

Narratives of Accessibility and Social Change in Shimshal, Northern Pakistan

Authors: Cook, Nancy, and Butz, David

Source: Mountain Research and Development, 31(1): 27-34

Published By: International Mountain Society

URL: https://doi.org/10.1659/MRD-JOURNAL-D-10-00092.1

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

An international, peer-reviewed open access journal published by the International Mountain Society (IMS) www.mrd-journal.org

Narratives of Accessibility and Social Change in Shimshal, Northern Pakistan

Nancy Cook¹* and David Butz²

- * Corresponding author: ncook@brocku.ca
- $^{f 1}$ Department of Sociology, Brock University, St Catharines, ON L2S 3A1, Canada
- ² Department of Geography, Brock University, St Catharines, ON L2S 3A1, Canada

Open access article: please credit the authors and the full source.



This paper analyzes 35 oral testimonies that were collected in Shimshal through a Panos oral testimony project. The project's goal was to record villagers' perspectives on social change in the community. The link road, which

would eventually connect Shimshal to the Karakoram Highway and down-country Pakistan, features prominently as an important vector of sociocultural transformation, despite being 2 years from completion at the time of the interviews. Our analysis delineates 10 narratives that reveal the public discourses that structure Shimshalis' understanding of the

road's emerging effects. These narratives contribute to development research and practice related to rural road construction by documenting local representations of the lived experience of a new road and its social and developmental effects, a neglected but vital structuring element of material outcomes. They also constitute an important starting point for tracing shifts in road-related public discourse, as accessibility becomes an increasingly accustomed aspect of everyday life in Shimshal.

Keywords: Accessibility; roads; social change; oral testimonies; Pakistan.

Peer-reviewed: November 2010 **Accepted:** December 2010

The road to Shimshal

Shimshal (37°N, 75°E) is a farming and herding community of about 150 households, located at 3000 m in the Karakoram Mountains in Pakistan's Gilgit-Baltistan province (Figure 1). According to sources in the community, as recently as 1970 it took about a week of walking with heavy loads to get from Shimshal to neighboring villages in the Hunza River valley. To reach a town with a large market, villagers needed to travel a couple more days along a rough pony track. By the early 1980s, the construction of bridges and improvements to the footpath linking Shimshal to the Hunza valley had reduced this journey to approximately 4 days for locals lugging cargo.

In 1985, the community began building its own link road from the newly completed Karakoram Highway (KKH), which follows the Hunza valley. Three years later, the road had progressed about 10 km toward Shimshal, and the fastest locals could reach the highway from the village was about 20 hours. At that time, Shimshal was one of the least accessible communities in Gilgit-Baltistan. It took 18 years for Shimshalis to finish the road, with significant monetary and logistical assistance from the district government and development agencies. When the road opened in November 2003, the drive from the KKH to the village was reduced to about 4 hours, and people could make the round-trip to the regional capital of Gilgit in a day (Figure 2).

One of the advantages Shimshalis identify in getting a road 2 decades later than their neighbors, and in taking so long to construct it, is the time they have had to anticipate the implications of this infrastructural development on village life and to observe what happened in other communities that went through a similar period of drastically increased accessibility when the highway was built. When Panos, a British development communications nongovernmental organization (NGO), approached the community to participate in an oral testimony project, Shimshalis saw it as an opportunity to record the fruits of their reflections on the soon-to-be-completed road.

In spring 2000, a Panos employee, who previously worked for an NGO in Gilgit-Baltistan and initiated the oral testimony project in Shimshal, held a 5-day workshop in the village. During this time, 9 men and 4 women were trained to collect, translate, and transcribe oral testimony interviews (for details of the methodology, see Panos 2011). By December 2002, they had interviewed 60 Shimshalis; 35 testimonies were subsequently published on the Mountain Voices website, where we accessed them (www.mountainvoices.org). The interview guide developed for Shimshal was designed to highlight the road as an important vector of contemporary sociocultural transformation and development in the community. Apart from helping mediate Panos's initial contact with the community, we were not involved in the testimony project.



FIGURE 1 Location of Shimshal in the Gilgit-Baltistan province. (Map by David Butz)

Road building is an important aspect of rural development in the global South (Obut 1986; Wagner 1990; Njenga and Davis 2003). Governments and development organizations largely assume that as roads increase rural accessibility and the circulation of people and goods, they also bring greater prosperity and an easier, more secure way of life (Wilson 2004). However, little development studies research has systematically analyzed the implications of roads for communities that are newly connected to the "outside." Important research exists on the social effects of rural roads in northern Pakistan (Grotzbach 1984; Allan 1986, 1989; Ispahani 1989; Kreutzmann 1991, 1993, 1998; Uhlig and Kreutzmann 1995; Kamal and Nasir 1998; Wood and Malik 2006), but it focuses mainly on mesoscale material effects in terms of land use patterns, agrarian economies, and migration patterns in the region. They overlook the discursive aspect of social change—the community representations of roads that mediate material change. Detailed longitudinal case studies are needed at the scale of particular communities and from the perspective of the people involved to understand more fully the complex implications of new roads for community organization, development outcomes, and the sustainability of those

outcomes. Consequently, scholars have begun to call for examinations of how rural people experience and represent new roads and what they hope or fear from their anticipated completion (Hilling 1996; Leinbach 2000; Rigg 2002; Johnston 2007). The Shimshali testimonies address this call by providing a glimpse of the prominent road narratives that circulated in the community 2 years before the road's completion and of their use by different groups *within* the village (Wilson 2004; Mumtaz and Salway 2005). They help us document villagers' perspectives on the road, and the social and developmental changes they think it shapes, across a crucial transitional period. Our purpose here is to describe 10 such narratives as they emerge from the testimonies.

According to Panos, oral testimonies are "subjective, anecdotal, selective, partial, and individual...[They] offer clues as to how people interpret events and—especially valuable in the context of development—what their priorities and values are. Ultimately, they tell us less about the fine details of events and experience than about their meaning for people" (Bennett 2003: 1). In enumerating the benefits of the Panos approach, Olivia Bennett (2003: 2) notes that the "key value of oral testimony in development is that it can amplify the voices of those whose economic,

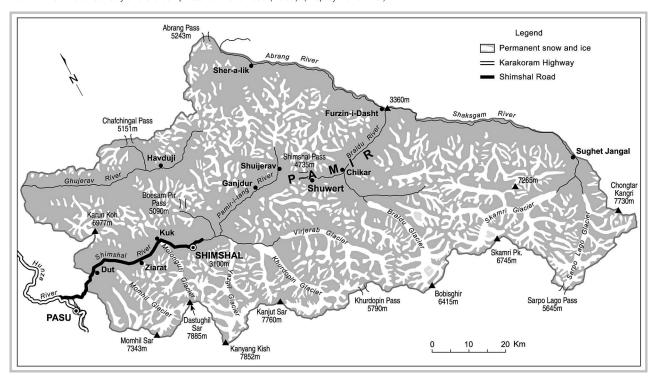


FIGURE 2 Shimshal territory and the completed Shimshal road (2003). (Map by David Butz)

social or educational position has excluded them from the circles of influence and power" (see also Perks and Thomson 1998; Le Roux and Whites 2004; Slim and Thomson 2006; Lees 2009). Bennett (2003: 2) argues that "oral testimonies challenge the generalizations of development literature and enlighten planners and policymakers about how it feels to be at the sharp end of development. They also increase understanding of issues by providing new insights and experiences."

The Shimshali testimonies tell us relatively little about material changes in Shimshal. Rather, they reveal some of the public discourses that structure Shimshalis' understanding of the road's emerging effects and that therefore mediate materiality. These narratives contribute to development research and practice related to rural road construction by documenting local representations of the lived experience of a new road and its social and developmental effects, a neglected but vital structuring element of material outcomes. They also constitute an important starting point for tracing shifts in road-related public discourse as accessibility becomes an increasingly accustomed aspect of everyday life in the village. Although we have not sought Shimshalis' input or reactions to the narratives we derived from the testimonies through an inductive process of open coding (Patton 1990; Strauss and Corbin 1998), our informal observations and conversations with community members during brief visits in 2005 and 2007 have helped shape their development. The outcome of those informal visits is permission to begin a new research project that will detail the road's impacts on social organization in Shimshal since its completion and trace the relationship between road discourse and material change in the community. At the community's request, the project will use the skills in oral testimony that Shimshalis developed through the Panos project and will produce another set of publicly archived narratives (Figure 3A, B).

Narratives of accessibility

The oral testimonies express narrative orientations ranging from heady optimism to resigned skepticism about the road's emerging implications, with most articulating an ambivalent mix of beneficial and detrimental effects. Ten more-or-less discrete narratives emerge from this range of orientations; respondents typically expressed more than one. These are listed in Table 1 and are briefly developed in the subsequent discussion, with frequent reference to carefully selected exemplifying quotations. The sample of testimonies is too small to speculate on the relative prominence of individual discourses or to claim representativeness for the quotations we use.

Displaying an ambivalence that is characteristic of most testimonies, Muhammad Baig attributes many benefits to the road but thinks they pave the way for threats to community life:

When the road links the village it will bring with it prosperity, opportunities, and earning sources...But it will bring prosperity at the

FIGURE 3 (A) Shimshal center in July 2007 with the new road bisecting the settlement. (B) A difficult section of the route to Shimshal, showing the old footpath and the partially completed road. The photo was taken in July 2000, when this section of the road was being constructed. (Photos by David Butz)





TABLE 1 Narratives of road-related social change in Shimshal.

	Narratives of road-related social change
1	Increased monetary wealth
2	Disintegration of social cohesion
3	Transformation of indigenous culture
4	Reconstitution of self-identity
5	Crisis in community identity
6	Increased exposure to outside dangers
7	Enhanced development
8	Improvement of women's mobility outside the village
9	Loss of women's independence
10	Shift in the gendered division of labor

cost of disunity and destruction of moral values. It will facilitate multiple sources of income and then people will not care for each other...The road will provide several facilities, and then people from different backgrounds will come to the village and possibly destroy our peacefulness.

He stresses that improved accessibility will positively affect the material circumstances of villagers' lives, primarily by *increasing monetary wealth*. According to this narrative, relative isolation has limited the community's access to money, which is increasingly required for agricultural inputs, imported goods, and children's educational expenses. The road facilitates new sources of income from the export of agricultural produce, including potatoes, livestock, cheese, and yak wool rugs. Improved travel times make down-country jobs more accessible for men, and higher education, with its promise of professional wages, possible for more students.

For many Shimshalis, increased tourism is an important part of anticipated economic prosperity. Shimshal has long been a tourist destination for trekkers and climbers seeking extreme wilderness experiences (MacDonald and Butz 1998; Butz 2002). The territory includes several peaks over 7000 m, and Shimshali men are celebrated mountaineers. Although portering for adventure tourists was Shimshal's largest source of cash income throughout the 1990s (Butz 2006: 394), the community's distance from motorized transport and its lack of tourism infrastructure was understood to limit further tourism development. Mohammad Raza predicted that "the tourism industry will flourish in the village with the road link and that would eventually increase the income of the people," and others thought that tourism had already benefited from the road's partial completion. Chughbai claimed, "This year almost all the men were engaged with the tourists and all the agriculture activities such as collection of fodder, food, and grain were carried out by women. The men earned a lot of money from the tourists this year." Jeep tours have been able to reach the village since 2003, and tourist accommodations have been built to Western specifications. Unfortunately, subsequent geopolitical contingencies and environmental disasters have decimated tourism in the region.

As is evident in the preceding quotation, Muhammad Baig thinks that economic prosperity will be accompanied by greater economic and social disparity that will kindle community disunity. This is a second prominent narrative, which Roshan's testimony develops in terms of disintegrating social cohesion: "Young women have not got the same respect for the elders that was among us during the time of our mothers and grandmothers...In the high pastures the youngsters are now refusing the elders by saying that, 'You are educating your own children, so why should we graze your livestock?" Another woman, Asmat, offers a similar assessment of disintegrating social cohesion but stresses its economic roots rather than its intergenerational manifestations:

Due to our close kinship our joys of life and sorrows of death were all in the one place. But there has been a decline in sympathy...for the reason that more and uneven earning makes people independent...When the road link is made, then the sympathy will vanish because people will become self sufficient...The road will bring prosperity and self-reliance and will end our dependency on one another.

In this view, social cohesion as indicated by codependency is compromised by disparities in wealth and the self-reliance that prosperity allows. Mohammad Raza linked accessibility, community disunity, and changing cultural values in his observation that "when people return to the village from the cities, they undermine our customs and values. Most probably our culture will change and the spirit of cooperation and unity would weaken, and people would think and act as individuals. This would create gaps between the people." The road allows Shimshalis who live outside the village to return home for visits more easily and frequently. Their baggage includes new ideas about clothing, Islamic practice, appropriate life goals, and leisure activities. Villagers worry that external influences undermine local customs and ignite tensions about what constitutes "indigenous culture." This prominent narrative of the transformation of indigenous culture draws from a growing sense that traditional ways of life lack social value for younger Shimshalis. Inayat, a young development worker, feels that elders have been "unable to preserve things and make people realize what their life is. Because this modernity, it looks so beautiful if you see it from outside: money, cars, cities...I worry that a lot of festivals here and ceremonies are going to finish. People openly say, 'These things are worthless. We should finish with them, we should be modern."

Inayat's concern reveals a fourth prominent narrative: that as well as altering indigenous ways of life, the road is

contributing to the reconstitution of Shimshalis' self-identities. The crux of this narrative is that with growing economic self-reliance, people have begun to think of themselves more as "individuals" than as interdependent community members; this is often expressed as trading tradition for modernity, which can have positive or negative connotations. Roshan's claim that "we have to wait only for a year or two to complete this road and we will also travel in vehicles like the down-country people" implies that vehicular mobility will reduce an unwanted distinction between Shimshalis and down-country Pakistanis. Johar Ali expands on this aspect of social change by speaking of the road's capacity to alleviate Shimshalis' disempowering sense of themselves as backward, junglee mountain villagers: "When the KKH linked Hunza to down-country, people established communication links and got access to markets. But Shimshal remained in isolation. This was the time when Shimshalis felt discrimination for their inaccessible location. There developed social and economic differences [from other communities], which created our feelings of deprivation and discrimination; people felt as if they were lacking something." He is referring to a period during the 1980s and 1990s when Shimshal became relatively less developed in relation to its neighbors on the highway, leading to feelings of inadequacy. He feels that Shimshalis' self-assessments have improved with the prospect and experience of greater accessibility to modern facilities.

The process of redefining identity in the context of decreasing peripheralization, however, may not be as straightforward as "becoming modern" implies. Muzaffer worries that the community will suffer an *identity crisis* because of its connection to the outside world via the road. This is a fifth narrative thread:

The most serious challenge for the community will be redefining who we are... I feel the next 5 or 6 years will be hard for the community, a sort of crisis of identity. We will have no more distinctions now. We were geographically distinct, but now many people and things will come in... The changes can even turn our strengths into weaknesses, such as our simplicity and honesty.

Muzaffer's concern is that as greater accessibility reduces Shimshal's social, cultural, economic, and ecological differences from other places, the question of who Shimshalis are relative to their neighbors may inspire a community-level identity crisis. He also worries that the road will become a vector of risk, *increasing the community's exposure to outside dangers*. According to this sixth discursive thread, the road will bring more foreign and down-country guests, some of whom will pose risks to the community. These are imagined as health hazards from violence or locally untreatable diseases. Gonik hints vaguely at these:

Our old generations were living peacefully, because they hadn't seen outsiders coming frequently to our village...But today we have to meet different people like Japanese and Americans in our own village...The

development of tourism is bringing many worries with it, because in the past we were living safely in our area, but now we are worried about our safety, because these foreigners might harm us in one way or another.

People also fear new social hazards, like smoking, drinking, and drugs. Young men who are hired as guides and porters are understood to be especially at risk because of their close and extended interactions with tourists. Aman cautions youngsters to "be very careful about these outsiders" who are understood to have already contaminated social practices in other nearby villages with a longer history of vehicular accessibility.

Not all external influences are characterized as dangerous. A seventh, countervailing, discourse is the expectation of enhanced development. Highlighting the road's potential to develop vital facilities in the village, Bashi foresaw "a great change in our village. First the people will become free of loads and will travel on vehicles, and then there will be shops and hotels in the village, and our schools will be improved. A good hospital will be established here and we will enjoy all facilities at our doorstep. These benefits would be due to the road. In our time we experienced a miserable life." Bashi's hopeful prediction has been largely realized; many development initiatives have been undertaken in the village since 2003, when the road allowed heavy supplies to be trucked in. An English medium high school has been constructed, alongside a hotel, guesthouse, shops, and a system of pipes for distributing potable water. Solar panels provide internal lighting to most houses. A hospital has not yet been built, but Shimshalis are traveling more often to medical facilities outside the village for treatment, and women are receiving better care during pregnancy and childbirth.

Several testimonies develop an eighth narrative, that the road is improving women's mobility outside the village, as well as their health. Roshan explains that now "as a woman I can go to Pasu within the same day from Shimshal. In the past it was very difficult, especially for women, to go down-country, and women were not traveling at all...But now there is no difference in traveling whether you are male, female or a child due to the new road." Women observe approvingly that gender relations are changing and the parameters of appropriate femininity are shifting as intercommunity mobility becomes more accessible to women. They feel they are becoming legitimate travelers and hope that as the gendered construction of mobility shifts, new educational, occupational, and marriage opportunities outside the village may arise for women and girls.

Some women are less sanguine about shifts to the gendered nature of mobility. A ninth discursive thread relates the new road to *women's loss of independence*. According to Gulshad,

As the road has approached, it has eased our lives. It will remove the load from the backs of our men. But the freedom of life that we are enjoying today will no longer exist when the road is linked. At present, wherever women want to go within our territory, we can move without fear. But when the road link is completed we will even have to lock our doors, which we keep unlocked today, as there is no fear and risk of theft from outsiders. It seems to me that we will lock our doors and will not be able to move without men.

Gulshad anticipates that the sphere of men's lives will expand when the road is completed but that women will lose independence as they become more dependent on male escorts to protect them from nonlocal men. Mushk fears that women "will not be able to stay alone at home or go out for working. We would not be able to take a step outside. We will remain bound inside our homes."

Hussn, a female schoolteacher, describes the road's gendered effects quite differently: "Nowadays, men spend most of the time outside the village earning an income for their families. And the women then have to play all roles, such as watering the fields and forests, which were previously performed by men...Women are taking care of their kids, cleaning their homes, herding, and now are helping their husbands in agricultural activities." Hussn's understanding exemplifies the final narrative regarding the road's social effects. This discourse identifies a shifting gendered division of labor in the village, which constitutes men as monetary "breadwinners" rather than subsistence farmers and women as full-time agriculturalists, as well as homemakers. Hussn and others anticipate that as women are increasingly burdened with a "double day" of labor, they will also gain more control over household resources and farm-related income, as well as greater participation in community-level decision-making. Women's observations about shifts in the gendered nature of mobility, work, and responsibility reflect a more general appreciation that the road is likely to have multiple, conflicting, and contested effects and that different groups in Shimshal will fare differently (Fernando and Porter 2002; Mashiri and Mahapa 2002).

Our reading of the 35 Shimshali oral testimonies suggests that these 10 narratives dominated Shimshalis' sense of the road a couple of years before its completion. There is sufficient overlap among testimonies to suggest these are shared narratives, but they are also too varied and

contradictory to indicate consensus or certainty at the community level. During brief visits to the village in 2005 and 2007, we observed during informal conversations with acquaintances that the ways in which Shimshalis talked about living with the road after its completion shared these characteristics. Villagers were pleased that many of the development projects we describe here were being completed but disappointed that adventure tourism had not expanded as hoped. Many people complained of disunity within the village as economic interests diversify and household strategies expand, while others who were realizing new opportunities were enthusiastic about their futures. Seniors spoke often about youngsters' increasing disrespect for community values, and the narrative of a shifting gendered division of labor remains prominent. Villagers noted that as women's labor responsibilities in the village increase and as the village becomes a space of greater autonomy and material comfort for women, they are both less free and less inclined to escape to their traditional space of relative autonomy from men, the pastures (cf Butz 1996; Kreutzmann 2000). At the same time, more men are visiting the pastures as a way to access a more traditional or "authentic" Shimshali experience than the village offers so that pastures are becoming increasingly identified with masculinity. In this way, the road has initiated a complex gendered reorientation in Shimshalis' representations of their microgeographical attachments as the gendered division of labor shifts.

We have been careful to describe the results of our analysis of these oral testimonies as "narratives" for 2 reasons: we cannot reliably infer *material* change or its causes from the testimonies themselves, especially as the road was not yet complete when the interviews were recorded, and the conditions of their production have shaped them into articulations of shared discourses. It is their latter quality as discourse that makes these narratives especially valuable to development researchers and practitioners for understanding the implications of road construction for development and social change in Shimshal. They are in themselves among the road's effects, and as shared understandings, they undoubtedly help shape its material outcomes.

ACKNOWLEDGMENTS

The authors thank the residents of Shimshal, Shimshal Nature Trust, Panos Mountain Voices Project, Siobhan Warrington, and Loris Gasparotto. Thanks also to Anne Zimmerman and 2 anonymous reviewers for helpful feedback on previous drafts.

REFERENCES

Allan N. 1986. Accessibility and altitudinal zonation models of mountains. Mountain Research and Development 6(3):185–194.

Allan N. 1989. Kashgar to Islamabad: The impact of the Karakoram Highway on mountain society and habitat. *Scottish Geographical Magazine* 105(3):130–141.

Bennett 0. 2003. Giving Voice: Practical Guidelines for Implementing Oral Testimony Projects. London, United Kingdom: Panos Institute.

Butz D. 1996. Sustaining indigenous communities: Symbolic and instrumental dimensions of pastoral resource use in Shimshal, northern Pakistan. *The Canadian Geographer* 40(1):36–53.

Butz D. 2002. Sustainable tourism and everyday life in Shimshal, Pakistan. *Tourism Recreation Research* 27(3):53–65.

Butz D. 2006. Tourism and portering labour relations in Shimshal, Gojal Hunza. In: Kreutzmann H, editor. Karakoram in Transition—The Hunza Valley. Oxford, United Kingdom: Oxford University Press, pp 394–403.

Fernando P, Porter G. 2002. Balancing the Load: Women, Gender and Transport. London, United Kingdom: Zed Books.

Grotzbach E. 1984. Mobility of labour in high mountains and the socioeconomic integration of peripheral areas. Mountain Research and Development 4(3):229–235. Hilling D. 1996. Transportation and Developing Countries. London, United Kingdom: Routledge.

Ispahani M. 1989. Roads and Rivals: The Politics of Access in the Borderlands of Asia. London, United Kingdom: IB Thauris and Co.

Johnston D. 2007. These roads were made for walking? The nature and use of rural public transport services in Garut Regency, West Java, Indonesia. Singapore Journal of Tropical Geography 28(2):171–187.

Kamal P, Nasir M. 1998. The impact of the Karakoram Highway on the landuse of the Northern Areas. In: Stellrecht I, editor. Karakoram–Hindukush–Himalaya: Dynamics of Change, Part I. Cologne, Germany: Rudiger Koppe Verlag, pp 303–338.

Kreutzmann H. 1991. The Karakoram Highway. *Modern Asian Studies* 25(4): 711–736.

Kreutzmann H. 1993. Challenge and response in the Karakoram: Socioeconomic transformation in Hunza, Northern Areas, Pakistan. *Mountain Research and Development* 13(1):19–39.

Kreutzmann H. 1998. Trans-montane exchange patterns prior to the Karakoram Highway. *In:* Stellrecht I, editor. *Karakoram–Hindukush–Himalaya: Dynamics of Change, Part II.* Cologne, Germany: Rudiger Koppe Verlag, pp 21–44.

Kreutzmann H. 2000. Livestock economy in Hunza: Societal transformation and pastoral practices. *In:* Ehlers E, Kreutzmann H, editors. *High Mountain Pastoralism in Northern Pakistan*. Stuttgart, Germany: Steiner.

 $\textit{Le Roux W, Whites A.}\ 2004.\ \textit{Voices of the San.}\ \textsc{Cape Town, South Africa: Kwela Books.}$

Lees A. 2009. *Voices of Change: Oral Testimony of the Antanosy People.* London, United Kingdom: Andrew Lees Trust.

Leinbach T. 2000. Mobility in development context: Changing perspectives, new interpretations and the real issues. *Journal of Transport Geography* 8(1):1–9. **MacDonald K, Butz D.** 1998. Investigating portering relations as a locus for transcultural interaction in the Karakoram region of northern Pakistan. *Mountain Research and Development* 18(4):333–343.

Mashiri M, Mahapa S. 2002. Social exclusion and rural transport: A road improvement project in Tshitwe, South Africa. *In:* Fernando P, Porter G, editors. *Balancing the Load: Women, Gender and Transport*. London, United Kingdom: Zed Books, pp 15–24.

Mumtaz Z, Salway S. 2005. "I never get to go anywhere": Extricating the links between women's mobility and uptake of reproductive health services in Pakistan. Social Science and Medicine 60(8):1751–1765.

Njenga P, Davis A. 2003. Drawing the road map to rural poverty reduction. *Transport Reviews* 3(2):217–241.

Obut J. 1986. Transportation as a limitation to rural development: The case of Abak, Nigeria. *GeoJournal* 12(3):317–321.

Panos Institute. 2011. Oral testimony. *Panos*. www.panos.org.uk/?lid=20020; accessed 27 January 2011.

Patton M. 1990. Qualitative Evaluation and Research Methods. Thousand Oaks, CA: Sage.

Perks R, Thomson A. 1998. The Oral History Reader. London, United Kingdom: Routledge.

Rigg J. 2002. Roads, marketisation and social exclusion: What do roads do to people? *Journal of the Humanities and Social Sciences of Southeast Asia and Oceania* 158(4):619–636.

Slim H, Thomson P. 2006. Words from the heart: The power of oral testimony. In: Dagron A, Tufte T, editors. Communication for Social Change: Historical and Contemporary Readings. South Orange, NJ: Communication for Social Change Consortium, pp 454–458.

Strauss A, Corbin J. 1998. The Basics of Qualitative Research. London, United Kingdom: Sage.

Uhlig H, Kreutzmann H. 1995. Persistence and change in high mountain agricultural systems. Mountain Research and Development 15(3):199–212. Wagner H. 1990. A road building project in the Sahel region of Mali as an instrument of development: Spatial–economic effects on traditional subsistence economies. Applied Geography and Development 36:31–44. Wilson F. 2004. Toward a political economy of roads: Experiences from Peru. Development and Change 35(3):525–546.

Wood G, Malik A. 2006. Sustaining livelihoods and overcoming insecurity. *In:* Wood G, Malik A, Sagheer S, editors. *Valleys in Transition: Twenty Years of AKRSP's Experience in Northern Pakistan*. Oxford, United Kingdom: Oxford University Press, pp 54–119.