Article

Tourism and Land Planning in Natural Spaces: Bibliometric Approach to the Structure of Scientific Concepts

Eunice Lopes 1, Noelia Araújo-Vila 2,* , André Riani Costa Perinotto 3,* and Lucília Cardoso 4,*

1 TECHN&ART, Polytechnic Institute of Tomar (IPT), Estrada da Serra, 2300-313 Tomar, Portugal
2 Business and Tourism Faculty, University of Vigo, 32004 Ourense, Spain
3 Department of Tourism, Parnaíba Delta Federal University, Avenida São Sebastião, 2819, Parnaíba 64202-020, Piauí, Brazil
4 CITUR Centre for Tourism Research, Development and Innovation, Polytechnic of Leiria, 2411-901 Leiria, Portugal
* Correspondence: naraajo@uvigo.es (N.A.-V.); perinotto@ufpi.edu.br (A.R.C.P.); lucilia.a.cardoso@ipleiria.pt (L.C.)

Abstract: Tourism management involves using a systematic approach to spatial planning that involves multiple variables in land planning. However, it is common to find multiple approaches for the more negative aspects of tourism, such as its impact on natural spaces. On the other hand, the idea of including tourism in land planning finds unanimous support in academia. Although scientific research on tourism and land planning in natural areas is significant, many topics do not receive sufficient attention and the domain has not yet been subject to a systematic analysis, which is the purpose of the present study. To this end, bibliometric data is gathered from the Scopus database and analyzed through a bibliometric approach involving keyword analysis with Pearson correlation coefficient. The results indicate that development, landscaping, and management are the most researched topics, followed by community and system, natural/nature, and the local community. The results of the detailed analysis of the word “tourism” connected with planning in natural spaces reveal that research in the area defends sustainable management, economic growth, energy management and monitoring, and the adoption of a green economy model by the hospitality industry. By featuring the overall structure of research on tourism and land planning in natural spaces published in Scopus, this study provides helpful and timely information to researchers, scholars, destination managers, industry managers, and tourism and hospitality consultants.

Keywords: tourism; land planning; natural spaces; bibliometric analysis; scientific concepts

1. Introduction

According to the Council of Europa Carta Europea de Ordenación Del Territorio [1], spatial planning constitutes the adaptation of economic, social, cultural and environmental policies to a certain space. It is both a scientific discipline and a multidisciplinary and global policy whose objective is to achieve a balanced development of regions and the physical organization of space according to a guiding concept. In this vein, many authors consider that spatial planning goes far beyond the delimitation of zones within the territory, and should involve the social component and economic consensus [2–4], as well as enable territorial development [5]. In addition to the discussion on land planning, tourism emerges as a territorial development booster [6] that is embedded in the place’s social and spatial dynamics, and thus contributes to the territorial configuration. Vera-Rebollo [7] assures that tourism development not only contributes to transforming the socioeconomic model of a certain place, but also substantially affects its territorial reality. In this context, the search for sustainable territorial development is one of the major concerns, as tourism needs to improve the quality of life of local populations [8].
Tourism is a catalyst for territorial change and, as such, it must involve an order referred to by Gunn [9] as strategic, integrative, participatory, pluralistic, and capable of involving social, physical, and economic dimensions. Furthermore, dynamics related to environmental issues can only be resolved through the mobilization of the local population [10]. Similarly, as noted by Jenkins, Hall, and Troughton [11], in many parts of the world, spatial planning is a common government initiative that uses tourism as a response to economic problems. This means that involving the community in spatial planning is essential for the development of economically, socially, environmentally, and culturally viable tourism products that benefit these communities.

Tourism development involves the use of a systematic approach to spatial planning that makes it possible to identify relationships of integrated territorial elements, which according to Nagimov et al. [12] are the natural, technical, and social environments of a region’s integrated territorial tourist complex. However, especially in natural areas, tourism is often negatively perceived as an activity that destroys habitats, has a big carbon footprint, and consequently, contributes to climate change [13]. Nevertheless, scholars unanimously agree that tourism should be included in the land planning of natural spaces [14,15] as it is an essential factor for achieving territorial sustainability [16]. In this context, despite the existence of extensive literature pointing to the importance of including tourism in natural areas planning, there is no systematic analysis that shows which topics have received the most academic attention.

Considering this increased importance of understanding what kind of approaches are taken to land planning in natural areas, the present paper’s main goal is to characterize the state of the art of tourism and land planning in natural spaces in the Scopus database. To frame the topic, the present work will firstly carry out a theoretical review of spatial planning and the role of tourism in spatial planning, with an emphasis on natural spaces. To meet the research objective and map the most covered topics in the domain, a search for articles published in Scopus containing the sentence “tourism and planning in natural places” in the title, and an abstract of keywords was made. No time frame was established because, given the novelty of the subject, most of the articles found were published after 2007. In the end, a total of 213 articles were obtained.

The findings reveal that around 40% of the scientific production in tourism and land planning in natural spaces indexed in the Scopus database was published within the last 5 years. This shows that the topic is emerging, with great potential for funding and publication. For tourism and land planning in natural spaces as well as researchers and universities, this study reveals the overall structure of the topic by indicating future research lines. Moreover, this paper brings about an original methodological contribution, as it applies the Pearson’s coefficient to bibliometric studies, namely to the analysis of keywords.

The results show that research on land planning research for natural spaces connected to tourism focuses on the development, sustainability, and the inclusion of the community in the planning process. From a practical perspective, the findings highlight the need to ensure that land planning research in natural spaces includes local communities in the planning equation.

2. Literature Review
2.1. Spatial Planning

According to Font and Pujadas [2] and Segura Calero [3], spatial planning is the conceptual, operational, and in certain instances, the administrative framework of territorial planning. Clavé and Reverté [17] consider that it goes beyond the delimitation of zones and that it currently represents an indispensable option for social and economic consensus. In this context, spatial planning has been seen as an instrument for territorial harmonization and spatial legibility [4].

The territory is organized to meet predetermined purposes and objectives. Clavé and Reverté [18] divide these objectives into two large groups: territorial equity and rational use of resources.
The European Charter [1] establishes the following fundamental objectives:

- Balanced socio-economic development;
- Improving the quality of life, which, among other things, takes the form of greater accessibility to public facilities and the improvement of infrastructure;
- The management of natural resources and space in a responsible and rational manner;
- The rational and balanced use of space through the definition of compatible uses, the creation of infrastructures, and the preservation of activities;
- Environmental protection.

Currently, according to [19], land use planning is understood as a technical discipline with social elements that is applied in a multi and interdisciplinary way with two basic objectives: correcting territorial imbalances and spatially distributing human activities according to certain criteria and priorities.

The European Charter [1] also states that the fulfillment of spatial planning’s objectives is essentially a political task, which implies that numerous private and public organizations contribute to developing or modifying the organization of space.

This consideration of land use planning as a political task is also reflected in one of the most widespread definitions of Land Use Planning, which defines it as “the policy that deals with the presence, distribution and disposal in the territory of those facts which provides the ability to condition or influence the development and well-being of its inhabitants” [20] (p. 245).

Fernández Tabales [21] points out the importance of land use planning for tourism destinations and justifies its usefulness based on three aspects:

1. The intensity of the tourism-territory relationship, as the territory is the basis of all tourist activity. In this context, the territorial elements that constitute the tourist destination (climate, relief, environment, landscape, heritage, etc.) constitute in turn the basic resources of the tourist product.
2. The nature of land use planning as supralocal planning requires coordination and respect with municipal powers in terms of planning.
3. Spatial planning is oriented towards comprehensive planning, which is why it is a necessary tool to improve the quality of tourist spaces.

For his part, Gómez Orea [19] considers that ordination is also used because:

- It is a preventive instrument for environmental management since it controls the location and operation of human activities;
- An approach and methodology to plan sustainable development by Silvestre and ¸ Tîrcă [22]:
  - Identifying the activities through which sustainable development is to occur;
  - Distributing said activities in space in accordance, on the one hand, with the natural location of the space and, on the other hand, with the relations of complementarity, compatibility, and in-compatibility that exist between them;
  - Regulating its operation;
  - Addressing all facets—economic, social and environmental—of quality of life [23]
  - Providing the basic instrument used by territorial planning to carry out the ordering process is the plan.

For Clavé and Reverté [18], the plan is the ideal instrument to establish development criteria and strategic objectives that the planning of the territory implies. For his part, Gómez Orea [19] considers that land use planning is made operational through plans that are executed in three phases:

- Territorial analysis (physical environment, urban settlements and infrastructures) [24];
- Spatial planning or design of the future territorial model and the course of action to achieve it;
- Territorial management [25].
2.2. Tourism in the Spatial Planning

Spatial planning is understood as the management of human interaction with space, taking advantage of the existing infrastructure to ensure the preservation of resources. It incorporates elements of tourist supply and demand and integrates the participation of local governments with the various public and private institutions within a territory. In this sense, the spatial planning process must include the development of competitive and sustainable tourism products, as well as tourism management and planning. Additionally, it must encompass a progressive analysis of the incorporation of strategic measures in tourism for spatial planning. The growing interest in a certain containment of tourism growth, for the most part, is due to the growing concern with socio-ecological problems, as well as support for initiatives that favor local empowerment through regional and municipal policies [6] (p. 1764). This fact is due to problems with the scarcity of natural resources or environmental pollution that encourage a strong interest in tourism sustainability applied to spatial planning. It is observed that some authors have attributed global changes, in the most negative sense, to tourism in Scopus. These include the activity’s big carbon footprint and consequent climate change [13], as well as social, technological, economic, environmental, and political changes, which have been attributed as a certain tourist transformation [14].

Spatial planning has sought to respond to these emerging issues related to sustainability, including climate change, prevention of natural hazards, transport and new forms of mobility, population growth in urban areas, and human resources [8]. The resolution of socio-environmental challenges has been based on territorial planning processes implemented through regional policies. Territorial planning policies have been employed to optimize the use of natural resources and mitigate socio-ecological conflicts. The main instruments applied involve sectoral planning [15] and urban and tourist planning [26]. Tourism tends to be regarded as a sectoral component and is simultaneously integrated into territorial planning; therefore, it is necessary to interact with tourism through territorial planning [27].

Spatial planning instruments have been based on discourses that defend sustainability. In fact, it has been usual in recent times for heated discussions to proliferate on the development of sustainable tourism, with some arguing that this type of tourism in spatial planning favors the well-being and quality of life of communities [28]. In this sense, it is understood that spatial planning involves giving importance to socio-cultural aspects and heritage resources, as well as economic and political-organizational structures. Much of the emphasis in debates on sustainable tourism and policies associated with spatial planning involve a rejuvenation of the destination [29] and the renewal of territorial infrastructure [30]. In the context of spatial planning, tourism must present itself as a territorially integrated development tool for regional economies [31]. Therefore, as a way of adapting to social reality and contributing to sustainable development, tourism must be strategically planned, considering the relevant environmental issues [27]. Spatial planning contributes to the preservation of natural landscapes, the capacity for social and natural tolerance, the protection of agricultural land, the observation of community interests, and the engagement of actors and managers based on the territorial planning approach with emphasis on the political-institutional factors in the sustainable development of tourism [16] (p. 10). Moreover, spatial planning tends to follow the product-space logic and a policy that is based on the regional strengthening of new, more profitable bottom-up products [32], as well as the promotion of the business sector and the empowerment of the different economic and sociocultural aspects that support it. In this context, there are regions that have greater tourist potential within the scope of the elaboration of a tourism plan at the regional level and following the survey of existing physical resources, such as access and intrinsic characteristics of the destination [33].

Contemporary changes in tourism require the adaptation of all stakeholders in the creation of a quality tourist offer in destinations. These are now considered as complex sets to ensure competitiveness in the tourist market. Destinations become a set of tourism
products and services, which implies the active participation of all stakeholders. To achieve competitiveness, sustainable destinations must be developed with the implementation of integrated quality management. Spatial planning can be used as an instrument for coordinating socio-economic development through the prevention of environmental problems and, at the same time, protecting the natural and cultural heritage as well as the environment. The challenge for spatial planning is to ensure the efficient use of limited land resources, including natural, cultural, and landscape resources, such as soil, water, and air. It also aims to ensure balanced development of regional businesses. Because spatial planning has a long-term character, it involves important principles of sustainability [34] (p. 386).

One of the most important objectives of spatial planning is balanced development in different geographical areas. At a global and regional level, for the development of tourist destinations, it is essential to combat environmental impacts and risks. It is essential to understand the structure of tourism and the spatial development of tourism. However, this is a complex issue, as tourism activities can be carried out in different areas for different purposes. This trait is of great importance for tourism planning, as it can determine the tourist flow. In this context, there must be an adequacy in the development of multifunctional territorial tourism in parallel with spatial planning.

Investigating natural and cultural resources for tourism purposes is of great importance, as tourism is a basic resource activity and is therefore essential for the prosperity and sustainability of tourist areas [35]. Spatial planning can greatly help decision-makers in coordinating conflicts of human activities and conserving natural resources [36].

Spatial relationships are co-constituted with social relationships. Hence, the importance of the spatiality of tourism and, particularly, the relationship between places and their singularities for people. Places are more than tourist destinations. They are undoubtedly reifications of the tourist gaze, which reduces complex realities of experiences lived in a place to one that is essentially touristic [37]. Spatial planning is fundamental to making places that people want to experience. Thus, the strategic planning of the territory can promote the development of sustainable tourism and guarantee different interests in the use of natural resources through the involvement of stakeholders in the decision-making process. The strategic spatial planning framework in coordination with stakeholders’ interests and a strategic environmental assessment is also beneficial [34].

Tourism managers in natural spaces can obtain different sources of information based on destination location and environmental characteristics, or by mapping people’s perceptions of social values [38]. In this context, tourist activities are related to a variety of environments and factors, and internal and external changes affect them at different times [16]. For the policy of spatial planning in tourism, economic values (tangible and intangible) are important to ensure long-term sustainability in decision-making in relation to the territory. Due consideration of benefits and values is critical to a more nuanced understanding of the links between nature and well-being in tourism management [39]. The process of spatial planning in tourism facilitates the development of a shared vision of the future, incorporating multiple values, aspirations, and priorities [37].

One of the main benefits of spatial planning in tourism is the set of information that can be extracted from visitors and tourists about destinations. Such information adds value to the territory’s existing natural and cultural nature. Thus, it facilitates the spatial planning process by identifying positive and negative aspects (e.g., economic, sociocultural, and environmental concerns, etc.), which help develop a more sustainable spatial planning strategy. The inclusion of stakeholder perspectives in tourism planning and development is critical [40]. Understanding these values and benefits can help develop ideal tourism experiences [39]. There is no doubt that one of the greatest current concerns of regional territories is sustainable development and growth [41].

In fact, territorial development is no longer just a desire. It is of the utmost importance to improve the quality of life of populations and guarantee that future generations will have access to essential resources [42,43]. Tourism is considered one of the most important
catalysts of change in modern society, and as a result, it cannot evolve without proper territorial planning. Such planning must be strategic, integrative, participatory, and pluralistic, as well as consider social, economic, and physical dimensions [9]. Spatial planning must meet the needs of tourists and host communities while simultaneously protecting the environment and creating new opportunities for the future, and tourism has a significant importance in these dynamics.

2.3. Tourism Planning in Natural Spaces

Natural landscapes act as tourist attractions of certain destinations, and thus determine the tourism offer, which is also influenced by the tourism demand (motivations and expectations). In this context, scholars unanimously agree that it is necessary to discuss and insert a process of planning for the organization of tourist activities [44,45].

In this vein, the development of tourism or of some isolated tourist-recreational activities related to the natural environment requires a planning process, which will supposedly lead to an adequate organization of this activity. This, in turn, should avoid negative impacts such as the degradation of the environment and its resources (tourist attractions). On the other hand, the development of a tourism activity completely dissociated from a territorial planning process and not regulated by sensible policies tends to lead to those impacts [46,47].

According to Hall [48], planning is a type of decision-making and policy-making process. Therefore, the act of planning is a global process of planning-decision-action, which aims to create favorable and adequate conditions for the development of certain activities through actions and strategies.

Theoretical discussions on tourism planning and management in natural areas are reflections on governance and sustainability as guiding elements of the decision-making process. We agree to focus on this aspect, since the collection of papers published in the edition of the Journal of Sustainable Tourism addressed issues associated with theoretical and conceptual aspects; the governance of tourism at national, regional, and local scales; and explanation of temporary changes in tourism governance and sustainability and social learning in these processes [46].

The budget for the planning of natural spaces is outlined as a principle of social mobilization and community participation. These become evident to the extent that the existence of governance instances is considered a basic premise for the management of two presently spaced resources through mechanisms that facilitate such a process in practice.

Hall [47] discusses governance as a decision-making methodology for societies and organizations (public and private) based on the principles of legitimacy and voice, direction, performance, responsibility, and equity. The constitution of governments opens space for decision-making in a participatory, responsible, and democratic way, strengthening the implementation of public policies.

Tourist activity in natural spaces, understood as a clean industry, stands out for its role in sustainability, thanks to its power to generate wealth in mainly rural environments and guarantee the protection and conservation of natural resources, in addition to the local customs and culture [49]. One of the aspects most appreciated by local populations in terms of tourism is the economic benefit it brings [50]. In this sense, as local inhabitants recognize the economic development achieved by protecting nature, they become more involved in its planning and management [49].

Planning is essential for the conservation of land wealth and the enhancement of territories. Natural areas have the potential to develop a more sustainable form of tourism, promoting a sense of responsibility for the protection of natural and cultural heritage. These initiatives should promote the involvement of local actors in the definition of local development strategies, leverage endogenous environmental resources to add value to places, and provide qualified and organized services, which in turn, must support the local socioeconomic system [45].
The adoption of innovative and participatory approaches such as these has the potential to reverse trends of depopulation and economic depression in natural areas. According to [51], tourist areas in general must be analyzed on a case-by-case basis with their specific characteristics. This particularly applies to natural spaces, which are more sensitive to anthropologism. Therefore, there is a need to develop concepts that include the nature, history, and local resources of tourist regions.

3. Materials and Methods

The present study’s objective was to characterize the state of the art in tourism and land planning in natural spaces. More precisely, this investigation aimed to characterize the word structure that conceptualizes this subject. To achieve this objective, we carried out a bibliometric analysis, as it combines quantitative and qualitative techniques applied to the examination of bibliographic data and is the most adopted method to map science as suggested by Cardoso et al. [52]. According to Cardoso et al. [53] and Zupic and Čater [54], bibliometric methods have two main uses: performance analysis and science mapping. Furthermore, Cardoso et al. [52,53,55], Lima Santos et al. [56], and Koseoglu et al. [57] identified 3 types of bibliometric methods: (1) the relational techniques which explore relationships within research, such as the structure of research fields, the emergence of new research themes and methods, or co-citation and co-authorship patterns and, can be divided into four categories: co-citation analysis, co-word analysis, co-authorship analysis, and bibliographic coupling; (2) the evaluative techniques that assess the impact of scholarly work, usually to compare the performance or scientific contributions of two or more individuals or groups and, that include productivity measures, impact metrics, and hybrid metrics; and, finally (3) the review of studies. The specific type of bibliometric analysis adopted in this research was the relational bibliometric technique, considering that the research objective consists of identifying the state of the art in a given thematic area, more precisely mapping the science. According to Lima Santos et al. [56] (p. 3), “mapping the scientific literature on a certain topic is an effective tool for understanding the state of the art in that area of knowledge”. Within the relational bibliometric technique, we adopted co-word analysis because it is considered the most effective and the most frequently employed bibliometric technique to identify the most relevant topics—key-topics—in a scientific area. Co-word analysis is a type of content analysis that identifies keywords and correlates them with research topics [56,58]. Within the present research, co-word analysis was employed to identify the most used words in academic literature in “tourism and planning in natural places”. To this end, we followed the same methodology and analysis techniques as [59].

3.1. Data Collection and Systematization Procedures

The present study adopted SCOPUS as a data source. Analogous to previous studies [52,55,56,60], articles were retrieved from Elsevier’s Scopus database, one of the largest and most renowned online peer-reviewed literature databases [52,55]. The database was retrieved from Scopus on 30 July 2022. Considering the objective of this study, the search criteria were scientific papers containing “tourism and planning in natural places” in their titles, abstracts, or keywords. Figure 1. summarizes the steps of the data collection procedure. An initial sample of a total of 307 papers was obtained. Considering the data analysis technique that was adopted in this study—co-word correlation—only scientific articles were considered to ensure the uniformity of the format of documents, as suggested by [52,55,59].
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After application of the filter “only articles”, the sample decreased to 214 papers, published in 152 journals. As shown in Table 1, the articles on “tourism and planning in natural places” indexed in Scopus were published between 1973 and 2022.

Table 1. The articles on “tourism and planning in natural places” indexed in Scopus were published between 1973 and 2022.

<table>
<thead>
<tr>
<th>Year</th>
<th>Articles</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>14</td>
<td>6.5%</td>
</tr>
<tr>
<td>2021</td>
<td>18</td>
<td>8.4%</td>
</tr>
<tr>
<td>2020</td>
<td>18</td>
<td>8.4%</td>
</tr>
<tr>
<td>2019</td>
<td>14</td>
<td>6.5%</td>
</tr>
<tr>
<td>2018</td>
<td>19</td>
<td>8.9%</td>
</tr>
<tr>
<td>2017</td>
<td>6</td>
<td>2.8%</td>
</tr>
<tr>
<td>2016</td>
<td>15</td>
<td>7.0%</td>
</tr>
<tr>
<td>2015</td>
<td>6</td>
<td>2.8%</td>
</tr>
<tr>
<td>2014</td>
<td>10</td>
<td>4.7%</td>
</tr>
<tr>
<td>2013</td>
<td>9</td>
<td>4.2%</td>
</tr>
<tr>
<td>2012</td>
<td>6</td>
<td>2.8%</td>
</tr>
<tr>
<td>2011</td>
<td>10</td>
<td>4.7%</td>
</tr>
<tr>
<td>2010</td>
<td>9</td>
<td>4.2%</td>
</tr>
<tr>
<td>2009</td>
<td>11</td>
<td>5.1%</td>
</tr>
<tr>
<td>1973–2008</td>
<td>49</td>
<td>22.9%</td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100%</td>
</tr>
</tbody>
</table>

3.2. Data Analysis Procedures

The analysis of the data obtained follows [59]. In this vein, two main methods were employed: (1) bibliometric analysis, which considered keywords and abstracts as variables;
and (2) deductive content analysis, which was applied to titles, abstracts, and keywords, and allowed for a correlation analysis of the most studied topics.

The analysis process included two main steps: the development of a coding matrix and the coding of the data into the matrix’ categories. Words were adopted as the unit of recording and frequency was the main enumeration rule for coding. QSR NVivo 11 software was used in the analysis process. Finally, an intra-class correlation coefficient (ICC) analysis was performed using Pearson’s $\rho$ statistic. As proposed by Zhou et al. [61], this coefficient measures the probability of establishing a linear equation between two variables, that is, for every unit change in one variable, one unit change (correlated) in the other variable is expected, regardless of the magnitude and scale of measurement. In this vein, the CCI quantifies the agreement between different measurements of a numerical variable and extends its use to the case where more than two observations per subject are available. Therefore, it is an indicator of the reliability of a single measure, and is determined by the following expression:

$$\rho = \frac{\text{Var}(\pi)}{\text{Var}(\pi) + \text{Var}(\varepsilon)}$$

ICC values can range from 0 to 1, so that the maximum possible concordance corresponds to a value of ICC = 1. On the other hand, the ICC = 0 value is obtained when the observed concordance is equal to that expected to occur by chance alone.

4. Results and Discussion

Within the final database of papers on “tourism and planning in natural places” indexed in Scopus, 22% were published between 1973 and 2008, and the remaining 78% were published between 2009 and 2022 (see Table 1). In other words, almost 80% of the scientific production on this topic has been published in the last 13 years. Moreover, the period of 2016–2022, i.e., the last 4 years, shows the highest productivity, demonstrating that the topic is an emerging one. As argued by [53], such topics have a great potential for publication and research funding.

Regarding the journals where the theme is more notorious, 7 journals stand out, as shown in Table 2. Furthermore, most publications are in Q1 SJR 2021 indexed journals.

Table 2. Top 5 journals with the highest number of publications in the study area.

<table>
<thead>
<tr>
<th>#</th>
<th>Journals</th>
<th>Quartile</th>
<th>Articles</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sustainability</td>
<td>Q1</td>
<td>10</td>
<td>SJR 2021 0.66</td>
</tr>
<tr>
<td>2</td>
<td>Wit Transactions on Ecology and the Environment</td>
<td>Q4</td>
<td>8</td>
<td>SJR 2021 0.17</td>
</tr>
<tr>
<td>3</td>
<td>Journal Environmental Management</td>
<td>Q1</td>
<td>5</td>
<td>SJR 2021 1.48</td>
</tr>
<tr>
<td>3</td>
<td>Geoheritage</td>
<td>Q2</td>
<td>5</td>
<td>SJR 2021 0.49</td>
</tr>
<tr>
<td>3</td>
<td>Land</td>
<td>Q2</td>
<td>5</td>
<td>SJR 2021 0.69</td>
</tr>
<tr>
<td>4</td>
<td>Current Issues in Tourism</td>
<td>Q1</td>
<td>4</td>
<td>SJR 2021 1.84</td>
</tr>
<tr>
<td>4</td>
<td>Investigaciones Geograficas</td>
<td>Q3</td>
<td>4</td>
<td>SJR 2021 0.23</td>
</tr>
</tbody>
</table>

Considering the geographical distribution, Figure 2 reveals that the research is very fragmented in terms of affiliations. The most productive country is the United States, with 15.9% of the total number of works (34 articles), and 126.6% more publications than the next in the ranking, China (15 articles). Those are followed by Italy, Spain, Iran, Turkey, the United Kingdom, Australia, and Poland, all with more than 8 published works.
4.2. State of the Art on Tourism and Land Planning in Natural Spaces—Relevant Topic

Concerning the most relevant topics related to tourism and land planning in natural places, two words are naturally expected to stand out: “tourism” and “planning”. As shown in Figures 3 and 4, these words do stand out. However, one other word, “development”, appears even more than “planning”. Considering this area of research, the word “development” is, in fact, in line with the literature on this topic. As tourism and spatial planning are combined in natural spaces, territorial space is the priority in terms of management and planning. This relationship is justified by [13], who points out that the management of endogenous resources is essential to maintain the sustainability of local development. Therefore, Scott and Glossling [14] argue that spatial planning should stipulate certain restrictions on the use of resources, namely those related to contexts that have emerged as a result of climate change and certain tourist flows to protected areas. In this context, territorial planning policies have been used to optimize the use of natural resources in a sectoral manner [15,27].

In fact, in addition to “tourism”, “development”, and “planning”, the words “management”, “environmental”, and “natural” are also widely employed in this research subject. In this context, “management” focuses on promoting the well-being and quality of life of communities [28], as well as the rejuvenation of destinations [29].

Accordingly, “environmental” and “natural” are also very frequent topics. This corroborates Costa’s argument [27] on the need for strategic territorial planning, as well as Gunn’s argument [33] for the consideration of a destination’s particular and singular characteristics [33] during the planning process. It also reinforces Bassi et al.’s argument [45] for the inclusion of the territory’s endogenous resources and the valorization of its natural and environmental aspects within the composition of competitive tourist services. The presence of words such as “population”, “ecosystem”, “impact”, and “heritage” in the same frequency block represents additional evidence of this alignment with previous arguments.
the same frequency block represents additional evidence of this alignment with previous arguments.

Figure 3. Most frequent words in paper titles.
After performing an analysis of the frequencies of the words on paper of the total sample, it is observed that the main terms used are again the same as in the keywords: “tourism”, “development”, “planning”, “natural”, “rural”, etc. (Figure 4). Thus, to further examine the most relevant topics, a content analysis on database abstracts was performed. Additionally, in order to obtain more detailed information on the subject, a frequency analysis of the abstracts is performed (Table 3).

Table 3. Abstracts frequency analysis ($n = 63,596$). Ranking of words with greater frequency.

<table>
<thead>
<tr>
<th>Rank</th>
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Such analysis revealed that, regarding tourism and planning in natural places, the main topics studied are:
• Articulation of geotourism with natural and cultural landscapes, and the interest it arouses in tourists for landscapes such as mines. Other examples of areas suitable for geotourism and planning, such as wetlands, are also cited;
• Identification of the physical attributes of a destination that are valued by tourists and visitors to plan, manage, and market that destination;
• Transition of the economic model of certain natural destinations to the tourism sector, considering the sustainability and unknown effects of this change;
• Landscape architecture as a planning system for the conservation of natural resources, the creation of a useful and pleasant living environment, and the design of socially sustainable tourist spaces in urban contexts.

A more detailed analysis of the authors' keywords is also carried out, focusing on those which revealed the presence of the word “tourism” connected with planning in natural spaces (Table 4). The word “tourism” is directly connected to “development”, “sustainability”, “rural space”, “economic growth”, “energy use and consumption”, “carbon consumption”, “management”, “companies' hotels”, and “green economic development in urban areas”, among others.

Table 4. Keyword frequency analysis—keywords related to tourism and planning in natural spaces (n = 1432). Ranking of words with frequency greater than 5.

<table>
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</table>

Finally, once the most studied topics in this area were established, possible correlations or thematic associations between them were sought, as previously done in research in other areas. To this end, Pearson’s statistics’ results closest to 1, which indicate the strongest correlations, were observed. Considering the links established with tourism planning in natural places/spaces, Figure 5 shows that three words act as brokers by linking three different clusters of words. The first is “tourism”, which relates to “development”, “landscape”, and “management”. This mediation is interesting, since the existing relationship between tourism, development, and landscaping, which encompasses the environment, intensifies social practice. Tourism depends on the cultural uniqueness of destinations, which raises concerns about the relationships between different stakeholders in the sector and the environment [62], which must aim to enable better management decisions. Therefore, to a certain extent, the planning and environmental management of tourism activity has...
deserved the attention of governments, non-governmental organizations, local populations, and the private sector.

The second broker word, “development”, is connected with “tourism”, “community”, and “system”. This reflects a fundamental idea in tourism and land planning, which is the need to integrate the community into the planning process [33]. This integration will allow the community to better understand the importance of developing the territory in a sustainable way, as well as the entire tourism system and its effects on their own prosperity.

In the third broker word, “natural”/“nature” is connected with “information”, “local community”, and “park”. Two other connections should also be highlighted: “ecotourism”-“rural”, and “park”-“natural”. These relationships reinforce the importance of natural resource preservation within tourism planning, which is essential for the sustainability of natural and rural areas [35]. Although not being part of this large set of interconnected words, other direct connections were established with tourism planning in natural places/spaces, such as that between “planning” and “sustainable” (see Figure 5 and Table 5). This set of words is interesting due to certain aspects evidenced in the tourism and spatial planning literature. On the one hand, one of the challenges of spatial planning is to ensure the balanced use of resources, whether natural, cultural, or landscape. On the other hand, spatial planning involves important principles of sustainability [34] (p. 386), as well as the management of conflicts in human activities and the conservation of natural resources [36]. The existing correlations between the extracted words evidenced in this study corroborate such statements.
5. Conclusions

The present study aimed to assess the state of the art in tourism and land planning in natural spaces in terms of global productivity, and to identify the most prominent and relevant topics within this domain. To this end, bibliographical data were gathered from Elsevier’s Scopus database. The final sample used in the analysis encompassed 214 articles published in journals of all quartiles.


Concerning the global productivity in tourism and land planning in natural spaces, although the first paper was published almost 50 years ago, 80% of the scientific production on this topic has been published in the last 13 years, and 37.8% of the papers indexed in Scopus were published in the last 5 years. Therefore, we can consider that research in tourism and planning in natural places is an emerging topic with great potential for publication and research funding, which makes it attractive to researchers and research centers. Papers on the topic are quite well-spread among journals, so none concentrates on a disproportionate number of publications. Nevertheless, the Sustainability journal, of the MDPI Group, leads the rank with 4.7% of papers. As for the geographical distribution of scientific production, it is mainly concentrated in the United States, which stands out from the others with 15.9% of the papers on this subject. It is followed by China, Italy, and Spain, with almost half the number of publications (between 7% and 6% of the world’s re-search).

5.2. State of the Art on Tourism and Land Planning in Natural Spaces—Relevant Topics

The results indicate that development, landscaping, and management are the most researched topics, followed by community and system, natural/nature, and local community and park. It was observed that issues involving development encompass protected areas, with emphasis on social, economic, and ecological vectors, as well as their management and governance [63]. This is due to the adaptation to social and environmental changes, with the aim of ensuring conservation. It appears that this is a process within tourism that involves a growing interest from land managers in terms of development. Furthermore, the
results of the detailed analysis of the word “tourism” connected with planning in natural spaces reveal that research in the area defends sustainable management, economic growth, energy management and monitoring, and the adoption of a green economy model by the hospitality industry.

Regarding the most studied topics in tourism and land planning in natural spaces, the Pearson’s coefficient shows that the research on the topic focuses on the relationship between tourism, development, and landscaping. It also encompasses the inclusion of environmental concerns and the importance of including the community in the planning system; that is, the promotion of territorial initiatives that benefit local communities, based on products or the provision of services, will favor territorial development. They are therefore a vital part of socio-economic systems, being linked to people by historical, cultural, aesthetic, and spiritual values, and bringing information about human management interventions and traditional land uses as defended by [5,64]. In addition, the results reveal that there is a gap in studies related to tourist attractions and recreational activities, as argued by [44,45]. The same happens in relation to the endogenous territorial resources, which is considered fundamental in the dynamics of spatial planning. This is because the entire process of tourist activity can fluctuate according to the uniqueness and attractiveness of these resources, as well as to the stakeholders’ ability to devise favorable strategies for spatial planning. Such a spatial planning structure is referred to by [34], who advocate for a strategy of coordination with all the stakeholders involved in spatial planning.

Finally, among the least addressed topics within this domain are ecotourism, rural areas, and planning. In the case of ecotourism, the small attention received is perhaps because the topic is related to nature and rurality, in addition to sustainability, as it is anchored in the tourism planning system.

5.3. Contributions, Implications, Future Research and Limitations

The present study is the first attempt to conduct a comprehensive bibliometric analysis by applying correlation co-word analysis with Pearson correlation coefficient to the scientific production on “tourism and planning in natural places” published in journals indexed in Scopus. Therefore, the study provides a more detailed understanding of the state of the art in this area, as well as the most studied topics on this subject. The findings reveal that this is a recent subject with a high potential for publication and research funding. Moreover, as the number of publications overtime evidence, the topic is in a growth phase. This indicator is important for researchers and institutions aiming to conduct research in this area. In addition, only a few works address the participation of communities residing in these natural spaces or around them. In this context, in addition to addressing the level of participation of these fundamental actors in the planning of tourist activity [65], understanding the impact of tourism activity on these communities is of paramount importance for carrying out an inclusive and organically systematized planning.

In terms of practical contributions applied directly to tourism, this study reveals that the land planning in natural spaces should include tourism and local communities. Moreover, businesses within the tourism sector should include sustainability as a key element in planning, as well as energy management and monitoring.

Despite the clear methodological and practical contributions, this research also presents its limitations; namely, although no time frame was adopted, the study is still cross-sectional, as the database includes research documents published only in the Scopus database. Thus, future lines of research should consider other databases and include other words in the topic search.

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**Data Availability Statement:** https://www.scopus.com/search/form.uri?display=basic#basic (accessed on 30 September 2022).

**Conflicts of Interest:** The authors declare no conflict of interest.

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Land 2022, 11, 18

