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# ΑΡΧΕΙΟΝ ΟΙΚΟΝΟΜΙΚΗΣ ΙΣΤΟΡΙΑΣ

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# MOUNTAIN TOURISM AND WINTER RESORTS: A STUDY OF GREEK SKI CENTERS

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M. SOTERIADES\*\*

## Abstract

The initiation of leisure and sports activities in the second half of the 20<sup>th</sup> century led to the transformation of a considerable number of mountain spatial units into attractive tourism hosting zones. Determinant factors were landscape quality, local authenticity and quality of tourist services. Sports and recreational activities related to skiing have contributed to the gradual development of tourist flows, while winter resorts have rendered mountain tourism more accessible and popular. This evolution has led to four specific models for winter resorts implemented in the Alpine countries over the past century. The four models serve as a reference framework in our study, which looks at Greek ski centres. As a country hosting mass leisure tourism, Greece has developed the industry by implementing a spontaneous development model centring on the sun; mountain tourism, and winter sports in particular, have never been a priority in the national tourism policy. When compared to the four models devised for 'winter resorts' implemented in the Alps, the twenty-one 'ski centres' operating in Greece are clearly representative of the spontaneous model of tourism development adopted and implemented in the Greek mountains. Simultaneously, such comparison highlights the urgent need to adopt a tourism planning approach and to implement appropriate action plans for mountain tourism as a constituent part of Greek tourism policy at both at the national and regional level.

Hence, this paper focuses on the analysis of Greek ski centres and seeks to contribute to the discussion regarding the development model for mountain tourism / winter resorts.

*JEL classification: L83, Q01, O10.*

*Keywords: mountain tourism, winter resorts, models, ski centers, tourism planning, Greece.*

## 1. Introduction

Mountains are specific geographical zones and have constituted the spatial framework for the conception and implementation of a series of tourist and recreational activities. Mountain tourism development in its contemporary form is due to the diffusion of ski and snowsports as a recreational activity and the construction of winter resorts established in the Alps (Philipona-Romanens 2001; Boyer 2004). Furthermore, winter sports tourism has simultaneously expanded

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with second generation stations and integrated ski resorts (Cottle 1992; Boyer 2004). The latter, being designed along the lines of the French model, are perfectly compatible with economic, commercial and recreational considerations of an integrated – spatial, technological and economic - planning approach. Considering the recreational character of winter sports tourism, its contemporary implementation is encountered in fourth generation resorts, i.e. the Tyrol model. The interest of these polyvalent village resorts focuses on preserving traditional architecture and adopting sustainable tourism principles (Schnell 1981; Zimmermann 1992). It is estimated (Baily 2002) that this type of resort represents a new generation, more mindful of ecology and seeking an equilibrium between tourism specialisation and other activities developed in mountain areas. On the other hand, Greece hosts inbound 'sea, sun and leisure' tourism flows, i.e. 'heliocentric tourism' (1) and has only attempted to develop and promote mountain tourism during the last quarter of the 20<sup>th</sup> century. Greece's heliocentric image, the recreational nature of snowsports, the low rate of local participation in mountain tourism activities, as well as the limited volume of private developers, have led to the construction of twenty-one low performance 'ski centres' in the Greek mountains. The concepts of 'ski centres' in Greece (2) and 'winter resorts' in the Alps (3) differ considerably as regards the recreational, spatial and economic framework, and to the implementation of a mountain tourism planning policy based on the adoption of one or more winter resorts models.

This paper consists of three parts. In the first, leisure activities on mountains and are briefly analysed in conjunction with winter sports trends worldwide. The second section looks at winter resorts, and more specifically the various models developed in the Alps. The third section offers a study of mountain tourism and ski centres in Greece, followed by a comparative study by using the four models implemented as a reference framework. This study of Greek mountain tourism highlights the need to elaborate and implement an adequate planning policy. The adoption and implementation of a winter resorts model should be compatible with the environmental, economic, social, cultural, ecological and technological attributes and particularities of Greek mountain areas. Moreover, the appropriate model should be a constituent part of development policy and tourism planning in the Greek mountains.

## **2. Recreational and Leisure Activities on Mountains**

Nowadays it seems that ski and other snowsports, as leisure activities, are

characterised by standardization due to an imitation effect, in which post-modern values - i.e. identity seeking, individualism and narcissism - have been imposed on Western countries (Varvaressos 2000). Moreover, this imitation effect sharply contributes to an expansion in the numbers of potential skiers, thus rendering winter sports more popular. The evolution of demand for mountain tourism has been dynamically influenced by social and cultural changes occurring at the end of the 20<sup>th</sup> century. Hence, leisure visits have become highly dependant on a series of factors, such as service quality; environment authenticity; and landscape quality (Amourous 2001; Boyer 2004). These factors, which relate to the expansion of mountain leisure demand, have resulted from public social programmes, a high rate of dissatisfaction with the quality of life in urban centres and the tendency to seek refuge in traditional values. Therefore, tourism development in the mountains has resulted from a correspondence established between socio-cultural expectations and leisure activities, as well as by the mountain environment, aiming at catering for potential visitors. Obviously, variation in skiers' needs and level of satisfaction is to some extent dependent on their culture and nationality, since fashion, national identities and anthropological relations linking people with mountains are not characterised by the same spatial and temporal context. In turn, this helps to account for significant fluctuations in the types and intensity of tourist flows towards mountains, which are influenced by anthropological, social and cultural factors (Amourous 2001; Wozniak 2002; Varvaressos and Soteriades 2003).

On an international level, the location of mountain resorts is not directly related to tourist flows. The growth of tourist flows into mountainous areas has resulted from the expansion of snowsports, and more specifically from their diffusion among the middle classes. Increased mobility due to the expansion of individual transport modes (mainly private cars) as well as an increase in short break holidays (i.e. weekends) have contributed to significant supplementary flows towards mountains (Herbin 1995; Varvaressos 1999; Hudson 2003). Therefore, it seems that access facilities, constituting a prime factor in the winter resorts' planning, are closely bound up with the social, economic and political context (Cottle 1992; Carraud and Servoin 2001). The Alps are the mostly frequented mountain chain worldwide, recording more than 100 million overnight stays per year (Le Garrec and Antczak 2005). In Japan, winter resorts are situated in the Nagano district, at an equal distance from the urban agglomerations of Tokyo and Osaka. In Canada, the most visited winter resorts are located in Québec, not far from the big urban centres (Archambault and Audet 1997). In the USA, the majority of ski resorts are situated in New England, in the rural regions of Appalachia and Wisconsin, whose cultural characteristics are very different from the urban centres (Goeldner 1992;

Hudson 2004a). In Greece, the Parnassus ski centre is located a short distance from Athens, the Greek capital, and hosts tourist flows on short breaks. The intensity rate of tourist flows related to winter sports varies significantly from one region to other, in proportion to the degree of dependency on geographic and socioeconomic characteristics at the international, national and regional level, as well as on the consideration or omission of a planning approach (Baud-Bovy and Lawson 1998). Hence, the rate of participation in winter sports varies from one country to other: it is 40% for Swiss and Austrians; 15% for Canadians; 12% for the French; 6% for Americans; and 2% for the British and Spanish (Le Garrec and Antczak 2005). In Greece, this rate is less than 1%. It is worth stressing that the demand for winter sports is influenced by a plethora of factors, such as the low birth rate in European countries; economic recession and climate changes rendering the hibernal period milder. All these factors can be seen to be pushing 'snow tourism' into a mature stage in resort life cycle. Actually, mountain tourism, being linked to the recreational dimension of winter sports, is likely to be rather introverting rather than extroverting, in regard to aestival tourism (Giotart 1993; Boyer 2004).

### **3. Winter Resorts and Ski Stations: the Tourism Planning Framework**

The planning and design approach taken to winter resorts has resulted from the political, social and spatial context, whereby individual needs and social requirements are met with regard to snowsports (Herbin 1995; Baud-Bovy and Lawson 1998). Spatial planning of winter resorts has been implemented according to a number of models closely linked to the nature and the distinguishing features of winter sports. However, the various models / generations and their spatial distribution have gradually undergone profound modifications so as to better correspond to changes in visitors' needs. Hence, in addition to socioeconomic factors, the adoption of a model has also come to take a host of geologic, climatic and sports-related factors into consideration, such as snow quantity, quality and period, operation of various ski trails, etc. (Rudaz 2002). Geomorphologic and weather conditions, significantly variable from one mountain area to another, have played a considerable role in the particular planning model adopted (Cazes et al. 1993). Within the above outlined context, the continental and somewhat arid climate in Colorado (USA) obliged planners to construct winter resorts at a very high altitude, e.g. 2.400m in Aspen and 2.460m in Vail. In the Cascades Mountains in Washington State, the ocean weather conditions permitted the installation of big

winter stations at lower altitudes – at an average of between 1.000 and 1.300m (Goeldner 1992). In Greece, the average altitude is approximately 1.600m. The winter resorts of Kitzbühel (in the Austrian Tyrol) and Garmisch (in Baviere) lie at 730m, but receive plenty of snow thanks to the continental climate in that region of the Alps (Zimmermann 1992). These examples of stations with different characteristics clearly indicate that there is no unique, ideal set of geomorphologic and climate conditions regarding the spatial choice and operation of a winter resort.

Winter resorts, as an essential component of spatial and socioeconomic planning closely linked to leisure and sporting activities, recorded very high growth rates over the last century (Hudson 2004a; Boyer 2004). In France, there were 154 winter resorts in 1936, 225 in 1956 and over 400 in 2000. More than 700 winter sports stations now operate in North America; 200 in Japan; 400 in Norway; and 21 in Greece. These resorts have been established in mountain areas with different features and are of various types; all of them succeed in meeting potential visitors' expectations to a greater or lesser extent. Where mountain areas succeed in catering for and satisfying a certain number of needs and expectations, expansion of winter resorts is observed, e.g. in the Valley of Tarentaise (French Alps). The most famous winter resorts were constructed between 1961 and 1972, e.g. Arcs, La Plagne, Ménuires, Tignes (France); Anzere in Valais (Switzerland); Pila in Val d' Aoste (Italy); and Borovets (Bulgaria).

In Greece, the Parnassus ski centres, regarded as the country's most important, has operated since 1975. It is worth stressing that winter resort planning varies significantly from the linear planning of wide spacious seafront / balneal zones. Actually, the various development models implemented can be accounted for in terms of geomorphologic and climatic characteristics, as well as the limited space suitable for development (Baud-Bovy and Lawson 1998).

### **3.1 Organisation of winter resorts**

Over the two last centuries, the first stage involved in equipping Alpine winter stations was the construction of accommodation facilities. Local populations provided the bulk of accommodation and supplementary services in unplanned way (Knafou 1994; Boyer 2004; Tissot 2004). Growth in tourist flows and the extension of average stays then led to the emergence of an organized accommodation market. By the 1950s new types of accommodation had been constructed - i.e. hotels, social tourism accommodation, holiday homes – thus rendering winter sports more popular and attractive. By the 1970s mountain areas



had diversified, offering new types of accommodation, e.g. timesharing properties and apartments, as an outcome of three factors, namely: tourists' needs and expectations, emergence of local initiatives and national tourism policy plans (Deslarzes 2003). Obviously, the spatial distribution of accommodation enterprises reflects tourist flows and geographical distribution in mountain areas, which are further defined by two parameters: resort attractiveness and model. The most famous resorts worldwide are located in Aspen, Colorado, Heavenly Valley, California (USA); Chamonix, La Plagne, Megève, Courchevel, Les Arcs, Tignes, L'Alpe d'Huez, Serre Chevalier (French Alps); Davos, Verbier, Zermatt, Saint-Moritz (Swiss Alps); and Saalbach, Sölden, San Anton, Kitzbühel (Austrian Alps). Growth in accommodation supply has also led to standardisation of the mountain tourism product, mainly in the French Alps, as well as to the implementation of different tourism development models in Alpine regions.

The installation of ropeways dates to the beginning of the last century, occurring simultaneously in France, Switzerland, Spain and the USA. Ski lifts appeared in 1932; ski cabins in 1950; and funicular / rope railway in 1980, contributing to diversify in the range of technical equipment and improvement in service quality (Philipona-Romanens 2001; Boyer 2004; Tissot 2004). Today, more than 4.000 ski cabins and rope railways operate in France, which is the world leader. Austria follows with 3.500; the USA has just over 3.200; Italy 3.050; and Switzerland has approximately 1.700 (Duhamel and Sacareau 1998). Two parameters are worth noting: (i) winter sports, as a modern leisure activity, require large investments; the decision to launch such high capital intensity projects depends on the return estimated by developers, as well as on their ability to attract financiers (Tinard 1992); and (ii) the development of mountain resorts arises from the collaboration of three partners, namely local communities, developers and public services – which frequently have contradictory interests and goals. Russell and Thomas (2004) and Franch and Martini (2005) estimate that the contribution of each stakeholder to mountain tourism development is of great importance, especially since the issue is the spatial planning approach and the implementation of the appropriate winter resort model.

### **3.2 The four winter resort models**

As has been already mentioned, the most famous winter resorts were created in the Alps at the end of the 19<sup>th</sup> century. Two factors played a key role: (i) social differentiation solicited by visitors; and (ii) a political, socioeconomic and cultural context imposed by the hosting communities and the geography and climate of

mountain areas (Tinard 1992; Boyer 2004). The planning, design and organisation of winter resorts led to the emergence of two entirely distinct groups of resorts. The first of these encompassed those stations located in agro-pastoral mountain areas. The second were characterised by a high level of spatial planning, taking visitor motivation, national and local tourism policy action plans and developers' profitability expectations into account (Varvaressos and Soteriades 2004). Planning and designing resorts in the second group involved fulfilling a series of prerequisites, and led to the creation of 'ex-nihilo' installations, i.e. virgin areas developed from scratch. The criteria used were conceived by reference to a series of factors relating to national and local development policy goals, as well as to private developers' requests, such as accessibility; communication; infrastructure; altitude; length and variety of trails; and snowfall. During the last century, the evolution of winter resorts led to the emergence of four identifiable models over time (Cazes et al. 1993; Baud-Bovy and Lawson 1998; Micheletto and Novarina 2002; Varvaressos and Soteriades 2004). The main features of each model are briefly presented in Table 1.

Table 1. The four models of winter sports stations / resorts.

Resort's model	Period	Features	Examples	Weaknesses / Disadvantages
First generation	1870-1930	<p>More or less anarchic, spontaneous development.</p> <p>Valorisation of traditional villages. Stations operating with multiple poles. Stay and entertainment during winter and summer. Altitude at 1,000m</p> <p>Specialised resorts: Recuperation tourism, health / medicinal, spa, summer and winter trekking, alpinism, etc.</p> <p>A hosting environment open and multifunctional in terms of spatial and temporal operation (promenade, trekking, skiing, curling and skating).</p>	<p>Switzerland: Saint Moritz; Davos; Zermatt; Krams Montana; and Gstaad.</p> <p>France: Chamonix, Chambrousse; Saint-Gervais-les-Bains; Saint Gervais; and Luchant.</p> <p>Italy: Cortina d'Ampezzo and Courmayeur.</p>	<p>Spatial or functional deficiencies: insufficient snowing due to low altitude; weakness of skiers' stay close by the ski trails; lack of coordination between various resort functions; uncontrolled exploitation of free and limited zones.</p>
Second generation / Intermediary resorts	1931-1960	<p>Conception is frequently 'ex-nihilo' (into virgin areas), without satisfactory planning implementation.</p> <p>Construction of sporting installations at higher altitudes; increase of ski trails so as to ensure sufficient snow. More rational use of mountain areas. More emphasized specialisation: leisure recreational snowsports.</p> <p>Spatial structure: multiple operating poles. Increased involvement of private and public partners.</p>	<p>France: Alpes d'Isère; Méribel; Superbagnères; and Super Liorant.</p> <p>Italy: Cervinia and Sestriere.</p>	<p>Weak organisation; unplanned spatial structure; administration tasks wrongly determined; abstruse funding procedures. Partial implementation of urban planning; sports facilities uppermost; leisure activities considered problematic due to spatial expansion.</p>

<p>Third generation / Integrated resorts (French model)</p>	<p>1961-1974</p>	<p>Ex-nihilo enclave installation at high altitude (1,500 to 2,000m) aimed at ensuring permanent snow cover. Rational planning dependent on alpine ski activity. Comprehensive spatial, urban and technological planning. Preliminary land control via expropriation for the benefit of local administration authorities. Development planned and implemented by a single developer with a high degree of specialisation. Functional zoning for residences, traffic and leisure activities. Architectural approach privileging big buildings.</p>	<p>Mainly in French Alps: La Plagne; Isola 2000; Le Corbier; Avoriaz; Flaine; Tignes; les Arcs; Val Thorens; Le Corbier; les Orres. Also: Angères and Aminona in Switzerland; Squaw Valley in USA; Portigo in Chile; Sapporo in Japan, among others.</p>	<p>Problematic planning. Numerous criticisms have been addressed, such as environmental impact on sites; very low profitability, inability to retain clientele during summer; planning approach (mainly urban) heavily contested.</p>
<p>Fourth generation / Resorts - multifunctional villages (Tyrolean model)</p>	<p>1975-2000</p>	<p>Controlled planning of traditional mountain zones. Preservation of traditional architecture. Aesthetic landscapes prized and promoted. Balance between human activities and natural environment. Sustainable tourism and multifunctional activities. Alternative tourism activities and leisure activities, beyond skiing, for summer season.</p>	<p>Wissler in Canada; and Otztalez into Austrian Tyrol.</p>	<p>Structural problems / difficulties: low productivity and efficiency; small sized operations; socioeconomic structure; lack of sufficient financial resources; unsatisfactory ski trails; multinuclear extension of hosting zone.</p>

The French model's winter resorts fully satisfied the new demands of potential visitors, as well the economic, commercial and leisure considerations of integrated planning (Knafou 1994; Herbin 1995; Duhamel and Sacareau 1998). These resorts differed from those of preceding generations with regard to the following parameters: urbanized spatial planning (building complexes; commercial centres, parking areas); technical equipment installed at high altitude; and clientele's isolation from hosting communities. Having been created in accordance with the above-mentioned technical and operational requirements, integrated resorts, privileging trail skiing and sparsely populated mountain zones, do not cater for the modern clientele's current tastes for human sized resorts. Nowadays, priority is given to medium-altitude areas and to comprehensive planning aiming at harmonious symbiosis and fruitful interaction between the mountain environment and economic activities. These are the reasons that led to the adoption of the most recent model. This consists of a polyvalent village-resort, appropriately incorporating facilities into the natural environment. Design and planning are based on soft tourism development principles and the implementation of multiple activities by local communities (Hudson 1996; Baily 2002). An authenticity image has been built up by dedicating such centres to family skiing and green tourism; this image is appropriate for a winter resort model more mindful of environmental considerations, one which seeks an equilibrium between tourism specialisation and sustainable activities (McGibbon 2000; Donohoe 2004; Williams and Gill 2005). However, structural problems have resulted in the implementation of new intercommunity mechanisms with regard to managerial plans and spatial planning (Tuppen 2000; Bodega et al. 2004). An adaptation to new market requirements was necessary (Weiermair and Auer 1997; Bieger et al. 2004). Some authors, as for example Pechlaner and Tschurtschenthaler (2003); Hudson (2004b); Hudson et al. (2004), suggest that the key to adaptation lies in the improvement of human resources' qualifications. This improvement should lead to the development of new skills for tourist cooperatives as a basis for the strategic transition from institutionalised tourism organisations to flexible and market-oriented destination management companies. According to Zimmermann (1995) and Gaido (1998), Alpine winter resorts have adapted their supply to new demands by developing new product categories, such as tourism product attractions, health, sports, adventure and commercial activities. Furthermore, there is a need to better understand the market; future emphasis should be on the better use of marketing tools (Holden 1997; Weiermair and Auer 1997).

## **4. Winter Sports and Ski Centres in Greece**

Despite the fact that seventy-five percent of Greece is semi-mountainous or mountainous, thus far the country's tourism image has been based on the long coastline (15.000 km) and the plethora of islands (2.000). This heliotropic image is almost inevitably bound up with the linear and unplanned development of the littoral zone (Varvaressos 1999; Briassoulis 2000; Andriotis 2005). Greece's comparative advantages, resulting from its climate and geography factors, have played a significant role in the formation of tourist motivations and the type of tourism development (Buhalis 2001; Soteriades & Arvanitis 2006). The development model implemented in Greece was typified by exceedingly high inbound demand and rather insufficient supply from the 1950s to the 1970s. This gap led to the emergence of the first seaside and seafront tourism concentrations of the linear type (Andriotis 2003a). By contrast, in Greece's rural and mountain zones the role of tourism as a socioeconomic activity seems to be insignificant. The predomination of the heliotropic mass tourism model from 1970 to 2005 has reinforced the implementation of a 'sea & sun' tourism development model of a spontaneous and linear type, incorporating spatiotemporal and urban concentrations (Tsartas 1998). It has been proposed that this model could be altered by channelling domestic and inbound tourist flows towards rural and mountain areas (Varvaressos 1999; Komilis 2001); as a market segment, it has also been argued that mountain tourism could reduce overall risk and high dependency on tour operators (Andriotis 2003b). Mountains have never been incorporated into national and regional development plans due to the country's prevailing tourism model. Agricultural properties located in upland areas are small-sized, low productivity units; the manufacturing sector faces serious procurement difficulties; and the tertiary sector has not thus far been seen as a development priority in these areas. Indeed, the unplanned development of mountainous areas has resulted in natural and human resources going to waste, rendering existing gaps more intense (Chiotis and Coccossis 1992; Franch and Martini 2005).

### **4.1 Winter sports in Greece**

Snowsports were unknown in Greece for over three quarters of the last century, since the country's tourism product was associated with the heliotropic image, and mountain tourism mainly concerned central and north Europe. The Mount Parnassus ski centre, which is the most famous Greek one, was constructed in 1975, when installations and ski lifts were opened at Fterolaka. The construction

of further ski lifts and related facilities at Kelaria was completed by 1981, while seven years later a ski lift linking the two locations began operation. Greece's predominant tourism image, the lack of adequate spatial plans for mountain areas and the general political and socioeconomic context help to explain why at least initially, winter sports did not develop as a result of demand from the wealthier classes. The search of metaphysic and the need of self-accomplishment led to the appearance of the first mountaineers and consequently, the establishment of the first mountaineering clubs. These elementary bodies contributed to the construction of the first ski lifts in a very limited number of Greek mountain areas, in order to satisfy basic conditions. However, it seems that skiing itself did not markedly contribute to the increased participation of local communities, private developers and public organisations in mountain development. In Greece, these tourism development stakeholders have not been able to keep track of and assimilate the planning models developed and implemented in Alpine countries over the last century, even if belatedly. The increase in skier volume over the last twenty-five years has resulted on the one hand from the proliferation of skiing areas, and on the other from an increase in skiing among the middle class, in imitation of upper class trends. There are thus five main features of winter sports tourism in Greece: (i) ski recreational practice has serious weaknesses and constitutes a privilege of the upper class; (ii) snow sports are a high cost leisure and recreational activity; (iii) the majority of visits are of short length; (iv) skiers are in the main young persons attracted by the sporting rather than the recreational side of the activity; and (v) the resorts cater mainly for the domestic market. These features help to account for spatial planning as implemented in Greek mountain areas. Winter sports in Greece have contributed to the creation of tourism flows departing from urban centres towards the mountains. Such tourism strengthens a domestic redistribution of income from Athens and other major urban centres to the benefit of mountain communities where ski centres are located. The lack of reliable statistical data and poor implementation of measurement tools at regional and local level render any precise estimate of the economic impact of mountain tourism almost impossible (Varvaressos 2000). The speed and the way in which local communities have responded to new economic opportunities appear to be equally influenced by social and cultural factors. Mountain tourism has a conception and approach different from seaside / balneal tourism, as for the planning implementation, due to specific geographic, economic, social and environmental conditions. Since the 1970s, the predominance of two winter resort models (the French and Tyrolean) in Europe and other continents has not had any impact on Greek reality, which persists in promoting the concept of 'ski centre' at

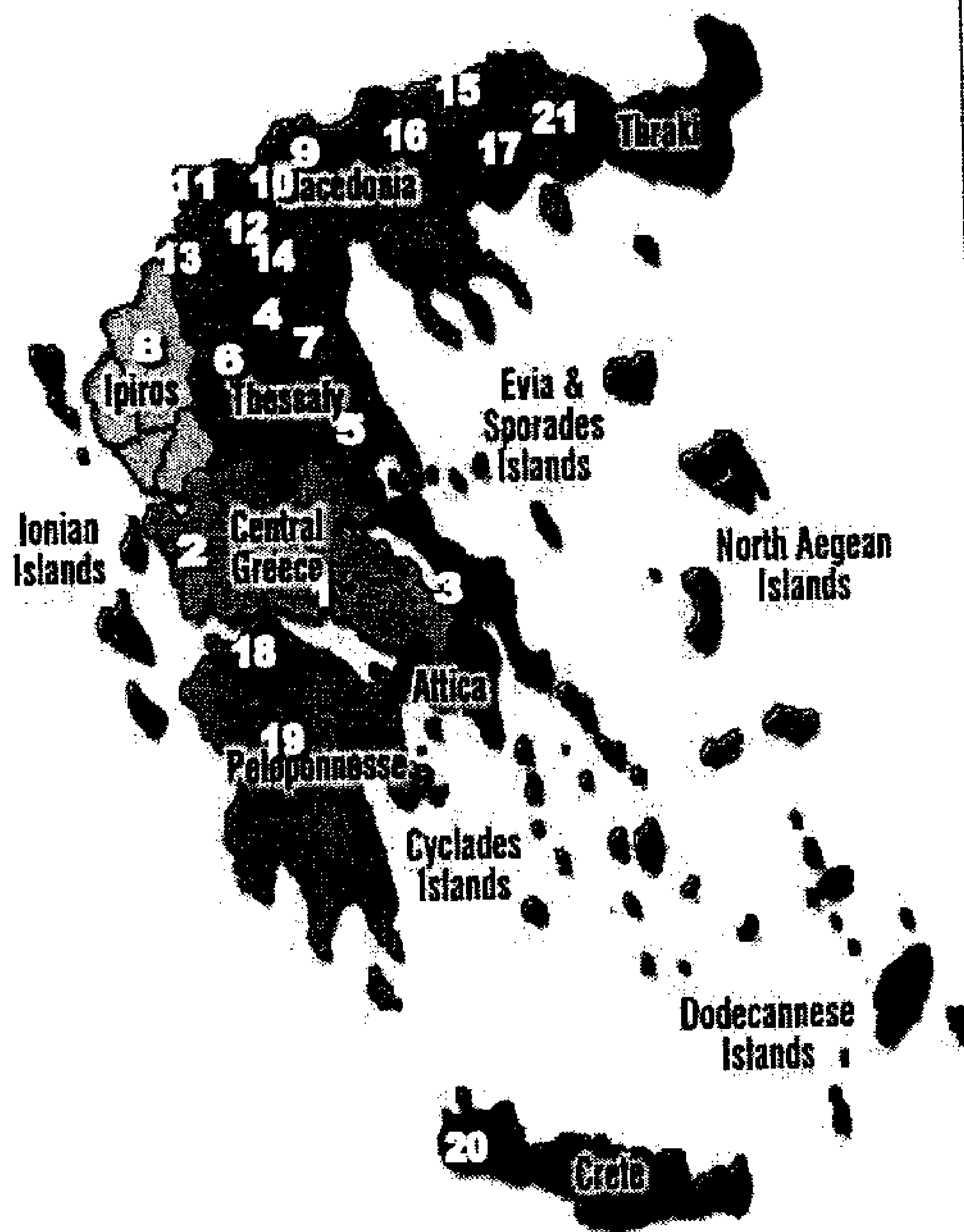
both at the spatial level and type of planning implemented. The two different analytic concepts of 'ski centre' and 'winter sports resort' clearly point both to existing differences regarding the structures of spatial planning and their management, and to the degree of infiltration and incorporation into local communities and economies (Varvaressos and Soteriades 2003). The term 'winter sports resort' denotes a situation in which zones more extensive than the skiing domains generally compounding a Greek ski centre are taken into account in the planning approach. The explicative term 'ski centre' incorporates spatial, structural and managerial weaknesses characterising the sporting and recreational activity of skiing all over the country.

## **4.2 Greek ski centres**

Ski centres in Greece generally constitute businesses with such high operating expenses that private investors cannot take the financial risk involved. Investors and managers are not industrial groups or financial organisations, real estate developers or management companies, as is the case in France. These functions are assumed by 'Greek Tourist Real Estate' (GTRE), a state company responsible for the privatization and the management of real-estate and enterprises belonging to the Greek National Tourism Organisation (GNTO); the 'General Secretariat for Sports' (GSS); the Alpinism Clubs, in collaboration with GSS; as well as local administration organisations (Varvaressos 1999; Vasiliades and Masmanides 2004). In Greece, twenty-one ski centres operate at present, as shown in Figure 1. In total these stations have 89 ski trails of a length of 90 km; 67 ski lifts and cabins; and a capacity of 47,265 skiers per hour. Apart from two ski centres – Parnassus Mountain and Seli - none conform to international standards, and they very dependent on local and regional market. Table 2 briefly outlines the main features of existing Greek ski centres.



Figure 1. Ski centres in Greece\*



**Location of Greek ski centres**

1. Parnassus (Fterolaka, Gerodovrachos), Boeotia
2. Tymfristos– (Velouchi, Diavolotopos), Evrytania
3. Dirflis– Euboia
4. Olympus (Olympus, Vrissopoules), Larissa
5. Pellon (Portaria, Chania), Magnesia
6. Pertouli, Trikala
7. Kissavos, Larissa
8. Metsovo (Karakoli, Pintos), Ioannina
9. Seli (Chrisso Elafi, Sell), Imathia
10. Naoussa (Tria pente Pigadia)
11. Pissoderi, Florina
12. Vorras (Kaimaktsalan), Pella
13. Vitsi (Vermio), Kastoria
14. Vassilitsa (Diasselo), Grevena
15. Falakro, Drama
16. Lailias, Serres
17. Pagaio, Kavala
18. Helmos– Kalavryta, Achaia
19. Mainalo (Ostrakina), Arcadia
20. Lefka Ori, Chania
21. Antalofos, Xanthi

Source: Greek National Tourism Organisation (GNTO), 2006.

(\*) The numbers appearing on the map correspond to the numbers in Table 2.

Table 2. Greek ski centres: Main features.

Ski centre	District	Altitude (in meters)	Ski trails	Trails' length (in meters)	Ski cabins, lifts, cable cars and rope railways	Capacity (Skiers per hour)
1. Parnassus	Boeotia	1,750 - 1,950	24	17,300	17	6,000
2. Tymfristos	Evrytania	1,800	2	2,500	3	2,500
3. Dirfis	Euboia	1,350	2	1,600	1	650
4. Olympus	Larissa	1,800	2	1,750	5	N/A
5. Pelion	Magnesia	1,500	3	2,470	4	2,200
6. Pertouli	Trikala	1,600	2	2,150	1	700
7. Kissavos	Larissa	1,400	1	1,250	1	N/A
8. Metsovo	Ioannina	1,350	1	1,000	1	1,000
9. Seli	Imathia	1,500	16	22,000	7	8,000
10. Naoussa	Imathia	1,420 - 2,005	4	5,700	4	2,000
11. Pissoderi	Florina	1,650	3	6,000	3	6,000
12. Vorras	Pella	2,480	2	1,000	2	1,200
13. Vitsi	Kastoria	1,680	3	3,400	1	9,000
14. Vassilitsa	Grevena	1,750	2	2,600	2	1,350
15. Falakro	Drama	1,720	1	400	2	1,200
16. Lailias	Serres	1,600	3	4,000	2	400
17. Pagaio	Kavala	1,750	3	600	1	N/A
18. Chelmos	Achaia	1,650 - 2,100	8	10,000	5	5,000
19. Mainalo	Arcadia	1,600	4	3,580	3	700
20. Lefka Ori	Chania	1,450	2	400	1	280
21. Antalofos	Xanthi	1,600	1	300	1	N/A

Source: Greek National Tourism Organisation (GNTO), 2006.

Greek ski centres seem to be very inferior, at both at the structural and functional level, to those of other countries having the same climatic conditions and similar socioeconomic structures, e.g. Bulgaria. Concerning the spatial level, there are only two ski centres – i.e. Seli and Tymfristos – where accommodation units operate close to ski lifts. With reference to skier volume, Parnassus ski centre tops the table, satisfying crucial conditions such as the short distance from Athens, the Greek capital, which represents nearly 50 per cent of the domestic snow sports market; accommodation is located at the mountain towns and villages of Mt. Parnassus (Arachova, Delphos and Livadi); access and transport modes do not present problems. Other centres less important than Parnassus are Seli, Chelmos, Naoussa and Pelion. The equipment and facilities in the majority of centres are rudimentary and destined to cater for only basic needs related to snowsports (Christopoulou and Papadopoulos 2000; Vasiliades and Masmanides 2004). A series of factors could be used to classify these centres, such as type of planning implemented; expanse of skiing domain; mechanical equipment; operating company / management; local geographic and weather characteristics; general infrastructure; tourist superstructure; related facilities; site evaluation; volume of skiers; and market / clientele. Using these criteria, Greek ski centres could be classified into two categories: national (Parnassus, Seli, Naoussa, and Voras); and regional / local (Lailias, Pelion, Chelmos, etc.).

## **5. Comparative Study of Greek Ski Centres and Alpine Winter Resorts**

Comparative study of the four generations of Alpine winter resorts with Greek ski centres reveals significant differences concerning crucial parameters, namely: socioeconomic and political context; recreational and spatial framework in which resorts appeared, developed and have gradually been transformed; expectations; natural landscape; imaginary and traditions; and clientele. Greece lacked such classes, who would have been capable of operating the first multi-polar and purely recreational mountain resorts in areas with an agro-pastoral structure at an altitude of less than 1.000m. In fact, for political and socioeconomic reasons, Greece is largely devoid of old villages and towns boasting traditional architecture of the type that could constitute attractions for high-revenue tourists during the summer period (Varvaressos and Soteriades 2003). Juxtaposing snowsports during hibernal period could establish the multi-polarity of sites. Second generation resorts arose so as to cater for an increasing demand for winter sports, rather than as a result of an ideological and socioeconomic context that dominated the creation of first

generation counterparts. Consequently, there were three principal characteristics of second generation resorts; namely: sufficient snow at high altitudes; operation of ski trails in virgin mountain areas; and specialisation in the field of snowsports. As for this type of resort, it is worth noting that there are no mountain sites, at either the spatial or urban level. Greek ski centres are similar to second-generation stations as regards their exclusive emphasis on sports. However, it could be observed that action plans aiming at establishing the poly-nuclear and multi-polar structure of a second generation's station in mountain villages were entirely absent. On that score, the Parnassus ski centre could constitute a typical example. Planning of snowsports domain has been implemented following close upon an assessment of characteristics proper to the selected site, such as snow expanse; quality and range of ski trails offering a competitive advantage. Visitors' needs for accommodation and entertainment activities are catered for in agro-pastoral villages that have never been taken into account in action plans concerning stations of intermediate type. The site itself forms a part of Parnassus Mountain at spatial and structural level, and represents a poly-nuclear second generation type station (with ski facilities at Kelaria, Fterolaka, and Gerondovrachos) and multi-polar (Arachova, Livadi, Delphos, Agoriani, Amfiklia). Over the past fifteen years, Arachova, the biggest town on Mt. Parnassus and simultaneously its principal attraction for stays and entertainment, is in what could be termed an intensive bipolar relationship with Livadi, situated half way between Arachova and Kelaria, where the rope railway taking visitors to ski trails is located. Hence, the bulk of accommodation operations have been established at Arachova, while new buildings (mountain villas; apartments; restaurants; cafés, etc.) have been constructed '*ex-nihilo*' at Livadi, in a spontaneous way, without being incorporated into a mountain planning project that should take its features and comparative advantages into consideration. Within the framework of relief spatial planning on the mountain, planners could consider the creation of other '*ex-nihilo*' winter sports stations of two models: integrated station or resort-polyvalent village. It is worth stressing that the ski centres, which have emerged in Greece over the last thirty years, do not correspond to any of the new third generation specialised resorts (French and Tyrolean models). Most ski centres in Greece correspond more to those of the second generation. Comparative study of winter resorts in the Alps and Greece indicates two groups of clearly distinct factors that account for the current situation as being an outcome of the existing recreational context and technical, spatial and socioeconomic imperatives (Boyer 2004; Varvaressos and Soteriades 2004), namely: (i) the diffusion of snowsports as a leisure and recreational activity, and the development of four models of winter

resorts in the Alps have been the outcome of ski activity's popularisation due to geographic and climatic factors in Austria, Switzerland and Scandinavian countries; and the resultant of holidays' extension in France, Italy and Germany; and (ii) the popularisation of winter sports entailed the activation and participation of a bundle of dynamic technological, spatial, urban and socioeconomic factors, within the framework of mountain site planning, i.e. third and fourth generation resorts. The unilateral development of ski centres in Greece could be explained in terms the above-mentioned factors. The elaboration and implementation of new plans concerning the twenty-one ski centres in Greece could converge to the adoption of the adequate model, taking into consideration, on the one hand, the mountain's climatic, geographic and socioeconomic features; and on the other, the prevailing tourism development model in Greece (Buhalis 2001; Andriotis 2005).

## 6. Conclusions and Recommendations

Mountain areas in developed countries represent significant tourism destinations. Tourism demand markets as well as the type of culture, constituting basic elements of socioeconomic environment, have played a considerable role in the development of this phenomenon. A series of tourist motivations and the elaboration and implementation of various planning approaches to mountain sites first led to the increase of potential skiers, and subsequently to the popularisation of snowsports. Evidently, this phenomenon has grown gradually with the diffusion of skiing as a sportive and recreational activity; and the development of various winter resorts. The integrated third generation resorts (French model) oriented to sports and recreational skiing are those that contributed to the increasing popularisation of mountain tourism and permitted a spectacular growth of accommodation stock, in spite of criticisms levelled at this type of resort, such as 'ski factories' or 'rough tourism model'. Fourth generation resorts – polyvalent villages (Tyrolean model), rather than being doomed to cater solely to the recreational and aestival needs of a potential clientele, represent a 'soft' model of tourism development. Although these two resort models developed during the second half of 20<sup>th</sup> century in the Alps, the development of mountain tourism in Greece presents many weaknesses, as has been analysed. In terms of planning – or lack of it - Greek ski centres correspond to second generation winter stations. This study has outlined the main features of the Greek ski centres as regards planning and organisation. By no means exhaustive, it has attempted to cover several issues and aspects that should be considered by tourism policy makers and planners in the

field of mountain tourism and winter resorts. Based on accumulated experience in Europe, the following recommendations could be put forward to Greek policy makers and planners in order to effectively formulate and implement appropriate action plans. Firstly, it seems possible to adopt and apply a systems approach to Greece's mountain tourism spatial planning and management, as suggested by Sharpley (2005); and to appropriately use concepts such as 'winter sports tourism'; 'mountain sites'; and 'winter resorts models'. The model of 'resorts – polyvalent villages' correspond rather to intercommunity expectations and the model of 'ex-nihilo integrated resorts' could contribute to the popularisation of snowsports tourism. Evidently, this task could be performed within a framework that should take into account the particular characteristics of mountain areas and introduce mechanisms and tools that would help define the background and the basis of a polyvalent policy for the whole country at national and regional level. Planning should consider the relative importance of local control and national policy in optimising winter tourism's contribution to mountain development. There is an imperative to combine local inputs and initiatives with national policy, as an effective framework for the management of sustainable and profitable mountain tourism. In other words, an adequate planning framework should be inspired by host community 'need or product-led' strategies, as opposed to 'market-led' strategies (WTO, 1997) that aim for economic growth only, seeking to both protect natural environments and create satisfactory visitor experiences. In this regard, Gherissi-Labben and Mungall (2004) suggest that cooperation among tourism stakeholders in a single winter destination, as well as between different destinations, could be essential in developing a diversified offer of entertainment activities able to satisfy visitors. Finally, a winter resort should be operated as a destination in order to carefully conceive and implement appropriate, destination-specific action plans aiming at optimise outputs for all stakeholders (Flagestad and Hope 2001; Gill and Williams 2005; Franch and Martini 2005).

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## NOTES

1. The term 'heliotropism' literally means 'be attracted by sun'. It is used to designate the Western populations' mobility towards southern regions of their respective countries or to characterise the arrival of North Europeans in Southern countries, mainly in the Mediterranean basin, and North Americans towards Florida (Duhamel and Sacareau 1998).
2. The term 'ski centre' is considered as too restrictive and unilateral at spatial and functional levels. It indicates a skiing domain in which snowsports are performed, once spatial planning (ski lifts, equipment) and general infrastructure (roads, etc.) have been established (Varvaressos and Soteriades 2004).
3. The term 'winter resort' is likely to be wider and more complex than 'ski centre', since in addition to the skiing domain, a mountain resort extends to accommodation, catering facilities, leisure and entertainment services, sports equipment shops, general shops, parking areas, etc. Therefore, a 'winter resort' usually represents a tourist area of multinuclear / multifunctional type. It encompasses the social, economic and environmental impacts on mountain areas as a result of winter sports tourism development.

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