

# Population Movements, Colonization Trends, and Amenity Migrants in Mountainscapes

Larry M. Frolich and Matthias Schmidt

**Abstract** Human migration is best understood in the context of the geographical space and distance where it happens, the time scale over which it occurs, and the size and cultural cohesiveness of the populations involved. These temporal and spatial scales for human presence in mountain environments show impressive variability. At one extreme are the Andean civilizations of South America where a common cultural heritage is shared among millions of inhabitants who have occupied a vast high-altitude cordillera for millennia. Prehistoric peoples more frequently either avoided harsh mountain environments or at most passed through during migratory movements, with little long-term commitment to the mountainscape. In the European Alps, the Himalayas, and the Karakoram, high-altitude agricultural activities have also been underway for hundreds of years among dedicated mountain-dwelling populations with a great deal of cultural cohesiveness. More commonly in other regions, mountain-allied populations and cultures have been nomadic or seasonal, as seen in the Zagros in Iran and Tian Shan in Central Asia. Since the Industrial Revolution, as large-scale urbanizations and economic activity became concentrated in coastal and plains regions, economically motivated out-migration from mountain regions, especially among working-age community members, has become common. And in direct contrast to this trend, most recently the recreational activities and scenery provided by a montane terrain have brought in short-term migratory tourists as well as seasonal and even permanent resident amenities migrants to mountainscapes around the world.

**Keywords** Early highland civilizations · Migration · Amenity migration · Andes · Alps · Karakoram

L. M. Frolich (✉)  
Miami Dade College, Miami, FL, USA  
e-mail: [lfrolich@mdc.edu](mailto:lfrolich@mdc.edu)

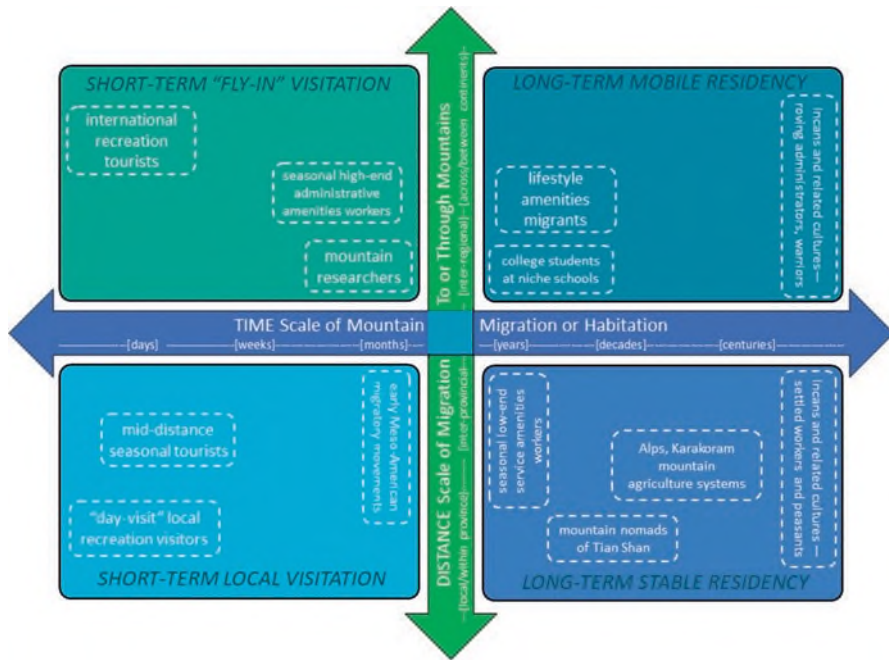
M. Schmidt  
University of Augsburg, Augsburg, Germany

## 20.1 Introduction

Mountain regions have long been seen as areas to be avoided—potentially dangerous, even threatening, environments that might best be used as spaces of retreat but not as areas that attracted habitation or were readily traversed. Mountain ranges have presented major challenges for travel with the need to find passes for crossing while presenting risks to moving through unstable and steep terrain. A special awe is reserved for those individuals and peoples who move and migrate through the mountains. Be it the challenge overcome by scaling the world's highest peaks or the feats of endurance shown by migrants moving across a harsh *cordillera*, the tales of mountains conquered are among the primordial works of humanity with many cultures viewing solely their Gods as residing in or on a mountain (the biblical revelation to Moses on Mt. Sinai and the abode of the Greek Gods on Mt. Olympus are examples). Literary inspirations from mountains conquered might include John Steinbeck's (1939) *Grapes of Wrath*, the recent *Free Solo* mountain climbing documentary film (Taylor, 2020), and numerous accounts of the conquest of Mount Everest (Burke et al., 2010).

Longer-term habitation is even rarer given the harsh living conditions for the few who might be willing to risk mountains as a long-term dwelling site. Nonetheless, mountain landscapes or mountainscapes have, in different parts of the world, frequently been populated for various periods of time and have served as regions of intense barter and economic exchange relations. To survive long term at high elevations virtually requires movement. Different altitudinal regimes are used for the multiple activities required to gain a foothold and earn a livelihood. Settlements might be located in valleys with higher elevations serving as pastureland or migration corridors. As majestic landscapes for the seat of human civilizations, those cultures that have come to inhabit and dominate a mountainscape have captured our collective imaginations, inspired classic fantasy fiction series, and have come to reside with unequaled grandeur in our common consciousness, including, for example, the great Andean civilizations, the long-term habitants of the European Alps, and fictional worlds such as J.R.R. Tolkien's Middle-Earth (Ceruti, 2019; Foster, 2020; Sarmiento, 2000; Wiegandt & Lugon, 2008). In more recent times, mountain settings have proved attractive for long-term settlement, for tourism and amenity-based migration and for the development of urbanized landscapes.

The task of this chapter is to provide some historical context for humanity's resident and migratory relationship with mountainscapes, while bringing these historical migration trends into a modern context. We describe the temporal and spatial scales for human habitation and migration in mountain regions, with examples from around the world and throughout human history and pre-history (see Fig. 20.1). We then compare those historical markers with how modern mountainscape development, especially as driven by the ease of fossil-fuel-based transport, has radically changed our temporal and spatial relationships with high-altitude eco-systems. Our goal is to provide what might serve as an entry point to a broad, fascinating, and profound topic for understanding the human relationship with complex environments.



**Fig. 20.1** Time and distance scales of mountain migration and habitation. The x-axis is an approximate time scale for movement of people through the mountains, while the y-axis is an approximate distance scale for movement to and through mountains. It then becomes possible to position any kind of mountain environment presence—from short-term stays to long-term habitation—in this space. Various examples from the text are approximately positioned in this space

## 20.2 Migration as a Relative Term

Mobility is a hallmark of animals, defined by the presence of muscle, the only biological tissue capable of instigating rapid large-scale movements. Among the phyla of animals, the so-called warm-blooded mammals and birds (along with some partially endothermic fishes—Block and Finnerty, 1994) are particularly mobile across large distances. Self-powered flight, in birds and bats, has led to tremendous species and habitat diversity along with widespread evolutionary success in terms of the number of individuals, biomass, and cosmopolitan distribution. Machine-powered flight, or air travel, in humans, it could be argued, represents the pinnacle for ease and speed of global transport and has opened up a new level of ease for moving to and through mountainscapes.

Within the biological context of extreme mobility among terrestrial mammals, humans, even pre-industrial self-transporting humans, are stand-outs. No other mammal of comparable size comes close to the human capacity for long-distance locomotion, both on an individual and a group level. Early anthropologists (perhaps reflecting their own sedentary lifestyles) thought that bipedal locomotion was a

clumsy consequence of an evolutionary trend toward big brains that were made for programming the actions of agile hands (Lovejoy, 1988). However, the 1974 discovery of the famous fossil “Lucy” dramatically altered that prejudice (Kimbel & Deleuzene, 2009). The 4-million-year-old hominid species *Australopithecus afarensis*, with “Lucy” as the iconic early fossil find, was fully bipedal with a brain no larger than a chimpanzee, suggesting that two-legged locomotion must carry an inherent advantage independent of big brains and grasping hands (Carrier et al., 1984). Subsequent biomechanical research, carried out by a new generation of researchers who had discovered jogging as an essential component of a healthy lifestyle, showed that bipedal walking and running are highly energetically efficient, especially for long-distance movement. No other mammal of similar size runs marathons or ultradistances. Pre-agricultural humans regularly covered large territorial areas, whereas even modern peoples rooted in cities have continued to walk and run long distances and across vast regions and elevations.

Humans, then, are inherently and intrinsically mobile. Long-distance travel is built into our anatomy and physiology and has been the foundation for our evolutionary success. A significant component of the Industrial Revolution has been transportation technologies allowing for even faster and larger-scale migrations. In this context, then, long-term stable habitation of mountain regions might require more of an explanation, as an outlier from the norm, than the historical, and modern, migratory movement of peoples through montane terrain. At a certain scale, all human habitation is transitory. Even the longest-standing, well-documented deep archaeological digs rarely show more than a few hundred, or a few thousand, years of habitation at any given site. We know that subsequent cultural waves have at times returned to build upon older ruins, as evidenced in Rome (Lamour, 2014) and many other classic cities of the world. For our purposes, in order to create a framework for analyzing human colonization and migration through mountainous regions, we will consider, as a starting point, those rare instances where one particular culture or population has shown a stable long-term habitation of a mountainous region. We will try to understand what the underlying basis for a long-term stasis in human mountain presence might be. We will then go on to consider prehistorical and historical migratory routes that have used or passed through mountain corridors. Finally, we will analyze trends, extending into modern day, that might explain short-term transitory presence in mountainscapes.

### **20.3 The Great Andean Civilizations: A Long-Term Commitment to Mountain Habitation**

The Andean *cordillera*, running north-south for the full length of the South American continent, stands out among the world’s great mountain chains as home to one of the novel seats of agricultural civilization. Pre-dating the Incan Empire, human colonization of the Andes probably dates back some 12,000 years (Rademaker & Zarrillo,

2015) to the earliest arrival of human migrants to the Americas. Subsequent establishment of an independent seat for a high-altitude agricultural civilization, reflected in a strong modern-day legacy, marks the Andes as the quintessential case for ongoing mountain habitation. The Andean prehistoric cultures show one of the five to ten “pristine” indigenous developments of agriculture (Aiello, 2011; Price & Bar-Yosef, 2011) with an elaborate social organization that evolved independently from other civilizations, although recent critiques suggest that there is no consistent path, or even starting point, for the development of social order (Graber & Wengrow, 2021). In fact, the extent to which groups of people have interchanged ideas while at the same time developing independent social organizations may well be underrepresented in the annals of anthropological study (Graber & Wengrow, 2021). At the same time, the role of agriculture is seen as increasingly complex and idiosyncratic in different regions of the world, with the Andean agricultural development emblematic for its uniqueness (Flores et al., 2003).

The Andean civilizations can be seen as distinct, even relative to the rest of the Americas, despite some obvious shared common heritage. Wheeled vehicles and pack animals were never used, although an extensive system of mountain roads for foot travel linked a remarkably extended region (Fig. 20.2). Writing was never developed, but *quipu*—a system of knotted and colored strings—was used to record information, including number accounting. *Quipu* is now regarded by many scholars to have included narrative accounts as well, in essence a distinct form of recorded language (Niles, 2007). Money was also not used in the Andean region, with perhaps the exception of *Spondylus* clam shells on the northern Ecuadorian coast (Sandweiss & Reid, 2016). Economies were organized around reciprocity in goods and labor and redistribution of materials, with a legacy to this day in the continued prevalence of barter and communal work parties (*mingas*) throughout the region (Testori & d’Auria, 2018).

The Andean agriculture system, based on the domestication of native high-altitude tubers and rodents (the wild *cavies*), included an estimated 70 different plants unique to the region, none of which were large-seeded grains like wheat or rice (Pearsall, 2008). Potatoes and other root plants were major starch contributors to the diet. Other Andean domesticates, now widely appreciated worldwide, included quinoa, tomatoes, chili peppers, coca, cotton, tobacco, pineapples, and peanuts, along with several varieties of beans and fava beans. Although varieties of some of these crops have become adapted to low-altitude growing, many are still preferentially cultivated at high altitude around the world. Native high-altitude animal species, guinea pigs and llamas, were domesticated for meat; however, there were no milk or pack animals domesticated in the Andes.

Other mountainous regions of the world were and have been inhabited for extensive periods of time. What stands out in the Andes is that the seat of the *Inka* agricultural economy, and remarkably cohesive political control, was, and is, specifically rooted in the highland mountainscapes. The extensive ancient road network is often deliberately designed into the highest slopes of the inter-Andean valleys (Fig. 20.2). The high-altitude *paramos*, or alpine grasslands, are a human-fired landscape that has served as grazing land, transport, and temporary habitation for millennia



Fig. 20.2 Extent of *Inka* Road system (*Qhapac Ñan* World Cultural Heritage Site) with modern country boundaries and cities superimposed (Capac, 2008). Central cordillera roads were sometimes at the highest elevations, above the human-maintained tree lines

(Sarmiento & Frolich, 2002). Great urbanizations along the *cordillera* from La Paz in Bolivia to Bogota in Colombia are situated at high altitude, usually in the intermountain valleys. Cities like Quito in Ecuador and Cuzco in Peru, among many others, retain a unique urban montane landscape coupled with a strong indigenous/*mestizo* culture that attracts short-term visitors from around the world.

While holding a special place as the icon of a mountain-based stable-inhabited agricultural civilization, the Andes also illustrate the time scale of shorter-term migration and colonization. Some populations have moved in and out of the highest altitude regions, following seasonal planting patterns, or under forced movements due to colonization and enslavement by Spanish *conquistadors* (Weismantel & Eisman, 1998). Short-term local movements in and out of the Andean mountainscape have also been common, historically and into the modern era.

## 20.4 Mountain Migratory Pathways for Prehistoric Peoples

In contrast to South America and Mesoamerica, the migratory pathways for the early indigenous settlers of the Americas avoided mountains in the northern part of the continent. This may have been due to more extreme weather conditions, or the ease of migrating along coastal or plain-based routes. Although some American Indian groups did settle in semi-mountainous regions (the mesa-based Indians in the Four Corners regions and Appalachian groups in Southeastern United States), populations were more focused on coastal and plain regions of the continent. Debate remains over the initial southward-moving populating migration into the Americas with the recent emergence of evidence pointing toward predominantly coastal routes. Additional evidence for early coastal movements into the Americas may have been obliterated or hidden by higher sea levels now (Lesnek et al., 2018). However, as a few semi-distinct agricultural bases appeared up and down the continent, these tend to be concentrated in mountain regions, not only in the Andes of South America but throughout Central America and Mexico where the eventual *Maya* and *Mexica* civilizations also showed a mountain-centered agriculture, population base, and governance. Although not as cohesive and highland-focused as the *Inka*, great mountain population centers are reflected to this day in the highlands of Mexico and Guatemala. In northern America, on the other hand, large urban montane populations are largely a recent phenomenon.

This mountain-focused hearth for the great agricultural civilizations of the Americas stands in stark contrast to the role for mountain migratory patterns of early human populations throughout the Old World. In Africa, early human populations were concentrated in plains and valleys with few archaeological finds at high altitude (Compton, 2011). The great mountain ranges of Eurasia—the Alps, Urals, and Himalayas—also yield little in the way of archaeological finds and were generally not the seats or focus for the emergence of agricultural civilizations. In the iconic case of the fertile crescent Neolithic revolution, human settlement and agricultural activities were largely restricted to river valleys and foothills of the great

mountain ranges of Zagros (Iran) and Anatolia. Humans certainly did migrate through these mountains, and even temporarily inhabit them, at different points during the tens of thousands of years of gradual occupation of the large Eurasian land mass. For example, salt mining of the Hallstatt culture in the Austrian Alps is an example of early mining activities in the mountains; the well-preserved rich archaeological finds provide evidence of interregional trade and migration movements (Festi et al., 2021). However, the overall picture is distinct from that of the Americas, with urban centers and long-standing habitation developing mostly in coastal regions and inland plains.

## 20.5 Mobility as a Basic Condition for Survival in Mountains

For centuries, as in all other habitats, livelihood in mountain regions has been based on agricultural activities. Seasonal migration and daily mobility are required to live and survive in a habitat characterized by verticality, mass movements—such as avalanches, mudslides, or rockfalls—and extreme temperatures and precipitation conditions. Narrow valleys provide minimal land for agriculture with higher altitude areas used as essential supplement. In order to make optimal use of the limited resource base, altitudinally staged systems developed in various high mountain regions of the world. In the Alps, the *Almwirtschaft* or *Alpwirtschaft* dominated (Netting, 1981). It consists of arable farming and grassland cultivation in the valley area, sometimes combined with orchards and vineyards, as well as the utilization of forests to obtain the necessary building materials and fuels. Alpine grassland areas at higher altitudes are then used as summer pastures for livestock farming. The system works very similarly, for example, in the Karakoram, whose arid conditions in the valleys, however, necessitated the installation of irrigation systems. Fertile soil also must first be created in a process of sand and fertilizer application that takes years. In this system, known as *Mixed* or *Combined Mountain Agriculture*, there is a close interdependence between irrigated cropping and livestock rearing, based on the use of different grazing areas at different altitudes (Hill, 2017; Schmidt, 2018; Spies, 2019; Ahmad et al., 2021). Livestock provide the draft power and manure needed in cropping and can be used to transport loads and provide meat and milk for nutrition, while straw, crop residues, and forage meadows provide necessary fodder for livestock. To utilize these resources, which are located at different altitudes, vertical mobility is essential, depending on the seasonal differences in temperature and snow cover, and thus the appearance and stage of vegetation. In the cold winters, cattle have to be stabled and are kept alive by fodder harvested in autumn and summer. As temperatures rise and the snow recedes, the cattle herds are driven to higher pastures at semi-high altitudes, also known as *Maiensässe* in the Alps. In summer, the extensive and forage-rich grasslands and meadows at higher altitudes are ideal grazing areas, where the cattle spend several weeks to months. In autumn, people and cattle move back down to the valleys.



Horizontal mobility and, in mountain areas, vertical mobility are also essential for nomadic groups, such as the mountain pastoralists or nomads of the Zagros in Iran, the Tian Shan, Alai and Pamir in Central Asia, or the highlands of Mongolia, Xinjiang, and Tibet, who change their camp sites between summer and winter pastures in the course of the year (Scholz & Schlee, 2015). Together with their herds, their dwellings (see Fig. 20.3), as well as all household goods and family members, they move between lower and higher areas, always in search of sufficient fodder and grazing grounds for their livestock.

These forms of adaptation to high mountain terrains require mobility and seasonal migrations to overcome the different challenges of altitude. As such, mountain habitation is always associated with greater effort and an increased use of strength and energy compared to the lowlands. Today, mountain farms are rarely competitive since increased effort results in lower yields and possibly higher prices, making it difficult to compete with lowland farmers. Specialty artisanal and high-altitude products are more likely to be competitive in an increasingly globalized market.

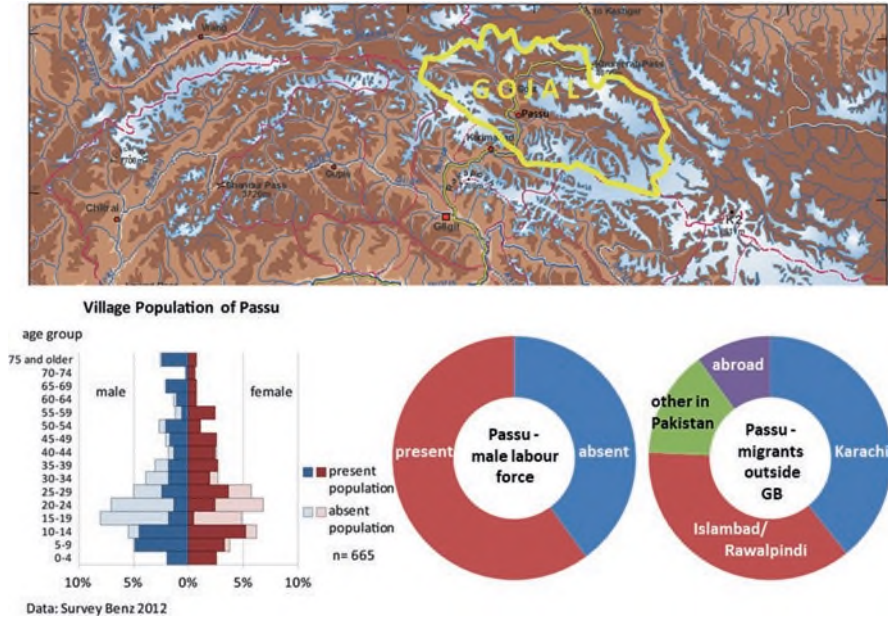


**Fig. 20.3** A classical yurt on a summer pasture in the Tian Shan of Kyrgyzstan. These felt tents are used throughout Central Asia and Mongolia and are perfectly adapted to the harsh climatic conditions and the mobile lifestyle of nomads. A yurt can be carried by 2–3 horses and erected within half a day. (Photo: M. Schmidt 2018)

## 20.6 Leaving the Mountains and Out-Migration

A lack of alternatives for non-agricultural activities, greater distances to urban industrialized centers, a lack of opportunities for individual self-realization, living conditions constrained by traditions, and limited cultural diversity have led to temporary and permanent migration of people away from mountain regions for many decades. Many, especially younger people, leave the high mountain regions and move to the cities or abroad. These migratory trends can be observed in almost all mountain regions of the world. While in some regions of the Alps, the massive expansion of tourism since the end of the nineteenth century has led to intramountain migration and even immigration into the mountains, others are characterized by considerable emigration, depopulation, and even settlement decline. Individual tourist hotspots such as Zermatt, St. Moritz, and Davos in Switzerland as well as Tyrol, Land Salzburg in Austria or South Tyrol in Italy offer many job opportunities in the hotel and restaurant industry and as ski instructors, mountain guides, or personnel at recreational facilities. In addition, there are new needs for labor in administration or in the development of the corresponding infrastructure. These new employment opportunities have led to migration from surrounding impoverished mountain villages where, due to the division of inheritance and fragmentation of property in the resource-poor valleys, family income from agriculture is no longer sufficient to secure a livelihood. Today, thousands of seasonal workers from Eastern Europe or the Global South flock to highly frequented tourist resorts in the Alps for employment in the tourism sector. Such booming tourist attractions present a strong contrast to neighboring regions in the Alps that exhibit considerable structural economic problems characterized by massive out-migration, such as the Western Italian Alps or large parts of the French Alps.

Migration, which first manifests itself in an aging population and eventually leads to absolute population decline, can also be observed in other highland regions. The populated areas of Tien Shan, Alai, and Pamir in Central Asia are equally characterized by strong out-migration, especially of the working-age parts of the population. Adult men and women are moving in large numbers to Russia, Kazakhstan, and other regions of the world to work in construction, industry, or trade (Schmidt & Sagynbekova, 2008; Sagynbekova, 2017). Their parents and children mostly remain in the peripheral mountain villages. Their lives in the mountains of Central Asia are subsidized by the remittances of their migrated family members. If the migration is only temporary, they can be expected to return to their home mountain villages at an older age. Often, however, the labor migrants stay in their destinations and bring their children with them, with the result that only the older population remains in the mountain areas (see Fig. 20.4). In addition to the need to generate income through out-migration, the often-limited educational opportunities in mountain regions lead young people to leave for training and higher education. This educational out-migration also leads to a brain drain in the medium and long term,

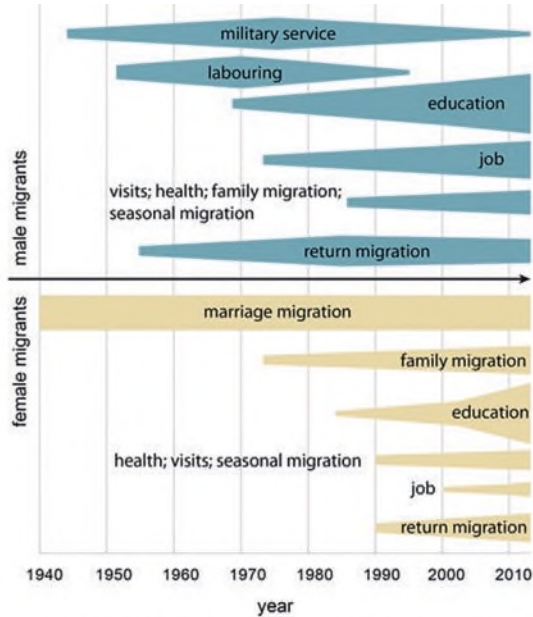


**Fig. 20.4** Labor migrations is vital for mountain societies in the Karakoram, as the example of Passu shows (Benz, 2013). Labor migrations to the large cities of Pakistan or abroad mean that a large part of the working-age population now lives and works far from the home settlement

because the well-educated young people rarely return to their home villages, where there is a lack of adequate job opportunities for them.

This form of educational migration is particularly pronounced in the Karakoram of northern Pakistan, where temporary labor migration also has a longer tradition (Benz, 2014; Bouzas, 2018). From the 1960s onward, the military offered many young men an income for most of their working lives. Upon retirement from the military, they would receive a bonus with which they could open a small business such as a shop or a vehicle to be used as a taxi to transport people and goods. From the 1970s onward, industrial urban centers and the oil and construction sectors in the Gulf states provided young mountain dwellers job opportunities (see Fig. 20.5). More recently, such migrations have become more common among women who find opportunities as domestic helpers or nannies in the Gulf States, albeit often under precarious and questionable working conditions. In all these cases, it is the lack of employment opportunities and economic poverty that drive people from the mountains to the urban centers. If sheer desperation and non-transparent recruitment efforts by dubious persons are added to the mix, young women willing to migrate, lured by false promises, also end up in prostitution, such as thousands of Nepalese girls in large Indian cities.

## History of Migration from Hussaini



Main migration types and their changing importance over time, exemplified for the village of Hussaini based on the analysis of 891 acts of migration. Data: Benz, Hussaini Village Survey 2012. Design: Benz 2013.

**Fig. 20.5** Migrations have a long tradition in the mountain societies of the Karakoram. Young women traditionally move to their husband's household after their marriage, usually within the village or to a neighboring village. Since the 1940s, young men from many households have served much of their working lives in the military. More recently, labor migrations to Pakistan's big cities or to Gulf countries have increased, as have educational migrations, the latter of which has recently become more prevalent among young women as well (Benz, 2014, p. 262)

## 20.7 Modern Amenity Migration to Mountain Regions

The time scale of mountain migration and habitation has, since the Industrial Revolution, speeded up considerably, as might be said of many aspects of the so-called modern life. The ease of fossil-fuel-powered transport, by train, automobile, and airplane, has made many remote mountain regions far more accessible. At the same time, the invention of travel and tourism as a form of leisure, starting with English aristocrats conquering high peaks in the Alps since the mid-nineteenth century, but becoming more popular and dominant particularly in the twentieth century (Bätzing, 2005; Franco, 2021), has led to a demand for spectacular scenery and impressive locations as vacation destinations. Mountain tourism takes on many forms with multiple motivations. Tourists seek scenery, adventure, challenges, outdoor sports, relaxation, clean air and water, and more. Longer-term seasonal and year-round habitational tourism in the mountains has become popular with destinations around the world including Montana, Wyoming, California, North Carolina

(United States), the Western and Eastern Alps, the Southern Andes, and the southern slopes of the Himalayas (Singh et al., 2020), or in Turkey (Hurley & Ari, 2018).

A more recent phenomenon is the (re)migration into the mountains, discussed in academia as amenity or lifestyle migration (Perlik, 2019). In search of an attractive living environment or the desire to escape cities with a perceived lower life quality, more and more people are moving to the Alps in Europe, the Rocky Mountains in North America, or other mountain ranges in various parts of the world. In particular, people with high economic resources from urban areas or older generations are looking for a pleasant place to live as second home or as permanent residence for their retirement. This phenomenon represents a trend reversal in some Alpine regions, such as the Western Alps, that have also been particularly affected by emigration, where a dramatic exodus of the mountain population took place over decades (Alpenkonvention, 2015). Recently these locations have been experiencing considerable population increase due to such amenity-based immigrations over the last two decades (Löffler et al., 2016).

Natural attractiveness, a perceived higher quality of life, the quest for authenticity, an exceptional range of leisure activities, cheaper housing, and increasing independence from the workplace due to new communication possibilities are important pull factors for this amenity migration. This is accompanied by a shift from circular weekend and leisure mobility in tourist regions to seasonal and even permanent relocation. With the increasing spatial independence from the workplace, the desire to work at new places of residence in the mountains can be realized. Sonderegger and Bätzing (2013) estimate the stock of second homes in the Alps at 1.85 million, which represents 25% of the total number of all dwelling units. However, there are large differences between the regions, with a share of second homes in several communities in the French and Western Italian Alps above 80% (Sonderegger & Bätzing, 2013). As a consequence, property prices rise, which in turn may lead to an exodus of the local population if they can no longer afford the housing. Second homes also lead to urban sprawl and problematic consequences for ecology and spatial planning. In addition, regional cultural characteristics but also minority languages (Franco-Provençal, Occitan, Friulian or Walser German) are at risk (Steinicke & Löffler, 2014). The revitalization of abandoned buildings or even entire villages benefits the construction industry with work on the restoration of buildings and also ensures local culture heritage through the preservation of historical supply and service structures.

In their study of two communities in the Italian Alps, Löffler et al. (2016) group the population among local residents, seasonal workers, second-home owners, and amenity migrants, each with different interests and motives regarding their life in the mountains. While second-home owners only live in the villages for short periods of time, do not participate in the social life of the village, and are mainly leisure-oriented, amenity migrants spend many months if not the whole year in the mountain villages, are work- and leisure-oriented, and integrate more thoroughly into the local culture. Newcomers are often wealthier than the local population, leading to gentrification and the accompanying increase in property and business values but also displacement of long-standing inhabitants. This lifestyle or amenity migration

is at the same time an expression of the dramatic decline in the relevance of agriculture in many mountain areas as local and artisanal food production practices can be irretrievably lost during the process of gentrification and urbanization of mountain villages and landscapes.

Unlike the out-migration of the employable population from the mountains, as in the Alps during the twentieth century and currently in Central Asia or in the Karakoram, lifestyle or amenity migration is only partly economically motivated but also based on emotional and subjective reasons, such as a desire for change, the realization of personal wishes, or the quest for a different value-based lifestyle (Cretton, 2018). With today's digital communication possibilities, work in the home office can be combined with outdoor activities, as well as proximity to a seemingly more pristine natural landscape, without having to accept separation from the networked global economy and society.

Longer-term expatriate, amenity-based tourism or migration has also become very common throughout the Andes, and other mountain ranges in the Western hemisphere as well. Longer-term amenity-based migrants might spend several months of the year, or several years of their life, colonizing Andean, Mesoamerican, and North American mountainscapes. Short-term tourism, from sightseeing to alpinism, has also become common. This latter bears mention as the Andes are rivaled only by the Himalayas for the challenges that hardcore mountain climbers seek. This includes rock-wall climbing, waterfall ascending, ice and glacier climbing, rock glacier trekking, and extreme high-altitude peak summiting.

All of the major North American mountain ranges have also become popular destinations for longer-term amenities colonization and shorter-term recreational and tourism activities. Major cities in or close to the Sierra Nevada in California, Olympic Range in Washington, The Rocky Mountains extending through Montana, Wyoming, Colorado, and New Mexico, and the Appalachians, especially at their warmer southern extent, have all grown in population, sometimes exponentially, in the last few decades. Second homes, and increasingly year-round homes, have become common as people work remotely through a digital connection, just like in the Alps. Workers for amenity industries also move, some seasonal and others year-round, to these mountain destinations in order to provide the services that the mostly professional class of amenities migrants want, including dining, recreation, health care, and more. The reasons for this migration into the mountains largely mirror the situation in the Alps, with a similar process of gentrification, both in many neighborhoods of the larger mountain cities and sometimes entire mountain villages (Donoso-Correa & Sarmiento, 2019). In these mountain towns, local populations might have moved away for work in larger cities or for increased demographic pressure of the amenity migrants and the affluence generated by remittances of those who left the mountains to go abroad, reflecting a change in the original community composition, such as that observed in San Miguel Allende, Mexico, or "Gringotenango," Guatemala, and some "Americanized" towns in Costa Rica, Panama, "Copan ruinas," Honduras, or "yuni" (for the United States) in Samborondon, Ecuador.

## 20.8 Conclusion

Mountains have long been a target for potential colonization dating back to prehistoric times, with the Andean civilizations the most compelling example of long-term, high-altitude-focused mountainscape habitation. However, mountains as an ongoing living environment are associated with particular challenges that exact special hardships and effort from their inhabitants on any time scale.

Over the course of history, dating back to agricultural origins, the limited availability of resources in the mountains, along with poor accessibility, the lack of urban agglomerations and educational facilities, and generally more difficult living conditions have usually limited longer-term mountain habitation in favor of temporary migration to and through mountainscapes. In the post-industrial age, as mostly coastal- and plain-based urban regions have seen population booms, the desire to participate in modernization and prosperity has led many people to leave or migrate away from the mountains. It is only with the advent of tourism, a twentieth-century phenomenon that has accompanied generally increasing prosperity, the mountains have become highly attractive again. The availability of leisure time activities, improved transport connections, and a variety of employment opportunities have led to a renewed interest in migration into mountainscapes for short-term and amenity-based tourism. Today, certain mountain regions and resorts of the Alps, the Rocky Mountains, the Andes, and also the Karakoram and Himalayas are visited on weekends and holidays by millions of short-term tourists seeking scenic beauty, recreation, and diversion through mountain activities. Longer-term amenity migrants increasingly stay for seasonal and even year-round habitation in these regions.

These new diverse opportunities, along with the scenic beauty of mountainscapes, are drawing more and more people away from urban agglomerations and the lowlands to live for longer periods or even permanently in the mountains. A form of high-altitude, village-based gentrification has led to the renovation and revitalization of many mountain towns through this process of immigration from the cities into certain mountain regions. When existing buildings are carefully renovated, this can contribute to the preservation of cultural features that are in danger of being lost. However, new construction of second homes can lead to loss of pristine mountain habitat. As the twenty-first century unfolds, the increasing ease of digital communication will continue to facilitate individualized approaches to realizing a fulfilled, postmodern lifestyle in mountainscapes around the world.

## References

- Ahmad, Z., Postigo, J. C., Rahman, F., & Dittmann, A. (2021). Mountain pastoralism in the Eastern Hindu Kush: The case of Lotkuh Valley, Pakistan. *Mountain Research and Development*, 41(4), 16–28.
- Aiello, L. C. (2011). The origins of agriculture: New data, new ideas: Wenner-Gren symposium supplement 4. *Current Anthropology*, 52(S4), S161–S162.

- Alpenkonvention. (2015). *Demographischer Wandel in den Alpen: Alpenzustandsbericht*. Ständiges Sekretariat der Alpenkonvention.
- Bätzing, W. (2005). *Die Alpen: Geschichte und Zukunft einer europäischen Kulturlandschaft*. Beck.
- Benz, A. (2013). *How migrants made their way: The role of pioneering migrants and solidarity networks of the Wakhi of Gojal (Northern Pakistan) in shaping the dynamics of rural-urban migration*. Crossroads Asia Working Paper Series 11, Crossroads Asia, Bonn: Crossroads Asia.
- Benz, A. (2014). Mobility, multilocality and translocal development: Changing livelihoods in the Karakoram. *Geographica Helvetica*, 69(4), 259–270.
- Block, B. A., & Finnerty, J. R. (1994). Endothermy in fishes: A phylogenetic analysis of constraints, predispositions, and selection pressures. *Environmental Biology of Fishes*, 40(3), 283–302.
- Bouzas, A. (2018). *From the Karakoram Mountains to the Gulf: migration, development and religion in the making of transnational spaces*. ZMO Working Papers 21, Berlin: Leibniz-Zentrum Moderner Orient.
- Burke, S. M., Durand-Bush, N., & Doell, K. (2010). Exploring feel and motivation with recreational and elite Mount Everest climbers: An ethnographic study. *International Journal of Sport and Exercise Psychology*, 8(4), 373–393.
- Capac, M. (2008). File:inca road system map-en.svg. *Wikimedia Commons*. Retrieved February 5, 2022, from [https://commons.wikimedia.org/wiki/File:Inca\\_road\\_system\\_map-en.svg](https://commons.wikimedia.org/wiki/File:Inca_road_system_map-en.svg)
- Carrier, D. R., Kapoor, A. K., Kimura, T., Nickels, M. K., Satwanti, Scott, E. C., et al. (1984). The energetic paradox of human running and hominid evolution [and comments and reply]. *Current Anthropology*, 25(4), 483–495.
- Ceruti, M. C. (2019). Practical spirituality and journey with Sacred Mountains. In *Practical spirituality and human development* (pp. 495–509). Palgrave Macmillan.
- Compton, J. S. (2011). Pleistocene sea-level fluctuations and human evolution on the southern coastal plain of South Africa. *Quaternary Science Reviews*, 30(5–6), 506–527.
- Cretton, V. (2018). In search of a better world in the Swiss Alps: Lifestyle migration, quality of life, and gentrification. In H. Horáková, A. Boscoboinik, & R. Smith (Eds.), *Utopia and neoliberalism. Ethnographies of rural spaces* (pp. 105–125). Lit Verlag.
- Donoso-Correa, M. E., & Sarmiento, F. O. (2019). Geospatial memory and joblessness interpolated: International migration oxymora in the city of Biblián, Southern Ecuador. *American Journal of Geographic Information System*, 8(2), 60–88.
- Festi, D., Brandner, D., Grabner, M., Knierzinger, W., Reschreiter, H., & Kowarik, K. (2021). 3500 years of environmental sustainability in the large-scale alpine mining district of Hallstatt, Austria. *Journal of Archaeological Science: Reports*, 35, 102670.
- Flores, H. E., Walker, T. S., Guimarães, R. L., Bais, H. P., & Vivanco, J. M. (2003). Andean root and tuber crops: Underground rainbows. *HortScience*, 38(2), 161–167.
- Foster, M. (2020). The worlds of JRR Tolkien: The places that inspired middle-earth, by John Garth. *Mythlore: A Journal of JRR Tolkien, CS Lewis, Charles Williams, and Mythopoeic Literature*, 39(1), 19.
- Franco, C. (2021). Environmental history, the history of tourism in the mountains and the construction of new knowledge: A study of the architecture of winter sports resorts in the French-Italian Alps. *Journal of Alpine Research Revue de géographie alpine*, 109, 4.
- Graeber, D., & Wengrow, D. (2021). *The dawn of everything: A new history of humanity*. Penguin UK.
- Hill, J. K. (2017). Supporting farmer-managed irrigation systems in the Shigar valley, Karakorum: Role of the government and Aga Khan Rural Support Programme. *Journal of Mountain Science*, 14(10), 2064–2081.
- Hurley, P. T., & Ari, Y. (2018). Saying “No” to (the) Oxygen Capital? Amenity migration, counter-territorialization, and uneven rural landscape change in the Kaz Dağları (Ida Mountains) of western Turkey. *Journal of Rural Studies*, 62, 195–208.
- Kimbel, W. H., & Deleuzene, L. K. (2009). “Lucy” redux: A review of research on Australopithecus afarensis. *American Journal of Physical Anthropology*, 140(S49), 2–48.



- Larmour, D. H. (2014). Whispering City: Rome and its histories. *The Historian*, 76(2), 393–395.
- Lesnek, A. J., Briner, J. P., Lindqvist, C., Baichtal, J. F., & Heaton, T. H. (2018). Deglaciation of the Pacific coastal corridor directly preceded the human colonization of the Americas. *Science Advances*, 4(5), eaar5040.
- Löffler, R., Walder, J., Beismann, M., Warmuth, W., & Steinicke, E. (2016). Amenity migration in the Alps: Applying models of motivations and effects to 2 case studies in Italy. *Mountain Research and Development*, 36(4), 484–493.
- Lovejoy, C. O. (1988). Evolution of human walking. *Scientific American*, 259(5), 118–125.
- Netting, R. M. C. (1981). *Balancing on an Alp: Ecological change and continuity in a Swiss mountain community*. Cambridge University Press.
- Niles, S. A. (2007). Considering Quipus: Andean knotted string records in analytical context. *Reviews in Anthropology*, 36(1), 85–102.
- Pearsall, D. M. (2008). Plant domestication and the shift to agriculture in the Andes. In *The handbook of South American archaeology* (pp. 105–120). Springer.
- Perlik, M. (2019). *The spatial and economic transformation of mountain regions – Landscapes as commodities. Advances in regional economics, science and policy*. Routledge.
- Price, T. D., & Bar-Yosef, O. (2011). The origins of agriculture: New data, new ideas: An introduction to supplement 4. *Current Anthropology*, 52(S4), S163–S174.
- Rademaker, K., & Zarrillo, S. (2015). Survival of the highest: An archaeological site reveals humans lived at very high altitudes more than 12,000 years ago. *Natural History*, 123(2), 36–39.
- Sagynbekova, L. (2017). Environment, rural livelihoods, and labor migration: A case study in Central Kyrgyzstan. *Mountain Research and Development*, 37(4), 456–463.
- Sandweiss, D. H., & Reid, D. A. (2016). Negotiated subjugation: Maritime trade and the incorporation of Chíncha into the Inca Empire. *The Journal of Island and Coastal Archaeology*, 11(3), 311–325.
- Sarmiento, F. O. (2000). Breaking mountain paradigms: Ecological effects on human impacts in man-aged tropic Andean landscapes. *Ambio: A Journal of the Human Environment*, 29(7), 423–431.
- Sarmiento, F. O., & Frolich, L. M. (2002). Andean cloud forest tree lines. *Mountain Research and Development*, 22(3), 278–287.
- Schmidt, M., & Sagynbekova, L. (2008). Migration past and present: Changing patterns in Kyrgyzstan. *Central Asian Survey*, 27(2), 111–127.
- Schmidt, M. (2018). Dynamic processes and development in the Central Karakoram. *Sustainable Development of Mountain Territories*. 10, 1, 35, 91–96.
- Scholz, F., & Schlee, G. (2015). Nomads and nomadism in history. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 838–843). Elsevier.
- Singh, S., Hassan, S. M. T., Hassan, M., & Bharti, N. (2020). Urbanisation and water insecurity in the Hindu Kush Himalaya: Insights from Bangladesh, India, Nepal and Pakistan. *Water Policy*, 22, 9–32.
- Sonderogger, R., & Bätzing, W. (2013). Second homes in the Alpine Region. On the interplay between leisure, tourism, outmigration and second homes in the Alps. *Journal of Alpine Research, Hors-Série*. <https://doi.org/10.4000/rga.2511>
- Spies, M. (2019). *Northern Pakistan: High Mountain farming and Siconatures*. Vanguard Books.
- Steinbeck, J. (1939). *The Grapes of Wrath* (1939). na.
- Steinicke, E., & Löffler, R. (2014). The effects of amenity migration on ethnic minorities in the Alps: Case study of the Italian Alps. In L. Moss & R. Glorioso (Eds.), *Global amenity migration – transforming rural culture, economy and landscape* (pp. 233–249). Kaslo.
- Taylor III, J. E. (2020). *The Spectacle of Free Solo Free Solo*. Directed by Elizabeth Chai Vasarhelyi and Jimmy Chin.
- Testori, G., & d'Auria, V. (2018). Autonomía and cultural co-design. Exploring the Andean minga practice as a basis for enabling design processes. *Strategic Design Research Journal*, 11(2), 92–102.

- Weismantel, M., & Eisenman, S. F. (1998). Race in the Andes: Global movements and popular ontologies. *Bulletin of Latin American Research*, 17(2), 121–142.
- Wiegandt, E., & Lugon, R. (2008). *Challenges of living with glaciers in the Swiss Alps, past and present. The darkening peaks: Glacial retreat in scientific and social context* (pp. 33–48). University of California Press.