ABSTRACT. From 1960 onward, the High Sierra counties rank among those Californian regions with the strongest relative population growth. Re-evaluation of peripheral areas is driving population and settlement growth in the central Sierra Nevada of California and Nevada (“counterurbanization”). This study analyzes the impact of urban refugees on socio-economic conditions of high mountain regions (above 1,800 m). People who migrate to the High Sierra tend to be white, well-educated, with considerable household earnings, but certainly do not fall into the senior citizens category. Their demand for vacation or permanent residences has increased housing prices enormously, which leads to the fact that a majority of homes are meanwhile priced well beyond the reach of local salaries – a certain potential for conflict between locals and newcomers. There is no doubt that the massive settlement expansion in high mountain regions generates also considerable planning problems. Keywords: amenity migration, counterurbanization, population growth, Sierra Nevada.

THEORETICAL CONSIDERATIONS

The present study funded by the Austrian Science Fund (FWF) is based on the concept of „counterurbanization,” which describes the rediscovery and re-evaluation of rural areas as residential and commercial space (Berry 1976). This phenomenon is the driving force behind the current population and settlement growth in the Californian Sierra Nevada. Evidence of population diffusion has been well noted for the past forty years in a number of industrialized countries, but most of all in the USA. While counterurbanization is associated with a migration to peripheral regions and thus an increase in population figures in certain rural areas, Anthony G. Champion (1989, 1998) points out that this does not necessarily result in a numerical decrease of residents in the urban areas.

A considerable body of scholarship has already addressed the process of counterurbanization, which Clare J. A. Mitchell (2004) analyzes from a methodological perspective. The use of inconsistent terminology led the author to designate counterurbanization as an umbrella term for all manifestations of population deconcentration. Consequently, she views “exurbanization” as one aspect of counterurbanization. However, it would not be useful to rank the two concepts hierarchically for the purposes of the current study or for the part of California under consideration. Rather, they should be explained as two different types of metropolitan deconcentration. Exurbanization can be defined, with Auguste C. Spector sky (1955), as population growth (caused by migration) in regions that border on the outer area of a suburban zone. Strictly speaking, it is a further extension of the suburban space. While the daily commuting into urban centers is a hallmark...
of exurbanization, it is much less important to counterurbanization. In this case, the migrants’ destinations are rural regions, sometimes remote areas, yet almost always places that have a high value for leisure activities. Advances in telecommunications have undoubtedly added momentum to this new pattern of migration, which Mitchell (2004) calls „anti-urbanization.” The processes described in the current study can also be brought together under the concept of „amenity migration.” Laurence A. G. Moss (2003) defines this as „people moving into the mountains to reside year-round or intermittently, principally because of their actual and perceived greater environmental and cultural differentiation.”

The Golden State, which was always a destination for migrants within the USA, is now being confronted with a demographic countertrend. As the Public Policy Institute of California has shown in its publications, more Californians have left their state since the 1990s than US citizens have entered. For many, there were economic reasons behind both this wave of „movin’ out” (Johnson 2000) as well as the political dissatisfaction that led to the gubernatorial recall. Nevertheless, the population of California continues to grow - as a result of high fertility rates and foreign immigration.

![Fig 1-Population growth in the Sierra Nevada 1990–2000. Source of data: U.S. Census Bureau; Center for Health Statistics (Graph by Roland Löffler)](image)
Steinicke 2000, 2001; Hofmann & Steinicke 2004). In an ambitious study, the research team of the Sierra Nevada Ecosystem Project (SNEP 1996) highlighted some of the problems associated with population growth in the mountains. However, this environmentally-oriented report did not make explicit reference to counterurbanization. After concluding his work on the project, Timothy P. Duane focused his own research particularly on questions related to the cause, consequences and planning problems of expanding settlements in the Sierra Nevada. His monograph made the foothills, the growth area west of the Sierra Nevada, the focus of his considerations (Duane 1999). Since this area immediately borders the eastern edge of the suburban zones of Sacramento and other cities in the Central Valley, these are considered primary instances of exurbanization. Yet he draws no distinction between population growth in the foothills versus the Sierra Nevada. Even the demographic studies of the Public Policy Institute of California mentioned earlier place one part of the central Sierra Nevada into the category of “Sacramento Metro.” And neither studies published by the Sierra Business Council (SBC 1997, 1999, 2003), which thoroughly examine measures aimed at containing settlement growth in the mountains, nor a land use study of Nevada County by Peter A. Walker, Sarah J. Marvin and Louise P. Fortmann (2003), make the distinction between high altitude regions and foothills.

In fact, there is a shortage of academic research identifying counterurbanization as a central theme in the high mountains of California. The analyses of Steinicke (and colleagues) cited above show how far upwards the limits of permanent settlement have been pushed by the influx of new residents into the mountains. A further result of these studies demonstrated that examinations of counterurbanization in the Californian Sierra Nevada cannot stop at the state border. There is another small part to consider, which, though it is situated in the neighboring state of Nevada, belongs functionally to the predominantly Californian Lake Tahoe region. To the extent the data allow, the Nevada part will be included in this paper as well.

The present study attempts to analyze the driving forces of counterurbanization and its impact on socio-economic conditions in the high altitude regions of the Sierra Nevada. Thus, the following central questions have to be raised: What are the significant economic conditions and changes in the focused research areas during the last decades? How do recreation activities influence counterurbanization in the High Sierra and what is the interaction between both? Who are the current newcomers and where do they come from? What is the motivation behind their decision to move to the High Sierra? What is the impact of the newcomers on housing and land prices?

Apart from analyzing the status-quo of related research, official statistics, media, and various topographic maps as well as existing aerial photographs, the study seeks to obtain the necessary
information from expert interviews and from open, qualitative forms of interviews (partly structured interviews with 85 residents).

**SIERRA NEVADA AND THE RESEARCH AREAS**

Topographically, the Sierra Nevada is a continuation of the Cascade Range, forming part of the north-south oriented Cordillera System in North America. From the Lassen volcano, the mountains extend nearly 800 km in length south-southwest to the Tejon Pass (1,280 m) at the San Andreas Fault. Aside from a small part of the eastern Lake Tahoe Basin this 70 - 140 km wide mass of granite remains within the boundaries of California. The Sierra Nevada is distinct from neighboring mountain ranges not only by virtue of their geological structure, but also due to their high vertical reach. The average height of the peaks in the main range is over 3,000 m, and in their core area, 4,000-meter peaks are not exceptional. The massif rises east very gradually from the foothills that delimit the Central Valley, while the flat western slope lacks for a similar counterpart to the east of the main watershed. One factor making the Sierra Nevada inhospitable to human settlement is the absence of connecting cross-valleys, which would allow easier access into the mountains. The only crossings below 3,000 m lie to the north and to the south of Lake Tahoe. This region is at the center of current settlement.
The Sierra Nevada cannot be demarcated using administrative units from California or Nevada. Numerous counties that include parts of the mountains also reach deep into the Central Valley. For that reason, statistical evaluations at the aggregate level of the counties can only provide a very rough picture of demographic and socio-economic issues. On the other hand, these same statistics can still indicate particular problem areas or singular developments in the high altitude areas. As noted, the present study focuses on the high mountains; exurban growth in the foothills is not being addressed in more detail. Meanwhile, the question of how to define the high mountain areas has a pragmatic answer: Since the zone above exurbia that stretches up to 1,000 meters above sea level is a largely unpopulated area in California, all the parts of the Sierra over 1,800 meters (5,900 feet) - in other words, the level at which counterurban space begins - will be identified as high mountains.

Since the 1920s, developments in tourism have put an end to the depression following the end of the gold rush in the second third of the 19th century in some parts of the Sierra Nevada, and have led to new settlements in the high mountains. Nevertheless, anyone traveling through the Sierra Nevada will quickly notice that wide-ranging forests take up the lion’s share of the land, while
tours and scattered houses are mostly in the background. The primary reason for this is that only private land, which makes up a bit more than a third of the Sierra Nevada, can be used for settlement in the mountains (Figure 3). As table I shows, settled space took up about 15 percent of private land in 1990. National parks, state parks, national monuments, and any other parcels of land that belong to the Forest Service fall into the category of public land, which is fundamentally excluded from settlement, though it plays an important role in tourism.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>PROPORTION IN KM²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total area Sierra Nevada</td>
<td>83.624</td>
</tr>
<tr>
<td>Protected areas (national parks, state parks, national monuments, ecological areas, wildlife areas, wilderness areas, special interest areas, areas of critical environmental concern etc.)</td>
<td>18.042</td>
</tr>
<tr>
<td>Settlement 1990</td>
<td>4.510</td>
</tr>
<tr>
<td>Private land (36 %)</td>
<td>30.105</td>
</tr>
<tr>
<td>Public land (64 %)</td>
<td>53.519</td>
</tr>
<tr>
<td>there from:</td>
<td></td>
</tr>
<tr>
<td>Forest Service (41 %)</td>
<td>34.286</td>
</tr>
<tr>
<td>National Park Service (6 %)</td>
<td>5.017</td>
</tr>
<tr>
<td>Bureau of Land Management (13 %)</td>
<td>10.871</td>
</tr>
</tbody>
</table>

Source: SNEP 1996

Given their enormous population growth and settlement expansion, the study will focus on the following two counterurbanized high-altitude subregions (Figure 3):
- The Lake Tahoe region, i.e. the Lake Tahoe Basin and the adjacent Truckee/Donner area in the north including Squaw Valley, Alpine Meadows, Donner Summit and Northstar;
- Mammoth Lakes area, east of Yosemite National Park about 180 km south of Lake Tahoe.
As the two national parks of Yosemite and Sequoia/Kings Canyon were becoming mass attractions at the end of the 19th century, with over 10,000 visitors annually (see Farquhar 1965, 118), a new recreational area also opened up in Lake Tahoe around the same time. Hundreds of visitors from San Francisco flocked there during the summer months. Within a relatively short period the necessary infrastructure to support the new leisure industries developed around the lake. In the western US skiing became popular in the 1920s, and the northern Lake Tahoe Basin was at the center of it all. In the winter of 1926, the Southern Pacific Railway began offering „The Snowball Special“ to transport skiers from San Francisco to Lake Tahoe. That same year, Norwegian immigrants established „Granlibakken“ in the area - the first commercially oriented ski resort with lift equipment in California. Its proximity to a major railway line proved to be an important factor in its success. As a center of innovation in tourism, the entire Lake Tahoe region provided the impetus for the subsequent creation of other resorts in the High Sierra.

Between 1930 and 1960, the population of the Lake Tahoe region grew from 2,000 to 10,000 (by 2004 it was more than 73,000). In the early 1940s, another attraction was added to the area. Casinos were built directly on the state border, following Nevada’s decision to legalize gambling in 1931. Like a magnet, they drew an inordinate number of visitors from California, primarily from Sacramento and the Bay Area around San Francisco. As the number of visitors grew, the area’s natural suitability as a destination for winter sports also became more apparent. Existing, smaller ski resorts were expanded and new resorts were built too. However, the deciding factor in the winter
sports boom in the Lake Tahoe region were the 1960 Winter Olympic Games in Squaw Valley. The area became world famous, and money to build and upgrade the tourism infrastructure began pouring in. Since the 1960s, the area around Lake Tahoe and to the north has become one of the largest winter sports destinations in the USA, with development continuing to the present day.

The resort of Mammoth Lakes began as a gold diggers’ camp. By 1875, it had become a ghost town, and was used primarily as a station for sheep herding. Between 1900 and 1920, the population of Mono County dropped from 2,167 to 960. Of that number, about 300 people, mostly ranchers, lived in the area around Mammoth Lakes (Smith 1993, 208-210). Tourism took off much later here than around Lake Tahoe. One reason is that the East California Highway 395 was not built until 1931. First attempts to create a winter tourism industry only came in 1941, on the initiative of a private developer named Dave McCoy. However, with the eventual establishment of Mammoth Lakes as one of the most modern ski centers in the world came not only increased numbers of visitors, but also permanent residents as well. By 1960, the population of the highest-altitude permanent settlement of California had reached 1,905 (the figure was 7,404 by 2004).

**POPULATION GROWTH IN HIGH MOUNTAIN AREAS**

Then as now, the Sierra Nevada is an area with significant population increases, albeit with slower growth rates since the 1990s (Figure 4). This can be attributed on one hand to a lower birth rate than other parts of California (see Johnson 2002), and on the other to decreased migration into the mountains because of the economic problems of the state as a whole. It is all the more remarkable then that the number of building lots on private land - taking up only a small portion of acreage in the mountain interior - has been declining. As an inevitable result, real estate prices have risen precipitously over the last 15 years, further inhibiting residential development in a time of recession.

In this context, an idiosyncrasy of the Lake Tahoe area related to regional planning should be explained. Because of its environmental value, as well as its location spanning the borders of California and Nevada, at the request of both states the US Congress ratified a special regional planning law in 1969 that governs residential development in the intra-mountain basin. The law, which supersedes any other planning ordinances in California or Nevada, also called for the creation of a dedicated planning authority called the Tahoe Regional Planning Agency (TRPA). This authority drew up the restrictive regional plan that became operative in 1987. The restrictions and conditions contained in this document, which are primarily directed at protecting the Tahoe high mountain lake from environmental damage, go some way toward explaining why the Lake Tahoe Basin has experienced relatively small population gains, and in some cases even losses since
the late 1980s. For example, TRPA set an upper limit of new housing units that may be added in one year (currently 300). This has given a boost to population growth in the areas outside TRPA’s jurisdiction, primarily the Truckee/Donner area to the north as well as the resorts of Squaw Valley/Alpine Meadows and Northstar. Nevertheless, this spillover effect is not limited to population, it extends to housing development, too. In the 1990s, the Lake Tahoe area registered remarkably low levels of construction activity compared to the previous decade, while many buildings went up during the same period in the Truckee/Donner area. In Mammoth Lakes, the dwindling amount of private land available for development has also limited additional settlement significantly. Given that fact, a population increase of over 48 percent between 1990 and 2000 seems all the more impressive.

![Population growth in the Lake Tahoe region (block groups) and in the Californian counties 1990-2000. Source: U.S. Census Bureau (Cartography by Roland Löffler)](image)

Despite an overall weakening of growth rates since 1990 in the high mountains, vertical expansion shows no sign of slowing down. The steady reduction of private land available for development has resulted in new houses being built at ever higher altitudes. In 1970, that boundary for the entire Lake Tahoe region (including the Nevada section) exceeded hardly 2,200 meters (Steinicke 2000, 117). To date, as field research in July 2004 showed, it goes up to almost 2,400: in
Kingsbury Village to 2,380 meters, in Summit Village to 2,340 meters, and in Incline Village, houses can be found at 2,370 meters.

In Mammoth Lakes current data and own inquiries show clearly that the population has grown steadily at altitudes above 2,500 meters, and that even the 2,600 meter barrier has been broken. As the highest settlements in the southwestern USA, these areas seem to hold a particular attraction for newcomers - whether for a permanent residence or a vacation home - as they are usually located immediately next to the ski slopes.

Despite the low absolute number values, these developments point to a significant expansion of permanent settlement at ever higher elevations, which has socio-economic, regional planning and environment implications.

PLACE OF ORIGIN OF URBAN REFUGEES

As proved by Ernst Steinicke (1995; 2000) a certain correlation exists between the provenance of urban refugees to the Sierra Nevada and the source areas of the Sierra tourists. While people from San Francisco were the first to spend their vacations in the Lake Tahoe region, residents from Los Angeles predominantly flocked to the Mammoth Lakes area. More recent denizens represent an urban community that rates living conditions in the mountain regions clearly above the quality of life in urbanized areas.

The places of origin of residents in the Lake Tahoe region (with the Nevada part) can be easily defined: In interviews, respondents particularly mentioned the San Francisco Bay Area and greater Sacramento (including northern parts of the Central Valley) as main source areas. Both are connected to the mountains via US Highway 50 and Interstate 80. In Mammoth Lakes, most of the people who decided to live here come from the metropolitan areas of southern California (Los Angeles and San Diego). The connection between these two areas is quite old and dates back to the early 20th century. In 1913 the L.A. Aqueduct was built, which guaranteed water supply for Los Angeles. Altogether three quarters of the Sierra visitors originate from California. Most of the remaining guests come from Arizona, Nevada, Oregon, and Texas.

WHY DO PEOPLE MOVE INTO THE HIGH MOUNTAINS?

The pull factors for in-migration to high mountains are similar to those Duane (1999, 48-54) assumed for the foothills. Our inquiries conducted in the designated research areas have yielded several indicators, whereas in Mammoth Lakes as well as in the Lake Tahoe region respondents named the following factors as prime reasons for their decision to move to the Sierra Nevada:
safety/low crime rate, high standard of living, the natural and recreational amenities, and the high quality of the school system. Another decisive motive for counterurbanization is the fact that a lot of the newcomers reject the great social and racial differences in metropolitan areas. Instead, they prefer the homogenous social composition found in the mountain areas. The relative remoteness of the dispersed settlements in the high mountains is not assessed negatively as modern telecommunications technology is adequately available.

In our interviews some migrants of the 1980s emphasized “equity gains of urbanites” as essential factors driving the exodus to the mountains. Due to strong consumer demands for housing in the metropolitan areas, many homeowners were able to sell their metropolitan homes for significant capital gain. Consequently, they had economic advantages by moving from urban areas with high housing costs to mountain areas with relatively low housing costs. In the meantime, however, there is hardly any difference between house prices in metropolitan areas and in the Sierra Nevada.

**Characteristics of the Sierra Nevada Population**

As data from the 1990 and 2000 census indicate, the counties in the Sierra Nevada show a rather high share of elderly people (64 years and older). This is because the foothills are a very popular place for pensioners to live. By contrast, the high mountain regions do not offer favorable conditions for the development of retirement settlements. On the one hand the infrastructure there is not designed for old people, and on the other hand the enormous amounts of snowfall certainly do not constitute a pull-factor for them. This is why the proportion of people 64 years and older has not really risen since 1990. All high-altitude regions – and this is particularly true for Mammoth Lakes - are populated by people in the younger age bracket. Apart from the enormous migration to the Sierra Nevada there is also a certain natural population increase (Figure 1) typical for these regions, even though the men-to-women ratio is by far not homogenous there. According to numbers provided by the 2000 Census, in the town of Truckee, for every 100 single women aged between 20 and 44 there were 158 single men within the same age range. This proportion is even more extreme when looking at ages 20 to 34, with 183 single men for every 100 single women. Since we can find a similar men-to-women ratio in Vail and Aspen, too, the disproportionate sex composition appears to be a general phenomenon typical for mountain towns. One may conclude that men are simply more attracted to the mountain lifestyle.

The central Sierra Nevada is characterized by a large white population (Figure 5). In the high mountain regions the percentage of whites is – apart from very few exceptions – always above 80 percent. Such an exception is Mammoth Lakes, where migrants from southern California cities
include numerous Hispanics. In the year 2000, they accounted for more than a fifth (1,577 people) of the town population.

In addition to its ethnic structure, another notable feature of the Sierra Nevada is its progressive tertiarization, which goes hand in hand with a remarkably low rate of employment in the agricultural and forestry sectors. As mentioned before, there is a direct link between counterurbanization and tourism in high mountain areas; consequently, it comes as no surprise that third-sector jobs predominate in the Lake Tahoe region as well as in Mammoth Lakes. In the high mountains, a significant share of secondary-sector jobs can only be found in the area around Truckee. This area marks the crossing of the Sierra, served by railroad tracks and Interstate 80, where construction, trade and industry offer the most job opportunities. Even here, however, the spillover effect contributes to an increase in tourist-oriented businesses.

The level of education and schooling in these counterurbanized high mountain areas is far above the California and Sierra average. In the research areas, 30 to 35 percent of the population has a bachelor’s degree or higher. By comparison, that figure barely stands at 27 percent for California as a whole. It is legitimate to conclude from these figures that a particularly high percentage of migrants to the mountain areas hold an advanced degree.

The fact that incomes of urban refugees are considerably higher than those of long-time residents, constitutes another conspicuous characteristic of the two research areas. The consequences are discussed in the following chapter.
Fig. 5 - Population structure in the Lake Tahoe region (block groups) and in the Californian counties 2000. Source: U.S. Bureau of the Census (Cartography by Roland Löffler)
IMPACTS OF COUNTERURBANIZATION ON THE SOCIO-ECONOMIC CONDITIONS

The phenomenon of counterurbanization is associated with an ongoing transformation of rural economies from a former commodities-oriented, natural resource-extractive base to a services-oriented, amenity-driven base. The communities in the central High Sierra (Lake Tahoe Basin, Truckee/Donner area) and in the Eastern Sierra (Mammoth Lakes area) are prototypically resource-dependent on recreation and tourism. The process of counterurbanization has specifically led to an upswing of real estate prices and changes in demographic as well as economic structures.

INCREASE OF HOUSING PRICES AS A POSSIBLE POTENTIAL FOR CONFLICT

To date, in the central High Sierra a common home costs at least around US$ 300,000 – an insight gained quickly by analyzing the numerous real estate brochures and local newspapers. Usually, the price is - depending on location and size (Table II) - much higher and prices in the million-dollar-range are not uncommon. Additionally, official statistics and selected special studies (Fred Consulting Associates 2002; Bay Area Economics 2004; TRPA 2002; CAR reports) provide details about the current situation of home prices. The median price of an existing, single-family detached home in California in 2004 was US$ 451,968 - a 21.6 percent increase over the US$ 371,706 median for 2003.

![Fig. 6-Median price for a single-family home and Housing Affordability Index (HAI) in California 1999-2004. Source of data: California Association of Realtors (Graph by Roland Löffler)]
Figure 6 shows the increase in the median price, the price where half of the houses are sold above and half of the houses are sold below, for a single-family home in California during the period 1999-2004 (108.8 percent). Moreover, the graph provides the Housing Affordability Index (HAI) representing the percentage of households with a median household income which are able to afford a median-priced home. In California the HAI decreased from 38 percent in 1999 to 20 percent in 2004.

A similarly rapid increase in price has been observed in the high mountain areas of the Sierra Nevada as well. The two case study areas will be described in more detail below.

Table II outlines housing price levels by size of interior and demonstrates the exclusivity of both areas. If a reasonable proportion of income devoted to housing costs is defined as 30 percent, it becomes apparent that this price level is no longer affordable for a large portion of the residents, particularly as the median value of the yearly household income is not higher than US$ 50,996 (Lake Tahoe region) or even US$ 44,570 (Mammoth Lakes) according to the 2000 census (California: US$ 47,493). The high house prices are also reflected in area rents, which range from 40 - 95 percent above the fair market price.

<table>
<thead>
<tr>
<th>RESEARCH AREAS</th>
<th>SIZE OF INTERIOR</th>
<th>HOUSING PRICE (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(median selling price)</td>
<td>from</td>
<td>to</td>
</tr>
<tr>
<td>Lake Tahoe region</td>
<td>&gt; 200 m²</td>
<td>97,500</td>
</tr>
<tr>
<td>(2004: US$ 620,625)</td>
<td>- 250 m²</td>
<td>399,000</td>
</tr>
<tr>
<td></td>
<td>- 300 m²</td>
<td>439,500</td>
</tr>
<tr>
<td></td>
<td>- 400 m²</td>
<td>789,000</td>
</tr>
<tr>
<td></td>
<td>&gt; 400 m²</td>
<td>985,000</td>
</tr>
<tr>
<td>Mammoth Lakes area</td>
<td>&gt; 200 m²</td>
<td>129,000</td>
</tr>
<tr>
<td>(2004: US$ 750,000)</td>
<td>- 250 m²</td>
<td>790,000</td>
</tr>
<tr>
<td></td>
<td>- 300 m²</td>
<td>1,099,090</td>
</tr>
<tr>
<td></td>
<td>- 400 m²</td>
<td>815,000</td>
</tr>
<tr>
<td></td>
<td>- 500 m²</td>
<td>2,799,000</td>
</tr>
<tr>
<td></td>
<td>&gt; 500 m²</td>
<td>3,200,000</td>
</tr>
</tbody>
</table>

Source: Analyses of real estate brochures and local newspapers by authors March-July 2004
LAKE TAHOE REGION

As already mentioned, immigration from the San Francisco Bay Area has been continually expanding from the Lake Tahoe Basin ever further north to the Truckee/Donner area (including North Star and Squaw Valley). As a result, demand for housing space has been increasing, driving up real estate prices even in this area. In 2004, the median price of a single-family home increased 17.7 percent in the Lake Tahoe region and stood at US$ 620,625 compared to 2003. There are substantial price differences depending on the location around the lake: On the south-shore, a home costs about US$ 352,500, while in Incline Village, in the northeastern part of the lake, the median price is US$ 892,500 (CAR).

MAMMOTH LAKES

The median selling price of a single-family home in Mammoth Lakes in 2004 was US$ 750,000. In the year 2000 the price was US$ 385,000, which means the price increased 94 percent in only four years. At that price, a household would have to make more than 300 percent of the 2004 Mono County median income to keep housing costs at or below 30 percent of the household income (General Plan for the Town of Mammoth Lakes, 2004; Mammoth Monthly - Media Kit 2004-2005).

Mapping the land use in Mammoth Lakes reveals how significant housing as well as habitation in hotels, motels, and lodges is (Figure 7). The great demand for houses and the declining availability of areas for new constructions are two main reasons, beside the influx of affluent new residents, for the current high price level of the town.
CONSEQUENCES OF THE REAL ESTATE PRICE EXPLOSION

Undoubtedly, there is a certain potential for conflict between the high and the low income groups. It arises for the most part from the higher real estate prices that result from the climbing demand for single-family homes in the areas. Our survey results demonstrate that the amenity migrants to the Truckee/Donner area belong to a wealthier category, with an average household income of more than US$ 80,000. The median household income of the part time residents in Mammoth Lakes is US$ 78,824; thirty-six percent of them earn more than US$ 100,000 (Mammoth Monthly - Media Kit 2004-2005). Comparing these figures to the ones from the 2000 Census (median household income: US$ 44,750) it is evident why many locals have to struggle with the current price level.

That many of the 9,000 single-family houses in the Truckee/Donner area are used either as second homes, rental units, or speculative purchases may be assumed from the fact that 65 percent of the owners have primary addresses in the San Francisco Bay Area or greater Sacramento (Fred Consulting Associates 2002). About 60 percent of the homes in South Lake Tahoe are secondary residences; realtors anticipate that this rate could grow (Ginsburg 2004). In Tahoe Donner the number of recreational-/secondary residence was 78 percent in 2000; around Donner Lake even 80 percent (Town of Truckee General Plan Update 2002).
One logical consequence of the steady increase in housing prices is that many less affluent people have been forced to look for homes in less expensive areas of Nevada, around cities like Reno-Sparks, Gardnerville and Carson City. Most affected in this regard are Hispanic and some Asian workers, but even young locals are being priced out of the market. In 1992, some 24 percent of workers in the Lake Tahoe Basin were registered as commuters - half from the areas mentioned earlier (TRPA 2002). Although no follow-up studies have been done since then, it may safely be assumed that the percentage of commuters has continued to grow.

TOURISM AS THE DRIVING FORCE OF THE ECONOMY

Aside from the national parks (Yosemite, Sequoia, Kings Canyon), Mammoth Lakes and the Lake Tahoe Basin are the most tourism-intensive parts of the Sierra Nevada. Of the approximately 60,000 jobs in both areas, 38 percent are directly tied to tourism and 74 percent of all jobs, as well as 68 percent of all wage payments are indirectly related to tourism (TRPA 2002, Dean Runyan Associates 2003, City-Data.com).

Because there is no residential registration requirement in the United States, the number of visitors and/or overnight stays is not very well documented. In some cases, estimates have to be made in the absence of hard data. But there are other ways of expressing the volume of tourism activity in the areas under consideration:

- In its reports “Who Owns Which Mountain Resorts“ (www.nsaa.org), the National Ski Areas Association (NSAA), for example, published some data about the number of tourists in different
ski areas and seasons. According to these reports, the ski areas around Lake Tahoe registered the following number of visitors:

Northstar-at-Tahoe was visited by 570,000 skiers/snowboarders in the 2002/03 season and by 531,180 during the subsequent season. Sierra-at-Tahoe was able to increase its number of visitors from 353,000 in the season 2002/03 to 362,443 in the winter of 2003/04. Nearly one million people visited Heavenly Valley, the largest ski area around the lake, in the last few years.

Mammoth and June Mountain counted almost 1.4 million winter sports fans during the last season.

- Fred Consulting Associates (2002, 11) and the North Lake Tahoe Resort Association (2003, 8) put the number of visitors to the winter sports areas in the entire Lake Tahoe region for the period of 1999/00-2002/03 at four million per year. According to these figures, the numbers of visitors have – also because of the construction of new ski stations – doubled since the end of 1980.

- Another indicator to measure tourism intensity is the Transient Occupancy Tax (TOT). Every landlord of commercial rooms levies this tax from overnight stays. Since 1990 the tax has been steadily increasing. Although the possibility exists to convert this tax into number of overnight stays, the results may not be absolutely reliable. With the help of this calculation method overnight stays add up to about 14 million per year. This corresponds to an increase of one third since 1990.

According to the Inyo National Forest Service, the number of overnight stays has increased significantly since 1990 in Mammoth Lakes as well, although no exact data are available.

From an economic perspective, the town of South Lake Tahoe had the most to gain from counterurbanization. The families that owned the casinos saw to it that the Heavenly Valley ski resort was built during the 1960s, which soon outshone the Olympic site of Squaw Valley. The continual stream of visitors to the resort also left its mark on local settlement patterns in South Lake Tahoe. Residential development predominates on the California side, between the lake and the resort of Heavenly Valley. In Nevada, the high-rise casino hotels start to appear at the state line, but there are hardly any private homes outside of the six complexes.
In contrast to the tourist areas of North Lake Tahoe, where there is some gambling on the Nevada side, the casino hotels on the south shore are among the area’s largest employers. Since 1989, their yearly revenues from gambling have ranged between US$ 300 - 350 million. On the North Shore, those figures have remained a consistent US$ 40 million. As a result, gambling has become a permanent feature of summer and winter tourism. That is not the case for other destinations in the high mountains (TRPA 2002).

Although Heavenly Valley claims in its brochures to be the largest ski resort in California, there is no doubt that the resort of Mammoth Lakes (with the Mammoth Mountain ski area) actually receives more visitors who ski. Equally important to note is that Mammoth Mountain is the highest ski resort in California (2,500 - 3,240 meters), which guarantees excellent snow conditions for six to seven months of the year. The area’s greater volume of tourism as compared to South Lake Tahoe is also a function of their respective sources of visitors. While the majority of visitors to the Lake Tahoe region call the San Francisco Bay Area their home, it are tourists from the densely populated counties of Southern California that predominate in Mammoth Lakes. If, as planned, the small local airport is expanded and direct flights to major cities are established, further development will likely be spurred.

In Mammoth Lakes 84 percent of the winter tourists and 68 percent of the summer tourists originate from Southern California (Mammoth Monthly. Media Kit 2004-2005). According to the Mammoth Lakes Visitors Bureau (2004) the average winter visitor is 41 years old, stays 4.1 nights and possesses a median household income of US$ 112,800. Roughly 56 percent of all guests are male and 44 percent female.
The growth of the town as well as the ski resort depended on one key condition: the sale of large parcels of land by the Forest Service (1960) and by a longtime local farming family (1977) to Dave McCoy. With the acquisition of the valley June Lake/June Mountain to the north in 1986, which had been used as a ski resort since the 1960s, not much is left to stand in the way of additional new development. The volume of tourism is also likely to increase, given that neither wilderness areas nor areas adjoining Yosemite National Park to the west are part of the projected development. In the mid-1990s, McCoy sold his shares to the Intrawest Corporation, which now owns 60 percent of the real estate in Mammoth Lakes. Similar to its designs for Squaw Valley, the Canadian company is also undertaking an expansion of residential and commercial properties, as well as an upgrade of the tourism infrastructure.

SYNTHESIS

While the state of California has been confronted with a negative internal migration balance since the 1990s, the Sierra Nevada remains a region characterized by ongoing immigration. Because of this immigration the outer suburban belt of Sacramento already reaches into the foothills of the Sierra ranges. Striking population growth can also be experienced in remote high mountain regions, far away from congested urban areas (“counterurbanization”). As observed, counterurbanization leads to a permanent shift upwards of settlement boundaries in the research areas and meanwhile exceeds the 2,600 m contour line. In addition, the inhabited regions also grow horizontally. Because only private land can be used for settlement expansion, which makes up only a third of the Sierra Nevada and has been used intense for new constructions in the past years, future research has do be done in the field of land use planning.

In contrast to the demographics of the foothills, this has not been a migration of the aged people. The amenity migrants to the High Sierra are well educated, mostly white, affluent people employed in the cities of southern California, the Central Valley, and the San Francisco Bay Area, who see the high mountain areas as a preferred place of residence.

Besides land use problems and ecological issues, which are involved with settlement expansion in high altitude areas, the enormous increase in real estate prices can be a serious potential for conflict between the local population and newcomers. One first consequence is that low-income residents have to move to less expensive places outside the high mountains.

The two major environmental problems are traffic and the supply and disposal with water. Greater traffic volume can also be linked to a dispersed pattern of settlement. Aside from Mammoth Lakes, where development has already reached the borders of public land, requiring a more condensed form of building, sprawl has meanwhile become the rule rather than the exception in the
high mountains. The higher that development extends into the peak altitudes, the more noticeable it becomes in the landscape.

Still tourism is the driving force of counterurbanization in the High Sierra (amenity migration). On the one hand, the (later) immigrants knew about the advantages and amenities of the Sierra Nevada because of vacation and recreational trips. On the other hand, tourism provides – directly or indirectly – a lot of employments.

A main reason for counterurbanization is the fact that urban refugees associate life in the high altitude regions with better quality of life, specifically with the notion of a life far away from overcrowded urban areas. Such expectations have led to a considerable housing sprawl in the woodland areas. Although the economic disadvantages and ecological consequences of a widely dispersed settlement structure are well known (SBC 1997), they were not factored into official county planning. Thus while interstate regional planning in the Lake Tahoe Basin has cognizance of ordinances restricting development, it does not have any guiding strategies that would encourage concentrated patterns of human settlement. The 18 General Plans, which are the foundation for planning in the High Sierra counties, do equally little to deal with the phenomenon of sprawl.

The question arises, whether land use concepts and actions against housing sprawl, which are in use in the eastern Alps can be adapted for the Californian mountain regions or if this would lead to a massive restriction of migration into the Sierra Nevada?
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