Mobility and Communication in the Circumpolar North:
Toward an Anthropology of Transportation Infrastructure

Peter Schweitzer
Department of Social and Cultural Anthropology
University of Vienna

Introduction

It can be argued that kinship relations, like social relations in general, are a means of regulating communication and mobility between humans and humans and humans and things. My first scholarly article, published 30 years ago, dealt with the topic of "spouse exchange" in northeastern Siberia (Schweitzer 1989). One of its conclusions was that institutionalized spouse-exchange can be seen as a means to build alliances beyond those created by marriage. At the same time, these alliances come into existence by creating kinship ties, which are modeled after those created by marriage. Thus, they belong to so-called "inclusive kinship strategies" (Schweitzer 2000), which are intended to maximize the number of people one can call upon.

There have been many (large unfruitful) attempts to isolate the structural characteristics underlying northern – that is arctic and subarctic – kinship systems (see, e.g., Schweitzer 2005, 2016). For example, Gutorm Gjessing (1960) suggested that arctic societies are characterized by a bilateral type of social organization. While this may have been the case for a number of "traditional" societies north of the tree line, Siberian and North American societies of the taiga zone typically displayed patrilineal or matrilineal types of organization. In short, it seems as if bilateral systems characterized the Arctic, while unilineal kinship systems dominated the subarctic forests (without indicating, however, a causal relationship between unilineality and subarctic lifeways and between bilaterality and tundra lifestyles). What is evident, however, is that "flexibility" was typical of most northern kinship systems and practices. This may have been a function of small group sizes and low population densities, that is of conditions of "remoteness". The above-mentioned inclusive strategies are typically associated with flexibille kinship systems.

While kinship relations continue to be important in many northern communities, the impact of "modern" technology and infrastructure had had significant impacts on the performance of social relations, as well as on communication and mobility patterns. Every society makes use of infrastructure and technology; what characterizes their design in northern communities today are their non-local origins and intentions (pace Usenyuk et al. 2016). Thus, the remainder of this talk will focus on how particular forms of infrastructure – namely transportation infrastructure, with a focus on railroads – re-configure mobility and communication patterns in the North, that is social relations at large.[1] After introducing several key terms, case studies from Russian and North American contexts will be presented.

Infrastructure

It is only recently that the social sciences and humanities have engaged with infrastructure in earnest (Hughes 1983; Star 1999). Anthropology was a latecomer, but more recently there has been a veritable explosion of anthropological literature on the subject (see, e.g., Anand 2017; Anand et al. 2018; Carse 2017; Harvey and Knox 2012; Harvey, Jensen and Morita 2017; Larkin 2013; von Schnitzler 2016). A main thrust of anthropological infrastructure studies has been to show how infrastructures become terrains for political engagement (see, e.g., Anand 2017; Venkatesan et al. 2018; von Schnitzler 2016). Several authors have lately investigated the nexus between infrastructures and modernization policies (Çelik 2016; Dalakoglou and Harvey 2012; Masquelier 2002), while Collier (2011) draws on an extensive analysis of the political and governmental structures behind infrastructure planning and conceptualization.

A number of publications point to the affective and symbolic dimensions of infrastructure projects. An example is the recent debate about the power of infrastructure to stir the imagination (Anand et al. 2018; Dalakoglou and Harvey 2012; Harvey and Knox 2012; Larkin 2013). Topics include how infrastructure "operates on the level of fantasy and desire" (Larkin 2013:333), how it holds "promises of emancipatory modernity" – such as speed, connectivity, political freedom and economic prosperity – and how it "enchants" with the hopes and dreams of development (Harvey and Knox 2012:522-523). Another strand of infrastructure literature explores the social dimension of infrastructures. For example, a case study of a reservoir on Finland's Kemi River (Krause 2015) showed the creation of networks of actors during the negotiations and planning process. Use of and access to particular infrastructure objects can also structure social relations. The concept of infrastructural violence (see Rodgers and O'Neill 2012 and other contributions to that special issue) highlights the forms of disruption infrastructure can engender, including social inequality, dissent, exclusion, and environmental impacts such as pollution, fragmentation, and disconnection.

Defining infrastructure as "built networks that facilitate the flow of goods, people, or ideas and allow for their exchange over space" (Larkin 2013: 328) is central for understanding the qualities of transportation infrastructures. Mobility, connectivity and sociality are some obvious properties facilitated by transport infrastructures. While roads, railroads, pipelines and shipping lanes create corridors in land- and seascapes, air- and seaports create hubs within larger networks of intermittent lines (e.g., Hanley 2004).

Remoteness

While more and more people move from rural to urban areas worldwide, rural and remote areas are in danger of becoming defined by the absence of people, political weight and economic significance (other than being a storehouse of yet untapped resources). At the same time, people continue to live there, and new groups of people (from asylum seekers to people fleeing the city) move there. It is thus imperative, for remote regions and social science alike, to understand whether and how the non-urban parts of the globe will develop in decades and centuries to come. There is a kind of global division of labor between these kinds of areas. On the one hand, the remote is the labor and resource reservoir for the central regions; on the other hand, the densely-populated center could not exist without the space and tranquility of the remote and rural.

Economists, geographers and historians have long classified the Arctic under "remote regions" (Coates 1994; Huskey and Morehouse 1992; Huskey 2006). In the history of anthropology, on the other hand, "remoteness" has received fairly little theoretical or conceptual attention. While some notion of spatial

distance and "out-of-the-way-ness" dominated – consciously or unconsciously - the selection of anthropological field sites from the beginnings, neither the ontological nor the epistemological qualities of "being remote" have typically made it to level of research questions. On the contrary, as the examples of the emergence of urban, global, transnational and other kinds of anthropologies show, "remote" served as the supposedly natural starting point of anthropologists' choices of research areas. While there have been manifestos for urban anthropology, or global or transnational connections, seemingly nobody felt the need to do so for "remote anthropology" or an "anthropology of remoteness". As Humphrey (2016) has pointed out recently, remoteness and its reconfigurations are especially important in centralized states such as Russia.

Arctic Transportation

Transportation to, through and from the circumpolar North has received a lot of attention in recent years. This is primarily due to climate change and increased demand for northern resources. The shrinking of sea ice extent in the Arctic Ocean has made shipping through the Northwest and Northeast passages much more feasible than in recent decades. Especially the latter, the Northeast Passage or Northern Sea Route along the northern shores of Siberia, has seen significant increases in traffic in recent years. This is reflected in the scholarly literature (Stephenson, Smith & Agnew 2011; Stephenson, Brigham & Smith 2013), as well as in policy-relevant publications such as the Arctic Marine Shipping Assessment endorsed by the Arctic Council (AMSA 2013). Arctic marine shipping will lead to the installation of some new coastal infrastructure to guarantee the safety of transportation. The goods transported typically come from outside the North (primarily from East Asia) and are intended for ports south of the Arctic, thereby creating "fly-over effects" (Storey 2001).

There are many other forms of arctic transportation networks – from rivers to roads to aviation corridors – but we will focus on railroad lines as our primary interest. Railway transportation is physically tied to the land (and its residents), and trains can carry goods and/or people. While railway technology characterized the industrial transformations in Europe during the 19th century (Kaschuba 2004; Schivelbusch 1977), technological advances of the 21st century make arctic environments the new frontier of railway infrastructure development (see, e.g., the plans to build a new railroad from Rovaniemi to Kirkenes in northern Fennoscandia, or the so-called "Northern Latitudinal Railroad" across arctic Siberia).

Russian/Soviet Modernization and the Role of Railroads

Railroad construction in general can be seen as a prototypical modernization project involving a number of linked ideological, infrastructural, political, socio-economic, and cultural processes. Unlike European projects belonging primarily to the 19th century, Russian/Soviet railroad projects have been primarily a feature of the 20th century, implementing ideologies and policies of "high modernism" (Scott 1998). The Soviet industrialization program of "mastering the North" with its underlying modernist idea of human dominance over nature constructed the northern frontier territories as hostile and their local population as uncivilized and backward. In this context, the definition of remote carried mostly negative connotations and was interpreted as synonymous to "uncivilized," "backward," or "Other." Thus, modernity and remoteness were officially and discursively constructed as two poles of the modernization paradigm.

For our purposes, that is, the relationship between the expanses of Siberia and the overcoming of remoteness, the construction of the Trans-Siberian railroad was a central event (Marks 1991, 1995;

Treadgold 1957). Not only was it the first railroad constructed in Asiatic Russia but it also precedes the establishment of the Soviet Union, the political constellation that is most commonly seen in conjunction with modernization and the development of transportation infrastructure.

While the Turkestano-Siberian Railroad (Turksib) was primarily a Central Asian (or Turkestan) construction project, its connection with the North is the link-up with the TransSib it provided in Novosibirsk (Payne 2001). It was a prototypical Stalinist endeavor to "develop" Asiatic Russia and was in many ways a pre-cursor for Soviet railroad projects to come. The main difference that distinguishes such projects during Stalin's reign from later ones is the dominant modes of labor recruitment, which went from forced labor to socialist volunteer labor, which was attracted by a mixture of propaganda, high salaries, and other material incentives.

Case Study: Baikal-Amur Mainline (BAM)

While the Baikal-Amur-Mainline (BAM) was conceptualized in the 1930s – and the first ideas can be traced back to the 1910s –, the construction of the BAM dates back to the mid-1970s and was officially completed in 1984 (Mote 1987). The BAM and its sidetracks provide access to mineral deposits and connect remote settlements with administrative centers. It is obvious that the industrial development of non-renewable resources has been one of the drivers of railroad construction. Apart from offering a reliable way of transportation for people, goods, and resources, it also ensures the geopolitical security of the Russian Far East vis-à-vis China. The official opening of the BAM in 1984 was followed by a period of economic decay, which led to its underutilization. The disintegration of the Soviet Union and the economic collapse of the Russian Federation brought further decline, resulting in an almost inoperable line by the end of the 1990s. This year, the BAM will celebrate its 45th anniversary, and new plans for reconstruction and extension are underway. After technical and infrastructural upgrades, the economic potential of the BAM will be enormous, as resource extraction is dependent on functioning and existing infrastructures. Federal transportation strategies of the Russian Federation foresee large-scale investments and infrastructural developments for the BAM, AYaM and Trans-Sib by 2030 (Strategiya razvitiya 2008; Transportnaya strategiya 2012). These geo-political and economic strategies include additional railroad connections with the Russian Far East and the Pacific, as well as with China and even Alaska.

It is not surprising that the "construction site of the century" has triggered an avalanche of studies. Ranging from socialist propaganda brochures to post-Soviet deconstructions of the Soviet project. A particularly productive genre of the BAM literature has been historiography (see, e.g., Grützmacher 2012; Sushchevich 1984; Ward 2009; Westwood 2002). Few ethnographic case studies conducted in the region examined the impacts of the BAM on local, mostly indigenous, communities (Vinokurov 1994). Sociological research on the population of the BAM region has focused on demographic processes, ethnic composition, migrations (Belkin and Sheregi 1985), family relations and everyday life practices (Argudiaeva 1998), as well as geographic and social mobility (Karpov 2003). More recent sociological publications on the history and ideology of the BAM construction, based on life stories and memories of the *bamovtsy,* show a renewed interest in the topic (e.g., Bogdanova 2013). Our CoRe project has already yielded several publications including a joint article on infrastructure projects and the "wilderness" (Schweitzer et al. 2017), a single-authored article on memories and identities of the BAM builders (Povoroznyuk 2019), and a joint article on the rhythms of trains (Kuklina et al. 2019). One more joint article on infrastructure, disconnection and articulations of indigeneity (Schweitzer and Povoroznyuk 2019) is forthcoming in a special issue on remoteness in the journal "Social Anthropology". More articles addressing the questions of mobility, connectivity and (transportation) infrastructures, as well a special issue on railroads are being prepared for publication based on the

project results and empirical data collected in the BAM region.

Case Study: The Alaska Railroad

Unlike the BAM, the history and impacts of the Alaska Railroad are understudied. The prehistory of this railroad goes back to a multitude of short rail lines constructed for mining purposes. 1903 marked the beginning of construction activities in Seward, an ice-free harbor in the South of Alaska. Subsequently (in 1909 and 1914), some of the private companies running the construction process went bankrupt, which led to the U.S. government getting involved in 1914, and the decision to extend the line till Fairbanks. In 1923, the Alaska Railroad was completed (Fitch 1967).

While the basic historical outlines of how the Alaska Railroad came into being are known, there is not a single publication entirely devoted to the impacts of building a new railroad. Anecdotal evidence points to wide-reaching transformations, however: for example, it is clear that people moved their families closer to the railway being built, that is the railroad pulled people into their orbit (because of supplies and employment). We also know that the Alaska Railroad acted as a kind of conveyor belt for the spread of the 1918 influenza pandemic. Finally, Anchorage, Alaska's largest city today, began as a railroad construction camp in 1915 (Jones 2010).

Most relevant for anthropologists, however, might be the fact that the construction of the railroad triggered the so-called "Tanana Chiefs Meeting" 1915, a meeting of traditional (Indian) chiefs from the Interior of Alaska with Judge Wickersham to discuss "the future", including the impacts of the railroad under construction (Schneider 2018). Today, the "Tanana Chiefs Conference" (TCC) is the largest consortium of indigenous tribes in Alaska's Interior. Although TCC was only founded in 1962, the organization dates its own history back to the 1915 meeting. TCC speaks of the "first land dispute" in this context, when the Tanana Chiefs protected a burial ground from the Alaska Railroad (TCC 2019).

Case Study: Bering Strait Tunnel or The Power of Imagination

Infrastructure projects do not need to get realized in order to become social forces. One example is the long history of not crossing Bering Strait by train. It was more than 100 years ago, in 1906, that the Russian Tsar issued an order authorizing a U.S. American syndicate to begin working on a railroad line connecting North America and Siberia, including a bridge spanning Bering Strait. In 1991, during my first field trip to the Bering Strait community of Nome, I met several indigenous and non-indigenous proponents of a railway tunnel linking Alaska and Siberia, despite the fact that the closest working train connections were hundreds and thousands of kilometres away. The Russian Railway Development Plan 2030, published in 2012, on the other hand, includes a projected railway extending from the current end point along the banks of the Lena River till Magadan and on to Alaska via a Bering Strait tunnel. As of 2019, neither a Bering Strait tunnel nor a Bering Strait bridge have been realized, and the chances that either one of these projects will be realized in the foreseeable future are minimal.

The case study raises the question why building a bridge or tunnel across the 80-km wide maritime passage connecting Eurasia and the Americas continues to spur the imagination of politicians, business men and residents alike, and why – on the other hand – these grand plans never have been realized. The case study goes beyond the "impacts of megaprojects" (Brunn 2011) by using perspectives building on infrastructure studies (Harvey, Jensen & Morita 2017), material histories (Forty 2012),

and affect theory (Stewart 2007). It argues for taking seriously the agency of non-realized megaprojects and unbuilt environments (Peyton 2017), that is the promises (Anand, Gupta & Appel 2018) and fears attached to (not yet) realized projects and infrastructures, without forgetting about the constraints provided by ecological conditions, consumer demand and political frameworks.

Conclusions

Technology and infrastructure are extremely important aspects of human lives everywhere in the world. Like elsewhere, local interests seem secondary for mega-projects in the North, they are literally being "railroaded" (White 2011), which is hardly different from non-northern regions. In remote communities of the circumpolar North, however, their impacts and the human-infrastructure entanglements seem to be better visible for a variety of reasons, including the paucity and relative novelty of large infrastructure projects there. As wide-ranging changes in the social geography always seem to accompany northern infrastructure projects, it might be easier to postulate causal links than in other cases. At the same time, we still have too little documentation of the social and cultural impacts of northern transportation (and other) infrastructures.

In a way, this is a call for a systematic anthropological study of infrastructure under conditions of remoteness. In addition to the fast-growing body of anthropological treatments of infrastructure as "techno-politics" mentioned above, we need a kind of "grammar" of human-infrastructure interactions. Paraphrasing Ingold's "… to study both people and things is to study the lines they are made of" (Ingold 2007: 5), we could specify that these lines are often infrastructural ones. While they are often laid by outside interests, the question ahead of us is how these lines are being appropriated by the human and non-human dwellers of northern regions, be it by adapting to them, ignoring them (being excluded from them), or transforming them.

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