Retirement Landscape in the Alicante region

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Abstract

This paper aims to examine the effects of International Retirement Migration on the landscape of the coastal region of southern Spain. Through a trans-disciplinary approach, it examines the motives of retirees to migrate, their preferences in terms of landscape use and some resulting environmental impacts. The goal is to provide an understanding of the pull and push factors that lead to a move in later life – in terms of migrants' preferences and of the consequent landscape impacts in the receiving place. The paper focuses on a descriptive analysis based on census and GIS data. The results show that there is a distinctive pattern of in-migration centred in the Alicante region of Spain and the emergence of an archetypical landscape, which consists of a mosaic of remaining natural as well as anthropogenically influenced urbanised landscape along the Mediterranean coast.

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1. Introduction and background information

The literature on migration has concentrated mostly on the motives for migration and on the demographic and economic consequences of migratory flows with scant attention given to the impacts and implications on the landscape or environment realm. The European Mediterranean Sea region has especially become subject to urbanisation processes, which are not limited to or focused on urban cores, but occur in proximity to the coastline (EEA 2006). This paper concentrates on one aspect of this phenomenon - the migration of British retirees to the Alicante region in Spain. The interdisciplinary approach presented here combines a socio-cultural analysis of the migration process with its manifestation in land use and landscape changes. It is argued that specific retiree's characteristics, motivations and perceptions result in the emergence of a particular landscape type. The first section of the paper addresses the retirement process. The second section provides an analysis of the landscape and environmental consequences taking into account the increasing number of retired British people in this area. What makes the examination of this migratory process even more important is the fact that its extent is a strip of land only a few kilometres wide along the coastline, creating a significant amount of pressure on a relatively small area. However, when seen in the context of migration for the whole of Spain, the scale of retirement migration is still rather modest.

The increasing number of older people as a proportion of the population in Spain and the growing importance of their hedonistic lifestyle suggests that the international retirement migration (IRM) phenomenon is yet to reach its full potential. In the last two decades, research studies have been carried out on social, demographic and economic consequences of retirement migration (OECD 1999; Deller 1995; Bennett 1993), giving only scant attention to its environmental impacts (Müller et al 2004).

This paper focuses on the environmental and landscape related impacts highlighting the fact that IRM represents a regional driving force of urbanisation. It analyses the case of British retirees to the Alicante region in Spain. More specifically, the paper aims to: (1) analyse retirees' perceptions and landscape preferences (2) analyse land use and environmental impacts in the case study region of Alicante in Spain and (3) provide some recommendations for the management of this region

2. Conceptual framework to analyse migratory behaviour and environmental impacts: Push and pull factors as motives for migration

A literature review on life style and behaviour characteristics of retirees was used to develop a conceptual framework for the impact assessment on landscape and environment. Migratory behaviour in this paper is conceptualised according to Figure 1. The use of the push and pull model helps to understand the main factors involved in people's decision to move to one particular location and not to another, although they might both bean equally high quality ecosystem. The push and pull factors set up the stage for the complex of intervening social relations organising people's lives and their relationship to the environment. It helps to select and analyse the main environmental and landscape impact in a specific region.

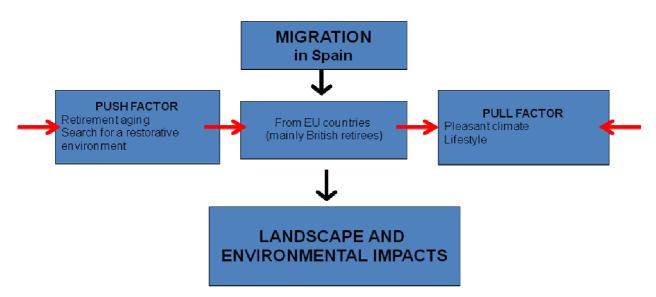


Figure 1: Push and pull factors (land use demands and land use impacts)

3. Methodology and Data

IRM processes in the Spanish region were explored through quantitative analysis and spatial representation. Municipal census data from the Spanish Statistical Office were used and analysed using the geographical information system package ESRI ArcGIS. The numbers of residents with foreign EU and British citizenship older than 64 were taken into account at municipal level (NUTS5/LAU2) for the time period from 1996 to 2007.

Land use/cover changes in the region were assessed spatially using the Corine Land Cover (CLC) database from the European Environmental Agency for the available years 1990 and 2000. Based on that data a gradient analysis of the coastal zone was conducted. The main focus was on the conversion of agricultural, forest and semi-natural land cover classes into artificial areas, such as settlement, infrastructure and green urban areas. Finally, the state and impact of the ecology and environment in the region was assessed and related to the IRM process using data on agricultural land use from EUROSTAT regional statistics, the Spanish Statistical Office and from additional surveys and primary literature.

4. IRM in Alicante region – Empirical insights

The region of Alicante is located in the south-east of Spain on the Mediterranean coastline of the Costa Blanca. In 2006 1.78 million people lived within an area of 5,896 km² (EUROSTAT 2008). The GDP per capita of the region reached 20,600 Euro in 2006, 92 % of the Spanish average. Since the early 1990s Alicante region has seen a rapid economic and demographic development. Between 1990 and 2005 GDP grew by 61.8% and population by 12.1% (EUROSTAT 2008). These processes have resulted in a high rate of urbanisation, characterised by suburban expansion around existing urban cores and leapfrog developments in exurban locations, especially along the coastline, as shown by Aguilar et al (2006) for the example of the municipality of Alicante. According to CLC measurements, between 1990 and 2000 alone the area of settlement and infrastructure in the region increased by 162.8 km², accounting for a growth of nearly 63% covering 7.2% of the total area of the region by 2000. However, ordinary suburbanisation is only one element of the entire urbanisation phenomenon.

4.1 Regional geographical and landscape characteristics

The main cities in the region are the capital Alicante in the centre of the region with 331,750 inhabitants, Elche in the south with 228,348 inhabitants and Torremanzanas, a large rural municipality in the north with 101,381 inhabitants. The topography is characterised by steep mountainous terrain ascending from the coastal strip and extending inland especially in the northern part, whereas to the south lowlands occupy more of the coastal hinterland. Corresponding to the relief, the land use/land cover shows a fairly heterogeneous structure.

The southern lowlands of the region of Alicante are dominated by agricultural and horticultural production, consisting of small-scale farms interspersed with rural settlements. This agrarian landscape is composed of fruit tree orchards and olive groves, arable land, vineyards and pasture in both dry and irrigated cultivation as well as of occasional greenhouse vegetable production.

The central part of the region is influenced by the proximity of the main urban agglomeration of the city of Alicante, stretching some 10 km inland from the coast. Characterised by a mosaic of agricultural land use, pine forests and semi-urban and urban structures, the landscape becomes more complex here, fragmented by a dense transport infrastructure network. The northern half of the region is mainly dominated by a mountainous landscape and adapted natural or semi-natural vegetation, mainly forest and maquis-type shrubland. Only small strips of land are possible for use for urban development or agricultural production along the coastline. Here a similar land use/land cover patchwork can be seen, while the urban influence is much greater. In this part of the region urban areas already represent an important landscape element along with natural and agricultural land uses. These are first of all characterised by sprawling low-density housing and artificial green leisure areas producing a kind of urban savannah landscape of parks, golf courses, marinas and large-scale commercial leisure facilities.

4.2 International Retirement Migration – Development and spatial distribution

Since the Alicante region became a hotspot destination of IRM, the number of retired EU citizens has reached 61,430, with 28,331 from the UK (INE 2007). These figures suggest that several factors need to be taken into consideration when assessing the impact of IRM on additional urbanisation in the region: (i) The number of immigrating retirees increased by average 13.3% annually over the last ten years (Figure 2).

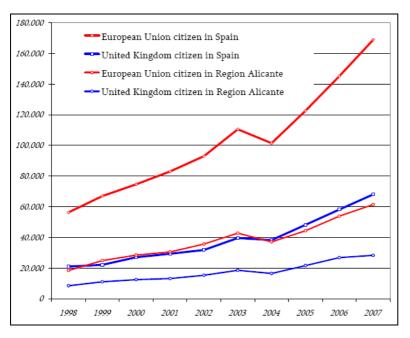


Figure 2: Number of EU and UK citizen older than 64 in Spain and Alicante region 1998-2007. Source: Instituto Nacional de Estadística, 2008.

Regarding the future development perspective, the current economic downturn might lead to an end of the strong influx of retirees and even some reversal of the trend in the short term. In the long run, however, the process is likely to continue, but less rapidly. (ii) Only citizens who are officially registered as residents are included in the statistics. Figures for secondhome ownership are poorly recorded (Williams et al 2004), but also needed to be taken into consideration. (iii) International retirees generally demand more housing space. They live in single (71 m²/capita) as well as couple and multiple person households (46 m²/capita) (ODPM 2003) and possess more financial resources, which additionally increases the housing demand. (iv). Housing locations of retirees are far from being homogeneously distributed over the region. Municipal statistics (INE 2007) show that a strong spatial concentration can be found in municipalities along the coastline, reaching the highest numbers in Torrevieja (10,066), Orihuela (6,520) and Calpe (6,311) (Figure 3).

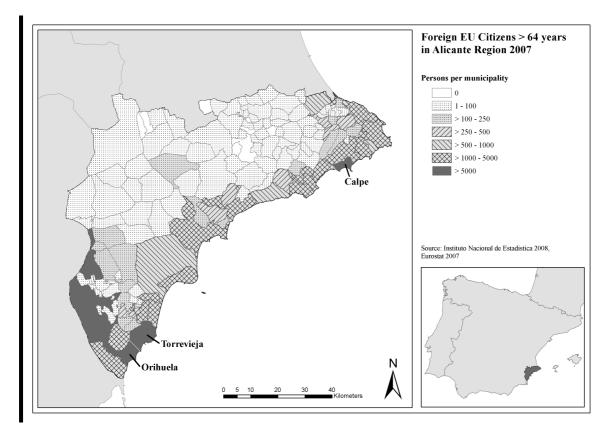


Figure 3: Distribution of foreign EU citizens > 64 years of age in the Alicante region.

5. International Retirement Migration in Spain – perceptions and preferences

To evaluate landscape impacts of the process of IRM, it is necessary to unpack retirees' socially acquired notions of landscape and to examine their activity patterns in outdoor spaces. Three main elements accounting for considerable land consumption and landscape changes are presented: (i) culturally embedded perceptions of landscape; (ii) orientation towards natural amenities and leisure as well as (iii) with age-specific demands.

There has been a long tradition of Britons residing in Spain since the 1950s with a boom in the 1980s. It is estimated that 40% of UK nationals living in Spain are over 50 years of age (King et al 2000), and that a large percentage has been living there for several decades. Britons are attracted to Spain by the combination of a high quality of life and a warm and sunny climate as well as low housing costs.

This type of amenity-related migration is sought by older people who are usually in good health and who have the social and financial resources to support their decision to move. This group of retirees target "Sunbelt" areas, such as the Alicante region of Spain It includes 'multiple movers' defined in the literature as including seasonal migrants; 'second-home owners' or 'third-age long-stay tourists' (Williams et al. 1997).

5.1 Cultural landscape and countryside

Current demographic data show a retirement move towards counter-urbanisation in the UK (Champion and Shepherd, 2006) and increasing numbers of people migrating to the coastal regions of Europe. It appears that there is a strong desire for a countryside life or a temporary escape from modern life (Cohen & Taylor 1992). The idealisation of the countryside does not simply represent a nostalgic rejection of urban life but is also related to the construction of the "countryside idyll" (Bunce 1994). Macnaughten and Urry (1998) point out that the notion of the English countryside is culturally constructed based on "English Romanticism", national identity and the role of the metropolitan-influenced rural area.

The retiree's perception of countryside also embodies this idealised "English" image, allowing the formation of nostalgic links. Buller and Hoggart (1994) argue, for example, that an increasing number of British second-home owners find a substitute for the lost British countryside in rural France. Chaplin (1999), also investigating the British in rural France, argues that second-home living is the result of a belief that rejects modern urban life and hence, represents a form of escapism.

The traditional urban-rural relationships within the southern European landscapes are characterised by an image of a strong dichotomy of urban density on the one hand and agrarian rural countryside on the other hand (King et al. 2001). Together with the specific Mediterranean topography, climate and vegetation, they constitute a "unique landscape of immediate recognition and global appeal" (Höchtl et al. 2007). Whereas large parts of the British countryside are artificially produced and intensively managed, the Mediterranean countryside possesses larger proportions of agrarian and natural areas which are characterised by lower management intensity. This is even more apparent within the direct living environments of the new urban neighbourhoods, consisting of private gardens as well as

semi-public and public open spaces. Here an artificial urban landscape iconography of a rather Anglo-Saxon tradition accompanied by a production of "private-urban-ecological-thematic paradises" (Munoz 2003) is replacing the tradition cultural landscape of the region. Clout (1974) refers to the process as the transformation of the wilderness into a peculiar clone of suburbia.

5.2 Orientation towards leisure activities and nature-related amenity

The sense of escape and the search for a restorative place to live in old age, may be key elements leading people to move to coastal areas, for example. The preference to be close to water is not gratuitous. Research in environmental psychology has shown how people prefer water features and desire to live close to them (Kaplan and Kaplan 1989, Ulrich 1983). As Wu (2000) has stated, there is also clear economic evidence of the relationship between natural amenities, housing preferences and economic growth and development (Kwang-Koo et al. 2005).

Some parts of the Alicante region seem to have become consumption areas or dreamscapes of visual consumption (Macnaughten & Urry, 1998). The design of places such as the case of golf courses in this area may be tending to focus on creating experiences and spectacles, a development that often coincides with landscape marketing and restricts the free accessibility to it because the landscapes are part of private amenities associated with development complexes.

Although the Spanish lifestyle is highly valued among different groups of European retirees (Rodríguez et al. 1998), engagement in leisure and outdoor activities seem to be somewhat separated. Research shows that nearby open spaces and leisure facilities play an important role for older people in maintaining and enhancing their quality of life (Sugiyama et al. 2008). Pleasant natural elements and short distances to open spaces represent key elements, which affect older people's life satisfaction. However, there seems to be little information related to quality of life for older people in the context of mass tourism in coastal settings.

The orientation in the landscape towards a leisure and natural amenity function and appearance represents an important aspect of the retirement lifestyle. In terms of their effect

on landscape and land use patterns, natural amenity and leisure need to be regarded separately. Natural amenities refer to landscape features, such as the coastline or mountains. They have an impact on the spatial pattern of second home related urbanisation (Müller et al 2004). Within the region of Alicante land use changes due to urbanisation pressure show a clear coastal distance gradient. Whereas settlement and leisure land use changes increase with proximity to the coastline, agricultural and forest areas are increasingly converted and pushed further inland, despite increasing market difficulties (Esparcia and Buciega 2004). Thus, 68.2% of the region's total urban growth is located within a 10 km distance from the coastline (Figure 4).

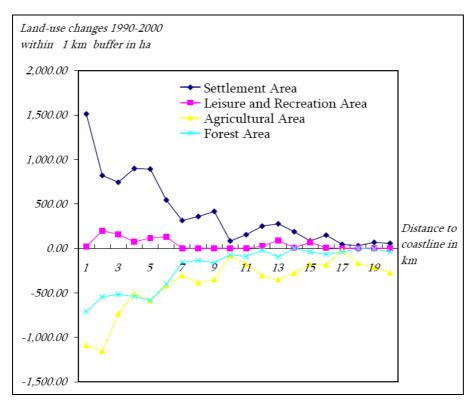


Figure 4: Land use changes 1990-2000 by distance from the coastline in Alicante region. Source: Own analysis based on Corine Land Cover

The proximity of the housing location with other natural amenities, especially mountainous areas, explains to a much lower degree the spatial distribution of the retirees' location. Enhancing recreation and leisure facilities have a different effect from the influence of natural amenities. Large-scale leisure facilities, such as golf courses, leisure parks or marinas imply impacts on land use and accompanying landscape changes. Increasingly, they

contribute to the emerging landscape, since such sites are mushrooming in the region. In 2006 the number of golf courses reached 15 with an additional 33 projected in Alicante region (Gomis et al. 2006) with about 0.5 km² and more of size each (Morillo 2007). Similar developments for other recreation and leisure area can be observed.

5.3 Security seeking and service orientation

The home environment plays a major role in the ageing process with older people preferring to have a familiar and safe environment in which to pursue their activities. The familiar conditions of the home environment form good preconditions for relaxation and enhance the perception of an idyll. The attraction of second-home living should be considered within the context of the image of the destination, i.e. the countryside as an environment that can provide a good quality of life. Most second homes in the Alicante region include various options for activities, such as cycling, walking, and golf thus allowing the home setting itself to be the object of activities (Müller 2002).

Strong social ties allow other retirees to move to a new destination with a certain sense of confidence in what they expect in terms of advantages and difficulties. These demands are met by the emergence of "urbanizaciones" (Mellado 1990), gated communities, which are driven by a desire of security and social integration. They represent a socio-spatial form of controlling the physical environment that automatically puts people in the insider or outsider category (Blandy et al. 2003). Sense of community or engagement with the native population may decrease (Wilson-Doenges 2000) because of the inward-facing design and the separation from the surrounding landscape. The need to protect one's identity in these segregated places may increase, shown by the fact that UK retirees form well-defined territorial and social units with fellow retirees, segregated from the native population spatially and by language barriers (Esparcia and Buciega 2004).

There is clearly an increase in the provision of local services to suit the demands of this particular group. As Legido-Quigley and La Parra (2007) state, the planning of health-related care service is one of the most demanding for retirees. Retirement communities in Spain are investing in terms of their amenities and health care with some of these places having both general medical and specialist health-care related services.

The perception of personal safety represents a further expectation of retirees, which is influencing the landscape. It is related to the level of management of green open spaces as well as restrictions on the public access and control of open spaces. Due to safety reasons the managed, equipped and illuminated green spaces are given priority in developments instead of an environment characterised by a high degree of naturalness or containing wilder elements. Preventing vandalism, crime, youth loitering, etc. especially of concern to older people, focuses outdoor activities in open spaces with more limited public access, such as green areas and backyards within condominium developments and gated communities. Commercial leisure facilities, such as golf courses or clubs have a restricted public access.

6. Discussion – IRM related landscape changes

The region of Alicante seems to be giving place to a particular type of landscape, which is determined by the increasing presence of British and other European retirees. Some of the main landscape modifications can be related to the social demands, perceptions and requirements of this particular group. This type of "retirement landscape" is spatially limited to an intensive zone along a narrow strip of the Mediterranean Sea coastline. Findings from the regional context of Alicante can serve as a reference case for other parts of the Mediterranean macro region, where this type of landscape is reproduced with a similar quality and character.

Three major landscape-related requirements and perceptions of retirees can be identified from the literature on retirement migration: (1) Retirees are highly culturally embedded within their British and Northern European perceptions of landscape and urban tradition. (2) there is the predominance of a hedonistic lifestyle focusing on natural amenity and (3) Leisure as well as age-specific requirements are central features of IRM, which place strong demands on the appearance of the urban landscape.

The analysis provided here shows that the historically developed cultural landscape is characterised by agrarian and rural structures as well as minor anthropogenic influences and a high proportion of natural vegetation. Recently, this characteristic Mediterranean landscape is increasingly being replaced by a newly emerging urbanised landscape, causing the marginalisation of both the historic cultural landscape and of natural elements, such as vegetation. In the Alicante region, a landscape tailored for tourists and retiree's expectations, requirements and perceptions is expanding. It is characterised by a mosaic pattern, composed of low-density urban areas and highly managed and privatised green urban and leisure areas, which contribute to the creation of an urban savannah. Further implication of IRM-related urbanisation and landscape changes need to be seen in impacts on ecosystem services provided by the landscape, such as lower agricultural production, reduction of groundwater recharge, soil degradation and salination, marginalisation of vegetation, disruption of habitats or micro climatic changes due to either physical changes such as expansion of impervious surfaces or increase of natural resource demand.

References

Aguilar, J.A.P., Valera, C.A.A and Sánchez, J., 2006. Urban growth in the Mediterranean coastal regions: The case of Alicante, Spain. *In:* W.G. Kepner, J.L. Rubio, D.A. Mouat, F. Pedrazzini, eds. *Desertification in the Mediterranean region: a security issue*. Berlin: Springer

Bennett, G. D., 1993. Retirement Migration and Economic Development in High-Amenity, Nonmetropolitan Areas. *Journal of Applied Gerontology*, 12, 466-481.

BirdLife International, 2008. *BirdLife's online World Bird Database: the site for bird* conservation. Version 2.1. [online]. Available from: http://www.birdlife.org . [Accessed 15 March 2009].

Blandy, S. et al., 2003. *Gated communities: A Systematic Review of the Research Evidence*, ESRC Centre for Neighbourhood Research.

Buller, H. and Hoggart, K., 1994. The social integration of British home owners into French rural communities. *Journal of Rural Studies*, 10(2), 197-210.

Bunce, M., 1994. *The Countryside Ideal: Anglo-American Images of Landscape*. London: Routledge.

Cantliffe D.J. and Vansickle, J.J., 2001. *Competitiveness of the Spanish and Dutch Greenhouse Industries with the Florida Fresh Vegetable Industry*. [online]. Available from: http://edis.ifas.ufl.edu. [Accessed 08 March 2009].

Champion, T. and Shepherd, J., 2006. Demographic Change in Rural England. *In:* P. Lowe and L. Speakman, eds. *The ageing countryside: the growing older population of rural England*. London: Age Concern, England.

Clout, H.D., 1974. The growth of second-home ownership: An example of seasonal suburbanisation. *In*: Johnson, J.H., eds. Suburban Growth: Geographical Processes at the Edge of the Western City. London: John Wiley and Sons.

Cohen, S. and Taylor, L., 1992. *Escape attempts: The theory and practice of resistance to everyday life*. London: Routledge.

Conservation International, 2008. *Biodiversity Hotspots* [online]. Conservation International. Available from: http://www.biodiversityhotspots.org/ [Accessed 12 November 2008].

Deller, S.C., 1995. Economic impact of retirement migration. *Economic Development Quarterly* 9 (1), 25-38.

Esparcia, J. and Buciega, A., 2004. New Rural – Urban Relationships in Europe: A Comparative Analysis - Experiences from The Netherlands, Spain, Hungary, Finland and France. Brussels: European Commission.

European Environmental Agency (EEA), 2006. Urban Sprawl in Europe - The ignored challenge. Copenhagen: EEA, 10/2006.

Eurostat, 2008. *General and regional statistics*. [online]. Eurostat. Available from: http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136162,0_45572073&_dad=portal& _schema=PORTAL [Accessed on 8 November 2008].

Gomis, F.J.d.C., Huertas, M.A.M. and Civera, J.M.S., 2006. Sustainable limits for golf course development in a tourist destination. *World Review of Science, Technology and Sustainable Development* 3 (3), 197-210.

Höchtl, F., Terkenli, T. and Plieninger, T., 2007. Editorial: The European Mediterranean Region in the Focus of Landscape Research. *Die Erde*, 138 (1).

Instituto Nacional de Estadística (INE), 1999. *Agrarian census*. [online]. Available from: <u>http://www.ine.es/en/inebmenu/mnu_agricultura_en.htm</u>. [Accessed on 8 November 2008].

Instituto Nacional de Estadística (INE), 2007. *Municipal register*. [online]. Available from: <u>http://www.ine.es/</u>. [Accessed on 8 November 2008].

Kaplan, R. and Kaplan, S., 1989. *The experience of nature: A psychological perspective*. New York: Cambridge University Press.

King, R., De Mas, P. and Beck, J.M., 2001. *Geography, Environment and Development in the Mediterranean*. Brighton: Sussex Academic Press.

King, R., Warnes, A.M. and Williams, A.M., 2000. *Sunset Lives: British Retirement Migration to the Mediterranean*. Oxford: Berg.

Kwang-Koo, K., Marcouiller, D.W. and Deller, S.C., 2005. Natural Amenities and Rural Development: Understanding Spatial and Distributional Attributes. *Growth and Change* 36 (2), 273-297.

Legido-Quigley, H. and La Parra, D., 2007. The health care needs of UK pensioners living in Spain: an agenda for research. *Eurohealth*, 13 (4), 14-18.

Macnaughten, P. and Urry, J., 1998. Contested Natures. London: Sage.

.Mellado, J.d.D., 1990. *Guía de Urbanizaciones*. Málaga: Asociación Provincial de Urbanizadores de Málaga.

Morillo, J.G., 2007. *Benchmarking irrigation water use in golf courses in Spain*. Thesis (MSc). Cranfield University.

Müller, D.K., 2002. Reinventing the Countryside: German Second-home Owners in Southern Sweden. *Current Issues in Tourism*, 5 (5), 426-446.

Müller, D.K., Hall, C.M and Keen, D. 2004. Second Home Tourism Impact, Planning and Management. *In*: Hall, C.M. and Müller, D.K., eds. *Tourism, Mobility and Second Homes – Between Elite Landscape and Common Ground*.Clevedon: Channel View Publications, 15-32.

Müller, D.K. and Hall, C.M. 2004. Future of Second Home Tourism. *In*: C.M. Hall and D.K. Müller, eds. *Tourism, Mobility and Second Homes – Between Elite Landscape and Common Ground.* Clevedon: Channel View Publications, 15-32.

Munoz, F. 2003. Lock living: Urban sprawl in Mediterranean cities. Cities, 20, 381-385.

OECD. 1999. Cultivating Rural Amenities: An Economic Development Perspective. Paris: OECD.

Office of the Deputy Prime Minister (ODPM), 2003. *English house condition survey 2001: building the picture*. London: ODPM.

Peterson, M. N., Chen, X. and Liu, J., 2008. Household Location Choices: Implications for Biodiversity Conservation. *Conservation Biology*, 22 (4), 912–921.

Rodriguez, V., Fernandez-Mayoralas, G. And Rojo, F., 1998. European retirees in the Costa del Sol: a cross-national comparison. *International Journal of Population Geography*, 4 (2), 183-200.

Sugiyama, T., Ward Thompson, C. and Alves, S., 2009. Associations between neighborhood open space attributes and quality of life for older people in Britain. *Environment and Behavior*, 41 (1), 3-21.

Ulrich, R., 1986. Human responses to vegetation and landscapes. *Landscape and Urban Planning*, 13, 29-44.

Walters, W.H., 2000. Types and patterns of later-life migration. *Geografiska Annaler*, 82 (3), 129-147.

Williams, A.M., King, R. and Warnes, T., 1997. A Place in the Sun: International Retirement Migration from Northern to Southern Europe. *European Urban and Regional Studies*, 4 (2), 115-134.

Williams, A.M., King, R. and Warnes, T., 2004. British Second Homes in Southern Europe: Shifting Nodes in the Scapes and Flows of Migration and Tourism. *In*: Hall, C.M. and Müller, D.K., eds. *Tourism, Mobility and Second Homes – Between Elite Landscape and Common Ground*.Clevedon: Channel View Publications, 15-32.

Wilson-Doenges, G., 2000. An Explanation of Sense of Community and Fear of Crime. *Environment and Behavior*, 32 (5), 597-611.

Wu, J., 2002. *Environmental Amenities, Urban Sprawl, and the Economic Landscape*. Working paper, Corvallis: Oregon State University.