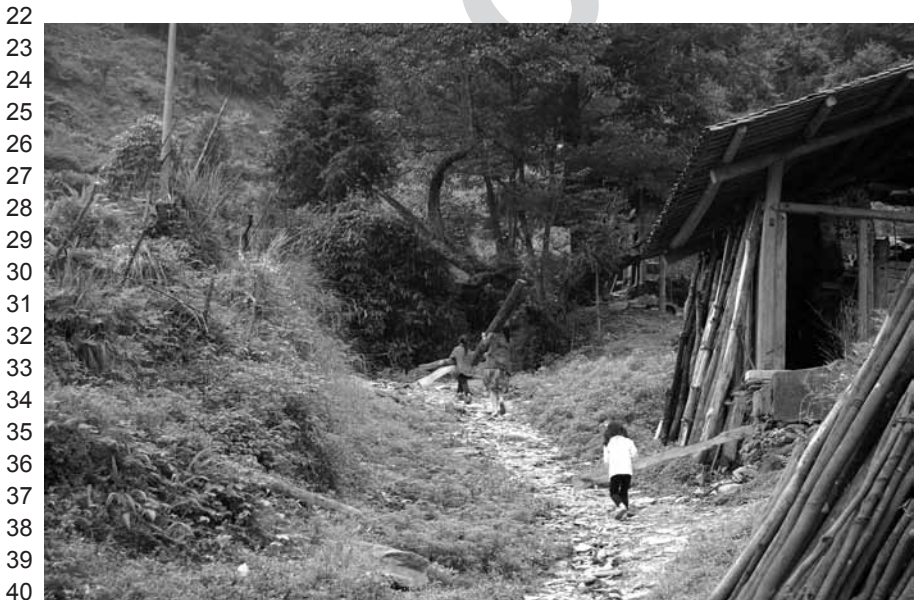
44 ⁵ The three case studies detailed in this chapter are circled on Figure 6.2.

44

1 children to get above a middle school education, one mother told us that the road 1
 2 was treacherous as monkeys often attack children who are not willing to part with 2
 3 their snacks. The benefits and risks of development clash here, and concerned 3
 4 parents sought the local government to organize a bus. Eventually an arrangement 4
 5 with a local bus company allowed the children to ride to and from school for a 5
 6 small fee, and the monkeys remain to mug for the tourists' cameras. 6

7 Residents are being encouraged to move into nearby cities, sometimes 7
 8 receiving small plots of land from county governments to build new homes as a 8
 9 reward. The process of moving families from small mountain villages to urban 9
 10 areas usually means closing small schools in favor of larger facilities in more 10
 11 central locations, sometimes nearby but often hours away. Much of our map- 11
 12 making tasks and interviews centered on the locations of new and old schools, and 12
 13 feelings associated with both. New schools represented opportunities but also clear 13
 14 changes to the ways families interacted with nature. One father in northeastern 14
 15 Lengjiaba discussed the closure of the school he attended as a child: 15

16
 17 My personal feeling? When this school closed, for the students, I mean, for 17
 18 the young children, the 5 or 6 year old children, of the village, it was a real 18
 19 inconvenience. But the new school is better, it's good. One disadvantage is 19
 20 the children are too small. There's no school bus for them. And walking is not 20
 21 easy ... That's a real impact. (Interview, March 2013) 21



41
 42 **Figure 6.3 Young girls help gather firewood on a Saturday. On week days** 42
 43 **they walk 30 minutes to school along this path** 43
 44 *Source:* Steve Allison, June 2014. 44

1 A theme among many of our respondents was that education would provide the 1
 2 trajectory for the next generation in terms of whether they stayed locally or moved to 2
 3 cities. One proud father paid for his son's commercial driver's license, for example, 3
 4 allowing him to stay in FNNR as a tour bus driver. The daughter of a local restaurant 4
 5 owner tested high enough to go to university (even after walking the treacherous road 5
 6 from Tuanlong), and returned to work in a local government office. While none of the 6
 7 adults interviewed had a higher than middle school education, most reported sending 7
 8 children to better high schools in larger cities, vocational schools, or universities. 8

9 The story of 23 year old Xiaoping, interviewed in Spring 2014, is a testament 9
 10 to the unpredictable dynamics of human-nature interactions. While Xiaoping 10
 11 convinced his parents to pay for him to attend the prestigious Huai'an High School 11
 12 in Jiangkou's new development zone, he eventually returned home to look for work 12
 13 in FNNR. After an unsatisfactory year in college, he began working in cities like 13
 14 Shanghai and Wenzhou. However, he found after a short time he wanted to return 14
 15 home: "The environment is much cleaner here and I feel healthier." He has now 15
 16 taken over the task of giving offerings at the family tombs, some of which lie at the 16
 17 end of an 8 km hike. "It's not so bad, I'm familiar with the shortcuts now," he said. 17
 18 While Xiaoping admits there is less to do at FNNR when compared to the city, he and 18
 19 his friends often go on hikes in surrounding hills around the village. Still, staying in 19
 20 the village does not mean continuing farm work for him. He's had difficulty finding 20
 21 work in the growing tourism industry, having quit a job as a security guard for the 21
 22 cable car, but has no desire to return to the cities. As for his parents' feelings about 22
 23 using his education in this way, he said, "there was a lot of arguing." 23

24 The places, paths, and perspectives of Fanjingshan residents paint a nuanced 24
 25 picture of the course of development in terms of figured worlds. Dwindling 25
 26 villages still house hopeful people, believing that opportunities represented by 26
 27 better schools and more roads could mean better lives for the next generation. 27
 28 Still, the sacrifices that such changes entail bring out a healthy dose of realism in 28
 29 many older residents, and doubts about their ability to maintain their traditional 29
 30 connections to nature. While acknowledging that changes in behaviors are often 30
 31 strategies to preserve basic elements of lifestyle and traditions, we also note that 31
 32 FNNR has seen an increase in national attention and tourism, which has resulted 32
 33 in rapid urban and infrastructural development while many people continue to 33
 34 embrace subsistence farming practices that tie them to nature in traditional 34
 35 ways. For example, a father described the loss of medicinal knowledge and herb 35
 36 gathering as a lack of deep understanding. He says everyone still knows a little, 36
 37 but few know about medicinal herbs on a deeper level: 37

38
 39 There are still some old masters, some doctors, who can teach us herb use. It's 39
 40 really something you learn when you're older: 14, 15, 16. To start young is a 40
 41 waste of time. All the young people know a little but not enough. I wouldn't 41
 42 trust them to pick herbs by themselves ... There are hundreds of herbs for many 42
 43 different uses. Sanqi is for cuts, and also snake bites. Tianma is for headache. 43
 44 Kemayi helps with a cold, especially one with a cough. (Interview, June 2014) 44

1 Due to cost and infrastructure limitations, older generations in FNNR have 1
 2 lower educational levels, and recognize the importance of a good education 2
 3 for their children's and grandchildren's futures. This is evidenced by the large 3
 4 numbers of fathers, mothers, grandparents, aunts and uncles who, in order to 4
 5 get a better education for the children in their care, migrate away from remote 5
 6 areas with them for years at a time. Most of the buses leaving from Jiangkou 6
 7 station only go to nearby towns, mostly in the province, except for one that goes 7
 8 directly to Wenzhou, a popular working destination thousands of kilometers away 8
 9 on the east coast. In some areas, it was difficult to find households to interview 9
 10 since families had moved into the city for, we were told, better jobs and/or better 10
 11 education for children. Planning years ahead, parents may choose to work in 11
 12 cities such as Wenzhou in anticipation of purchasing a small apartment in town 12
 13 so their children can attend better schools there. Focusing on children's education 13
 14 not only improves their lives but also empowers families by equalizing gender 14
 15 and generational standing and exposing remote areas to new ideas (see Aitken 15
 16 et al., 2014). Escobar's views on identity, territory, and autonomy connect with 16
 17 these human/environment dynamics in FNNR. Strong values of education, self- 17
 18 sufficiency, and family seem present in the communities with which we are 18
 19 working to a greater degree than traditional connections with nature. 19

20 In focus groups conducted with students from Jiangkou Senior Middle School 20
 21 in Spring 2014, we discussed young people's desire to remain near the reserve after 21
 22 graduation versus moving to larger cities. The students, who would be 16 and 17 year 22
 23 old high school juniors and seniors in the US, bemoaned the fate of their ancestral 23
 24 villages as development had brought rapid ecological changes. "The walk to my 24
 25 house used to be lined with fruit trees," said one 17 year old, "but they were all cut 25
 26 down to build a new road." Another said she once swam in the river with her friends, 26
 27 but now her parents have advised her not to because of water pollution. Family fishing 27
 28 outings, too, have suffered as the rivers running through town are now considered 28
 29 dirty. Many students described their early childhoods in mountain villages as "fresh" 29
 30 and "clean," even "warm," as opposed to the noise and activity of life in town. Still, 30
 31 when asked about their plans after high school, none of the students expressed a 31
 32 strong desire to stay. Many wanted to attend university in the cities and make money 32
 33 there, then possibly return. Living near Fanjingshan may raise ecological awareness, 33
 34 as many expressed the importance of caring for the environment. This meant not 34
 35 littering, not wasting resources, and avoiding ecologically sensitive areas. But for 35
 36 many, financial goals took precedence, and it seems much of this sensitivity will 36
 37 make its way to the cities. How the legacy of nature plays out in time is perhaps not 37
 38 as cut and dried as bell hooks suggests, and so the balance of the chapter explores 38
 39 human/nature dynamics in more thoroughly through deep maps. 39

40 We choose three deep maps from close to the urbanizing tourist center of the 40
 41 area. Taking Figure 6.2 to a more intimate scale and switching on specific interviews, 41
 42 Figure 6.4 represents deep mappings for (i) Xiaohuan and Dandan, two cousins who 42
 43 are in middle-school, (ii) Chang, a young father whose livelihood has changed with 43
 44 tighter restrictions on hunting and herb collecting, and, (iii) Yunlai, a teenager who 44

1 ruminates on changes wrought by his village now having road access (see Figure 6.2 1
2 for locations).⁶ These participants are compared and contrasted because of the 2
3 significant differences in the ways they show up as autonomous actors. Although 3
4 very different, their stories are bound by the accessibility of their respective homes. 4

5
6 *Xiaohuan and Dandan's Figured World: "don't spit on the ground ... take care of 6
7 trees" (Interview, March 2013)* 7

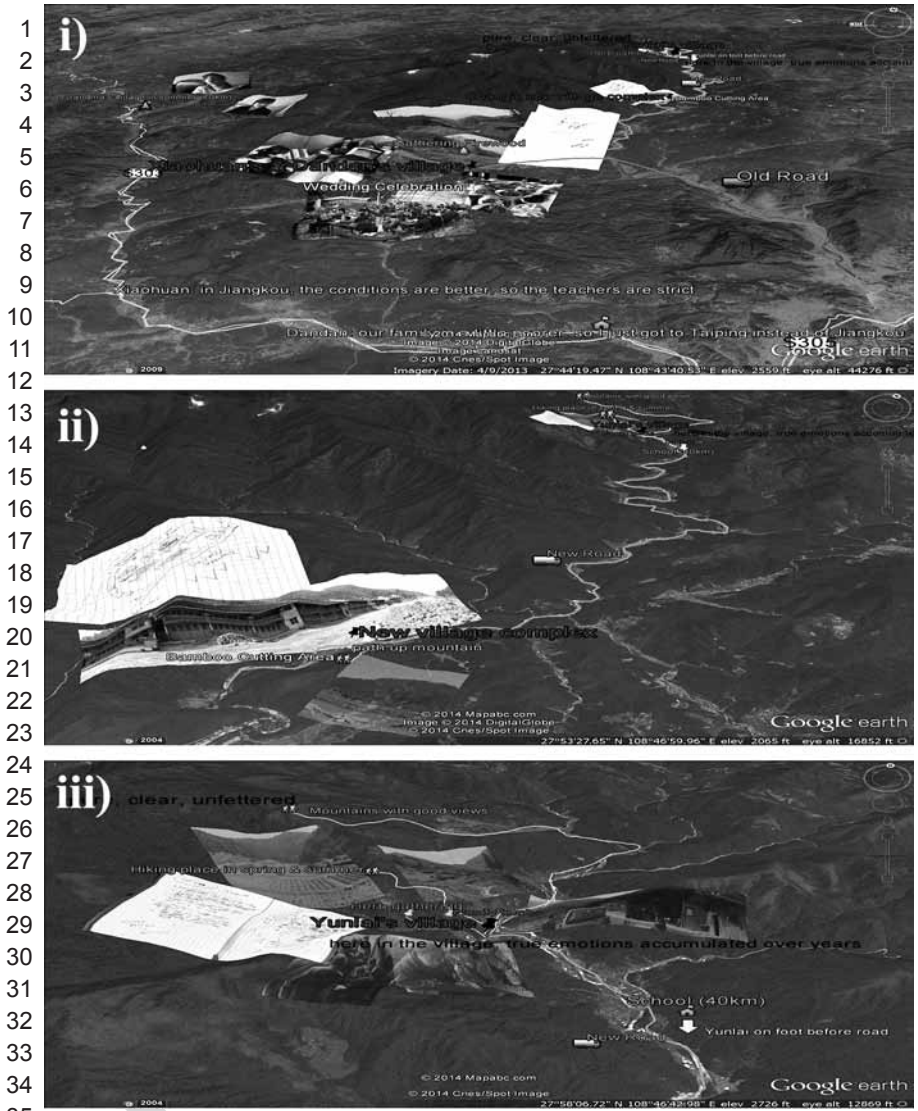
8
9 At 9 years of age, Xiaohuan and Dandan are close cousins whose worlds are 9
10 circumscribed by school, working on their parents' farm during the school year, 10
11 and visiting their grandmother's farm during the summer holidays. At their 11
12 grandmother's farm, 70 km away, they tell us that they learn how to grow flowers 12
13 and help with the animals. For the most part, when at home their focus on school 13
14 and education removes them to a large degree from the work on the farm: "We 14
15 don't really farm, we don't really do any farm work. At harvest time we'll help a 15
16 little. We harvest yams, potatoes. From time to time." 16

17 Because we interviewed Xiaohuan and Dandan together, we created a joint map 17
18 for them on Google Earth (Figure 6.4). Although the representation here is static, it 18
19 is nonetheless possible to get an idea of the ways that Xiaohuan and Dandan were 19
20 focused on their village, but they also gave a sense that their relatively long journeys 20
21 to school and to their grandmother in the summer were important parts of their 21
22 figured worlds. Throughout our conversation it is clear that the cousins want to stay 22
23 in their village, a wish that shows up in the ways they talk about what they like to 23
24 study and what they hope to do when they leave school. Xiaohuan aspires to study 24
25 nursing in order to return and care for the people of FNNR with modern medicine. 25
26 Dandan expresses an interest in biology, hoping that her studies would allow her 26
27 to better understand the wildlife she encounters every day on her trip to school. 27
28 Dandan's journey to school in Taiping is longer than that of Xiaohuan, who studies in 28
29 Jiangkou. They note that the teachers are stricter in Jiangkou, giving Xiaohuan more 29
30 homework in the evenings. It is clear to us that both consider this a good thing, further 30
31 reinforcing the priority toward education that pervades most of our discussions with 31
32 farming families in FNNR. Living in FNNR has provided them an opportunity to 32
33 consider the importance of studying science and environmental conservation: 33

34
35 Because, I think, studying biology, the animals are really cute. Biology is like 35
36 studying nature. Normally, we can just not litter. Yeah, just don't litter, like that.⁷ 36
37 Pollute less, use less motors, less cars that use gas. (Dandan, interview, March 2013) 37

38
39
40 ⁶ The deep maps of Xiaohuan and Dandan, and Yunlai are detailed in Aitken (2014), 39
40 where the focus is on young people's presence and activism. 40

41 ⁷ For the Chinese, littering is an important trope signifying environmental degradation. 41
42 During a 2014 interview, an FNNR Ranger reflected: "If tourists can be managed properly, and 42
43 discouraged from littering, then their impact on the environment will be reduced. We should not 43
44 be afraid to punish tourists who litter, they'll learn. 'Tourism and ecology should be in balance.'" 44



36 **Figure 6.4** Deep maps of Xiaohuan and Dandan (top), Chang (middle) 36
37 and Yunlai (bottom) 37

38 *Source:* Authors, 2014. 38

39 39
40 To the northwest of Xiaohuan and Dandan's map, it is possible to see, in the 40
41 distance, Chang's and Yunlai's maps. Both their villages have changed significantly 41
42 since a new road was built in 2009. 42
43 43
44 44

- 1 *Chang's Figured World: "[the monkeys] ... are from a long time ago, they've* 1
 2 *been around forever"* (Interview, March 2013) 2
 3 3 3
 4 Well, before the road was built we lived just up there. That house up there on the 4
 5 mountain, that was where we lived. ... [Now I live] ... here, there, anywhere's 5
 6 fine. But doing business it the most important thing. (Chang, interview, 6
 7 March 2013) 7
 8 8 8
 9 Chang is a young man with a wife and a son, and the one issue that has changed 9
 10 for him with increased urbanization and access is the increased opportunities for 10
 11 business. Chang owns a restaurant that is part of a new village complex, which 11
 12 was built specifically to attract tourists from urban areas who want to experience 12
 13 traditional rural living. In rapidly urbanizing China, catering for nostalgia for 13
 14 nature and rural lifestyles is an increasingly lucrative business. A picture of 14
 15 Chang's village can be seen as part of his map (middle graphic of Figure 6.4), as 15
 16 can the new road that connects the village to the main tourist area of FNNR about 16
 17 15 km to the south (and near Xiaohuan and Dandan's village): 17
 18 18 18
 19 Well, the road had a big effect on the economy. Having a road means if I want 19
 20 to sell something I can do it easily now ... it's an improvement for sure, with 20
 21 the road. We can sell the bamboo a lot more easily. So it's more convenient. The 21
 22 bamboo is for construction. It goes up to ... to the northeast [of China]. I think 22
 23 they use it for greenhouses ... Everybody around here does it. We have a plot 23
 24 where we can plant some bamboo shoots and wait a couple of years and then 24
 25 head up to the mountain and cut them down. Then we have to carry them off. 25
 26 We have to go so far. (Chang, interview, March 2013) 26
 27 27 27
 28 Prior to the road going in, Chang tied the bamboo into rafts and guide it down 28
 29 the river: "Then we had to put them in the river and float them down to get them 29
 30 to market." The picture embedded at the bottom of Chang's deep map portrays 30
 31 this hillside from which Chang harvests bamboo, but it is made semi-transparent 31
 32 because some of his activities there may now be illegal with the stricter FNNR 32
 33 laws about collecting herbs, cutting trees, mining, and hunting. Chang and his son 33
 34 used to go fishing and swimming in this area and they liked to hike the mountain 34
 35 where Chang gathered firewood: "[t]here's a little path, no big roads or anything. 35
 36 I just go right up there (points to hill across road) ... [o]f course I have to zig 36
 37 zag ... it was me who was gathering, [my son] just came for fun." 37
 38 The new village complex contains 30 rooms for tourists. The homes are 38
 39 traditional two-story farmhouses built from locally felled and lumbered hardwood 39
 40 trees using hand tools. The joints and mortises that connect and add strength to 40
 41 building frames are all hand-crafted. Chang now works in construction in nearby 41
 42 Heiwanhe but he was employed for over a year building the village complex: 42
 43 "Yes, I built it. My brother and I. He built some and I built some, actually, I built 43
 44 all this and they built that over there They built some, but I did most of the 44

1 work.” We had a chance to return to the village complex in 2014 to find several 1
 2 new restaurants that had opened alongside Chang’s. 2
 3 Chang’s upbringing was focused on subsistence farming, but his life changed 3
 4 with the road and the building of the village. Tourist season is May through July, 4
 5 “when the weather is good people will come here,” and he regularly get guests 5
 6 from Tongren, Jaingkou and even from as far away as Guiyang (see Figure 6.1): 6
 7 “... it’s like a little country bed and breakfast.” Chang has three parcels of land 7
 8 right beside his house, which can be seen on Figure 6.4 to the right of the new 8
 9 village complex, where he grows yams and potatoes for his restaurant. Beyond 9
 10 growing these plants, his life is now focused on construction and the restaurant. 10
 11 He expects more tourism and more business in the future: “I heard they spent 11
 12 8 million [Chinese Yuan] on TV ads, and we’ve had more people, I think.” 12
 13 The difficulty in reconciling development and conservation is visible in 13
 14 Chang’s changing attitudes. He no longer feels tied to his land and would prefer to 14
 15 get into bigger business ventures, but the FNNR regulations make it very difficult 15
 16 to sell land: 16
 17 17
 18 Then I’d say it’s not [about my connection to] the land. It’s possible to sell but 18
 19 it’s not easy and there’s a lot of paperwork. The government [FNNR] is really 19
 20 strict. You can give them a lot of reasons why you could sell your land but 20
 21 they say it’s not enough. ... We even went to apply, but in the end they didn’t 21
 22 approve and we couldn’t sell the land. I think it’s a really regressive policy. 22
 23 [If I could sell] ... I’d keep doing this business, but I’d make it bigger and better. 23
 24 (Chang, interview, March 2013) 24
 25 25
 26 A shift in attention towards business and a reduction of activity on the mountain 26
 27 can affect attachments to nature. Seeing some of FNNR’s more famous species, 27
 28 like the snub-nosed monkey, can reinforce environmental consciousness and 28
 29 attachment to nature. However, it has been over 10 years since Chang has seen a 29
 30 monkey in the wild: “yeah, of course. I mean, this is something from a long time 30
 31 ago. They’ve been around forever. I just know we’ve got them here in Fanjingshan 31
 32 and that’s good [for business].” Chang’s son has never seen a monkey in the wild, 32
 33 nor does he expect to. His son’s focus is on business and making a better living 33
 34 than his father or grandfather. He wants to go to a local business school and learn 34
 35 how to make money, and fully expects to move to a large city to realize his dreams 35
 36 of business and wealth. 36
 37 37
 38 *Yunlai’s Figured World: “积愆 (jisu) true emotion accumulated over years”* 38
 39 *(Interview, March 2013)* 39
 40 40
 41 In the north segment of Chang’s map, about 10 km away, it is possible to see 41
 42 Yunlai’s figured world. We met Yunlai a year after he left school. His school was 42
 43 located in Zhenzang, 40 km to the southeast, and for most of his education Yunlai 43
 44 walked to school where he’d stay in a dorm with 20 other boys, and then return 44

1 at the end of the week: “On foot. Back then there wasn’t a road yet. There was no 1
 2 road then.” The asphalt road to the village is part of the same development project 2
 3 that connects Chang’s new village complex to the main tourist area of FNNR, 3
 4 but Yunlai’s figured world is much more rooted in nature and village life when 4
 5 compared to Chang’s son. 5

6 Our discussion about nature with Yunlai starts with talk about how much he 6
 7 enjoys hiking with his friends in the mountains and during the spring and summer. 7
 8 He particularly likes getting to peaks where there are good views: “I like a high 8
 9 one,” he says, “with a dense forest. I like a mountain where the sun is shining 9
 10 and I feel like everything around is clear. *Qing* (清清的感觉, meaning “pure, 10
 11 clear, unfettered”). 11

12 It is clear from our discussion that Yunlai enjoys the access to nature afforded 12
 13 by his village’s location in the foothills of nearby mountains. Yunlai’s deep map 13
 14 contains a page of a field log sketch of the extent of the steep hills surrounding the 14
 15 village. Yunlai’s emotive description of the relation between the peaks where he 15
 16 likes to hike in the spring and summer (“pure, clear, unfettered”) and its relation 16
 17 to the village is also indicated. 17

18 He goes on: “You can’t go straight up, it’s too steep. Up here, then go up 18
 19 this way [indicates on computer screen]. Just a little ways up, go slowly.” [Old 19
 20 woman in background: “Just go slowly”]. The old woman looks from Yunlai to 20
 21 us with a knowing (that is, I know something you do not know) look in her eye 21
 22 and a mischievous grin. Yunlai tells us how he enjoys gathering fruits, herbs, and 22
 23 bamboo shoots, which he eats with friends. At this point in the interview there 23
 24 is a brief interchange about collecting medicinal herbs to sell, an interchange 24
 25 that involves more eye-contact with the old woman watching from the outskirt 25
 26 of the group that gathers around us, and some body language suggesting that 26
 27 this practice is not altogether legal. Everybody in the group laughs and Yunlai 27
 28 shrugs it off; it is clear that he is very comfortable with his elders in the village 28
 29 and that his practices were simply an extension of everybody’s practices, and for 29
 30 us foreigners they are part of village lore that we are welcome to document and 30
 31 take with us. But they are also an important, and ancient part of the villagers’ 31
 32 connections to nature that cannot be eradicated with policy changes from 32
 33 FNNR administrators. 33

34 Yunlai equivocates that what he really likes to do with friends is to get away to 34
 35 higher mountains further afield. He seems very aware of his attachment to natural 35
 36 places, whether it is the mountains or the village. For Yunlai the village is very 36
 37 much part of the natural environment. He wants to stay in the village and find 37
 38 work: “Do a job in the village. Oh, here in the village, grow something. No real 38
 39 积愆 (*jisu*) anywhere else. Maybe raise some animals or something. No 积愆 39
 40 (*jisu*): Stay here.” 40

41 积愆 (*jisu*) may be translated as “yearning.” We take this to mean that Yunlai 41
 42 either has no real longing to leave the village or he has not as yet developed any 42
 43 desire to live elsewhere. It seems that Yunlai would like to stay in his village, but 43
 44 he knows that there are economic pressures to go and work in a city. He is also 44

1 aware that wages are often low in those jobs and that there is no real long-term 1
 2 incentive to move to an urban area where you don't have a *hukou*.⁸ 2

3
 4 It doesn't seem worth it to go that far for a little money. Going out and working is 4
 5 not something you can do your whole life. Maybe you can start and slowly work 5
 6 your way up, but it's not easy and so far. Because it's, when you're young, when 6
 7 you're in your 20s and 30s, you can find a job easy. But then you get older, you've 7
 8 got no *hukou*, you won't get as much money. (Yunlai, interview, March 2013). 8

9
 10 Parents were generally ambivalent about whether their children remain in 10
 11 FNNR, and tried not to interfere in their decision making. Hope that the next 11
 12 generation would stay was tinged with the understanding that the slow-paced 12
 13 life of the mountain could rarely compete with the opportunities offered by the 13
 14 city. While a growing tourism industry means more jobs in FNNR, the pattern 14
 15 of working in the cities for a while then returning was the best money making 15
 16 option for many. One father thought that working in the cities was good if you 16
 17 were between 18 and 30 years old. After that, he told us that you have to look at 17
 18 your situation to determine your next move, and suggested that there are plenty of 18
 19 opportunities in and around FNNR: "It really depends on your talents, it's what's 19
 20 best for you. If you're able to work in Fanjingshan, by all means do. But for some, 20
 21 staying in cities is best" (interview, June 2014). This was echoed by Xiaoping, the 21
 22 former security guard we discussed earlier, who felt either option depended on 22
 23 personal preference, although cities did not suit him. 23

24

25

26 **Some Closing Thoughts on Nature's Legacy** 26

27

28 Using easily accessible visual technologies, our deep maps transform two 28
 29 dimensional renderings into something that helps illustrate a figured world with 29
 30 attendant tensions between young people and parents, farmers and government 30
 31 agencies, urban development and nature. They simulate virtual representations 31
 32 of today's real environments that are simultaneously political, sensory, social, 32
 33 and experiential. Today the visceral and the material are very much apparent and 33
 34 connected publically and this connection is spatial and experiential. Elizabeth 34
 35 Grosz (2011) argues that identity is created through processes that are virtual and 35
 36 through a variety of natural forces and valences that have the capacity to make 36
 37 figured worlds material and affective. Deep maps are a form of framing that, to 37
 38 paraphrase Grosz, create and metabolize sensations that are released in nature 38
 39 and made to live a life of their own, to infect and transform other sensations. 39

40

41 _____ 41
 42 8 *Hukou* is the residential registration system put in place during the Cultural Revolution 42
 43 that effectively tied people to where they lived. Over the last two decades, a reduction of 43
 44 *hukou* regulations has enable people to move more freely to facilitate rural to urban migration, 44
 45 but this has also resulted in loss of security for urban migrants (Liang, 2001). 45

1 In this chapter we begin to lay out a navigational strategy through figured lives 1
 2 and nature in FNNR, drawing inspiration from contemporary mapping and 2
 3 visualization strategies. 3

4 The 12th Five Year Plan's focus on rounded development puts in sharp relief 4
 5 older policies that place development with rapid payoffs at the forefront over local 5
 6 sustainable practices. Is it possible for capital and the state to mobilize a politics of 6
 7 scale that valorizes local environmental process and connections to nature? To the 7
 8 extent that these strategies do not originate from local places (they usually come 8
 9 from the state or from abroad) they inevitably induce a delocalizing effect in terms 9
 10 of an unraveling of social and ecological life. Escobar advocates strategies which 10
 11 empower social networks so as to enact a politics of scale from below. These 11
 12 latter strategies engage "local movements with biodiversity networks, on the one 12
 13 hand, and with other place-based actors and struggles, on the other" (Escobar, 13
 14 2008: 32). Deep maps of young people and their families provide a window on 14
 15 the way local figured worlds reflect and refract local nature and the encroachment 15
 16 of urban ways of living. They also afford a level of autonomy for local peoples to 16
 17 the extent that they can be used to challenge mercurial state-sponsored initiatives 17
 18 that previously favored growth economics and rampant urbanism. From the work 18
 19 that is presented in this chapter, it is clear that young people speak to issues of 19
 20 environmental change diversely as they relate to development that is at odds with 20
 21 the rich cultural and ethnic history and geography of their local landscape. It is 21
 22 clear, further, that the context of these figured worlds underscores the fragility of 22
 23 sustainable ways of life in the face of rapid development, which is not necessarily 23
 24 conducive to young people living and thriving locally. 24

25 The young people and families we spoke with were ambivalent about changes 25
 26 in Fanjingshan. At one level, they welcomed access to education and urban 26
 27 amenities; they understood that these changes transformed the local area and they 27
 28 hoped that with them came opportunities to stem the decades of dire poverty that 28
 29 has gripped marginalized regions in China. But it was clear to us that even the 29
 30 youngest people we talked to were steeped in an ancient and vivacious connection 30
 31 to the natural environment that urban development has yet to spoil. As hooks 31
 32 (2002) suggests, there is a deeply felt link with nature, a connection to the earth and 32
 33 to the mountains, which transcends the development and environmental policies 33
 34 that accompany neoliberal capitalism. Whether this connection continues as future 34
 35 generations increasingly move to surrounding cities and beyond is a matter for 35
 36 conjecture, but at this time young people in Fanjingshan mediate—in a very real 36
 37 way through their practices—the privations of poverty with the grandeur of nature 37
 38 in ways that hooks' (2002) African American migrants, now removed from the 38
 39 rural Kentucky, gradually released to collective memory. Whereas the memory 39
 40 of nature connections is palpable for hooks, for young people in Fanjingshan 40
 41 it is still part of their everyday practice and not noticed as any kind of loss. The 41
 42 questions that hang in the balance of our ongoing research project reflect and 42
 43 refract that intense connection and push us to understand more fully the mediating 43
 44 effects of nature in the face of abject poverty without giving neoliberal capitalist 44

1 development another excuse for the exploitation of both young people and their 1
 2 ancient natural connections. The challenge is to improve the lives of the residents 2
 3 of Fanjingshan without commodifying nature's legacy. 3

4 4

5 5

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