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Abstract

This dissertation is designed to address problems exemplified by Willem van Schendel with a vast and visually recognized mountainous area in southeastern Asia that is not considered a region. He suggested theoretical work on flows and scale. The first chapter is introductory and describes the research's scope, approach, and the methodology. The second and third chapters discuss and analyze a frontier zone in Shan Stat in eastern Myanmar, specifically the relationships between rural area, the regional center of Kengtung, and two sizable border towns of Mong La and Tachileik. Chapter 2 hypothesizes border-frontier interaction, and Chapter 3 analyzes the scale in geographical research. Chapter 4 explores two Zomia-like places in the Philippines with consideration of globalization and the core-periphery division. The findings in Chapter 2 support a hypothesis that in some cases, and with certain scope of research, borders could be seen as small and stand-alone places next to border crossings. Chapter 3 further elaborates the interconnection between different kinds of scale in the geographical research with involvement of globalization. and discusses the borders as possible facilitator of transformation of the nearby areas. The easily accessed by sea islands in the Philippines do not have land borderlines and hence little incentive of focused development for geopolitical reasons of the island interiors. This dissertation contributes to the border studies, scale theorization, and also to globalization.

CHAPTER 1: Introduction

This dissertation is based on research in southeastern Asia. Chapter 2 observes international borders in relation with the nearby frontier, Chapter 3 explores the question of scale in geographical research, and Chapter 4 hypothesizes the core-periphery constructs and their relative position one to another in relation to their proximity to the oceans. The research responds to the ongoing problems in area studies exemplified by Van Schendel (2002) through his notion of Zomia. The focus isn't on discovering what is Zomia, but on analysis on core concepts in human geography in their relation to a specific part of the world – Southeast Asia, and specifically on predominantly rural landscapes.

Willem van Schendel (2002) analyzed the problems and challenges in regional studies by giving an example of an area distinct enough to merit recognition as a region. He named this area Zomia. His article got little attention, and Zomia was popularized only after seven years later when James C. Scott (2009) discussed and hypothesized it from a historical perspective. This is the reason that Zomia is predominantly considered either a concept or an idea. In his introduction, however, van Schendel described his strong feeling when visiting Shilong, the capital of state of Meghalaya, India, that he was in a completely different country somewhere in Southeast Asia.

Zomia is located in the mountains of southeastern Asia. The region has low population density and is culturally and ethnically diverse in comparison to the nearby plains. As an illustration of why the study of Zomia does not fit into traditional regional studies, van Schendel gave the example of four villages with very similar cultures and socio-economic lives that are located in Zomia within 50 kilometers of one another. According to many ways of conceptualizing regions, one is in Central Asia and the others are in Eastern Asia, Southeast Asia, and South Asia respectively. Thus, to van Schendel, Zomia is not a region (pp. 649-650) it is a physical space that can be "pointed out on the globe", but it is not a symbolic space or "a site of theoretical-knowledge production". Nor is it an institutional space, or a "group of transnational scholarly lineages, circles of referencing, structures of authority and patronage".

In general, institutional space results indirectly from political divisions among independent states. These divisions often determine the scope of research and scholars often use these political divisions to separate regions. As an example, most scholars examine China as part of East Asia and Myanmar as part of Southeast Asia. Regardless, the boundary between these countries is located within Zomia, and it separates places that are highly similar to one another and that influence one another strongly in cross-border interactions. Thus, for van Schendel, the diversity of Zomia, its peripheral location, and the international borderlines that cross the area makes it difficult for scholars to see Zomia as a region.

To van Schendel, Zomia illustrates problems in social science research, which is often constrained by existing boundaries. He indicated that future work

on these problems required consideration of scale, and he suggested that geographers could make contributions to this research. However, geographers and other social scientists paid very little attention to van Schendel's article and it was largely ignored until recently.

For the relationship between geography and regional studies, Sidaway et al. (2016) provided historical overview of this relationship. They point out and discuss the factors for the waning importance of regional studies for geography after the 1970s, and for the dominance of the urban studies since the beginning of this millennium. These factors are associated with increasing recognition and emphasis of post-colonialism worldwide and have been associated with events around the world since the end of the Cold War. In their worlds:

"Events serve to trip up every effort to sound the death knell of area studies: the dissolution of the former Soviet Union and the emergence of the "stans"; the East Asia "miracle" and the rice and travails of China; the "War of terror"; and the revolutions and countermoves in North Africa and the Middle East. Each of these events led to a scramble for regional knowledge and expertise, where appropriate lamenting of its loss, (Sidaway et al, 2016, p. 780)

However, most of this research has been outside of Southeast Asia. With respect of Zomia, this lack of response is a confirmation for van Schendel's statement that:

"No strong transnational scholarly lineages, circles of referencing, or structures of authority and patronage developed around Zomia. Unlike `Southeast Asia', or other areas that made it academically, `Zomia', like other would-be areas, lacked an institutionally grounded network for protecting, promoting, and validating area expertise." (2002, p. 654) In other words, the lack of an "institutionally grounded network" which, was the result of borders and regionalization, prevents Zomia from being seen as a region.

Some of the works in which van Schendel's article was cited confirm that the institutional and symbolic spaces are barriers to research. For example, Thompson (2006) investigated the network of scholars focused on Southeast Asia. In his article, he specified that Southeast Asia is generally identified as the group of ten states bound by the political and economic organization of the Association of Southeast Asian Nations (ASEAN). This organization includes the island states of Indonesia, Singapore, Brunei, Malaysia and the Philippines as well as those on the mainland in which Zomia is located. In his words "Southeast Asia is a significant regional frame, both for scholarship and more broadly for social and political interaction, especially in the context of ASEAN" (p. 57). Thus, Thompson pointed out that scholars examining Southeast Asia focus on spaces separated by political boundaries and do not consider interactions across these borders of agencies different that the state. Harris (2008) considers Zomia as an "heuristic idea" represented by van Schendel, and he recognizes the importance of scale to Zomia:

...alternative spatial scale that is neither national nor global, he shows that this regional scale matters significantly for many people living in the area because of various long-standing economic, social, and cultural connections" (p. 219)

The mentioning of scale by Harris indicates his clear understanding of the scope of van Schendel's article and its aim toward solving the problems in area studies identified by van Schendel. Achieving this aim requires analysis of scale.

Although scholars paid little attention to Zomia after van Schendel first described the area as a physical space, the region got more attention from scholars after James C. Scott (2009) examined the region from a historical perspective. Scott hypothesized that people in Zomia had moved into the mountains deliberately in order to escape the kingdoms in the valleys and in order to be out of reach from their rulers. Some of these societies even abandoned their text scripts and their organized religions as defense mechanisms against incorporation into the state. By approaching Zomia from this historical perspective, Scott changed the focus of Zomia from an illustration of problems in regional studies to the study of the historical development of the societies in this part of the world. However, his work also demonstrated the need to incorporate geographical scale into the analysis of such places, because insights developed at small geographic scales can be overlooked at a larger scale. Scott's broad, largescale historical analysis overlooks the fact that there are small valleys within the heart of Zomia whose relationships with nearby mountain people at a small scale replicate the overall lowland-highland relationship used to describe Zomia as a whole. An example is the Kengtung Valley in eastern Myanmar, which is described in detail in Chapter Three

Scott's ideas drew many responses from scholars from various disciplines. For example, Jonsson (2010; 2012) disagreed with Scott's emphasis that Zomia is more a scene of conflict than cooperation among societies. Rather, Jonsson emphasized the importance of examining how societies within Zomia cooperate and coexist with one another. He also pointed out the value of examining levels of cooperation between Zomia and the lowlands, both in historical and contemporary perspective. More recently, Michaud (2017) summarized other criticisms of Scott's work, arguing that his perspective oversimplifies the history and the meaning of Zomia. He wrote that social scientist "have blamed Scott for oversimplifying situations on the ground and that are more intricate than template suggests" (p. 7).

Michaud also criticized Scott for focusing excessively on the physical geography of Zomia. In his words, "I propose that a shift from topographic determinism to an analysis putting forward sociocultural differentiation might be beneficial; otherwise, one is left with serious reservations regarding the relevance of any physical approach to Zomia" However, analysis by Jonsson and Michaud was undertaken from an ethnographical perspective that does not take physical scale into account. Without considering the scale, and without elaboration of the impact of the international borderlines in the way they transformed their functioning in Zomia, his analysis departs from the initial reason that Zomia was "discovered" by van Schendel. Chapters 2 and 3 in this dissertation discuss the scale and the impact of the international borderlines with consideration of ethnography but beyond the limitations of the ethnographical research.

Michaud (2010) discussed the size and expansion of Zomia, noting that van Schendel, Scott, and other scholars have described the geographical extent of Zomia in very different ways. Michaud pointed out that some analysts extend the geographical definition of Zomia westward and northward as far as Tibet, Kashmir, and Kyrgyzstan. Scott did not include these areas in his description of Zomia's history. As Michaud recognized, Scott's Zomia is smaller than is the region as conceptualized originally by van Schendel. Scott's Zomia was restricted to the elevated lands located in close proximity to the plains in which wet paddy rice cultivation has been practiced for centuries. It is recognized that inhabitants of this region were pushed southward into the mountains for over a millennium southward by the expanding China. This explains why Scott adds to Zomia a much bigger portion of southern China. It also explains why the Central Himalayas are excluded, even though many typical for Zomia features can be traced there (Shneiderman, 2010).

Michaud's editorial introduced a special issue of the *Journal of World History* devoted to Zomia. In this editorial, he stated that by expanding the regional definition of Zomia or looking for it in distant places, scholars depart from the main reason that van Schendel started to discuss Zomia. As he recognized, other scholars have used the concept of geographical scale sparingly, contrary to van Schendel's suggestion of the importance of the development of scale to area studies. In this issue dedicated to Zomia, there is one article (Formoso, 2010) that the use of 'Zomia' is not as appropriate as using the term "Southeast Asian Massif" to describe this area.

In his paper, Michaud (2010) included maps showing overlays between different scholars' geographical conceptions of Zomia. Some scholars extend Zomia as far west and north as Tibet, Kashmir, and Kyrgyzstan. However, all of the scholarly work on Zomia that has followed from the pioneering research by van Schendel and Scott defined this region as including the mountains of northern Southeast Asia including northern portions of Myanmar, Laos, and Thailand and neighboring Yunnan Province in southern China as well as nearby Northeast India. This region might therefore be considered the heart of Zomia. It includes the areas that, as Scott showed, were settled hundreds of years ago by cultures fleeing China and later by cultures escaping from the lowland societies of present-day Myanmar, Thailand, and other nearby countries. It also illustrates the problems with regional studies identified by van Schendel in that it includes parts of Southeast Asia, East Asia, and South Asia that are usually studied by scholars independently of one another. Chapters 2 and 3 in this dissertation deal directly with this area, and Chapter 4 is based on research in a part of the Philippines that, although it is not part of mainland Zomia, has geographical characteristics very similar to those of the heart of Zomia.

Although Michaud (2010) identified Zomia as including "the highland margins of Asia and beyond" (p. 187), he also described difficulties associated with recognizing its qualities as a region. He pointed out difficulties associated with studying Zomia, noting that such problems are based on "the difficulty of gaining physical access to the region, and dealing with a daunting multitude of vernacular languages and scripts" (p. 192). He also noted that: ...researchers from disciplines such as social anthropology, human geography, and linguistics have a particular methodology that values ethnography with long-term fieldwork and direct interaction with the subjects, albeit without dismissing the benefits that can be gained from exploring archives and other texts (p. 192)

In this remark, Michaud recognized the value of long-term ethnographic and historical research, which might include many months and even years in participant observation. Such research can be practiced by researchers from a variety of disciplines. Although Michaud emphasized the value of such ethnographic research, van Schendel, Scott, and others have examined Zomia from the point of view of developing hypotheses. The following chapters in this dissertation continue this intellectual approach to Zomia as pioneered by van Schendel and Scott. I decided to visit Zomia, in Myanmar and the areas across its borderlines with all of the states around: China, Laos, Thailand, and India. This dissertation offers a response to van Schendel's (2002) article through analyses of borders, scale, and core-periphery relationships. Most of the studies relevant to Zomia are ethnographical, and ethnography heavily relies on dissecting, but Zomia is inconveniently vast and crossed by many international borders that make concussions from ethnographical standpoint difficult and with questionable purpose, relevance and precision.

During the field work I tried to find out if Zomia still exists somewhere as described by James Scott. Also, I wanted to experience whether Zomia generates a strong sense of distinct place, and if so – to analyze what generates

this feeling. I was also interested in the impact of the international borders on Zomia and I wanted to explore the possibility Zomia to be seen as a political frontier and/or economic periphery. Trying to find the answers, as proposed by van Schendel, I had in consideration the questions of scale and flows.

Field Work

My first trip to Zomia took place in February and March 2013. I visited the states of Meghalaya and Assam in northeastern India. Meghalaya is located in the mountains and is recognized by van Schendel, Scott, and other scholars as part of Zomia. Most of Assam, on the other hand, is located in the denselypopulated Brahmaputra River valley and thus lies outside of Zomia. At first glance, this is the place where Zomia should be most visible; Van Schendel (2002) started his article by describing how in Shillong, the capital of Meghalaya, he felt himself as being not in India but somewhere in southeastern Asia.

I quickly realized that this was not the place for me to proceed if I needed to investigate van Schendel's argument that Zomia is not a region, and that I needed to go and see how do the borders, sheer diversity and the isolation make Zomia distinct. Moreover, I realized that the unique specifics of India would make any conclusions regarding Zomia relevant only to its marginally small Indian portion. Some of these specifics are rooted to the legacy of the British governance from India's colonial past, the successfully built up Indian administration that incorporated Zomia, and the democratic approach of

integration and partnership with the minorities. This resulted in homogenization within Zomia. In India, the central government has well established and efficient tools, such as deputy-commissioners, autonomous states, and councils to represent groups to be partners to Indian authorities. This procedure integrates and incorporates the minorities. Consequently, whole states or sizable parts of Indian states have homogenous populations, even though these populations are minorities in the India as a whole. Because of my focus on van Schendel's problematics, I decided to make my observations in places where Scott's Zomia is not completely disappeared, has low population density, and a mosaic of different ethnicities over small area that indicates still isolated populations resilient to incorporation.

Regardless, my first trip to India was critical for my research. It clarified why Scott's book (2009) changed the focus from regional studies to historical analysis. Scott's book generated interest from scientists whose research is ethnographical and historical, scientists interested in social justice, political ecology, political economy, social movements and national identity, and sustainability. And, van Schendel specifically asked for help from the scientists in human geography, which regardless as being multidisciplinary, have better expertise with scale – and van Schendel clearly considers the scale as critical for solving the problems he explained using Zomia.

My next trip was in Myanmar – the place where Leach (1954, 1960) and Lehman (1963) did their studies. Leach did an historical overview of the societies

that functioned over centuries on the territory of present-day Myanmar and his work is extensively elaborated by Scott (2009) and critical for his hypothesis of Zomia. In contrast, Lehman, who did ethnographical work in Myanmar, was discussed by Jonsson (2010) to signify the unorthodox Scott's view of the highlands:

"Given the understanding that Lehman conveys, Zomia is perhaps not a particularly auspicious terminology, but van Schendel was not concerned with the highlands from a highland point of view. Rather, he took issue with the general tendency of the realization of scholarship that artificially produced divides between areas that are contiguous and interconnected in numerous ways. This version of *Zomia*—*Zomia*¹, to distinguish it from the Zo notion in Lehman's study (*Zomia* °) and James Scott's subsequent proposal (*Zomia*², Z²)—encapsulates what may be contradictory notions. One is of the highlands seen from hereafter the highlands, which is problematic because it draws a negative image relative to lowland state societies. Another is the critique of divides in area studies that preclude certain kinds of knowledge from either being created or shared. To considerable extent, area scholars are confined to one side of the border(s) and not interested in hinterland regions" (p. 195-196).

Thus, I realized that staying in the Indian part of Zomia is not a good choice for somebody who similarly with van Schendel is not concerned "with the highlands from a highland point of view" – having this point of view is a fertile ground in research involving social justice, governance, policy-making, and relations between different societies. Ethnographical works usually involve this view. However, the highlanders' view means departing from van Schendel's Zomia.

My second trip was for one month in Myanmar in November-December 2013. Three months prior it became possible for travelers to enter Myanmar through three land border crossings, to proceed further inland, and to exit either via plane or through another of the three border crossings. After obtaining a oneday emergency visa that could be obtained only in Bangkok, I headed north overnight and entered Myanmar at Mae Sai – Achilleic and spent about two weeks in the eastern part of Shan State. Here I observed isolated villages in the mountains around Kengtung valley. They had maximum sizes of 30-35 houses and the villages were no older than ten years old. My observations of this valley formed the basis of my scale theorization in Chapter Three. My visit of the town of Mong La, together with the observations in Tachileik and the abovementioned Kengtung, resulted in theorization of borders in Chapter Two. The other areas in Myanmar I have visited and in which I spent at least five days were Kalaw and Nyaungswe in western Shan State, and Hsipaw and the border town of Muse in northern Shan State. I also spent a few days in Karen State in the South and from there crossed the border in Thailand at Myawaddy-Mae Sot border crossing. My observations in these places form the empirical basis of the following two, and Chapter Four is a result of a field trip to the Philippines.

Coming from my understanding of geography as being about difference between places, I did another field trip in July – August 2014. I spent about a week in China, most of the time being in a conference in Kunming and Jinghong, which is located on the Mekong River and is the main city in Xishuangbanna Prefecture, Yunnan province. Yunnan is inside Zomia and the prefecture together

with eastern Shan State is in the geographic center of Zomia. Then I entered Laos at Mohan - Boten land border crossing. In Laos I spent three days in Muang Sing, a small town close both to the borderlines with China and Myanmar. There I saw relatively well-preserved Zomia, but less preserved than in Myanmar – the villages are bigger, permanent, and the slash-and burn agriculture is supplemented / replaced with rubber tree plantations. The village can be accessed by a short dirt road that leads to a paved road, rather than by narrow footpaths. And I observed that Zomia in China and Thailand, where I spent the next two weeks looking for it, has largely disappeared. There are many minorities in northern Thailand living in big and permanent villages well-connected, integrated, and without visible differences from typical villages occupied by members of the Thai majority.

This is the environment explored by much recent research in southeastern Asia. Anderson (2017) examined the historical trajectory of opium poppy production in Thailand, noting that the number of hectares devoted to growing opium poppies declined more than 97 percent between 1981 and 2015. He attributed this decline to the active involvement of the Thai government, pointing out that "alternative development and education [of opium poppies in Thailand] has occurred as a part of the centuries-long expansion and consolidation of lowland Thai state power into egalitarian and state-resistant highland areas it was previously absent from." (p.49)." Thus, the Thai government has been successful in expanding its power into previously isolated portions of Thailand located within Zomia. However, Myanmar has seen little decline in opium poppy

cultivation. As will be discussed in this dissertation, Myanmar is a much weaker state and this relative weakness has contributed to the preservation of Zomia and its much greater ability to resist state control relative to the Zomian portions of Thailand.

My works on scale and frontiers evolved considering the core-periphery duality as applied to Zomia. I visited places in the Philippines, in which core regions are located along the shore with peripheral areas inland. This observation is in contrast with the traditional core—periphery model within which core areas are at the center and surrounded by peripheries. I spent three weeks throughout northern Luzon, and sometimes I encircled the northern part of the island in order to see the landscape that I had already passed before during the night, and also to visit more locales. Then I spent a week in the smaller Mindoro Island, where most people live along the coast rather than in the mountainous interior. Most of these coastal residents are newcomers from Luzon and the Visayas. My field trip to the Philippines helped me to hypothesize about the geographical relationships between cores and peripheries. Below is more detailed description of my research.

Borders and frontiers (Chapter 2)

Border studies half a century ago were focused on borderlines. Jones (1959) discussed how the meaning of these lines evolved historically. Minghi (1963) presented in-depth analysis of the functioning of the boundary lines. And, Barth (1969) observed the outcome of the common reality of borderlines

separating culturally similar populations. About two decades later, Prescott (1987) theorized the distinction between the boundaries and the frontiers. Paasi paraphrased Prescott's definitions of these concepts. According to Paasi, Prescott posited that:

"Boundary' has up to recent days been understood typically as a line of physical contact between states, which affords opportunities for cooperation and discord between states. Border, for its part, has been usually understood as adjacent areas, which fringe boundaries. Frontier is a zone category and it refers either to a political division between states or between settled and uninhabited parts of a country. Borderland is as a transition zone within which the boundary lies" (Paasi, 1999, p. 14-15).

After another decade, however, the study of borders began to move away from boundaries, borders, borderlines and frontiers as terms with fixed terms with simple, singular, and well-defined meanings. This development was part of a response to the broader trend in the social sciences including the political geography of new approaches different from before and critical perspectives (see Newman, 2003; Newman & Paasi, 1998; Paasi, 1999). This process is ongoing and currently the concept of boundaries entails more meanings than just lines on the ground. Borderlands and frontiers are largely ignored from discussion in border studies, and the meaning of borders has become very complex (Van Houtum, 2005). Nowadays, borders are generally seen as "processes, practices, discourses, symbols, institutions or networks" (Johnson et al, 2011, p. 62).

More recently, Paasi (2014) discussed that recent developments in political science and in international relations brings back attention to regions at the sub-national and supranational levels. These developments coincide with new conceptualization of territory as theorized by Elden (2010) and Sassen (2013). Paasi also mentioned that these regions can be viewed as zones of resistance. This suggests the frontiers can be conceptualized also as physical spaces.

Frontiers were viewed historically as places that had not yet been incorporated into the state (Turner, 1956). This conceptualization often predated the delineation of specific boundary lines. But in the context of Paasi's discussion and Elden's conceptualization of territory, borders could be defined as distinct and much smaller places within frontiers. Can Zomia, bisected by international borderlines (Figure 1.1) be considered a frontier? Exploring this question requires consideration of the meanings of frontiers, borderlands, and borderlines within Zomia.



Figure 1.1. Zomia is crossed by many international borderlines. These borderlines can be seen as dividers, but also as a "skeleton" of Zomia. Source: adapted from Scott (2009)

This subject is approached as borders conceptualized as discrete places, or dots next to the borderline with economic and social activities heavily influenced and dominated by the borderlines. These dots often represent border towns next to international border crossings. The frontier areas further from the borderlines are remote and isolated, with limited accessibility. Activities along the borderline may influence the frontier by preserving its remoteness and isolation through attaching the local economy to the border as opposed to the state's economic core. The approach offers an unexplored view of the borders that can be suitable in border studies focused on the impact of the borders on subnational level in states with pronounced economic and institutional weaknesses that have distinctly more powerful states as neighbors.

This chapter, however, explores only some of Zomia's features without providing any definite explanation of Zomia itself, mostly because of the focus on the borders and on characteristics relevant only to these borders within Zomia. Nevertheless, the next article explores to a certain extent the question of what is Zomia by analyzing where it is, and this involves another topic discussed by van Schendel – the scale.

Scale and Zomia (Chapter 3)

Chapter 3 discusses the development of scale and how this is related to Zomia as described and conceptualized by van Schendel. The research investigates the area of eastern Shan State in Myanmar. Through observations and analyses of this area at different geographic scales, this article brings attention to the ignored and underdeveloped traditional view of the scale in geography, and how this view is connected with recent literature on geographical scale development. Also, the article discusses the need to understand and apply different kinds of scale at different stages in the geographical research.

To border studies, scale theorizing indicates reaction to a broader trend in social sciences of testing newer research approaches commonly based on critical

theories and positioning the research in political economy, post-structuralism or both. Hewitt (1998) suggested the need to relate research on scale to musical scale and thus different scales can be seen as interrelated and influencing one another. Cox (1998) discussed the consensus that scale is a social construct that serves the authorities on different government levels in establishing and controlling power. And, Brenner (1999) theorized scale development as necessity to reflect the ongoing studies of globalization. Based on the rapid development of scale theorizing, Marston (2000) contested the traditional view of scale, because of its hierarchy. She argued that it is unsuitable for the newer and predominating research based on the critical approaches in political economy. However, the over-complexity of the theorization of scale made Marston, Jones, and Woodward (2005) question its need in geography, because the hierarchical meaning of scale was considered improper, and the newer and non-hierarchical scale as relation became considered unimportant. Then Moore (2008) discussed whether scale is a category of practice or a category of analysis, clarifying that most key terms can operate in both, the scale is better to be considered as category of practice. Moore clarified that category of practice signifies the experience of variety of people and groups as opposed to the category of analyses that reflects solely the scientists exploring particular subject.

To summarize, over time scale theorization has followed general trends in social sciences. These trends are associated with newer and critical approaches in the domains of political economy and post-structuralism (MacKinnon 2010). However, these developments excluded many geographical research strongly connected with physical space, and the traditional meanings of the scale as hierarchical and with the purpose to identify the certain level or certain size of the area where the explored subject operate. I have found that the study of Zomia needs also to consider different kinds of scale, but the analysis of Zomia could also contribute to scale theorization as possible identifier of the practicality of different scale's views.

Not discussed in depth by scale theorists in political geography, there are also the observational, operational, resolution, and cartographical scales (Lam and Quattochi, 1992) used extensively in physical geography. Of these scales, the article of this chapter analyzes the operational and observational scales as part of the research process in exploring topics in human geography. In brief, the observational scale is the physical, spatial reach of observation conducted by the researcher, and in contrast the operational scale results from findings, interpolations, and logical conclusions by the researcher.

How might conceptualizations of scale apply to Zomia? The study of Zomia needs observational and operational scales because it is a well pronounced physical space. Also, in the presence of Zomia analyses require different scales in their traditional, old-fashioned, and hierarchical meanings as size and as level. For example, whereas at a large scale Zomia appears as a continuous and homogenous area deep inland in southeastern Asia, a middle scale reveals many small valleys "perforating" Zomia.

Decreasing the scale further gives an example of the Kengtung Valley in eastern Myanmar, as described in detail in Chapter Three. This valley is small enough to be obscured on a large scale. However, its size was sufficient for development of a tributary state, and it was one of the many semi-independent states nested in the mountains in Southeast Asia that managed to survive by paying tribute to the larger states in the region (Winichakul, 1994). The Kengtung Valley is located within Zomia but it is not in the mountains, it has a homogenous population, and it has a sizable old economic and political center of the City of Kengtung. In that sense, the Kengtung Valley is a non-Zomian place within Zomia.

The Kengtung Valley and the surrounding mountains mimic Zomia on larger scale (smaller cartographic scale). However, in this case the geographical relationship between Zomia and the plains is reversed. Here, Zomia is not surrounded by the plains, as conceptualized by van Schendel and Scott. Rather, Zomia surrounds the Kengtung Valley. Looking at the Zomia's portion around Kengtung, however, reveals the presence of fractals; that is as one zooms into -Zomia, the smaller area reveals the same general pattern of ethnic diversity.

The cultural diversity and the vastness of the area requires involvement and analyses of both observational and operational scales in geographical research when physical characteristics are heavily involved. These scales, together with other scales constructed for the specifics of the research and in relation to its scope are needed for clarification whether Kengtung Valley should

be included in Zomia. Technically, this valley is not in Zomia, but on a larger scale the Tai-Khun people who make up the majority of the population in the valley are a minority in Myanmar, and the valley that is a major center in the eastern part of the Shan Plateau is also an isolated place at the fringes of Myanmar.

Examination of the area at smaller scales reveals Zomia as consisting of many "rings" encircling valleys in the predominantly mountainous interior of southeastern Asia. Inside the rings are the valleys, and many of these valleys are obscured on small scale (bigger area) cartographic maps. But they do exist. Outside the ring is the emptiness of the mountains with very low-density population or with no population, because whoever lives there is very isolated. Zomia is the counterpart of the societies in the plains with consequent and consistent relationships that sometimes involves conflict (Scott, 2009) and involves cooperation (Jonsson, 2012), And, the relics of historical Zomia (Jonsson, 2010) can still be traced in some parts of the southeastern Asia, for example Kengtung, And, the hierarchical traditional scales, together with the "construction of scale" (Sheppard & McMaster, 2004) are needed for the geographical research. The construction of scale as defined by Sheppard and McMaster has never been clarified and never became popular because it wraps together all of the newer theorized scale and adds it to the four previously existing scales. Regardless, no research investigated how this new approach to scale can be an addition to the existing scales.

However, there are some questions originating from the study of Zomia that still need answers, especially questions about how political borderlines affect Zomia. This involves observations of spatial economic differentiation, nonpresence of close-by international borderlines, and also investigation of Zomia resembling places in global context through their proximity to the sea. Chapter Four elaborates upon how different kinds of scale are needed in geographical research, and argues research, where physical space is critical, the observational and operational scales are needed.

Peripheries away from the sea (Chapter 4)

The schematic presentation of Zomia in the previous chapter as narrow rings, each located in the mountain ranges encircling more populated and more economically developed valleys, suggest these valleys are cores and nearby mountainous areas are peripheries. And this division is visualized as the periphery encircling the core. Chapter 4 will observe the opposite core-periphery layout in which the core encircles the periphery.

How well do the traditional models with the core surrounded by peripheries apply in places like Southeast Asia? To address this question, it is necessary to consider the extent to which a place can be labeled as "backwards" primarily because of the proximity of international borderline. Or, are there other factors, for example historical development, terrain, or absolute and relative distances, that are equally or even more important for one area to remain less

populated and less economically developed in comparison to other parts in the host state?

Chapter 4 explores the presence of the international borderlines on global scale as combination of certain factors, specifically historical development, and terrain features as size and distance from the sea. Examining this question historically, at a very large scale the size of the biggest landmass of Eurasia consequently allowed to a big extent independent development of civilizations. Despite the sea and land trade (the Silk Road for example), the low levels of accessibility limited the interconnectedness among parts of the world. One small part of Eurasia, the peninsula-like Western Europe, later influenced the rest of the world by colonizing it, imposing modern capitalist society, and creating and maintaining the world order (Wallerstein, 1974).

Wallerstein analyzes the world economy at certain scales with the state as a point of reference. Wallerstein's theory relies on the state as a Western construct that is the main unit of analyses and inevitably the main point of reference. Following this kind of scale, we have the United Kingdom, for example, then the Western Europe set of states combined with their close proximity and similar development, then the European Union or the North Atlantic and finally the world. In contrast, this article explores the world by using scale as size. Thus, we have for example the island of Great Britain (instead of the United Kingdom which has authority on other islands), Europe as a peninsular part of Eurasia (instead of the set of states that depend of the context

includes or excludes Russia, Georgia, Armenia, and Azerbaijan), Eurasia, and the world as group of landmasses, either islands or continents (instead of the sum of independent states and territories). This scale of size changes the focus more towards a smaller island instead of the scale as level that often includes political or economic organization (for example, NATO and the North Atlantic).

In contrast to Wallerstein's theory, the article examines the world regional differences in relation to places' distances to the sea and hypothesizes the presence of the borders as relation to the absolute distances inland. Continents can be seen as very big islands, influenced by the Europeans first mostly along the coast, with interiors that lagged economically. Thus, the continents resemble the much smaller 'real' islands typically suitable for human development along the plains as opposed to the mountainous interior. Chapter 4 develops a model to explore scenarios of spatial core-periphery positioning oneanother and identifies three examples (see Figure 4.2 on page 90). The first example follows the traditional view of a core and periphery around it. The second example offsets the core as close to the periphery's limit. And, the third example is the reverse of the first example as core and periphery exchange places. Thus, the periphery is in the center and it is encircled by the core.

The first example applies to ancient and medieval agricultural societies, the second represents later state formations. The third example works at a very different kind of scale; instead of comparing political entities or societies, it is based on the physical configuration of the land masses. The third example is also

typical for islands and the continents, but is not typical of many states that are separated by land borders. And here the Wallerstein's World System comes as point of reference because of the involvement of the civilizations' history and globalization.

Peripheral areas in most contain vast interiors. For example, Australia's core includes the coastal cities of Sydney, Melbourne, Brisbane, Adelaide, and Perth. The large interior regions of Australia comprise its periphery. However, regardless of the size of the island, the observable and persistent spatial economic differentiation and the resulting well-pronounced distinction between cores and peripheries supports the theories of economic divergence (Friedmann, 1966, Myrdal, 1957), reinforced by globalization and the consequent increased international trade (Krugman, 1991).

Chapter 4 explores the interiors of two islands with different sizes, Luzon and Mindoro in the Philippines. The core regions of these islands are located also on their coastlines. Interestingly, the coastal parts of the islands in the Philippine archipelago had a long history of overseas trade prior to the Spanish colonization in the 16th century (Junker, 1993). However, little is known about the islands' interior in the Philippine Archipelago. The rationale of this choice is to explore peripheries that have frontier features without presence of international borderlines. And, both islands have interiors with Zomian features such as limited accessibility and diverse societies. Regardless of the absence of international borderlines, these interiors are peripheries and have frontier features

(discussed in the first article) often associated with proximity of a borderline: less visible state authority and lagging governmentality.

Frontiers are not strongly associated with a near presence of international borderline in contrast to the political frontier (Newman, 2006). Frontiers with no limitations of international borders include the Canadian North (Careless, 1954), the Russian Far East (Gibson, 2011), Australia's Interior (Anderson, 1983; Lines, 1991), and the Brazilian Amazon (Godfrey, 1991). International borders are also irrelevant in research where frontiers were associated with economic expansion through land acquisition by settlers at the expense of the native societies. For example, in the United States the Homestead Act regulated the provision of land for agriculture. Kawashima (1969) discussed the frontier in colonial Massachusetts and Morse (1979) examined canoe routes in the mostly unexplored areas of Canada (Morse, 1979). This theme was developed also in the comparative analyses of the settlers' expansion into the interior in late 18th-early 19th centuries in Australia and Canada (Ford, 2010). For frontiers viewed as economic frontiers, Indonesia is relatively well researched, particularly organized migration from high-density to low-density population islands (Fearnside, 1997).

Li (2001) observed the mountainous interior of Sulawesi as a frontier with Zomian features before the term Zomia was coined by van Schendel. And the hint for Zomia in her paper is logical considering she discusses Scott's *Seeing Like a State* (1998), in which Scott first outlined his theories upon which he elaborated in his 2009 book. However, instead of distinguishing mountain people from plains people as did Scott and van Schendel, Li describes the division in Sulawesi between mountain people and coastal people. Sulawesi is a relatively big island but not with a compact shape, and the places farthest away from the sea are not very far away from the coast in absolute distance. The rugged terrain, however, makes the interior insular and with its own development until recently. W. H. Scott (1970) researched the colonization of Northern Luzon and the interaction of the Spanish colonizers along the western coast of the island with the native population in the mountains. This interaction was limited and initiated occasionally by the Spaniards in their search for minerals, specifically gold. However, the interior of Luzon has probably become a place of refuge analogous to areas of Zomia on the mainland:

"..... late Felix M. Keesing suggested that the entire Igorot population outside the Baguio gold-mining area may be nothing more than lowland Filipinos who fled Spanish domination-an opinion later supported for the province of Ifugao by Father Francis Lambrecht on the in-ternal evidence of native epic literature" (W.H. Scott, 1970, p.702)

In contrast to Myanmar, there are articles for spatial economic polarization, (Akita & Pagulayan, 2013; Balisacan, Hill, & Piza, 2007) for the Philippines. These works describe the spatial polarization in the state and also the efforts of the Philippines' government to homogenize the state. Regardless that these articles operate on different scale, they provide information about the history regarding the development in this state. Thus, this information is relevant for analyses regarding the resilience of the island's interiors.

This chapter expands upon the analysis of scale and upon observation of rural areas in southeastern Asia, and it adds globalization into Zomia's analysis. Sidaway (2013) already discussed the regional studies in the context of the globalization including elaboration with Zomia, and this article adds to the topic that definitely needs further exploration.

Methodology

At the time of my first field trip, most of the literature regarding Zomia was related to Scott's Zomia and relatively little focused on van Schendel's work although more such research has been published recently. Similarly, the later scale theorizing is aimed to facilitate research with different scopes than mine. This is the first reason that I chose to make five field trips to southeastern Asia – I had to discover newer phenomena, not confirm existing ones. These new discoveries required me to conduct additional research and I needed time to regroup and clarify the new information and impressions; as result these five trips spanned over three and a half years. In the beginning of my research, I intended to work on scale, flows and borders in rural and mountainous areas in peninsular Southeast Asia. However, the exploration of the hypotheses of fractals, reversed peripheries, and the involvement of globalization necessitated additional travel since these hypotheses developed as result of my direct observations and they did not exist initially.

Through my approach to the research topics, my research methodology is indirectly related to how I see what geography is about, how I see phenomena, and my preferable approach to conduct research in human geography.

Two common understandings of geography include "science of places" and "spatial science" (Agnew, 2011); additionally, he elaborates (p.316):

The first is a geometric conception of place as a mere part of space and the second is a phenomenological understanding of a place as a distinctive coming together in space. From this viewpoint, if place in the former sense is definable entirely in relation to a singular spatial metric (latitude and longitude, elevation, etc.) or other spatial grid defined by putatively non-spatial processes (core-periphery, city-hinterland, administrative regions, etc.), place in the second sense is constituted by the impact that being somewhere has on the constitution of the processes in question.

In my understanding geography as "spatial science" relies more on construction of space, especially on abstract spaces. The other meaning of geography as a science of places inevitably involves not only comparison between places in order they to be distinguished, but also challenges the first meaning. If place is only 'mere part of space", I think the study focuses on one phenomenon, or only on very limited number of phenomena. Whereas, in other social-studies subjects, this is sufficient and non-controversial, in many geographical research, I identify deficiencies and problematics to such an extent the research could not be considered geographical.

I am more inclined to the "science of places." The plurality of "places" indicates that geography is about many different places, but also that a particular geographical research is more pronounced because it is 'geographical,' if there is comparison among places. This is not as well pronounced in the second understanding of geography understood as "spatial science," where a particular phenomenon and its spatial distribution can be easily imagined as operating in one place, and eventually could be more connected to state-centric studies (Agnew 1994). These studies do not match my research interests. Seemingly my research interests determine to a great extent my methodology.

Van Schendel (2002) and Scott (2009) focused their research on building hypotheses rather than on testing them; Van Schendel hypothesized Zomia as a distinct place, and Scott hypothesized that people in Zomia inhabited it because they wanted to live away from the state and out of its reach. I build upon their research approaches. Van Schendel used Zomia as illustrative of concerns about regional studies. Scott developed hypotheses about Zomia as a space of refuge. In my research, I used similar observational methods to develop hypotheses about borders and frontiers, scale, and island peripheries. Thus, I was more inclined towards investigation of the two-way human \leftrightarrow environment interaction than the human \leftrightarrow human or one-way human \rightarrow environment interactions.

How does one develop hypotheses in a manner analogous to the research that had been done by van Schendel and Scott? The topics in this dissertation required extensive travel because of the diversity and size of Zomia. Five field trips of three to four weeks each allowed observations on different locales in each of these states: India, China, Myanmar, Laos, Thailand, and the Philippines with

most of the time spent in rural areas. Investigation of the borders topic required personal experience of both land border crossings and time spent in border towns. Information was gathered by direct observation of the physical landscape, time for travel and means of transportation between different places for evaluation accessibility, observation of local people about the gradient of change in physical landscape and of their way of life due to availability of new ways of transportation. In particular, I learned that the availability of cellular phones and scooters have affected accessibility of different locales within my study areas. Also, observations allowed comparison of local attitudes towards political life to the presumed attitudes based on sources from outside of the area. Specifically, for Myanmar there is striking differentiation between my observations and those based on external media portrayal of the area. Even though the preliminary research was extensive, after the field trips, additional research on regional history, population dynamics data and statistical data regarding the economies of these places was undertaken in order to become more narrowly focused and relevant to the scope of research.

My observations originate from the trips described in detail in the "Field work" section earlier in this chapter. My hypotheses articulated in Chapter 2, regarding the borders and the frontiers, are based on my second trip to Myanmar. I observed the border communities of Mong La on the border with China and Tachileik on the border with Thailand. As discussed in the chapter, the city of Kengtung is located away from the two borders about halfway between Mong La and Tachileik. Although Kengtung is not adjacent to either boundary, I was able

to observe how the presence of the borders affected the area around Kengtung. I observed another border between Myanmar and China and another border between Myanmar and Thailand, and additionally three more borders between other states in the area. These other borders did not have the same dynamics as did the borders at Mong La and Tachileik with the areas of southeastern Shan State centered around Kengtung. By comparing these observations, I was able to develop my argument that in some cases frontiers need to be seen more as places than spaces because otherwise the research could incline to state-spaces.

In order to make this point, I used my observations of Mong La, Tachileik, and Kengtung to construct a model that illustrates the importance of distinguishing between frontiers and border spaces. I observed that Mong La and Tachileik, which are located on the borders between Myanmar and China and Myanmar and Thailand respectively, are very different places than is Kengtung, which is located many kilometers away from these borders. Nevertheless, I was able to observe how Kengtung functions as a community that unites the border communities and identifies the entire region of eastern Shan State as a coherent place. Thus, owing to my observations in eastern Shan State, I concluded that places in Zomia need to be observed separately and on their own. The example of eastern Shan State illustrates that borderlands must be conceptualized as including frontier spaces as well as places immediately adjacent to the borderlines as they appear on the map.

My methodology for the research about scale (Chapter 3) has a similar pattern to the borders-frontier research in Chapter 2. The necessity of further hypothesizing of scale for the needs of area studies was brought up by van Schendel through his example of Zomia. The ethnic diversity around Kengtung Valley and the feeling of being "back in time" in the villages in the surrounding mountains, the limit of village sizes, and their temporality are non-existent in nearby Northern Thailand and in the nearby Xishuangbanna Prefecture in China, and less pronounced in Northern Laos. While traveling in the Kengtung Valley, I observed the area's very diverse cultural landscape. I also observed that the Kengtung Valley, in which paddy rice cultivation is practiced, is surrounded by upland, sparsely populated lands that are inhabited by subsistence farmers. Thus, I was able to recognize that the relationship between the Kengtung Valley and the surrounding mountains with the Zomian highlands and surrounding lowlands as a whole. Further, I recognized that examining Zomia as a large region overlooked such places, therefore, suggesting the development of additional hypotheses about the value of different conceptions of scale, and additionally, suggesting I illustrate, using the example of Zomia, why it is important for researchers to pay considerable attention to geographic scale in understanding places.

The discovery of the fractals pattern around Kengtung was exiting but also problematic to me. As described earlier, fractals preserve the pattern regardless the observed thing is zoomed-in or zoomed-out. In this case the ethnic diversity is preserved in the much smaller area of the Kengtung and vicinity.

This is unexplored territory with no information or available literature. Notwithstanding, while I could logically connect this to slash-and burn agriculture in mountain areas with quickly exhaustible soil, going deeper was challenging. Where do the fractals still exist, and why do they exist in these locales? What is the connection between this knowledge and Scott's Zomia? How can this be incorporated into scale theorizing – all these questions required additional research.

My following trips to states near Myanmar made me confident in my understanding of the research associated with Zomia and with the region as a whole and made my writing more assertive and confident. I also grasped the very high probability of why so many researchers are skeptical of the need of Zomia – because their research are mostly in the domains of social justice and the environment and naturally incline towards the state and the focus of the relationships of social and ethnic groups with the state. In geographical research, however, if a distinct place is seen by the researcher, additional scale theorizing is needed. These conclusions of mine are based on readings, analyses, and observations while looking for particular features in different places. This is the reason I took so many trips to the area, and why I am confident that my observations are credible.

The Kengtung Valley area also brought the inclusion of core-periphery division as a new perspective newly paradigmatic because, as mentioned above, this area is a negative image on a smaller scale of Zomia, but with reversed

relative locations of Zomia – non Zomia. Also, my work on scale suggested the need to explore islands. Subsequently, the island brought globalization into my topics – something I sensed I needed because of the confusing absence of the oceans and seas in Zomia's discussions.

My research described in Chapter 4 is about the geographical modeling of cores and peripheries. The research was conducted in the Philippines, where I observed the locations of the cores and peripheries as being a mirror image to Kengtung Valley. While the Kengtung Valley's core is surrounded by the periphery in the mountains, in the Philippine islands of Luzon and Mindoro, the cores are located along the seashores surrounding the periphery in the mountains inland. By traveling around Luzon and Mindoro, both along the coasts and inland, I was able to observe the importance of accessibility from the seashore. I was able to estimate travel times between places both along the coasts and in the interior of these islands. For example, I traveled across the island of Mindoro, as I describe in Chapter Four. It took me four days to cross the island, although the straight-line distance was only about twenty miles. Much of my trip was on foot and the paths were not marked or were very muddy. My guide who lived on the east side of the island had not traveled through the mountains to the west coast of the island for more than twenty years. In Luzon, I visited villages that could be accessed only on foot by crossing a narrow suspension bridge and climbing a steep hill to reach them. These villages were very poorly accessible whereas the coastal cities are connected to one another with modern paved roads and to other islands by ship or ferry boat.

My research methods point to a direction of conducting research toward examining similar topics in similar settings. More specifically, if someone tests his or her own ideas or assumptions based on knowledge acquired in advance, this researcher needs extensive travel to see different locales and to experience many interactions. The challenging task is to not miss something, because of the "noise" from the millions of pieces of information received constantly. Upon return, additional reading, time to set things in mind, and the beginning of writing, the vague ideas or assumptions transform into one or more hypotheses. There is no guarantee that this approach will always work. In my case the research in Northeast India and in Thailand did not bring the anticipated outcome. Nevertheless, the experience in these states was prerequisite for the research in Myanmar.

The reality that some places have little or no traces of Zomia, specifically in the above-mentioned Thailand and India, but also in China, triggers questions about the different socio-economic developments in the states in the region, the states' sizes and their ability to govern the territories, and to sustain their policy agendas. The research literature need contribution through stronger geographical research involving considerations of absolute and relative distances, size of controlled territories, and accessibility in relation to the observed area's history on both national and sub-national scale.

To summarize, my methodology closely follows my research agenda to explore why does Zomia is visually distinct, but is difficult to be explored and

analyzed as a separate unit. The chosen methodology, however, allowed me to successfully build and elaborate upon hypotheses going beyond Zomia by contributing to the broader topics of border studies, scale, and the global processes of spatial economic disparities.

CHAPTER 2: Borders as small, discrete areas; an alternative approach to understand and analyze border spaces

Social scientists have long studied the location and evolution of border areas between states. However, in some cases territories further away from borderlines are affected also by the borderlines themselves. These places we will call frontiers, because the term "borderland" is often conceptualized as narrow, elongated strips of territory that follow borderlines. And, we will consider borders as small, compact, discontinuous places at which interaction across borderlines is concentrated. For example, cities located on boundaries where boundary checkpoints are found can be conceptualized as borders. For purposes of this paper, frontiers are defined as areas that are generally much larger than borderlands. In frontiers, state control is limited and they are influenced but not created by international boundaries. The size of the frontier requires more consideration of seeing it as a physical space on its own.

Because this research relies on observing numerous physical features that are often non-quantifiable, and as I also wanted to compare places to identify their unique characteristics, I visited many other borders between Myanmar and neighboring states along with borders elsewhere in Southeast Asia.

To illustrate the importance of conceptualizing a frontier as a physical space as well as a social construct and borders as much smaller nodes, I decided to explore eastern Shan State in Myanmar in detail. This part of Myanmar is closer to China, Laos, and Thailand but is relatively isolated from the major

population centers of Myanmar itself. In this area state control is weaker than is the case elsewhere in Myanmar. Zomia consists of mountainous areas of Southeast Asia that are sparsely populated by diverse groups who until recently managed to avoid or resist state control (Scott, 2009). Scott himself considers Zomia to be disappearing quickly. As indicated in Chapter 1, some of Scott's critics disagree with his emphasis on the conflict with outside societies (Baird, 2013; Jonsson, 2010, 2012). However, some of these critics based their argumentation from experience in nearby states including Vietnam, Thailand, and China whose governments have firmer control over their outlying areas as described in the case of Thailand by Anderson (2017). As a result, I decided to explore the frontier in Myanmar, where Scott did much of his research as well and traces of the historical Zomia still exist. Within eastern Shan State itself, the focus is particularly on three places – the cities of Tachileik and Mong La which are on the borders with Thailand and China respectively, and the city of Kengtung which is located away from these borders and which dominates the frontier. The presence of international borderline nearby, along with the rugged and mountainous terrain west of this region, detaches this vast area from the rest of Myanmar, strongly impacting the local economy which is heavily dependent on connections with the nearby states. This leads the whole area to preserve its historical weak connections with Myanmar, and to be resistant to full integration. In this case the stronger borders counterbalance the improved accessibility from the rest of Myanmar and keep the area distinct.

Borders and Boundaries Versus Borderlines, Borderlands and Frontiers

Borders and boundaries have a long history as a subject for research. For example, Jones (1959) described the evolution of boundaries over time, Minghi (1963) analyzed the functions of boundaries, and Barth (1969) looked at boundaries as they divided ethnic groups. These authors did not use space explicitly in their studies and they did not discuss whether boundaries are socially constructed. Later, Prescott (1987) recognized the importance of theorizing boundaries and spaces near boundaries above and beyond the analysis of the boundaries themselves. In doing so, he established a distinction among boundaries, borders, and frontiers. Jones (2009) discussed the theoretical works about borders in more detail. He recognized the broader meaning of boundaries in that they do not just encircle the territory but in a broader sense boundaries limit spaces, even abstract spaces of categories. This article, however explores the border not as encircled lines, but as lines that influence nearby areas. In this paper, however, the terms are used following the definitions presented by Paasi (2014, p. 7) who stated that some scholars "...defined the terminology of border studies: boundary was the abstract line that separated state territories, frontier was a zone category, and borders were the areas adjacent to boundaries".

This categorization was later largely abandoned in favor of development of critical approaches in border studies. Basically, the concept of a boundary was derived from the concept of state sovereignty, and even though boundaries were drawn in order to identify the territorial limits of sovereignty the newer view is

that they limit and identify containers of spaces created by the state itself. This made border studies state-centric. However, research on borders often falls into the territorial trap as defined by Agnew (1994). The territorial trap is based on the idea that states as defined by borders are closed compartments. Consequently, research turns into exploration of the state and the international relations regardless of the research's initial scope. Van Houtum (2005) argues that understanding borders is a product of our own social practices and habits, and he suggests that conceptualizing the understanding of borders in this way helps us to avoid the territorial trap and he concludes that in this way could borders become less automatically connected to states. And, as Elden (2010) pointed out, Agnew's "territorial trap" is based on three assumptions: that "modern state sovereignty requires clearly bounded territories," that boundaries create clear separation between domestic and foreign or international space, and that the territorial state, defined in terms of clearly demarcated international boundaries, must be regarded as the geographical container of contemporary society.

Most of the contemporary analyses of border spaces (Newman, 2006; Newman and Paasi 1998; Paasi 1999) focus on the borderlines and borderlands, rather than on frontiers. Even though the distinction between a border space and a frontier is not absolute, it involves the degree to which interaction across boundaries can be regarded as direct interaction. Thus, a community located adjacent to a boundary is a part of a border space in that the presence of the boundary has a direct impact on spatial interaction including flows of people and goods across that boundary. Lamb (2017) emphasized the importance of

examining boundaries and border spaces from the perspective of local residents. Doing so enables the researcher to avoid what Agnew (1994) has described as the "territorial trap," or the tendency of scholars and other observers to view boundaries as fixed lines separating states, each of which can be seen as a separate, closed container. In Lamb's words (2014, p.3),

I argue that as a consequence of accepting that borders were and are imposed, analysis continues to discount from consideration the part that residents play in enacting the political border. In addition, it fails to recognize the border as a site or institution that is invested in politically, socially and economically by many different actors.

Lamb continued (p.3) "I argue that more than making "use" of the political border, residents and other agents are integral actors in enacting the political border." Thus, analysis of border areas involves consideration not only of the borders as a line separating states as closed containers, but also the influence of local residents, warlords, governments, and other actors on how the boundary affects everyday life in border regions within the context of local, regional, and global economies. The impact of the borderlines on frontiers is more indirect but it remains an essential component of understanding the meaning of boundaries. In many cases, frontier spaces are not only influenced by borders but are also isolated from other areas within the states in which they are located, thus reinforcing the distinctiveness of frontiers.

Also, most studies applying critical approaches to the study of borders have been positioned in Europe as reaction to the development of the European Union and the newer internal and external borders, or in North America,

particularly the United States' border with Mexico. and other western societies (Kolossov and Scott, 2013; Paasi, 2014). However, the impacts of boundaries on border spaces and frontiers are very different in non-Western societies for several reasons. This is true in part because the concept of a boundary is a Western construct dates back to the Westphalian construct of state sovereignty. Once the concept that a state was sovereign over territory under its control was accepted across Europe, boundaries were drawn in order to identify the geographic limits of each state's sovereignty. However, this conceptualization of sovereignty did not apply to many non-Western societies until it was introduced by Europeans who, throughout Africa and Asia, imposed Western-style borderlines on their colonies. Many of them separated colonies under the sovereignty of different pairs of Western colonies without regard to local conditions, including differences in ethnicity, religion, language, and culture. Previously, various empires, kingdoms, and principalities had contested with one another for control of space, but limits of control were indistinct, without formal boundaries. In fact, many local rulers did not understand the concept of formal separation of sovereignty via boundaries when it was first introduced by European colonial powers as one of the mechanisms of the assertiveness of the state to control territory (Winichakul, 1994).

Zomia

The distinction between boundaries, borders, and frontiers outside the West is illustrated by the example of Zomia, which contains mountainous upland

areas in inland Southeast Asia (Figure 2.1). Zomia's population includes a very large number of distinctive cultural groups that have been isolated historically from other societies because of limited connectivity and accessibility. The history of Zomia is one of ongoing tension between these isolated highland societies and larger, more densely populated lowland societies that attempted to control them.

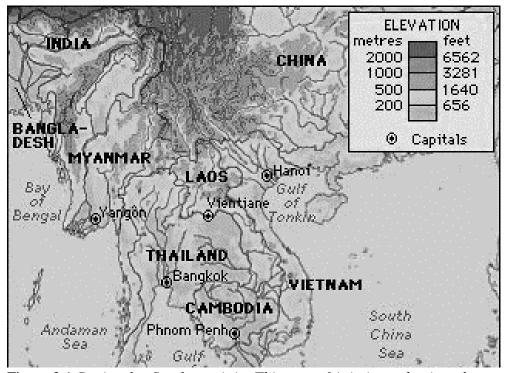


Figure 2.1 Peninsular Southeast Asia. This part of Asia is predominantly mountainous. Source: Encyclopedia Britannica

Scott (2009) saw Zomia as a place of refuge for marginalized societies that did not conform to the values and standards of the plains societies and wanted to avoid conquest and domination by these lowland societies. Scott argued that for hundreds of years, kingdoms and principalities in the plains regions of Southeast Asia competed with one another for power, which could be expanded by conquest of nearby mountain societies. However, Scott pointed out that these rulers were more interested in controlling people rather than controlling specific territory, because conquered people could be taxed, conscripted, enslaved, or relocated to lowland areas as forced labor. Because mountains had little value for paddy rice cultivation or other forms of intensive agriculture practiced in the valleys, the sparse population and rugged terrain discouraged interference from the lowland-based kings, who realized that the cost of creating, training, and supplying armies to conquer highland areas usually far outweighed the value to themselves associated with the control of Zomia's populations. Zomia's diversity and inaccessibility helped isolate it from centers of power in more populated lowlands. As Scott (2009, p. 14) put it, "Zomia is marginal in almost every respect. It lies at a great distance from the main centers of economic activity." Such was certainly true historically, and despite globalization its relative isolation is one of the hallmarks of the region today.

Thus, pre-colonial Southeast Asia was contested among competing lowland-based empires and kingdoms that attempted with varying degrees of interest and success to control people in nearby mountains. However, the concept of sovereignty over bounded territory was absent until the arrival of the Western colonial powers in the 19th century. By that time, all of Europe had been divided into sovereign states that had precisely defined boundaries. However, precise boundaries did not exist in Southeast Asia until France and Great Britain began to establish colonies there. As these Europeans began the process of delineating their territories, they were surprised that local rulers did not conceptualize territory as something that needed to be demarcated precisely (Winichakul,

1994). Nevertheless, the British and the French imposed boundaries between their own colonies as well as between their colonies and the buffer state of Thailand and between these colonies and China. In most cases, the colonial boundaries became the boundaries between individual states after they achieved independence. As Scott's map illustrates, these boundaries are located within Zomia, in which differences between highlands and lowlands accelerate the creation and maintenance of border spaces.

The Frontier of Eastern Shan State in Myanmar

Myanmar, known historically as Burma, is typical of Southeast Asia in that its territory contains densely populated lowlands and more diverse, less populated highlands (Leach, 1960). More than half of Myanmar's people are Bamar whose first language is Burmese, and most of them live in the denselypopulated valley of the Irrawaddy River. In contrast, the more sparsely populated mountains are inhabited by people from very different cultures. The mountainous part of Myanmar lies within Zomia. The Bamar majority has dominated the government since Myanmar became independent in the year 1948, and since that time there have been ongoing conflicts between Bamar and people from the outlying areas.

Prior to European colonization, various kingdoms and dynasties contested control of the Irrawaddy River valley. The largest and most powerful of these dynasties was the Taungoo dynasty, which took control of the valley in the early 16th century. The last Taungoo ruler was overthrown in 1752, when power over

the Irrawaddy valley was seized by the Konbaung dynasty. The British began efforts to colonize Burma in the early 19th century. After the Third Anglo-Burmese War ended in the year 1885, the British deposed the last Konbaung ruler, who was exiled to Gujarat in western India. The British then took control of all of present-day Myanmar and they divided it into Ministerial Burma and the Frontier Areas. Ministerial Burma contained the Irrawaddy River valley, including much of the territory that had been controlled by the Konbaung and the Taungoo, while the Frontier Areas included the mountains.

In 1947, representatives from Ministerial Burma and the Frontier Areas signed the Panglong Agreement, which stipulated that the two territories would be united as a single country (Linthner, 1984). In 1948, the combined territory became the independent country of Burma, which was renamed Myanmar in 1989. After independence, Bamar leaders from what had been Ministerial Burma dominated the government and began efforts to impose Bamar culture on the entire country. Buddhism became the state religion and all formal schooling was conducted in the Burmese language (Holliday 2010).

Myanmar is organized administratively into divisions and states. The divisions are areas that were part of Ministerial Burma and they contain Bamar majorities, as opposed to the states that were formerly part of the Frontier Areas. One of these states is Shan State, which is located east of the Irrawaddy River and extends eastward to Myanmar's boundaries with China, Laos, and Thailand. The state derives its name from the Shan people, who represent the majority of

the state's population. The Shan are related closely to the Thai people of Thailand and Laos, and their language is very similar to the Thai language. However, many people living in Shan State are not Shan. As is typical of Zomia, they belong to a very wide variety of ethnic groups and speak many different languages.

Eastern Shan State is much closer geographically to China, Laos, and Thailand than it is to Myanmar's new capital city of Naypyitaw and its largest cities, Yangon and Mandalay (Figure 2.2). One of the two main trade routes connecting China and Thailand crosses eastern Shan State and connects its major cities of Tachileik, Kengtung and Mong La with one another (Thiengburanathum et al, 2006). This road is approximately 230 km in length and is one of few paved, all-weather roads in the region. It was constructed and financed by Thai capital, and China has also shown considerable interest in developing the region (Tsuneishi, 2009).

From Kengtung, passenger cars and makeshift Toyota pickup trucks leave frequently for Mong La, which is 80 to 90 km away by road and can be reached in three hours. Buses to Tachileik are more frequent, but Tachileik is almost twice as far away and the trip takes four to five hours by road. In 2010, approximately 190,000 cars and motorcycles crossed the border between Myanmar and Thailand legally at Tachileik in each direction, nearly double the number that crossed this border in 2004 (Tsuneishi, 2009, p. 231). In contrast, it takes two days to travel by bus between Kengtung and the Shan State capital city

of Taunggui, a distance of approximately 400 km over rugged and mountainous terrain with very few all-weather paved roads. From Taunggui, it takes an additional five or six hours to reach Mandalay on the Irrawaddy River by road, and even longer to reach Naypyitaw and Yangon.



Figure 2.2 The eastern part of Shan State that is centered around Kengtung is in practice inaccessible by road. The two-day travel from Kengtung to Taunggyi is not economically feasible unless somebody transports a lot of cargo. Four airlines have a few flights a week each from Kengtung to Mandalay and Yangon. Mandalay (not shown on the map) is to the northwest

from Taunggyi – another at least seven hours by road through mountains. Yangon is eight hours or more from Mandalay. The main land border trading point of Myanmar with China is in northern Shan State and is reachable from Kengtung only through Taunggyi and Mandalay. As result, the border trade in Kengtung area is localized with virtually no transit trade routes towards the rest of Myanmar. Consequently, Thailand and China are more vital to the local economy than the rest of the state.

The Borders

The example of eastern Shan State illustrates how borders function as distinct units. In general borders can be conceptualized as relatively much smaller spaces associated with direct spatial interaction across borderlines. For example, cities and towns located next to borderlines with checkpoints at which cross-boundary interaction is monitored and controlled can be considered borders themselves. In contrast to borderlands as continuous narrow strips along the borderlines, borders are limited and confined within border town limits and their immediate vicinity. This point is illustrated by looking at the communities of Mong La and Tachileik.

The city of Mong La (Figure 2.3) is located on the borderline between Myanmar and China, and it is reachable within Myanmar only from Kengtung. Even though Mong La is in Myanmar, its economic activities are oriented to neighboring China. Mong La's orientation to China is evident from the fact that nearly all of the signs are in Chinese. Hotel rooms, goods and services are paid for using Chinese currency, television programs are broadcast in Chinese, and the clocks operate on Chinese time, which is 90 minutes later than standard time

observed throughout Myanmar. Thus, Mong La's prosperity is dependent on China, and it is associated closely with its position along the boundary between Myanmar and China.



Figure 2.3 Mong La. Photograph by author

Recognizing Mong La as part of a border space, Holland (2014) wrote "in this crack between the paving slabs of statehood has sprouted the largest rare animal market in Southeast Asia—a poacher's paradise.", and, as Stragnio (2014) put it,

In addition to drawing probably thousands of gamblers per month, the region's porous border with China has created lucrative smuggling routes for drugs and endangered animals. At Mong La's open-air market, an asphalted expanse ringed by palm trees and Sichuanese restaurants, traders openly sell freshly killed muntjac deer and the pelts of endangered small cats. Restaurants on the main dining strip specialize in rare wild animals — owls, monkeys, and pangolins — which are displayed in a miserable-looking caged menagerie on the pavement.

My own observations of Mong La, undertaken more than two decades after Stragnio's observations, confirmed this description. As well, Mong La profits also from trade in drugs, wildlife, and other illegal goods and services. The porousness of the border facilitates this trafficking, the profits are used to reinforce Eastern Shan State's resistance to Myanmar's control.

Politically and economically, Mong La is only formally under the control of Myanmar. It is the center of a territory under the *de facto* control of a paramilitary organization known as the National Democratic Alliance Army-Eastern Shan State (NDAA-ESS), whose power base is in Mong La. In the early 1990's, the government ceded limited autonomy in areas within Zomia along international boundaries by establishing four special regions in the early 1990s. Three of these special regions are located in Shan State along the border between Myanmar and China. Special region 4, which is dominated by the NDAA-ES, is about 4,900 square kilometers in land area (Martov, 2014).

The agreement to establish Special Region 4 stipulated that NDAA-ESS would have *de facto* authority over the region. Contemporary estimates suggest that there are about 3,000 to 5,000 NDAA-ESS troops who are active in maintaining control of Special Region 4 (Keenan, 2012). As Jacobs (2014) wrote, Special Region 4 is "a blind spot beyond government writ or regulation where local authorities apply national laws with caprice." This lack of regulation

associated with location in a border space reinforces the *de facto* autonomy of Mong La in particular, and it impacts the rest of eastern Shan State.

There are three checkpoints on this road between Kengtung and Mong La, which is the only road that connects Mong La with the rest of Myanmar. The first checkpoint is halfway between Kengtung and Mong La and marks the limit of the Myanmar authorities. All passengers must disembark from vehicles and walk about a hundred meters along the road after their documents are checked. The same procedure applies to the other two checkpoints further towards Mong La, but this time these checkpoints are under local control. The soldiers wore distinct uniforms of the local army that secures the surrounding territory, which is out of reach from the Myanmar government. Shortly before Mong La the road descends from the mountains and follows a narrow flat valley that is irrigated heavily. Gas stations and modern and new-looking large houses start to appear about ten kilometers outside of Mong-La. At the end of the valley the road enters Mong La. The border crossing is on the other side of the city. The city itself is mostly on the slopes on each side of the river, which after exiting the narrow valley weaves through hills of moderate height. The borderline passes through these hills.

The streets of Mong La are lined with casinos, many of which contain hotels at which Chinese tourists who travel across the boundary because casino gambling is illegal in China stay overnight. Rooms in these hotels start from \$50 U.S. dollars per night – pricey even by Chinese standards. The Sex industry is

easily visible even during the daytime and along with gaming is one of the main activities for the visitors to come. Tourists and drugs are trafficked openly across the border (Jacobs, 2014). Hence Mong la has been described by Holland (2014) as "a smaller, seedier, anarchic version of Las Vegas—a collection of casinos and their associated vices in an unlikely, out-of-the-way place,"

Hotels and gambling establishments along with restaurants, bars, and shops surround the very large and prominent city market, which is only twenty minutes walking distance from the borderline. The market itself is a square enclosure. Each side of the square is about 200 meters long and is made up of two-story buildings. These buildings accommodate shops, restaurants, bars, and male-oriented massage parlors. The market is accessible through four arches, one in the middle of each wall. Half of the market space is devoted to the sale of agricultural products and other goods, and the other half is occupied by a few big open-space cafes with tables that serve as gaming boards.

Inside the market, many vendors sell animals, animal products, and plants. Others are sold along a major street east of the market. There, some restaurants display cages and aquariums containing live wild animals waiting to be chosen, cooked, and eaten by Chinese tourists. Other wild animals are purchased alive and transported across the border into China, while vendors in the market also sell variety of animal products. The capture and sale of some species of these animals and their products is illegal in China (Jacobs, 2014).

The other border site of Tachileik is located along the borderline between Myanmar and Thailand. This city is somewhat larger than Mong La, with an estimated population of about 170,000. Along the Thai border, the city of Tachileik is also a very tourist-oriented place. However, hotels are much smaller, the gambling establishments are missing and the signs are in Burmese. There are few hotels clustered in a neighborhood in the southern part of the city that are Chinese-oriented, but the feeling is definitely Burmese. The bustling market very close to the border crossing is a labyrinth of stalls, much bigger than those in Mong La. Sellers offer manufactured merchandise from overseas, cigarettes, and medicine for potency. According to Thai law, foreign tourists must leave the country to renew their visas every two weeks. Hence, many foreign tourists come from Thailand to Tachileik to renew their Thai visas by exiting and re-entering the state. The presence of Western visitors, its bigger size, and the presence of many hotels, offices and restaurants – all these bring a cosmopolitan feeling to the place, something absent in Mong La.

Although Tachileik is not part of one of Myanmar's Special Regions, the area immediately to the north and west of Tachileik is regarded as off limits for the Myanmar government. This area has long been controlled by local warlords and entrepreneurs associated with the Southern Shan State Army, which holds *de facto* authority over this area. The only main road that goes to Kengtung and eventually o Mongl La and China turns north at the edge of Tachileik. Immediately after the turn there is a military checkpoint. A foreigner traveling by bus will have her or his passport photocopied by the ticket seller in advance, and

at this point the driver goes to the checkpoint with the foreigner's passport. Four hours later before entering Kengtung, there is another checkpoint with repeated special attention to foreign passengers.

As seen, the border crossings formed and shaped the towns economies and overshadow the influences of the nearby areas and the Myanmar. From the last two the influence from the nearby area is more pronounced. This two-way influence will be elaborated in the following section.

The Frontier

Usually, frontiers are seen as peripheries radiating from the state's core. In the southeastern part of the Shan State, the whole area is nearly cut off from the rest of Myanmar, which is accessible primarily by plane because the road to Taunggyi (Figure 2.2) is unreliable, tenuous and expensive. Kengtung is much better connected with nearby Thailand and China than with the Irrawaddy River valley even by air. As described above, both Mong La and Tachileik are more oriented to markets across the borderlines than to the interior that includes the biggest city in the area, Kengtung. Compared to the two cities next to the borderlines, Kengtung is sleepier, bigger, more Burmese, less modern, more historical, more relaxing and pristine. However, Kengtung and its vicinity represent only a very small part of the frontier of eastern Shan State. The rest of the area includes small villages and towns that are relatively isolated from one another and are nearly detached from the outside world, because of distance, rugged terrain, and poor roads. So, the example of Kengtung exemplifies the

whole area as a frontier. Although Kengtung is the largest city in the region, it still does not have the gravity to spread its influence and to unite this part of Myanmar under its dominance. This allows both the whole area to preserve its frontier features and the borders of Mong La and Tachileik to persist as units of their own.

Kengtung (Figure 2.4), whose population is bigger than that of Tachileik, is located near the center of a small valley containing about 120 km² of irrigated land that has been cultivated extensively for centuries. For more than five hundred years, Kengtung was the capital of a kingdom that paid tribute to larger kingdoms in the Irrawaddy Valley or in present-day northern Thailand (Winichakul 1994). In turn, small outlying principalities would pay tribute to the rulers of the Kengtung Valley. Thus, the history of the Kengtung parallels the history of Myanmar as a whole, with Shan kingdoms based in Kengtung trying to control non-Shan people in the nearby mountains. Within eastern Shan State, the flat, and well irrigated rice-producing valley where the city is located has been and still is a center of gravity – cultural, political and economic.

Kengtung is an old city with many temples, but it has does not have the economic vitality or the new construction found in Mong La and in Tachileik. There is just one bank, and the market is the main place at which people buy products and goods. Instead of private enterprises, there are many government offices throughout Kengtung, and the city has a more relaxing atmosphere and sleepy appearance compared to the border towns.



Figure 2.4 Kengtung. Photograph by author.

The Kengtung valley is surrounded by mountains inhabited by people whose languages and cultures are unrelated to those of the Shan majority in the valley. These people are classified under distinct groups such as Akha, Lahu, Enn (An), Wa and Palaung. Most live in small, often temporary villages containing fifteen to twenty-five houses each. The villagers practice slash-and-burn agriculture and once the land's fertility is exhausted, they move their villages to new sites. Even today, few children attend school. People in some of the villages are animist, others are Buddhist or Christian. Some, such as the villagers of Lahu-Shi (Figure 2.5), are located less than twenty kilometers from downtown Kengtung. These communities in the sparsely populated mountains are part of the region's cultural landscape, in which the urban centers of Kengtung, Mong La and Tachileik in their small valleys resemble islands in the vast sea of mountains.



Figure 2.5 Lahu Shi village. Photograph by author.

Outside of Kengtung and its immediate vicinity, control of eastern Shan State by the central government of Myanmar remains limited. The scarcity of people, distances, and limited accessibility due to the terrain make the region difficult to be administered by the weak state and these features make the entire region a frontier.

In the area, international drug trade flourishes. Eastern Myanmar, along with adjacent areas of Laos and Thailand, has been termed the "Golden Triangle." Along with Afghanistan, this region is the leading area in the world for the production of opium poppies. In 2014, the United Nations estimated that the opium trade in the region was valued at more than \$16 billion per year (Hunt 2014). The majority of the opium poppies associated with this trade in the Golden Triangle are cultivated in Myanmar, primarily in-Shan State. The opium trade has helped to reinforce the legitimacy of Special Region 4 as the *de facto* independent territory with capital of the Mong La within eastern Shan State.

A survey by the United Nations Office of Drugs and Crime (UNODC, 2015) revealed that since the beginning opium production decreased more than five times from the end of 1990s till 2005, but since then the opium production doubled. About 80% of this production comes from Shan State, Eastern Shan State included. Surveyors were trained to interview headmen in villages throughout Golden Triangle. In Myanmar, the surveyors visited thousands of villages and found out that 28% grow poppies. This reality reveals that the Myanmar' government incentive was non-sustainable, and also reveals weak government control. However, all of the surveys were conducted in areas under direct control of Myanmar's government, and outside Special Regions 2 and 4 Regarding the Special Region 4, there are no data for poppy cultivation; there is also no data for the similar political formations of Wa and Kokang in Special Regions 2 and 1 respectively along the Chinese border to the north of Special Region 4. The UNODC team visited these territories according to the survey, met the authorities, visited some cites, and did not find poppy cultivation. The team relied on statements by local officials that opium poppies were not being grown in these special regions. However, the exclusion of these territories from the

survey indicates that these strips along the borderline are with limited reach and out of reach by the outside authorities (UNODC, 2015). Such is in distinct contrast to the situation in nearby Thailand, in which the opium cultivation has nearly disappeared (Anderson, 2017).

These observations of Eastern Shan State lead to the argument that borders should be observed and analyzed in relation not only to places along the borderlines, but also with respect to more distant places that are not adjacent to the actual boundary lines. This is in contrast to the orthodox view of border-state relationship as focused exclusively on the states themselves. The predominant view is either aiming to get more knowledge of states' governance or to analyze the particular small parts of states located next to borderlines. However, focusing only on these small parts indirectly and inevitably steers the research toward the state. The territorial trap as defined by Agnew (1994) is hard to avoid as long as analyses of borders are focused on states themselves. In eastern Shan State, however, examining the border region away from the boundary allows us to uncover and analyze spaces of resistance to the state. The state is not ignored completely, but a more meaningful picture of borders and border places can be developed by examining borders in the broader sense of their meanings as part of frontiers.

Conclusion

Within Myanmar's portion of Zomia, the capability of Myanmar's government to have full control only over bigger urban centers, such as

Kengtung - and the diminishing power of the authorities outside these cities and towns' immediate vicinity is connected with the lack of control over sizable territories along the borderline. This chapter discusses the connection between the frontier and the activities along the borderline that are strong enough to function independently from the state. These economies are fed by sources across the borderline. The research deliberately does not discuss what is exactly across the border, neither on the impact of the border activities on the state – both without doubt will have greater interest among wider pool of readers, and will be more applicable for the policy-makers and for those working on international relations. However, these researchers fall into the territorial trap and have their own limitations by inevitably altering the scope of the research to the state as a whole and become less theoretical through attachment to temporary and localized geopolitical developments. Alternatively, this research can supposedly be seen as an alternative and complimentary approach from a geographical perspective, and as an attempt to reveal realities on the ground that otherwise would remain hidden.

This study theorizes borders as small compact places instead of narrow strips following the borderlines. In other words, borders are conceptualized better as discrete places instead of continuous spaces. This way of seeing the borders is a way to avoid the territorial trap by focusing on the border itself as a place with unique characteristics. And, similar to the eastern Shan State, it is critical that borders are needed to be seen as part of the frontier. The example of eastern Shan State is with the following setting: weak state, limited accessibility to the core of

the host state, Zomia features, and relatively stronger states across the international boundaries. This approach might be useful in analyzing borders in other parts of the world, especially in areas with weak states, low population densities over large areas, close to international borderlines and more developed states on the other side of these borders.

Currently, the duality between borders and the state predominates in the literature on borders. This study proposes border-frontier observation instead. This is possible if borders are seen as compact and discrete places, and the approach is opposed to the view of borders as elongated, narrow strips of territory following international boundaries. Conceptualizing orders as compact, small places allow analyses to be focused on borders themselves but also on analyses of the frontier areas where they are located.

In conclusion, observation of eastern Shan State confirmed that this is not a unified and homogenous area despite its remote location and its limited accessibility to the core area of Myanmar and other nearby states. Rather, it contains diverse cultural landscapes that can be observed over a vast territory. The observation of this diversity requires consideration of geographical scale. In order for this area to be understood, the involvement of scale is needed. In the next chapter I examine the area and also hypothesize the importance of geographical scale.

CHAPTER 3: Zomia as a place; the return of needs for observational and operational scales

This chapter adds to the analysis of geographical scale by theorizing the need of observation and operational scales on geographical research, using the example of Kengtung Valley and vicinity as discussed in Chapter 2. The locale was chosen because of Scott's work in Myanmar, but I needed to see many other parts of (presumed) Zomia to confirm my findings. The discovery of fractals and the further exploring of the subject required looking for similar patterns in other states and interpreting these observations within the context of geographical scale. Finally, the discovery of this research generated the question of relative position of core-periphery, and how this is affected of the absolute location of this duality – this is explored in Chapter 4

Questions of scale are fundamental to geographical research, which can be undertaken from the very small local scale to the very large global scale. In its simplest form, scale refers to the relationship between distance on the earth's surface and distance on a map, or cartographic scale. However, scale refers also to the scope of geographical research, and may be related only tangentially to distances on the ground.

Because the concept of scale as used in geographical research does not always imply a direct correspondence between distances portrayed on maps and distances measured on the ground, scale must be linked to space. Van Schendel (2002) identified three conceptions of space including physical space, symbolic space, and institutional space. What are the associations between scale and space? These associations are affected by how space is organized, and in particular by the presence of international boundaries that can separate spaces. Formal organization of space can limit the scope of research because it can create geographical compartmentalization. As van Schendel (2202, p. 658-659) put it, "Geographical compartmentalisation has become a drawback" and that "...theorists of scale have so far focused their attention overwhelmingly on the role of capitalist production and the state in the construction of scale."

Certainly, the state cannot be ignored in geographical research. All of the inhabited portions of the earth's surface are divided into states that are separated by boundaries. Each state contains territory, and states cannot exist without territory. Elden elaborated the historical transformation of the meaning of "territory" from being derived from the Latin word *territorium*, or the land surrounding a city or town. However, the meaning of "territory" evolved from ancient times until the Enlightenment, by which time the concept of sovereign states containing territories separated by clearly delineated boundaries had become established firmly within the Western world (Elden, 2013). Consequently, territory and the state were intertwined firmly.

There are two confusing notions regarding scale theorization. When geographical research involves human activity, it is recognized that scale is a construct that goes beyond cartographic ratios. Yet it is often unclear in geographical research whether scale is constructed by the researcher or is socially constructed. In many studies, the question of scale and its relationship to social construction is only implicit and not always clear.

Geographical research addresses questions of how and why processes operate in certain places, how their operations impact places and people within these places, and relationship to other people and places. However, some conceptualizations of scale are used to define, position, clarify and discover processes in abstract spaces without reference to specific places in which these processes operate. Often, this lack of consideration for places steers research to the level of the nation-state with states as the main producers of these spaces. The contemporary development of the territory concept that links territory to land and terrain suggests that researchers whose focus is on the state might try also to see these territories as places (Elden, 2010, Sassen, 2013). In contemporary geographic thought, while states or parts of states have clear boundaries, places do not. Geographical research need revitalization of the observational and operational scales. In this paper, I follow the rationale and justification of this revitalization with examples taken from Zomia, which is a sizable area in the mountains in southeastern Asia bisected by many international borders and with relatively sparse but diverse populations (van Schendel, 2002; Scott, 2009).

Scale construction and state spaces

Historically, geographical research has been based on four conceptualizations of scale: cartographic scale, scale of resolution, observational scale, and operational scale (Lam and Quanttochi, 1992; Turner et al, 1989). For Lam and Quanttochi, cartographic scale refers to the direct ratio of distance on a map to distance on the ground. Scale of resolution refers to the degree to which whether particular phenomena can be observed on the earth's surface. Observational scale refers to the spatial extent of a study, while operational scale refers to the spatial extent of a phenomenon being studied. These two types of scale are not necessarily associated with cartographic scale.

Also, scale was historically conceptualized by researchers uncritically as cartographic scale. As Jones et al. (2017, p. 2) pointed out, "Like several other concepts of space, scale was long entangled in Euclidean geographies. It assumed a natural character through its utility as a conventional cartographic metric. But in the late 1970s, space, place, and, shortly thereafter, scale, became caught up in the force fields of relationality, dialectics, and constructivism." Within this context and considering relationships between scale and uneven development, Smith (1982) defined three levels of scale: the urban scale, the global scale, and the nation-state scale. These scales are connected only very loosely to cartographic scale. The urban scale refers to lived experience, involving relationships between labor and capital at the individual level. Of course, the word "urban" should not be taken literally. In rural societies such as those of highland Southeast Asia, there are few cities and the majority of people live in small, isolated villages. In such cases, local may refer to the village itself and those places nearby from which a villager is able to walk. As will be seen, globalization has had the effect of reducing this isolation, redefining what is meant by the local in these villages.

The global scale "is produced through capitalism's permanent search for new markets" (Jones et al. 2017, p. 140). Smith linked the global scale with the role played by capital in globalization. In his words, capital "appears to have emphasized the possibilities for accumulation rather than consumption. As a result, the geographical differentiation of the world according to the value of labor power is replicated in a pronounced international division of labor and systematic differentiation between developed and underdeveloped areas" (Smith 2008, p. 188, quoted by Jones et al. (2017, p. 140)).

Geographically, the nation-state scale is situated between the very small local scale and the very large global scale. However, Smith described this scale as more political than economic in that capital operates within the context of states whose borders have been imposed on the landscape. In other words, state institutions can constrain capital. However, Agnew (1994) warned that researchers basing their studies on this scale risk falling into what he called the "territorial trap." On this view, analyses of relationships between places at the nation-state scale become dependent on existing territorial definitions of nationstates.

The problem of the territorial trip is exacerbated by the fact that data upon which researchers must rely are collected and disseminated by individual states. As well, definitions and categories of such data are defined differently in different states and are collected at different times, making cross-state comparison difficult. Shah (2012) discussed attempts of researchers to not be

state-centric and to avoid the territorial trap, but the focus on state is deeply rooted. For example, Brenner (1999) referred to sub-national and supra-national scales, and he clearly makes the national scale a point of reference in his article about globalization.

The problematics associated with current and predominant uses of scale in geographical research occurs because construction of scale is needed in exploring the question of what something is, but fails to explain where it is. Such studies can lose their geographical significance. Geographical perspectives contribute to research especially when such research is not delineated by international state borders. In other words, recognizing this problem with 'construction of scale' allows researchers to avoid the "territorial trap," or a fixation with basing analysis on differences between states.

This is important in positioning research from the state as a focal point and the consequences of the involvement of "global" because it involves the vague "local" as an opposite. The binary global-local self-reinforces in that the global and the local "each derives meaning from one another" (Gibson-Graham, 2002, p. 30).

The work of Smith, Agnew, and others encouraged scholars to analyze and discuss concepts of scale and their meanings in geographical research in more abstract terms (Brenner, 1999, 2001; Cox, 1998; Howitt, 1998, 2002; Marston, 2000; Swyngedouw, 1997). Building upon this literature, Sheppard & McMaster (2004, p.262) suggested the addition of a fifth type of scale that they

called 'construction of scale' in order to incorporate the dynamics of societal and environmental processes. This approach to scale is not fixed over time and, in contrast to the other conceptions of scale, is not hierarchical. Whereas cartographic, resolution, operational, and observational scales are independent of time, 'construction of scale' is dynamic and therefore not timeless.

As indicated earlier, observational scale is related to the spatial extent of a study, whereas the operational scale is related to the spatial extent at which a particular phenomenon operates (Lam & Quattochi, 1992, p. 89). Marston (2000, p. 220) combined observational and operational scales into what she called observational scale and assigned the vacant operational scale as "level of operation of certain processes." However, collapsing observational and operational scale overlooks the interconnection between the spatial extent of a study and the spatial extent at which phenomena under observation operate. For example, a study of a local place, or what Smith calls the "urban scale," may allow the researcher to draw inferences about processes taking place nationally or globally.

Putting it all together

Geographers have long been concerned about the identification, description and analysis of places and regions at various operational and observational scales. What constitutes a region? And how can this conceptualization of regions be linked with scale? Van Schendel (2002) identified three criteria that an area must include in order to be considered a

region: physical space, symbolic space and institutional space. Physical space is connected with land, terrain, physical landscape, and with the physical environment in general. Symbolic space is an abstract space. Even though it would be difficult to be specified who makes it or assumes it exist, for the scope in this article the symbolic space will be considered as made by the researcher. In contrast to the physical space that can be seen, symbolic space is imagined. Hence, the symbolic space is an outcome from the epistemology of the research, and it is strongly correlated with the research approaches and techniques relevant to the scope of the research. Institutional space is result of the structures of the societies' connections, including the networks in the academia. This space imposes limitations and frames the researcher to operate within networks limited by established connections between limited numbers of universities and institutions. A researcher from a state in Southeast Asia will have, for example, resources, access to network, and familiarity with the environment that often will confine the research within the state, or will limit the expansion of the research only to the neighboring state.

Physical space as defined by van Schendel is related to the observational and the operational scales but not with "construction of scale" scale which as defined by Sheppard and McMaster (2004). Symbolic space and institutional space operate with all three scales, but has weaker connections with the observational scale; certainly, an observational scale could be identified in the symbolic and institutional spaces, but the questionable relevance and importance

for this connection to the research makes these links weak. Normally, institutional and symbolic spaces match, but the former is created, recognized, or used by the researcher, and the later confines and imposes limitations to the researcher.

The three scales are needed in different stages of geographical research because observational scale, operational scale, and 'construction of scale' function independently only in limited aspects of the research (Figure 3.1). None of them is sufficient to define, alter, accommodate, facilitate, and validate the research. Observational scale gives us the spatial extent of the area where the study is conducted and where the observations are made. Operational scale comes from the research findings, and it may or may not coincide with observational scale. When they do not match one another, a discussion of why they differ proves vital. Thus, construction of scale is part of the development of the research. We therefore propose that the observational and operational scales be revitalized instead being obscured through inclusion in the general scale theorization. Operational and observational scales have different purposes than construction of scale, and they also operate independently from construction of scale because they provide context for the research, clarify the outcome, and they also confirm and validate the research. We illustrate these points using the examples from Zomia.

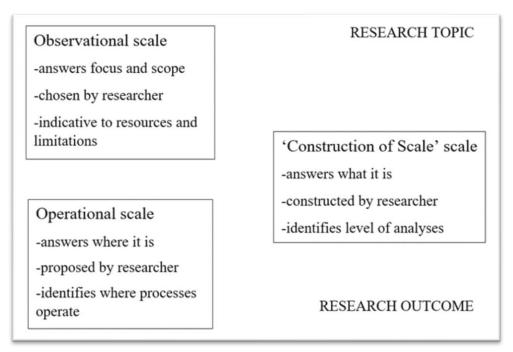


Figure 3.1 *The scales and their functioning and purposes in relations to the research topic and the research outcome*

Zomia and the Construction of Scale

Zomia includes the highlands of mainland Southeast Asia extending from Vietnam northward and westward as far as southern China and northeastern India (Figure 3.2). It covers an area of nearly a million square kilometers, and its population has been estimated about between 80 and 100 million (Scott 2009).



Figure 3.2 Zomia. Dashed lines are the international borderlines. The big dot represents Kengtung, which is discussed later in this paper. Source: Adapted from van Schendel (2002) and Scott (2009).

The term Zomia was coined by Van Schendel (2002) to designate this area whose cultures and economies are distinctly different from those of lowland areas of the states within which Zomia is located, including India, China, Myanmar, Thailand, Laos, and Vietnam. The word "Zomia" is derived from Mon-Khmer languages, in which the word "zomi" refers to "a hill dweller" or "a mountain dweller." This area has rugged terrain and is characterized by much more ethnic and cultural diversity than is the case with nearby lowlands. Ethnic and cultural diversity in Zomia even today is the result of historically limited accessibility over this vast territory, the long distances, and a physical environment not well suited to paddy rice cultivation (which has been the source of the main staple food of the lowlands).

Van Schendel (2002) argued that Zomia has distinctiveness as a physical space, but that it does not meet the criteria to be a symbolic space or an institutional space. To illustrate this point, he gave the example of four rural villages located within eighty kilometers of one another near where India, Myanmar and China meet. One of these villages is located in Tibet, one in the Chinese province of Yunnan, one in Myanmar, and one in India. Many geographers regard China as part of East Asia, Myanmar as part of Southeast Asia, and India as part of South Asia, and some regard Tibet as part of Central Asia. Thus, they would analyze each village as part of its respective region, although the area in which China, India and Myanmar come together is clearly part of Zomia as described by van Schendel. Van Schendel argued that Zomia has not been treated as a region by scholars because of methodological developments in the social sciences as they evolved during the late twentieth century, and which tend to privilege the state as the primary unit of analysis. In his words, "[Zomia] is a physical space but not a symbolic space [that is] hard or impossible to be studied with the current methodology techniques in the social sciences, and neither an institutional space [because it contains] many geopolitical boundaries" (van Schendel 2002, p. 653-654).

Thus, to van Schendel, a key reason that Zomia has not been treated as a region is because it is crossed by international borders that are often used by scholars to delineate regions. These borders prevent Zomia from being an institutional space because its territory is separated by boundaries, and it is not a symbolic space because these boundaries cut across places in which various cultural groups live, thus affecting the identities of its residents. Warr and Sidaway (2003) acknowledged van Schendel's concern regarding the geographical compartmentalization of the physical space that he had identified as Zomia:

Van Schendel's notion of 'Zomia', an invented 'region' that straddles four 'apparently objective visualizations' of 'present regional heartlands' – namely, 'Central', 'East', 'South' and 'Southeast' Asia – reveals much about the absurdity and rigidities of fixed geopolitical divisions of the world into 'areas' that become the focus of scholarly attention, studied largely from the perspective of 'national cores' and dominant powers. (p. 3)

Scott (2009) described Zomia as a place whose people have rejected being controlled by larger lowland states. According to Scott, Zomia has historically been a place of refuge to which people retreated to evade control from kingdoms and empires based in the more densely populated lowlands. The lowland kingdoms contained dense populations that lived in agricultural societies that functioned by practicing paddy-rice cultivation, which could support much larger populations than could mountainous environments. Because the prosperity of these kingdoms depended on numbers of people under their control, their

rulers had incentives to attempt to make raids into Zomia in order to enslave, conscript, and tax its inhabitants. However, these attempts often failed because of local resistance, and lowland kingdoms tended to leave Zomia alone given that the costs of trying to control it outweighed the value of taxing or enslaving its sparse populations. Scott noted that Zomia is fast disappearing since midtwentieth century, because globalization, modern transportation, and modern communications technology have rendered the area far less isolated from the outside world than had been the case historically.

To Scott Zomia is more than a physical space; rather, it is also a symbolic space defined on the basis of cultures, economies, and activities that can be observed within this area, both historically and today. And, although van Schendel described Zomia as a distinctive physical space, his example of the four Asian villages exemplifies the subjectivity of the symbolic construction of regions. Their common characteristics make them all part of the symbolic space that Scott has described as Zomia. In other words, van Schendel discussed what Zomia is and where it is, and Scott refocused Zomia to how and why it is distinct from the states and their currently predominant social organizations. From the point of view of the history of science this shift from what and where to why might explain higher levels of interest on the part of more recent scholars who have written about Zomia after Scott's work was published.

Jonsson (2010) expressed concern that the mountain-lowland divide identified by Scott overlooks local historical contexts. As he wrote, "The upland–

lowland divide is fundamentally ambiguous. In many ways it facilitated the relations that it categorically denied. Any assertion of identity is a political project, but its politics may be quite complex" (Jonsson, 2010, p. 203). Jonsson questioned Scott's emphasis on conflict between Zomia dwellers and the state, arguing that many relationships between highlanders and lowlanders were more complex and the emphasis on conflict rather than on ignoring cooperation (see also Baird, 2013) is misleading. Jonsson cautions that Scott's view of the conflict relationships can encourage interference from outside Southeast Asia, for example actions from powerful states or international organizations toward liberation of presumably oppressed minorities struggling for recognition (Jonsson, 2012). More generally, Michaud (2017) pointed out the complexity of understanding Zomia above and beyond historical conflict between highlands and lowlands.

Jonsson's critique of Scott's work highlights the importance of scale in understanding Zomia, in that the impact of powerful states and international organizations on local minorities varies considerably throughout Zomia. This reveals a paradox. As a physical space, Zomia is noted for its diversity. However, its identity as a distinct region is hampered by the international borders that create and define different institutional spaces (van Schendel, 2002).

Scott's conceptualization positions many studies to be located in Zomia, without being *about* Zomia, because of the obstacles van Schendel discussed. For example, Sturgeon (2004) and Turner (2010) discussed ethnic minorities living

near international boundaries within Zomia and how this proximity to the boundaries affects their lives. Their research could be positioned in the border studies, specifically cross-border informal trade on small local level, and also the researchers applied contemporary perspectives on borders as concepts (Newman, 2003, 2006; Newman and Paasi, 1998; Paasi, 1999, 2014), by elaborating specifically how boundaries affect local social relationships, and the difficulties associated with efforts on the part of nation-states to control areas within their borders. These researches reveal the problems in border studies as components of broader issues regarding categorization and spatiality of geographical concepts (Jones, 2009, 2010; Schaffer et al, 2010). Studies such as those by Sturgeon and Turner have location, but limited spatiality, neither do they necessarily illustrate the findings' applicability outside their observational scales on a village level.

When places are analyzed at large scales, local characteristics of places and variations within them are often overlooked. For example, Zomia is often regarded as a homogeneous region despite its ethnic diversity, but it contains numerous densely populated small regions whose economies and demographics are atypical of Zomia as a whole. Some such places were centers of principalities in the past and do not display Zomian characteristics despite being located within the area that van Schendel and Scott regard as Zomia (Winichakul, 1994). This illustrates the relevance of observational and operational scales related to the research in that the scale of analysis can limit the applicability of the research. Conclusions drawn from research at a very small scale may not be applicable at a large scale, and vice versa. For example, Sturgeon (2004) did research in two

villages one in China and the other in Thailand both near the border with Myanmar, and Turner (2010) observed the impact of a small section of the international border between China and Vietnam on small communities living in close proximity.

Other studies focus on the state itself and how state structures influence large areas and cultural groups within Zomia. For example, South (2007) discussed nationalism among the Karen, who live near the boundary between Myanmar and Thailand. In contrast to Sturgeon, the large scale of South's work makes it impossible to incorporate physical space into his analysis. In general, studies undertaken at small and middle observational and operational scales provide insights that allow linkages between physical, symbolic, and institutional spaces and such studies facilitate development of conclusions that can put the places under study into larger regional and global context. This point is illustrated by the example of the Kengtung Valley in Myanmar.

The confusion Zomia generated could be minimized through research focused on fractals. Fractals stands for the pattern being preserved in different scales, similarly on observance of the same pattern of a material's structure even after a microscope is zoomed-in or zoomed out. In Zomia this pattern is the ethnic diversity. More specifically, the questions fractals generate are why fractals in some locales of Zomia still exist, and hypothesizing their historical extent. These questions would have high relevance in discussions about Zomia from Scott's (2009) perspective. Also, fractals need to be part of the geographical

scale of resolution, and can bring a discussion of the relevance of the resolution in human geography. The fractals in Kengtung Valley area are discussed later in this chapter.

Scale and Zomia, Kengtung Valley

The Kengtung Valley is located in the eastern part of Shan State in eastern Myanmar. It is surrounded by mountains and is roughly equidistant from the densely-populated valleys of the Irrawaddy River to the west, the Chao Phraya River to the south, and the Mekong River to the east. On a large-scale map, the Kengtung Valley appears to be part of Zomia, undifferentiated from the rest of this large region. At a smaller scale, however, the valley is a distinctive physical and symbolic space within Zomia (Figure 3.3).

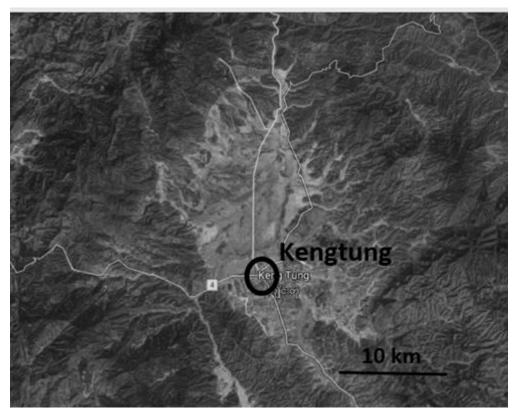


Figure 3.3 Kengtung Valley Source: Google Maps

The valley is only about 150 square kilometers in land area. Its relatively flat terrain supports wet-rice cultivation, allowing population densities that are much higher than are those in the surrounding mountains. The valley and the area surrounding it are dominated by the city of Kengtung, which is the largest city in the eastern part of Shan State with a current population estimated at 150,000. Kengtung is the administrative center for the Myanmar government in this part of the state. Most of the inhabitants of Kengtung and the Kengtung Valley are Tai-Khun people whose language is related closely to the Thai and Lao languages.

The small valley is surrounded by mountains in which people live in isolated, small, and temporary villages. These villages are inhabited by diverse

cultural groups including the Lahu-Shi, Lahu-Na, Akha, An, Palaung, and Wa. These villages typically contain 20 to 30 houses, tend to be self-sufficient, rely on slash-and-burn cultivation, and are characterized by relatively little social and economic differentiation within their villages. People in many of these villages speak distinct languages unrelated to the Tai-Khun language. For example, the Lahu-Shi and Lahu-Na people speak Lahu, which is part of the Sino-Tibetan language family that is unrelated to the Tai-Kadai language family that includes Thai and Lao. These villages appear to have changed only little for centuries, although some are located less than twenty kilometers from the center of Kengtung.

As indicated earlier, Zomia is known for its ethnic diversity. However, the degree to which diversity can be observed varies in accordance with geographical scale. At a very large scale (small cartographic scale), Zomia as conceptualized by van Schendel (2002) and Scott (2009) is recognized as far more diverse than is the case with lowland Southeast Asia. For example, the large majority of people living in the Irrawaddy Valley lowlands of Myanmar are ethnic Burmans who speak the Burmese language and practice Buddhism. However, the highlands are characterized by much more ethnic, linguistic, and religious diversity.

At this geographical scale, it is impossible to identify distinctions between places within Zomia. Working at that scale, van Schendel and Scott did not work to identify these local distinctions. Rather, they tended to treat Zomia as

a homogeneous region. Identifying local differences requires analysis at a much smaller scale (larger cartographic scale). As indicated in the previous chapter, some villagers living in the mountains near the Kengtung Valley are Buddhists, some are Christians, and some are animists. Even villages located only a few kilometers from what another are inhabited by people who speak different languages and practice different religions. The fractals' pattern suggests the mobility of the ethnic groups on village level in search of new locales for agriculture. The resulting mosaic suggests a single village as being self-sufficient and no need of close interactions on supra-village level. In Kengtung Valley examples, many of the villages are close to the valley, presumably for convenience and ease of access. Seemingly, the villages need the City of Kengtung more than one-another. In the past, the villages were far more isolated from Kengtung than is the case today, now that many villagers have cell phones and motor scooters facilitating access to the city. Although accessibility is much improved throughout the area, people in each village interact with Kengtung but generally interact little with residents of other nearby village. The question is how historical is this relationship, and what is its temporal dynamics.

Secondly, if the main reason of the fractals is slash-and-burn agriculture – then then we have the conflicting co-existence of capitalistic means of production parallel with a way of life from the Neolithic age before the development of the cities, city-states, and the kingdoms. The fractals imply the absence of ethnic homogenization. This hinders the attempt of the state to negotiate easily with an ethnic group as a whole because this group is very spatially fragmented and

spatially changing as villagers relocate in accordance with the patterns of slashand burn agriculture. This can be analyzed as both contemporary and historical.

On different geographic scales, the scope of research and the analyses need the introduction of fractals, eventually involvement of the scale of resolution, and challenging the relationship between the observational operational scales' set with the scales as size and level. The fractals are also needed for further discussions of Scott's Zomia.

In effect, the relationships between the Kengtung Valley and its surrounding mountains replicate the relationships between the lowlands of Southeast Asia and the highlands that comprise Zomia at a much smaller scale. On a small scale, the history of the Kengtung Valley and the surrounding area parallels the historical relationships between cultures in the Irrawaddy River valley and those within the surrounding mountains of Burma, or present-day Myanmar. The valley dominated the local region, trying to control non-Shan people in the nearby mountains. However, the valley's kingdoms were small, and they paid tribute to larger kingdoms and empires based in the larger valleys of Zomia.

Scott (2009) has pointed out that Zomia as a symbolic space is disappearing because of pressures associated with globalization. Such is the case in the Kengtung Valley at a smaller scale. Mountain villages are connected much more closely to the valley and to Kengtung itself than was the case historically. Cell phone service covers the area. Some of the villagers do own motorcycles or

motorized scooters upon which they can reach the city markets of Kengtung in an hour, whereas as recently as fifty years ago a journey from a mountain village to Kengtung might have taken as long as two or three days on foot along unpaved and often treacherous and slippery mountain trails and footpaths. Travel by motorcycle or scooter from the villages to Kengtung is facilitated by the fact that the city is located along a paved, heavily traveled, all-weather road that connects Thailand to the south, with China to the north and facilitates trade and motor vehicle traffic throughout the region.

Increased accessibility has also allowed mountain villages to become less self-sufficient and less dependent on slash-and-burn agriculture. Trade opportunities allow villagers to grow food and produce handicrafts and other items for sale at the Kengtung city market, where they can also purchase lowland agricultural products, manufactured goods, cell phones, and other items. Tools, household items, clothes, shoes, and other goods are purchased from vendors or in shops rather than produced within the villages from locally available materials. Thus, globalization facilitates the integration of the region surrounding the Kengtung Valley with Kengtung itself. Similarly, it has diminished Zomia as a whole.

The example of the Kengtung Valley illustrates that at a smaller scale, Zomia is not only diverse but also "perforated" with many small valleys that at a local scale are non-Zomian spaces. The relationships between these small valleys and their nearby mountains parallels relationships between lowlands and Zomia

at a large scale. However, within a large scale these valleys are part of Zomia. Although the Tai-Khun people dominate the Kengtung Valley, they are a minority within Myanmar in which more than 60 percent of the population are ethnic Burmans who speak Burmese. Thus, changing the resolution not only allows better precision, but also reveals hidden realities. On a larger scale, only the relationship between Kengtung Valley and the rest of Myanmar and nearby Thailand and China can be revealed, but distinctions within the Kengtung Valley region can be identified at a smaller scale. Hence, the study of everyday life and practices in Zomia require observation of the study area at relatively small scales of observation and careful interpolation of where the processes operate. This case study illustrates the importance of both the observational and the operational scale, because in the case of Zomia absolute and relative distances and landscape features are critical for understanding these relationships among different societies in close proximity to one another.

Conclusion

Zomia on large scale obscures relationships that can be identified at a smaller scale. In the case of Zomia, resolution matters; in many other places smaller observational scale just enables a clearer and focused view of things also seen on a bigger scale, but in Zomia smaller scale reveals different things invisible on bigger scale. Observations on large scale treats Zomia as a homogenous region by focusing on separation between Zomia and non-Zomia. These observations can imply also that Zomia is empty. However, the reality is

different because Zomia represented on large scale does not show the many small valleys within Zomia. A more precise smaller-scale map, which triggers the related topic of resolution strongly connected to the scale's size, will have much more fault lines around these valleys and will change the misleading perception that most of Zomia is a vast emptiness as implied if the area is only schematically shown located within southeastern Asia.

Operational and observational scales are centripetal forces to geography in that they are associated with well-pronounced spatiality. I see them as complementary constructs rather than opposing constructs of construction of scale. They are connected also with two other well-defined scales in geography – cartographic scale and the scale of resolution. Discussions regarding the distinctions among observational, operational and construction of scale is necessary, because this will help the discipline to proceed with scale theorizing and will help further exploration of Elden's (2010) proposal that territory should be understood not through territoriality, but by analyzing its differentiation from land and terrain. Elden's approach brings the opportunity of incorporating regional studies back into geographical research. Examining places such as Zomia at different geographical scales and Elden's view of territory provides the opportunity for much more integrative analysis. With the help of the distinctions among observational scale, operational scale, and 'construction of scale, we suggest that geographic thought needs to elaborate upon the territory territoriality distinction and how both concepts can be positioned in either symbolic and institutional spaces

The implication of choosing different observational scales in the case of Zomia, not only effects the easiness of research regional issues, but also could eventually affect the outcome. In other words, different observational scale and consequently different operational scales leads to different understanding on the same observed phenomenon. Here is the contribution to the geographical research - to offer a nuanced view, because these scales enable tools for a better understanding of the phenomenon. One of these tools is the scale, but the "construction of scale" is more broadly applicable across the social sciences. The observational and operational scales have a stronger connection to the physical environment and are more connected to geographical research. Also, the ignorance of fractals, diminishes the scale as resolution as relevant in geographical research, and fractals are needed for analyses of the relationship between societies of different developmental stages, and the importance of the locale and the physical characteristics of this locale in order to preserve the fractals. Finally, a discussion between fractals, and population density should not be ignored, specifically a rapid population increase.

Kengtung Valley, as mentioned above, is the center surrounded by the periphery in the nearby mountain ridges. On a larger scale the peripheral Zomia is surrounded by the developed and populous plains that functioned as a center. This is similar to many islands with their developed coastal plains encircling the underdeveloped and less populous mountainous interiors. These islands are much smaller than Zomia. They also do not have (with a few exceptions) international borders. A study of these islands with a Zomia-like cultural environment will be

a further elaboration of scale hypothesizing presented in this chapter, and also will observe the question of the impact of the international borders on the frontier areas. As revealed in Chapter 2, borders generate economic activities that also affect the much larger frontier area behind them. The absence of international borders in Zomia-like islands' interiors will provide a valuable comparison and better understanding of the topics discussed in this and the previous chapter. Also, the presence of the seas and the oceans easily connect distant locales from other parts of the world and that will bring globalization into consideration.

CHAPTER 4: Interiors of the Islands

During a trip to the Philippines in 2015, I visited the interior regions of the islands of Luzon and Mindoro. Both of these areas are highly isolated from the coastal regions of these islands. Luzon contains the city of Manila, which is the primary city of the entire country. In the northern part of the island, however, Cagayan Valley is highly isolated. Although this valley is located less than 300 kilometers from Manila, it is surrounded by rugged mountains, and the region can be reached by paved road in only two locations.

The mountains near the Cagayan Valley are even more isolated. In my field trip, I visited the village of Balatoc. Travelers and residents can reach Balatoc only after a four-hour trip by jeepney or small bus with wooden benches upon which passengers sit. Much of the road is unpaved, and only one jeepney per day makes the journey. Upon alighting from the vehicle, one must walk from the road across a narrow suspension bridge over the Pasil River. The only way to cross the bridge is on foot. Then, one must climb over a thousand steps uphill to reach the village. Thus, I learned that Balatoc is very isolated and largely selfsufficient.

The island of Mindoro is much smaller than Luzon, but its interior is even more isolated than is the interior of Luzon. Several cities and many more towns can be found on the coast of Mindoro, and they are connected with one-another only by roads along the coast. While visiting Mindoro, I journeyed from the town

of Mansalay on the southeast coast to the city of San Jose on the southwest cost through the interior. Although Mansalay and San Jose are separated by less than fifty kilometers in a straight line, it took me four days to make this journey and for much of the way I was only able to travel by foot. After arriving in San Jose, my guides and I realized that we may have been the first persons to make this journey across the interior of Mindoro in as many as twenty years.

What accounts for this well pronounced isolation in Luzon and Mindoro? Van Schendel (2002) and Scott (2009) developed the concept of Zomia. The term Zomia refers to isolated highland areas on the peninsular Southeast Asia and extending northward and westward to southern China and eastward to Northeast India. The area is crossed by international borderlines separating various states of Southeast Asia. These borders impact a Zomia in two opposing ways; they reinforce the isolation and they contribute to the Zomia's resistance to the state authority, and simultaneously generate local activities such as trans-border trade. The borders in Zomia also interest the state in incorporating its portion of Zomia for geopolitical reasons, such as security and economic initiatives as exemplified with trans-border cooperation.

The islands of Luzon and Mindoro are much smaller and are not crossed by international borderlines. Yet their interiors are much more isolated and peripheral than are places in Zomia on the mainland. What accounts for these differences, and how can these differences be linked to theories of core-periphery

relationship and posed in a discussion regarding the borders' impact in nearby rural and peripheral areas?

In this chapter, to a certain extent, I follow the article by Van Schendel (2002), which is a discussion of problems in area studies by observation and analysis of Zomia - a continuous area in the mountains in southeastern Asia that with all of its visual distinctiveness is not considered or recognized as a separate region. He identified the reasons rooted in the systematics currently used in social studies and in the presence of the international borders; he also considered that recent developments in scale theorizing, as well as the attention on flows, could help toward solving problems in the regional and area studies. However, the analysis of Zomia is not explored in depth as a periphery in a broader meaning instead of just an outlier of the state. The impact of international borders is controversial, and the discussion of Zomia as part of the world system is missing. In this chapter, I explore the interiors of islands to investigate defining rural and isolated areas from a geographical perspective, and this study reflects field research observations in these two places in the Philippines.

Building upon van Schendel's (2002) problematics, I discuss similar problems in geographical research. The contemporary tendencies in geography favor state-oriented and state-centered research, including border studies, and the development of constructs of space and scale reflect this. The key for geographical concept of place, however, is hard to be accommodated in the contemporary geographical thought and this reflects the difficulty geography has

contributing to the problematics in area and regional studies. My view of geography as associated with the difference between places leads this research to focus on non-adjacent places, with their detachment from the world economy through their weak connections to other places near and far away, and limited accessibility. In other words, these places are to a large extent self-sufficient and isolated, and I will explore how this isolation can be related to constructs such as borderlands, frontiers, and peripheries. I will also consider the observation of these places as peripheries with attachment to different cores. This will involve different scales of analysis in addition to the observation of scale as size. The involvement of islands allows involvement of study locations that are part of bigger areas limited by physical boundaries instead, as is often in many cases, by artificial and often arbitrary political border lines. As result this study will also contribute to the connection between the international political borders and the assumed borderlands by questioning the magnitude of this connection especially in the direction from the borders to the borderlands, and whether the borders make borderlands less integrated and economically connected with the state. Based on my observations in the islands, where the lack of borders can be associated with limited interest of the government and businesses in the islands' deep interiors, the opposite is true. As Sturgeon (2004), Lamb (2017), and others have observed, the borders bring economic activity and resources driven by both market forces and governmental approach driven by security and/or geostrategic reasons. Their presence also helps to structure the activities of various actors who use the borders for their own purposes, as is the case with warlords in control of

Special Region 4 on the border between Myanmar and China. Thus, my goal in undertaking research in the Philippines was to observe the extent to which such interaction took place on these islands in which international boundaries are lacking.

The field trip in the Philippines is similar to the ones in the previous two chapters. The main difference is my crossing Mindoro on foot. The physically demanding trekking was necessary in order for me to experience the accessibility and the difference between the relative and absolute distance Zomia-like environment. Also, I needed to observe the contrast between the coastal plains and the interior to further hypothesize the impact of globalization on the spatial differentiation.

Core and periphery

For decades, geographers, economists, and other social scientists have identified and analyzed core areas, peripheral areas, and relations between them. Although Wallerstein also called attention to the role of the semi-periphery in understanding core-periphery relationships, for purposes of this analysis I focus on cores and peripheries in larger context.

How have geographical relationships between cores and peripheries evolved over the course of history? The traditional model of core and periphery conceptualizes a central core surrounded by periphery. Throughout the world, however, as industry developed and as trade between societies increased, cores tended to gravitate away from the geometric centers of areas under a society's

control toward areas on the edge of society's control. This movement was associated with expanded trade opportunities. Port cities became core places, surrounded by inland peripheries. For example (Figure 4.1), the historic core areas of medieval Siam and Burma (present-day Thailand and Myanmar respectively) were located in the valleys of rivers that flow from mountainous interior toward the coast. Prior to arrival of European colonizers, the core areas of these societies were located inland in broad valleys. As such, the core of the traditional Burmese society was located near the present-day city of Mandalay, several hundred kilometers inland from the coast. Later, after European colonial powers began to show interest in these regions, core areas developed along the coast, facilitating trade. Bangkok in Thailand and Yangon in Myanmar are located close to the seacoast and are the core areas of these countries today, while the interior regions are sparsely populated, culturally diverse, and much less influenced by the global economy.

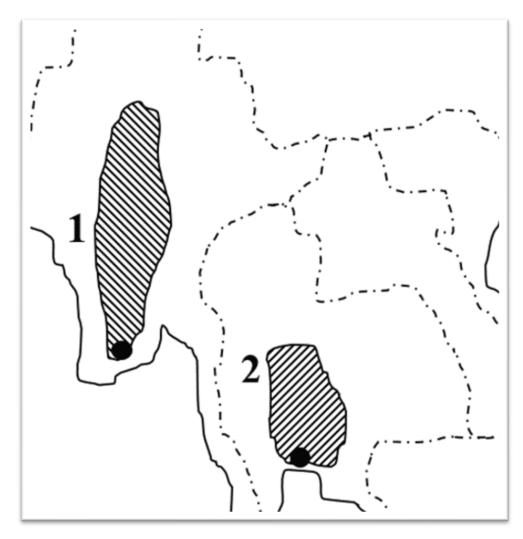


Figure 4.1 Core- periphery changes in Myanmar and Thailand. 1- Myanmar (Burma), 2- Thailand (Siam). Shaded areas are the historical cores, and black dots are the current much smaller cores.

This development is largely ignored in discussions of Zomia, but it brings the connection with the world systems, scale and geographical relationship of the positioning the core-periphery to the forefront of analysis. Conceptualization of the geographical relationships between cores and peripheries (Figure 4. 2) could aid in understanding the dynamics of their relationship. Traditional conceptualizations of core-periphery relationships place the core at the center surrounded by the periphery as in example A. Medieval Myanmar and Thailand had this core-periphery spatial relationship in the past and they are example A. this example is mostly historical, representing big states and empires based on agriculture, having limited connection and trade with similar political entities. Example A is also indicative of ancient Mesopotamia, medieval Russia, and the Aztec and Inca empires of the Western Hemisphere.

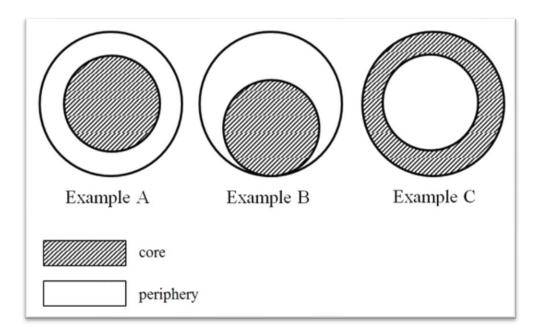


Figure 4.2 Core-periphery positioning to one-another

Currently, many more states, including present-day Thailand and Myanmar, are better described with Example B, which denotes a small core of localized and concentrated wealth located away from the geographical center. Most core areas are located on the geographic edges of states rather than in the center of these states, and often on seacoasts with flourishing international commerce and trade. In the ancient and medieval past, Example B was typical for much smaller states, or city-states, relied more on trade than on agriculture. Typical for Example B are Phoenician and Greek coastal cities, small monarchies along the Persian Gulf, some coastal-medieval Italian republics, and the cities of the Hansa league. Also, Example B represents the core-periphery relationship associated with modern sovereign states with economies well connected to the rest of the world.

However, the switch from Example A to Example B makes Zomia appear as an outer layer within a larger periphery. As a result, Zomia is surrounded by a less pronounced (higher economic development and better connected to the newer and smaller core of the state's capital), but still another periphery, located closer to the core. In other words, the agricultural core of the feudal state in the past is now a periphery in the modern capitalist state, and the present Zomia could be approached and defined either through its relationship with the new periphery, past core, or directly with the state as a whole. This can be conceptualized in terms of Wallerstein's distinctions between core, semiperiphery, and periphery. In Myanmar and Thailand, these inner peripheries are located in the Irrawaddy and Chao-Phraya river valleys respectively, upstream from the core areas near the coast. Wet paddy rice cultivation is practiced in these areas, supporting a relatively dense rural population. But the state itself has seen its economic and political power moved into the small coastal region spatially away from Zomia, with the buffer of the above mentioned newer periphery. This brings the question of scale as level (core, inner periphery, outer

periphery), size (comparison between the sizes of the core and periphery(s), and other scales that are constructs accommodating relationships between state and social and economic groups.

Van Schendel (2002) pointed out that scale theories developed to facilitate research focused on political economy and the state, and that these theories favor urban, national and global scales. However, this approach and theorization do not fit well in area studies. Van Schendel discussed the works of Brenner (1998, 1999) and Swyngedouw, (1997), that together with other scale theorists (Cox, 1998; Hewitt 1998, Marston, 2000), suggested the scale theorization was of questionable usefulness in area studies. This topic was not further explored, even though the problematics in area studies continued to be discussed (Gibson-Graham, 2004; Sidaway, 2013).

The remaining third possible schematic positioning of the core periphery is Example C (Figure 4.2), which describes the physical units of islands instead of the political units of states, as shown by Example A and Example B, as the core is populated narrow coastal plains in contrast to the isolated mountainous interior, which is a periphery but is located in the center parts of the islands. Example C is a negative image to Example A. Reasons for this arrangement include the elevation of the islands' interiors, their hospitable environments away from the coast, and the connections between coastal core areas and the rest of the world through the seas and oceans. Additionally, these island interiors may lack natural resources or other characteristics valuable to the core regions. If there are

Zomia-like places in islands' interiors, whether and how does the Example C arrangement of core periphery affect these places?

Also, the borderless landscape would help the analyses of the border's impact on Zomia. One feature of Zomia that van Schendel broadly discussed is the presence of international borderlines. He regarded them as problematic because they limit institutional spaces and consequently prevent Zomia from being seen as a region. Later in his article, however, he described the flows crossing the borders, emphasizing as typical for this area cross-border trade initiated by non-state agencies and also trade of goods prohibited by the state, for example opium. This suggests an exploration of an alternative and opposed view; the international borderlines that cross Zomia prevent the area's recognition as a region, but they are also the skeleton that forms and hold Zomia's distinctiveness.

Van Schendel describes Zomia as a borderland or at least sizable portions of it. Does being a borderland makes Zomia also a frontier? Zomia as periphery matches more specifically the notion of frontier than borderland. Even though an area could be both frontier and borderland, in most studies the frontiers either, do not have an international borderline nearby, nor is it discussed (Anderson, 1983; Careless, 1954; Gibson, 2011; Lines, 1991), and otherwise the frontier is political frontier (Newman, 2006). This is one of the reasons research conducted on the islands eliminated the possibility the frontier came to be viewed as a political frontier. And I want to further explore questions of scale and the effect of the

core-periphery's relative location one-to another. Islands suit well my researchtopic agenda.

Luzon

The Philippine Archipelago consists of two big islands with land areas of more than 100,000 km² each, eight smaller islands between 4,000 km² and 13,000 km², and approximately7,000 more islands of which about 2,000 are inhabited. The largest island in the Philippines is Luzon. Luzon is the fifteenth largest island in the world by land size, and also the fourth most populous. The Philippines' national capital city of Manila is the political and economic center of Luzon and of the entire country. Manila is located on the west coast of Luzon, and it is in the southern part of the state's second biggest but most fertile valley. Manila and the surrounding valley are separated from the southern, northern, and eastern parts of the island by rugged mountains.

The Cagayan Valley (Figure 4.3), which surrounds the longest river in the Philippines, trends south to north and is located between the Cordillera Central and the Sierra Madre Mountains. The river itself empties into the Pacific Ocean on the northern coast of Luzon. The Sierra Madre separates the valley from the largely uninhibited Pacific Coast. Cordillera Central isolates the valley from the coastal region of Ilocos, which was established during colonial times. The valley itself is accessible by road only from the north along the narrow coast, or through a pass in the mountains that separate it from the Central Luzon Plain and the capital of Manila. Cagayan Valley was regarded a frontier until recently

(Mercado, 2002), and it still has a frontier feeling. The valley was administrated by the Spanish colonizers to some extent and has developed production of tobacco (Pelzer, 1974). The main language is Ilocano which is spoken along with Tagalog, the official national language that originated from the Manila region.

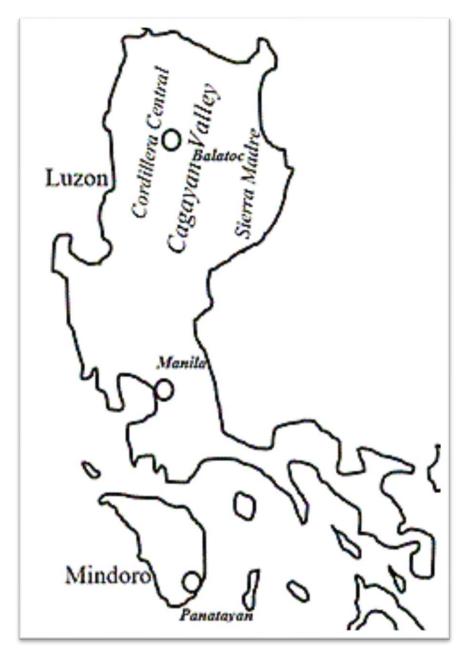


Figure 4.3. Islands of Luzon and Mindoro in Northern Philippines with the small villages of Balatoc and Panatayan where the research was conducted.

The map shows a little more from one-third of the Philippine Archipelago that expands nearly one thousand kilometers further to the south.

At the edge of the Cagayan Valley is the fast-growing city of Tabuk, the capital of the province of Kalinga, which is known as having cultures of violence. With a population of approximately 110,000, Tabuk is roughly comparable in size to Kengtung in Myanmar. Tabuk absorbs many migrants from the mountains of Cordillera Central, and this population retains its tribal structures in the city. Non-typical for the Philippines, all business close at sunset except for the bars, due to fights between residents originating from many places in different parts of the province. One of these places nestled deep in the Cordillera Central is Balatoc, which is a village within the barangay (municipality) of the same name.

Although the village is only thirty kilometers from Tabuk in a straight line, a trip by road from Tabuk to Balatoc is eighty kilometers and takes four hours by jeepney (a vehicle unique to the Philippines resembling a big truck with a covered bed that has benches along each side). The first two hours of the route is made on a paved road, which is passable by vans, but not buses because of the sharp curves on some places. The second half of the route is a gravel road (Figure 4.4) along the Pasil River. There is just one jeepney a day in each direction.

Inside the jeepney were mostly women and children, some men were on the roof. Only a few times the jeepney stopped to drop or pick passengers. Most

of the people went straight to Balatoc barangay After about four hours the jeep stopped and half of the people got out. They had to cross the river and to climb a steep hill to reach Balatoc (Figure 4.5). The village was invisible from the road, despite that it was only half a linear kilometer away. We slowly continued for another ten minutes to Batong Buhay.



Figure 4. 4 Half of the route to Balatoc and Batong Byhay on unpaved road. Author: Borislav Nikoltchev

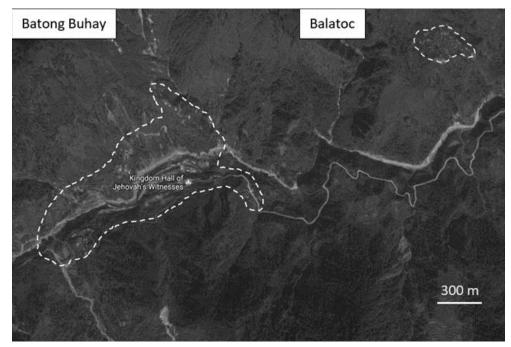


Figure 4.5 *The area of Balatoc (upper right) and Batong Buhay Source: Google Maps*

Batong Buhay (figure 4.6) is scattered and consisted of isolated neighborhoods around burned ruins of a plant next to the river. Locals remember a poly-metal processing plant that was attacked and damaged many times by rebels, and was finally abandoned after the rebels cut the electricity. Nowadays locals dig for gold in the area north of the river. This activity attracted outsiders, mostly males. People drink a lot of gin believing the gin "purifies" them and prevents lung diseases and damage and poisoning arising from the use of chemicals utilized to extract gold nuggets. Batong Buhay even has a bar that once a week arranges for women from Tabuk to be brought in to provide companionship to the lonely and single gold miners. Batong Buhay is seedy and has the dangerous feel of a lawless frontier.



Figure 4.6 Batong Buhay. Author: Borislav Nikoltchev

Batong Buhay is just a part of Balatoc Barangay. The main village of Balatoc is uphill (Figure 4.7) from the place where the jeep stopped first. From this stop, steps lead down to a metal suspension bridge that can be crossed only by foot. On the other side of the bridge, people must climb about 1,000 steps (Figure 4.5) to reach the village in which about half the people of the barangay live.



Figure 4.7 Shed for rest halfway uphill toward Balatoc. Author: Borislav Nikoltchev

Some villagers from both settlements obtain portions of their income from individual gold mining. This activity is more pronounced in Batong Buhay. The main economic activity, however is agriculture. South of the road from Tabuk to Balatoc Barangay there are two places with rice terraces, one for red rice and another for white rice. It is subsistence agriculture. The villagers are poor and their lunch is usually steamed rice with half or a third of a small can of tuna brought from a small grocery store for the equivalent of about 30 cents. The expensive journey to Tabuk is justified for transport of goods and supplies, and that is the reason that passengers carry a lot of cargo. Fellow villagers help oneanother carry the baggage between Balatoc and the road. As mentioned Balatoc and Batong Buhay are in Kalinga Province, and people identify with it. Stark and Skibo (2007) discuss this as a recent development resulting from creation of this province. Even the province's name, "kalinga" means "enemy" in the language of another mountain group, Bontoc, residing in the province further south. Also, Kalinga was much bigger until two decades ago before it was divided and another province, Apayao, was created out of its northern part. Before that the people in the region, according to Stark and Skibo, identified themselves by the watersheds in which they resided.

Balatoc and Batong Buhay are clearly a periphery as identified from the world-system theories (Wallerstein, 1974, Chase-Dunn & Hall, 1997) based on the capitalist means of production. Additionally, scale has its own problematics (Burns & Rudel, 2016) creating more obstacles in defining what constitutes an area. Together Balatoc and Batong Buhay are also a distinct place despite the fact that they belong to different scale levels in Kalinga Province, Cordillera Administrative Region, Luzon and the Philippines. These constructs may well serve administrative purposes and also, as Stark and Skibo pointed out, create changes of identity and belonging by artificially creating spaces from drawing lines on maps to carve provinces, but the example with Balatoc and Batong Buhay exemplifies the need of further work on scale and involvement of the periphery in broader sense. The biggest impression of Balatoc and Batong Buhay is how isolated they are. Many places throughout the area in peninsular Southeast Asia that van Schendel gave as example of being different because of longlasting isolation are more accessible in comparison. Even in isolated areas such

as Eastern Shan State in Myanmar, villages that have a centuries-old appearance are just one hour away by motorcycle from the market of the sizable city of Kengtung, compared to the four hours long, costly trip to Tabuk.

If we imagine an international borderline were to cross Luzon somewhere near the west of the Batong – Buhay / Balatoc area, the road might be further extended to the west and would lead to the now unreachable Ilocos region along the South China Sea. Heavy road traffic and support businesses will be present as a consequence of the international trade. The presence of the border might facilitate trafficking of wildlife, drugs, and other valuable commodities to other countries. Or, if for geostrategic reasons the state decides to seal the border, the road will still have a dead end at Batong Buhay, but the road will be paved all the way, and an army garrison in the area will bring people and support activities to the villages.

The socio-economic landscape of Luzon could be seen to a certain extent as present-day, van Schendel's Zomia from peninsular Southeast Asia in miniature. Balatoc is difficult to understand with the regional theories that work on a grander scale at a national level, where resources and international borders have critical role in the purpose, scope and the output of these theories. Balatoc is in Kalinga Province that is part of Cordillera Administrative Region. The Cagayan Valley with which it is connected best is located in another region for economic and statistical purposes. Regional studies in the Philippines (Akita & Pagulayan, 2013; Balisacan, Hill, & Piza, 2007), similar to those done elsewhere,

generate mostly applied research aimed at assessing the regional inequality. The research and assessments work using abstract political and economic spaces, but they do not consider smaller localities where people live their everyday lives.

Situations analogous to Scott's Zomia, may still exists in some places in Luzon. Yang (2012,) analyzed the relationship between the state of Philippines with the minority group of Bugkalot/Ilongot living in the Sierra Madre Mountains in by announcing that:

The Bugkalot/Ilongot were awarded the Certificate of Ancestral Domain Title (CADT) issued by the National Commission on Indigenous Peoples in a joyful celebration on February 24, 2006. The CADT is a contemporary assertion of indigenous peoples' ability to negotiate claims to land, livelihood, and autonomy within the nation-state. So far, however, the acquisition of the Bugkalot/Ilongot CADT has not made any substantial difference in the everyday lives of the people of Gingin, a settlement located at the heartland of the Bugkalot area. (p. 77)

Yang (2012) describes Bugkalot/Ilongot (typically for the Philippines a single group is identified with more than one name) as under pressure from newcomers such as Igorot Ifugao and Ilocano. Here is the difference with peninsular Southeast Asia –there the invaders would be Burmese, Thai, Lao, or Vietnamese – named after the state. In Yang's example the minority group in the area consists of people from different parts of Luzon: Ilocano are from one of the three coastal provinces of Ilocos, Ifugao is one of the provinces in Cordillera Central, and Igorot is a name given by outsiders to people living in Cordillera Central. These distinctions may help explain the prevalence of violence in Tabuk,

to which many persons from each of these have moved. Yang also applies Scott's historical concept of Zomia (2012, p. 80):

The Bugkalot have fiercely resisted incorporation into colonial states for several centuries. The agents of colonization have been various and diverse: ranging from the first military expeditions to the days of the mission outposts, from the American Bureau of Non-Christian Tribes to the present government of the Philippines. Until a few decades ago, the upland the Bugkalot occupied was a typical non-state space in Scott's definition: the population was sparsely settled, practiced slash-and-burn or shifting cultivation, maintained a mixed economy (including, for example, a reliance on forest products), and was highly mobile, thereby severely limiting the possibilities for reliable state appropriation (Scott 1995, 24–25; 1998, 186–187; 2009, 13).

Although there is no evidence that the ancestors of the Bugkalot escaped from a kingdom in Cagayan Valley, this section of the Sierra Madre might be described as a Zomia-like area in the Philippines. Can this section of Sierra Madre Mountains or the interior of Mindoro can be described as analogous to Scott's Zomia? To certain extent-yes, if we want to signify resistance and resilience of an ethnic minority to the state, although ethnic differences between residents of interior Luzon and the core areas of the island are insignificant. Are these two locales relevant to van Schendel's Zomia? I think they are not, not only because they are not in peninsular Southeast Asia, but also these locales are essentially too small, which brings back the question of scale as size.

This is probably the most important feature of Yang's study, that it is state-centric. Area studies' problematics with periphery, scale as size, are nonexistent in Yang' article, nor is an eventual linkage with the world system theories. I argue that Balatoc/Batong Buhay is a typical peripheral place, whereas the Bugkalot is an abstract construct build for analytical purposes to investigate politics and social justice developments between the government and certain minorities recognized by this government. And, more importantly, I would not interchange the Bugkalot as a group with Bugkalot as a locale. In my next field trip to the much smaller island of Mindoro, I found the interior of the island to resemble Scott's Zomia – the mountains there are inhabited by isolated communities of people whose ancestors until recently also resided in the coastal plain.

Mindoro

Much smaller Mindoro (Figure 4.3), the seventh largest island by land area in the Philippines, has a mountainous interior. The island is eleven times smaller than Luzon. With a population of about 1.3 million, Mindoro is forty times less populous than Luzon, with about a quarter of Luzon' population density of 500 people per km². At the closest point, the coast of Mindoro is roughly fifteen kilometers from the coast of Luzon, and the islands are separated by about thirty kilometers by ferry boat. Tourists from Manila, other parts of the Philippines, and overseas take these ferry boats to a cluster of beach resorts near the small town of Puerto Galera, which is located on the northern coast of the island and, is famous for scuba diving. There are many other towns along the coast and two cities with populations of more than 100,000, Calapan and San Jose. The interior of Mindoro is inhabited by people whose ancestors had been pushed away from the seashore plains by newcomers from much more heavily populated Luzon and the Visayas. Thus, Mindoro's history parallels that of Zomia as conceptualized by Scott although whether earlier residents of Mindoro move to the mountains deliberately to avoid being controlled by the newcomers is not known.

The village of Panaytayan in Mindoro (Figure 4.8) is a barangay in Mansalay municipality and it can be reached in about 20-30 minutes by motorcycle from the town of Mansalay on the coast. Tricycles and scooters cannot climb the steep gradient sections of the gravel road. There is no internet in the village. Also on the other side of the village, in the opposite direction from the coast, there is an isolated house where I saw a smith using technology that could be a thousand years old. One of the villagers said that he had once crossed the island to San Jose, the biggest city in Mindoro, more than two decades ago accompanying two foreigners. However, he felt too insecure to guide me only by himself and he asked another person to join him.

On the first day of our trek we reached a cluster of a few houses. Our guides confidently followed the right routes, although, the path was indistinguishable from many more that go to the fields. We did not meet other people after leaving Panaytayan village, even though there were small hamlets seen from a distance. The place we slept overnight is called Dagom.

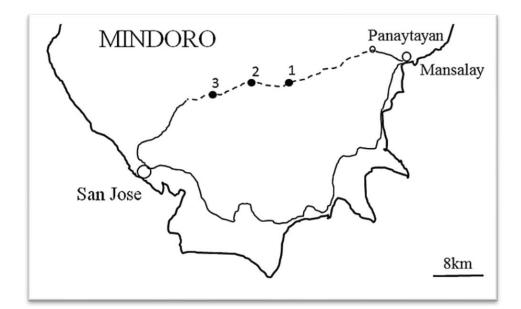


Figure 4.8 Southern Mindoro traverse. According to the guides, places we slept overnight were: 1-Dagom, 2-Kibay, 3- Tablingan. Dashed line is travel by foot

On the following morning after about one hour, we reached the Tunalo River, which we crossed more than a dozen times for at least one hour (Figure 4.9). After Dagon, we followed a few people, who knew when to cross the river. The only way to proceed was to be barefoot because of the mud. In contrast to the previous day, the two guides felt less confident about where we were heading, and there was a sense of sheer isolation stemming from being away from any other human beings. This feeling was deceptive because soon after the river we reached a cattle ranch with a modern structure building. Somebody, somehow, transported materials to this place, built this ranch, and hired people from the village of Liberty to work on this commercial farm. Two more hours were needed to reach the village of Liberty, which has at least two hundred people. Shortly after Liberty, late in the morning, it started raining. We got lost twice, even though the guides asked the few passersby who we met during the next few hours for directions. During the night, we slept in an isolated house consisting of one room lifted on posts – typical type of construction for the area. The house was much smaller than the one from the first night, and it did not have a fireplace inside. The household consisted of a young family with a small child. Raining nearly all of the time on the next day, we got lost again taking paths leading to isolated plots in the forests (Figure 4.10). The paths were so muddy and wet that we could only use them by going barefoot. After losing many hours, we finally arrived at a small village of ten to fifteen houses called Tablangan, which we reached thirty minutes after dark climbing down a rocky path using a flashlight.



Figure 4.9 *Tunalo River The picture is taken somewhere along the border between Western Mindoro and Eastern Mindoro. Author: Borislav Nikoltchev*



Figure 4.10 *Typical landscape along the route in Mindoro. Author: Borislav Nikoltchev*

The guides mentioned that, according to the villagers, there is a unit of the Philippines Army in the vicinity, looking for insurgents. However, we did not see any soldiers or insurgents. It took us about three hours the next day to reach the plains, and for the first time in three days, we saw motorcycles and shortly after that jeepneys. After another two hours walk along a gravel road in a flat valley we got on a tricycle and reached San Jose within 30 minutes, then a jeepney took us to Mansalay, and then back to Panaytayan. It appeared quite possible that our crew was the first one in decades to cross the island from coast to coast.

Mindoro's mountainous interior is very distinctive and isolated in comparison to the densely populated coastal plains. Mindoro is part of Administrative Region 4, which also includes part of Luzon and many islands, and one of them, Palawan, is as big as Mindoro. However, the island has a strong connection to the Visayas further south and east. Many of the residents have roots from there and speak Visayan languages, which are somewhat different from Tagalog as spoken in Manila. Also, in comparison to Balatoc/Batong Buhay, which resembles many places in peninsular Southeast Asia in its relationship with the outside world, the interior of Mindoro is much more isolated and more poorly integrated into the national and global economies. The sharper contrast with the coastal plains is striking. The accessibility is very limited since the many villages are accessible by foot only.

Settlements of coastal Mindoro by people from outside of the island resulting from the movement of local people into the mountains is a recent phenomenon. Conklin (1947) observed that in the 1940s there were communities of newcomers from Luzon and the Visayans, but the original population was still not pushed into the mountains. Conklin identified nine tribal groups within this original population, some having distinctly different physical appearances. Each had its own mutually unintelligible language. At that time two of these languages were written with scripts. The scripts were unique, and Conklin clarified that the writings were on bamboo sticks with the letters scratched with knives instead of paper and by using pencils, pens or other writing implements. Regardless, Conklin noted, about 60% of the population of one of the groups with scripts, Naunoo, were literate even with no churches and schools in their villages. Conklin also noted that the usage of the scripts was for messages, chants, love letters and songs. The area where the Naunoo lived, according to the map Conklin provided, was the same area in which I did a field research trip nearly seventy years later. Currently, although the coasts of Mindoro are similar to places elsewhere in the Philippine archipelago and beyond, the roadless and isolated interior of Mindoro was a world apart and back in time. In comparison to peninsular Southeast Asia and Luzon, the much smaller Mindoro have simpler and more pronounced core-periphery distinction, lower levels of spatial connections, and layers of socio-economic relationships. Consequently, Mindoro's gradient of change over small absolute distances are much bigger than in Luzon. In many of the discussed aspects, Luzon is more similar to peninsular

Southeast Asia than to Mindoro, despite the differences in size. Overall, Mindoro consists of a core region along the coast and highly contrasting peripheral interior. Even the tourist spot of Puerto Galera appears detached from the rest of the island, but is more easily reached from Manila than from most of the island. Even though the town is about an hour drive away from Calipan, the tourists do not need to pass through the city, nor any other place in the island.

The roadless interior of Mindoro would be hard to imagine if the island were bisected by an international borderline. While the crossing of the island made by me and my guides would not appear unusual, it would be impossible and pointless. I would be driven to the check-point, cross the border, my passport would be stamped, and then relax in a hotel somewhere where we got lost twice in one day because there were no people around to ask for directions; and then I would get another driver to take me away. Most of the people with whom I would interact in the interior would not be the original inhabitants of the island, but later newcomers from elsewhere. Thus, the absence of a boundary reinforced the isolation of interior Mindoro. It might also have reduced efforts on the part of the Manila-based government to integrate this region into a unified Filipino culture.

Discussion

One of the findings in this research is the more pronounced differences in the islands over short distances as compared to valleys -mountains in van Schendel's Zomia. Second, this difference of physical border vs political border

brings the different position of the peripheries in the islands compared to the interiors in peninsular Southeast Asia. Whereas in the islands the periphery is encircled by the developed coast, in van Schendel's Zomia, the predominantly mountainous periphery encircles the smaller, scattered and isolated valleys. There is a third case, of course, if we involve the modern state with a usually small, offset portion around a big metropolitan area often serving as the state's capital; everything else is periphery. Then the research is state-centric and the physical landscape, cultural landscape, and smaller locales are much less important and ignored. In research that goes beyond the state, however, the involvement of Zomia and islands' interiors as peripheries matter in studies analyzing differences between places and the factors that distinguishing them.

During my observations in the interiors in Luzon and Mindoro, I recognized that they are much more peripheral relatively to the core areas in these islands as compared to similarly distant places in peninsular Southeast Asia. Van Schendel's suggested involvement of scale and flows theorizing in area studies also needs inclusion of the periphery. The very word "periphery" suggests that a place labeled as peripheral may be located at a considerable distance from the core. However, distance is not the only criterion defining a periphery. This is illustrated clearly by my experience in Mindoro, though only about fifty kilometers wide, still has an interior almost completely isolated from the core coastal areas of the island.

The periphery is not just "away", it is considered "outside." Periphery is also a social construct. Geographically, a periphery is away from the core. In abstract space and with respect to regional and global economies, it is always outside of the core, but in physical space the periphery can be inside.

Also, peripheries are dynamic. Medieval Siam and Burma (present-day Thailand and Myanmar respectively) had control over broad valleys, and smaller tributary states controlled smaller valleys (Witchakul, 1994), while all were surrounded by the peripheries of mountains. Later, after European colonial powers began to show interest in these regions, coastal areas developed. The lower section of the Irrawaddy river developed and made the colony of Burma the world's biggest exporter of rice. The never colonized Siam moved its capital close to the coast and, shortly after that, trade with outside world increased. Both countries became integrated with the world economy and this changed their spatial structures as result of the transformation from feudal to capitalist economy and the globalization processes. Even the landlocked states of Laos and Cambodia have capitals that are also major economic centers along a big navigable river for better trade connections in today's globalized world. Depending on the construct on a state level, all of the territory of these states outside their capitals can be seen as periphery. This elaboration of temporal dynamics of the periphery exemplifies the need of inclusion of the world system theories to be included in area studies problematics.

Recognition of this conceptualization of periphery and the dynamic nature of periphery allows consideration of potential explanations of why some peripheries are more isolated than others although, as in the case of Mindoro, the physical distance may be much smaller. If we compare with Zomia, in many respects it is similar to the island interiors such as those in Luzon and Mindoro. Both Zomia and these islands' interiors are highland areas with rugged topography. Both have low population densities, possess much more cultural diversity, and are relatively isolated with limited accessibility. Also, they are inhabited by people who are culturally distinct, although little is known about the history of settlement of the interiors of the two islands. In short, both fit clearly the definition of periphery relative to core places such as Yangon, Bangkok, and Manila.

Yet there are important differences as well. Because Zomia is much larger in land area than the island interiors, one might expect Zomia to be more peripheral than would be the case with the interiors of the Philippine islands, but my observations are that the reverse is true. Despite its isolation from the cores of the states that it straddles, Zomia is relatively more accessible and better connected with the lowlands. Illustrating the dynamic nature of the peripheries, the infrastructure changes make the connections improve rapidly. Newly paved roads and widespread cell phones and motorcycles lead to more integration of Zomia with the lowlands. Scott (2009) has observed that Zomia is disappearing. In comparison the interiors of Luzon and Mindoro remain much more peripheral, and dynamics of transformations are less intense.

Why is this? Three factors can be identified – resources, flows, and international borderlines. All of these factors are associated with the coreperiphery relationships as developed by Wallerstein and others, and are all guided by the interests of the core as opposed to the periphery, and the value of the periphery to the core. The discovery of natural resources that could be used for commercial agriculture made Zomia more attractive. Islands in the Philippines, in the Malayan Archipelago, and further beyond in other parts of the world were much longer under colonial rule, and the colonizers consequently aimed to extract valuable resources and ship overseas. The tobacco development in Cagayan Valley and gold mining in the mountains in Luzon are examples of this development that started centuries ago. So, why does development in the islands' interior is waning in comparison to Zomia? A possible answer was the proximity to the sea as a connection with the increasingly globalized world. And this brings the second and third factors of the flows.

As discussed by van Schendel, relationships in Zomia are also affected by flows of people and goods between places. The eastern part of Myanmar is difficult to access from the rest of the state, and it is much better connected with the nearby states of China and Thailand. The main city in the area, Kengtung, is on a major paved highway connecting China and Thailand. This highway was financed by Chinese and Thai capital to promote trade between the core regions of these countries. The highway crosses Zomia, and its presence has helped integrate this region with the lowland core areas. The highway also provides opportunities for trade between Zomia and the lowlands, reducing transportation

costs and therefore making the densely populated valley around Kengtung and nearby areas much more accessible. Villages surrounding Kengtung are now easily accessible by motorcycles, which are owned by many villagers. However, villages such as Balatoc remain inaccessible by motor vehicles, and the interior of Mindoro is even more isolated because there are no roads crossing the island.

The area observed by van Schendel is peripheral, and crossed by international borders instead of being limited by them. Seemingly these borders shape Zomia and make a significant portion of it borderlands. Islands, with very few exemptions do not have international borders, and consequently there is little incentive from business and the government to develop and transform the interior. This further increase the differentiation core-periphery in the islands. This is in contrast with Zomia where, as seen with the examples of Mong La and Tachileik, borders bring roads, people, and economic activities. This is more visible in Myanmar and Laos due to the presence of a frontier area further away from the borderlines than in China and Thailand.

The presence of the physical border between land and sea plays a major role in two interconnected ways. First, the proximity of sea makes a stronger, easier and straightforward connection with the world and the world economy of the island as a whole. In van Schendel's Zomia the seas and oceans are irrelevant and hence non-existent. There we have highlands and lowlands and whatever is beyond these lowlands is not discussed. In the case of the islands, they are easily reached by the sea from elsewhere

CHAPTER 5: Conclusion

This dissertation is focused on rural southeastern Asia and it connects the scale concept and, to a certain extent, the territory concept with the notions of border, borderline, frontier, core and periphery. Chapter 2, which is based on a field trip in the eastern part of Shan State in Myanmar, explores how borders can be better understood as discrete small places next to the border crossings. On this view, borders are influenced more by the emptiness of Zomia around them than by the state. The main point is that, unless borders are seen as relatively much smaller places, they would inevitably steer the study of borders towards the state or interstate reactions. The existing borders literature did not explore this subject, and although many analyses of borders and places along borders explore lives and processes specifically in close proximity to the international borderlines - the main object of these researchers is still either governance, justice or international relations. Conceptualization of borders as small and discrete places is particularly helpful to studies on sub-national level.

Given that borders are to be conceptualized as small and discrete places, it is important to consider the broader area behind them. This area is in Zomia, but what exactly is Zomia? Trying to answer this question, Chapter 3 exemplifies the need of revitalizing the observational and operational scales for the needs of geographical researches focused on rural areas, and the need of taking into account both the human activities and the physical environment. The latter is largely ignored and this trend continues. In contrast to other disciplinary

perspectives, for example political science and economics, the understanding of physical environment in geographical research is the way geography contributes. In the case of Zomia, the area is seen as rugged, peripheral and somewhat detached from the outside world, but Zomia itself also consists of many isolated and unique places. Similar to the small and discrete borders, these small places throughout Zomia reveal that Zomia is not homogenous nor uninterrupted area. This helps explains the ongoing resilience in some parts of Zomia rapidly changing under outside influence. The isolated local populations have knowledge of the local spaces, including border spaces, and they use this as an advantage to promote their autonomy and self-sufficiency. The studies of these processes require involvement of scale, otherwise many researchers would have scope limitations. This approach would be helpful for research focused on rural areas on sub-national level with less pronounced connections with the host state and consequently less homogenized. Chapter 3 also reveals fractals with the example of the population patterns around Kengtung Valley. Fractals do not seem new on a set of larger scales, but on a set of smaller scales, this preservation of the pattern is unusual in human geography. The fractals, as well the reversed position of the core-periphery (negative image) on different scales, bring more understanding of Zomia and further expands scale theorizing.

Theories of regional development distinguish core from peripheries, but they are typically based on schematic conceptualization of core in the center of a region surrounded by peripheries. Today, many core regions are located on or close to coastlines, as is the case with Manila, Bangkok, and Yangon. However,

Zomia does not fit this traditional model. Clearly, Zomia is a peripheral region but it does not surround the core, core surround Zomia. This is even more evident at a smaller geographical scale, as is the case with islands in the Philippines with Zomia-like interiors. Better understanding of core- periphery relationships, as well as better understanding of scale are essential for understanding Zomia and Zomia-like places, which, on the surface, are peripheries.

Thus Chapter 4 exemplifies the necessity of scale and the importance of the point of reference in research to the observed area by exploring the coreperiphery duality, and by analyzing how different sizes of physical spaces and the relative position of these spaces on the land surface is influenced by the proximity to the oceans. The chapter is also built upon the importance of the studied area as positioned in the existing world, political, and economic systems. It also adds the global perspective to the understanding of the core-periphery relationships in rural areas in islands.

In conclusion, research in rural areas should consider portions of these areas and be regarded as places. The current methodologies accommodate the study of areas as confined containers of spaces where processes operate, and the object of these studies are these processes. Unfortunately, this approach leads to research limitations and the dominance of state-centric studies. As a result, much of the literature falls into the territorial trap as defined by Agnew. The chapters of this dissertation suggest ways of avoiding the territorial trap and also proposes that area studies be better connected to cultural geography instead of

predominantly to political geography. This also provides a better way to accommodate the notions of physical landscape, land, terrain, territory, and the relative and absolute distances in the geographical research.

The dissertation explores problematics in area studies, specifically those in rural setting on sub-national level and reflects the questions Willem van Schendel asked. These questions could never have definite answers, however simply continuing discussions related to them will benefit the human geography. The benefit will eventually come from works on the ongoing problems between regional studies and human geography. My research exemplifies that, even though scale and flows are the key for further development of area studies, the space-dominated critical approach is not sufficient – research needs to consider the local also as a place. I will add to van Schendel's suggestions the inclusion of the larger world beyond the plains and also the consideration of core-periphery as size, and their relative position one-to another. Also, Scott's views can be analyzed with consideration of fractals. Fractals raise question such as why do they exist only on limited locales, what was their range in the past, how does their existence affect the interaction between the people in these locales with the outside world? Answering these questions would not be a straightforward method of approaching Scott's hypothesis, but allow his views to be seen from a different perspective. I argue that ignorance of fractals hinders the discussion of Scott's Zomia. Finally, bringing the large bodies of water, such as oceans and seas not only into Zomia, but in area studies in general, suggest the involvement of globalization from a strong geographical perspective. I think this is necessary

for better understanding both the problematics of van Schendel and hypothesis of James Scott.

This research also brings more clarification of why Zomia is well-visible in certain locales and gone in others. This is mainly a result stemming from the political and economic strength of the host state. The introduction of the western type of state with vigorous control of territory, in addition to the population and the capacity of the state's use of technologies and resources to access its fringes by building infrastructure, is strongly related to the continuous disappearance of Zomia. The small pockets of preserved Zomia in weaker states such as Myanmar and Laos exemplify this present reality. Whether these Zomian characteristics would remain if the states in which they are located become stronger, as in the case of Thailand, remains to be seen.

The research adds to the regional geography on a sub-national level through its narrowed focus on the contributing and defining factors of physical landscape, absolute and relative distances, and path-dependence of the societies development. The possible directions for further research are further exploration of the societies' resilience and the role of the accessibility to certain areas to preserve their visible uniqueness as distinct places. Further research is necessary with an aim to reveal and explain the reason certain areas are distinctly different than their surroundings. The relation of the places with their surroundings instead of with the state, even in cases when these places are next to an international

borderline, is difficult to analyze due to limitations in current methodologies developed predominantly to accommodate state-centric researches.

Future researchers need better understanding of scale, absolute distances, relative locations, and accessibility. Studies of this sort could be done also in other parts of the world. Such research might be especially applicable to places such as the Hindu Kush, Pamir, and Tien Shan mountains. As in Zomia, these places contain relatively few people but culturally diverse populations living in relatively inaccessible mountainous areas. Here also the interior, mountainous regions are peripheral areas surrounded by more densely populated, less diverse core regions. However, boundaries were delineated differently and not all boundaries between states in relatively inaccessible regions such as these were imposed by colonial powers as is the case in southeastern Asia.

Within the United States, the Appalachian region might be identified as an American Zomia. This mountainous area has been a backwater relative to surrounding areas for more than 200 years, and it remains an area that exports both people and commodities to other places. In similarity to Zomia, modern communications and transportation technology have connected Appalachia much more to other parts of the United States. Yet Appalachia remains a region whose population has been highly resistant to state control. All such regions have distinctive economies, cultures, and histories; however, studies of places such as these can shed further light on questions involving the meaning of borders, geographical scale, and core-periphery relationships.

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