





A Literature Review on Cultural Routes: Bibliometric Analysis with Vosviewer¹

Kültürel Rotalar Üzerine Bir Literatür İncelemesi: Vosviewer ile Bibliyometrik Analiz

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ABSTRACT

Understanding the evolution of interconnected cultures and individuals, resembling a complex network, cultural routes serve as bridges between the past and the future, offering the key to cultural richness, diversity, and change. Defined as paths gathered around a specific theme, expressing a common value, cultural routes aim to preserve cultural heritage and support sustainable development and local economic growth. The concept of cultural routes, increasingly present in the literature, is addressed by various researchers through publications in different categories. This study aims to conduct a bibliometric analysis by examining publications related to cultural routes to reveal the dimensions of interaction between researchers and the impacts of their work. Utilizing the Web of Science database with data obtained in September 2023 using the keywords "cultural routes" and "cultural route", a bibliometric analysis was conducted using the VosViewer program, examining a total of 236 publications. The study is considered significant in determining the direction of the trend in the literature regarding cultural routes.

Keywords: Cultural routes, Web of Science, Bibliometric analysis, Vosviewer, data mining.

Öz

Karmaşık bir ağ gibi birbirine bağlı olan kültürlerin ve bireylerin evrimini anlamak için kullanılan ve geçmişle gelecek arasında köprüler kurarak kültürel zenginliğin, çeşitliliğin ve değişimin anahtarını sunan kültürel rotalar, belirli bir tema etrafında toplanan ve ortak bir değeri ifade ederek kültürel mirasın korunması ve sürdürülebilir kalkınma ile yerel ekonomik kalkınmayı destekleyen yollar olarak tanımlanmaktadır. Literatürdeki varlığını her geçen gün artıran kültürel rotalar kavramı, pek çok araştırmacı tarafından farklı kategorilerdeki yayınlarla ele alınmaktadır. Çalışma kapsamında kültürel rotalara ilişkin ortaya konulan yayınların incelenerek araştırmacıların etkileri ile araştırmacılar arasındaki etkileşimin boyutunu ortaya koymak için bibliyometrik analiz yapılması amaçlanmaktadır. "Cultural routes" ve "cultural route" anahtar sözcükleriyle Web of Science veri tabanından 2023 yılı Eylül ayında elde edilen veriler aracılığıyla VosViewer programı kullanılarak yapılan bibliyometrik analiz ile toplam 236 yayının incelenmesi yapılmıştır. Çalışma, kültürel rotalara dair literatürdeki eğilimin yönünü tespit etme açısından önemli bulunmaktadır.

Keywords: Kültürel rotalar, Web of Science, Bibliyometrik analiz, Vosviewer, very madenciligi.

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INTRODUCTION:

Cultural routes, defined as pathways or itineraries connecting cultural heritage and historical sites, are typically organized around a historical, cultural, or thematic focal point. These routes provide visitors with the opportunity to explore significant cultural and historical locations within a specific geographical region or country. Cultural routes transcend national borders, covering different regions or countries, often following a historical or cultural theme. In the context of sustainable tourism and local economic development, cultural routes contribute to the preservation of cultural heritage.

Bibliometric analysis in the context of cultural routes offers valuable insights into the scientific outputs, collaborations, and impact of research related to these routes. Analyzing bibliographic data allows researchers to gain a deeper understanding of the knowledge network and scientific communication surrounding cultural routes. It also helps identify research gaps to support policy decisions aimed at promoting and preserving cultural routes. Through these analyses, insights into the visibility, impact, and collaboration in the field of cultural routes research are provided.

By conducting bibliometric analysis, researchers can identify the most influential publications and authors, helping them understand which areas within cultural routes research receive the most attention and recognition. This approach facilitates a better understanding of the landscape of cultural route research and contributes to informed decision-making in the field.

Understanding cultural routes is essential for the preservation and promotion of cultural heritage. Bibliometric analysis contributes to this understanding by providing insights into research outputs and trends within the field. Analyzing bibliometric data enables researchers to identify the most studied cultural routes, countries or regions actively engaged with these routes, and the disciplinary focuses of the literature. Additionally, bibliometric analysis can reveal the extent to which different disciplines, such as history, anthropology, tourism studies, and geography, contribute to the examination of cultural routes. This analysis serves as a valuable tool for stakeholders in the cultural routes sector, policymakers, heritage organizations, and tourism agencies. It assists them in effectively allocating resources and prioritizing the protection and promotion of specific cultural routes based on research importance. Furthermore, bibliometric analysis tracks the evolution and development of cultural routes research over time. This information can be utilized to identify emerging research areas, knowledge gaps, and potential future directions for cultural route research.

Determining collaborative authorship and partnership models among researchers and institutions, bibliometric analysis can reveal the extent of global collaboration in examining cultural routes and highlight potential future collaboration opportunities. By considering bibliometric data, stakeholders can develop strategies to enhance collaboration and knowledge exchange among researchers from different regions and disciplines.

In general, bibliometric analysis of cultural routes provides a comprehensive and objective way to understand the current state of research in the field. It assists stakeholders in making informed decisions, prioritizing resources, identifying knowledge gaps, and promoting international collaboration.

1. Conceptual Framework

1.1. Cultural Routes

Cultural routes, defined as pathways or routes connecting cultural heritage and historical areas, are typically organized around a historical, cultural, or thematic focal point. These routes serve as elements of cultural heritage that transcend national boundaries, covering different regions or countries. They often follow a historical or cultural theme, offering visitors the opportunity to explore significant cultural and historical sites in a specific geographic region or country.

The concept of cultural routes has been discussed since the 1960s, particularly through the collaborative efforts of ICOMOS, UNESCO, and the Council of Europe. This discussion aimed to increase collective awareness of Europe's most significant cultural sites through reports and cultural journeys, making them an integral part of European culture. UNESCO, the Council of Europe, and ICOMOS have each created different definitions for each type or category of cultural route based on their respective missions.

In the last decade, the process of establishing a scientific definition for cultural routes, which has seen an increase without any signs of slowing down, began with the listing of the Santiago Route as a World Heritage site in 1993 (Ducassi and Rosa, 2005). Additionally, the conceptual interest in this term increased significantly during the meeting titled "Routes as Part of Our Cultural Heritage," organized by ICOMOS and UNESCO in Madrid in November 1994. In this meeting, the concept of cultural routes, referred to as heritage routes, entered the literature with the following definition: "A heritage route consists of tangible elements arising from cultural significance, exchanges between countries or regions, and multi-dimensional dialogues, and these elements demonstrate the interaction of movement over space and time along the route" (World Heritage Committee, 1994). The criteria set by the World Heritage Committee, which examines routes based on intercultural exchanges and travels, for recognizing the value of universal cultural heritage for cultural routes are outlined below.

International Council on Monuments and Sites (ICOMOS) (2008) defines cultural routes as specific pathways or itineraries that connect areas of historical, cultural, or natural significance and present these areas to visitors. ICOMOS emphasizes that the development and preservation of these routes should adhere to sustainable conservation and management principles. The defining factors of cultural routes, presented by ICOMOS as a complex and multidimensional concept contributing to heritage conservation, are as follows.

Table 1. Factors Defining Cultural Routes (Adapted from ICOMOS, 2008)

Descriptive element	Definition
Context	Natural settings
Content	Concrete elements witnessing cultural heritage
Intercultural meaning	A value greater than the sum of the parts that give meaning to the route
Dynamic character	The interactions it provides

Cultural heritage theory and developments in conservation science have underscored the significance of the concept of cultural routes, marking the beginning of efforts to establish it as a new category of heritage. With the increasing influence of globalization on culture, the concept of cultural routes has brought about a new modeling for the richness, complexity, and dynamics of cultural interaction. Additionally, the International Scientific Committee on Cultural Routes (ICOMOS-CIIC) has been working to develop a methodology for defining, assessing, inventorying, and appropriately managing the concept of cultural routes within the context of sustainable development and cultural tourism.

According to ICOMOS (2008), cultural routes must meet the following conditions, characterizing them as more than simple communication and transportation pathways connecting different communities with cultural features. These routes, which can take various forms such as communication pathways, roads, and waterways, irrespective of the cultural characteristics, must be physically delimited. They are not only means of connecting communities but also represent specific historical events that cannot be created by simply implementing the dream of establishing a cultural entity with similar characteristics. These routes possess distinct dynamics and historical functionality, serving a well-defined purpose. They should meet the following conditions:

- Originating from interactive movements of people, cultural routes should reflect multidimensional, continuous, and mutual exchanges of goods, ideas, knowledge, and values among individuals, countries, regions, or continents over significant periods.
- Encourage a kind of cross-fertilization where cultures influence each other mutually across space and time, reflecting in both tangible and intangible heritages.
- Integrate historical relationships and cultural assets into a dynamic system.

The importance of cultural routes, defined as consciously created or utilized unique creations of cultural dynamics developed through interaction pathways throughout history (Ducassi and Rosa, 2004), is emphasized. These routes provide traces of human existence and should continue to leave a mark.

Cultural routes contribute to the preservation of cultural heritage by offering new perspectives and tools, fostering intercultural dialogue, and increasing sustainable development while respecting cultural diversity. Recognizing the growing significance of environmental aspects associated with cultural heritage, cultural routes represent a value set larger than the space they cover. They promote intercultural dialogue, sustainable development, and cultural tourism, providing new perspectives on conservation. Cultural routes emerge as a new and dynamic system in a natural context, representing abstract and tangible cultural values associated with significant functions throughout history, serving a specific purpose. They manifest at local, national, regional, continental, and transcontinental scales, revealing the interactions of historical communication pathways (Ducassi and Rosa, 2005).

The concept of cultural routes has brought about a new perspective on heritage, necessitating an interdisciplinary approach to the subject. On the other hand, considering the qualitative changes in the evaluation, management, and preservation of cultural assets, there has been a shift in the traditional understanding of artistic heritage (Lopez Fernandez, 2006). This shift highlights that even a small historical artifact holds much more value when considered in its context, and cultural routes reveal this hidden value.

Examining Martorell Carreño's (2008) definition of the topic, cultural routes created to connect two or more different geographical locations to establish relationships among diverse groups of people are seen to be addressed within the scope of connectivity and interrelationship.

Karataş (2011), in his definition of cultural routes, argues that a route can be artificially created, designed for the promotion, preservation, and development of tourism, or it can be a regional, national, or continental transportation corridor that has been used historically and is reused today. In this way, he approaches the route based on its purpose and scale.

Focusing on attraction centers and connecting regions with their uniqueness and individuality, cultural routes, which create a new heritage model by linking areas with similar elements, have become one of the fastest-growing tourism elements in recent years, especially due to their emphasis on the value of cultural heritage and tourism. The involvement of regional, national, and international organizations

in the creation and design of routes, along with the emergence of institutional figures recognizing the value of cultural routes from different perspectives, has been demonstrated (Garrido et al., 2015).

Cultural routes, defined as transnational pathways containing a general theme of significant cultural value, extend across large regions and long periods. The interaction and mobility at the core of the concept of cultural routes open up a new avenue in the understanding of cultural heritage. The existence of a cultural route, which emerges as a community formed by interconnected cultural assets beyond borders, is attributed to its inclusion of characteristic entities such as historical events, monuments, archaeological remains, historic cities, traditional architecture, abstract, industrial, and technological heritage, public works, cultural and natural landscapes, vehicles, and historical knowledge and technical skill practices (Oprică, 2015).

Cultural routes are defined as elements of cultural tourism with various advantages, connecting historical sites and points of significance, promoting cultural tourism, supporting the preservation of cultural heritage, and fostering local economic development. These routes also help strengthen cultural identities and promote intercultural understanding and dialogue. The World Heritage Committee has endorsed the cultural route initiative at the World Heritage Conference titled "Routes as Cultural Heritage," acknowledging the significant step the route concept represents in recognizing and promoting humanity's heritage in all fields (Terzić and Bjeljajac, 2016).

According to Genovese (2016), cultural routes derive from a historical process of universal civilization, where all peoples of the world have contributed through mutual cultural influences, confirming that it is a heritage belonging to all of us. They contribute to the development of intercultural dialogue and sustainable development through the acknowledgment of cultural diversity and respect for this diversity.

Csapó and Berki (2008) argue that cultural routes should be approached within the framework of a thematic route, with the structure of attraction centers linking the region's development to external and internal factors being the first fundamental factor of a thematic route.

Cultural routes, as an integral part of the new cultural heritage policy in Europe within the context of international cooperation, represent an expansion of the concept of cultural heritage from local to world heritage, ranging from isolated monuments to cultural routes hundreds or thousands of kilometers long. The concept of cultural routes has evolved from linear or circular routes to complex tourism networks as it expands in geographical, historical, social, cultural, tourism, or thematic areas (Terzić and Dogramadjieva, 2022).

Different countries are increasingly recognizing the importance of developing cultural routes, which creatively connect various attraction centers and interesting destinations thematically within a country or across multiple countries, as a tourism product (Graf and Popesku, 2016). Countries that believe cultural routes are insufficient in tourism and harbor untapped potentials are focusing on their development. This is because these routes offer economic growth opportunities through tourism activities (Klarić et al., 2013).

Cultural routes, known not only for being a valid concept for different complex cultural heritage and tourism resource sets (Gomez Ullate, 2016) but also as transnational cultural connection paths, can emerge as a specific geographical region connected by the same theme beyond being labeled simply as cultural routes (Häfele, 2013).

The concept of cultural routes is grounded in the relationship between culture and tourism, both in terms of cultural assets and tourist use. Coined more frequently since 1998, especially with the establishment of international organizations related to cultural routes, the term refers to tourism products that bring together accessible natural or man-made attractions around a specific theme or

subject through different forms of transportation (Puczkó and Rátz, 2000; Calderón-Puerta et al., 2018).

Cultural tourism, defined as a type of tourism where individuals are motivated by the intention to travel to interesting places to satisfy their cultural needs, aims to acquire new knowledge and experience new things (Richards, 2001).

Cultural routes bring a new perspective and provide a significant foundation for sustainability in cultural tourism. Defined as a tourism activity where the primary motivation of the visitor is to learn, explore, experience, and consume tangible and intangible cultural attractions/products in a tourism destination, cultural tourism encompasses various elements, including art and architecture, history and cultural heritage, culinary culture, literature, music, creative industries, and the lifestyles, value systems, beliefs, and traditions of living cultures (World Tourism Organization, 2018).

Murray and Graham (1997) examined cultural routes in the context of tourism, describing their foundation as the integration of "cultural consumption with points of sale" and their inseparable connection to the constant reshaping of place and culture inspired by nostalgia, memories, and traditions, similar to all heritage tourism. Cultural routes, encompassing archaeological sites, museums, monuments, traditional settlements, and other cultural heritage sites, are created to promote sustainable tourism, preserve and promote cultural heritage, provide educational experiences for those interested in history and culture, and contribute to local economies. These routes often serve as tourism products that encourage tourists to visit the region, potentially preserving and using the historical and cultural wealth of the area sustainably. Cultural routes become a space where local communities contribute meaning, not just as tourism products but as activities that add meaning to them.

Cultural routes, deriving from historical processes, are considered high-quality tourist products today. Touristic-cultural routes, as tourist products created for tourism purposes based on the existence of cultural contents associated with a specific area or region, can be examined as cultural products and potentially classified as tourist products (Garrido et al., 2015).

Hernández Ramírez (2011) recognizes routes as tourist products and classifies them as "a series of trips that predominantly invite the visitor to a specific heritage category." The content of this heritage category can include cultural expressions, testimonies of archaeological or historical pasts, artistic heritage, industrial heritage, or natural areas. Additionally, he defines routes as "proposals that, with little or no relation to real historical and cultural reality but including new attractions as additional values, reconstruct the region."

The widespread acceptance of cultural routes as tourist products has attracted the interest of various authors and national and international organizations in examining and defining this concept (Calderón-Puerta et al., 2018).

Several conceptual proposals have emerged from recognizing culture as a tourist product. However, there is no widely accepted definition of a tourist route today. Chan (1996) offers an interesting description, treating cultural routes as a "standardized offer of places and activities to be carried out in a region."

Many cultural routes are widely acknowledged as tourism routes, and the advantages offered by tourism routes are listed as follows (Meyer, 2004):

- Attraction of New Tourists: Cultural routes can attract new tourists and repeat visitors.

- Visitor Distribution and Economic Benefit: These routes contribute to the distribution of visitors, thereby evenly spreading the income from tourism, ensuring the equal sharing of economic benefits.
- Increase in Accommodation and Expenditure: Cultural routes can increase the duration of visitors' stays and their expenditures, thereby enhancing their economic impact.
- Inclusion of Lesser-Known Places: Including lesser-known places in the tourism business and product regions can enhance diversity.
- Persuasion of Visitors: Visitors can be persuaded to spend time and money in potentially unattractive places.
- Integrated Product Development and Marketing: Cultural routes enable a more integrated approach to product development and marketing.
- Transportation Synergies: These routes can increase transportation synergies, enhancing their drawing power.
- Enhancement of Destination Attractiveness: Cultural routes can enhance the overall attractiveness of a destination.
- Sustainability of Tourism Products: Cultural routes contribute to the increased sustainability of tourism products.
- Ease of Transportation Capacity Management: The dispersion of tourists makes transportation capacity management easier.
- Reduction of Negative Environmental Impact: The dispersion of tourists can contribute to a reduction in negative environmental impacts.

A cultural route, composed of three main elements—geographical area, theme, tourism products, and services—planned and developed, can contribute to the economic realization of one or more tangible and intangible heritages through tourism (Pattanara and Pistocchi, 2016). Thus, tourism can be a primary source of business opportunities and economic development at micro, meso, and macro scales. Tourism supported by cultural routes creates opportunities for the local community as a cornerstone of cultural and creative economies, revealing unique tourist profiles and destinations with an authentic cultural identity (Timothy, 2012).

Cultural routes, as a system capable of meeting the needs of postmodern tourists, increase mutual integration due to the recognition of culture as a fundamental element of tourist consumption. This presents an opportunity to meet the changing specific needs of new tourist profiles. By offering visitors the opportunity to experience a specific consumption style, cultural routes allow tourists to learn more. Cultural routes can serve as a basis for collaborative projects based on innovative solutions needed to ensure the sustainability of tourism. This emphasizes the importance of mutual collaboration and interaction, fostering a new concept called "co-creation." "Co-creation" focuses on various interaction points that actively involve customers in the consumption experience and is defined as "the focal point of creating value together" (Pralahad and Ramaswamy, 2004).

The concept of cultural routes, emphasizing the promotion of culture rather than profit, provides an approach where culture's appeal or the promotion of culture developed by destinations takes precedence. This defines various markets of cultural tourism and explains the interactions of these markets with cultural routes (Richards, 2014). The table below illustrates the relationship between cultural tourism markets and cultural routes (adapted from Richards, 2014).

Table 2. Relationship between cultural tourism markets and cultural routes

Tourism market	Definition	Evaluation within the scope of cultural routes
Creative tourism	It shifts from tangible culture to abstract culture and consists of the fundamental experience, involving the exchange of knowledge and skills between the host and the guest.	Local experience and exchange of knowledge and skills

Visiting Friends and Relatives (VFR) tourism	It refers to the return of a person living in a higher-income country to visit their old home or relatives in a lower-income country	Following migration routes or connections between different population groups
Religious tourism	It consists of pilgrims traveling along specific routes to visit multiple sacred places or complete long itineraries.	Creating curiosity about visiting other sacred places
Volunteer tourism	It consists of tourists who stay in a destination for an extended period and aim to experience the cultural heritage.	Desire to have intense experiences with cultural heritage and local people
Language travel	It involves travels made to other countries to learn a language.	Possibility of combining language courses with cultural activities and bringing together language and local culture
Health and spa tourism	It consists of discovering thermal springs and spa facilities for treatment or entertainment	Creating curiosity about visiting other spa and wellness destinations
Wellness and spa tourism	It consists of travels undertaken by tourists seeking to explore their spiritual development or the spirituality of others.	Offering a wide range of motivations ranging from traditional religious tourism to the use of alternative medicine

The relationship between cultural routes and tourism is based on mutual interaction. Many cultural routes are also considered cultural and creative tourism products and contribute to the emergence of tourism types known as creative tourism and new tourism by triggering cultural consumption. These routes are often approached from a spatial scale dimension and are considered as a means of spreading tourism products. Through cultural routes, efforts are made to develop new destinations, instill the idea of discovering new places and new tourism products, and encourage looking at tourism products from an experiential perspective. The influence of cultural routes is crucial in shaping new tourism trends.

Cultural routes, by highlighting local values as heritage elements with the potential to enhance the attractiveness and competitiveness of a region from both cultural and tourism perspectives, trigger local development dynamics. The tourism potential of these routes is considered in local economic development strategies, offering opportunities to generate income for the preservation of cultural heritage assets. Cultural routes are defined as suitable tools for visitor management that support environmental preservation and economic development, especially in marginal and rural areas.

Local economic development emerges as one of the main goals of cultural routes, aiming to facilitate the development of local communities in physical, economic, social, cultural, and political areas in line with the principles of sustainable development, utilizing local dynamics. When examining studies related to cultural routes in the literature, it is observed that the concept is approached from various dimensions, and due to the abundance of content and traces of cultural heritage elements, it is not possible to provide a fixed and definite definition.

The prominent points in the definitions of the cultural routes concept found in various publications in the literature are listed in the table below:

Table 3. The prominent points in the definitions of cultural routes in the literature

Author name	Description
Murray & Graham, 1997	The definition highlighted the scale-independence of routes and their aim to reinterpret culture.
Suarze-Inclan & Rosa, 2004	They defined them as unique creations of cultural dynamics.

Ducassi & Rosa, 2005	It emphasized their creation as a new and dynamic system in a natural context, across local, national, regional, continental, and transcontinental scales, alongside abstract and tangible cultural values historically associated with significant functions.
Lopez Fernandez, 2006	The definition noted that cultural routes bring innovation to heritage definitions by altering traditional understandings of artistic heritage.
Martorell Carreño, 2008	It addressed cultural routes within the scope of connectivity and interrelationship.
Karataş, 2011	It stated that they serve the purpose of preserving and enhancing tourism, functioning as regional, national, or continental transportation corridors.
Zabbini, 2012	They argued that cultural routes create a new heritage model by connecting areas with similar elements while determining the uniqueness and individuality of their respective regions.
Garrido et al., 2015	The involvement of regional, national, and international organizations in route formation and design has led to the emergence of corporate figures who recognize the value of cultural routes from different perspectives.
Oprică, 2015	It linked the <i>raison d'être</i> of cultural routes to their inclusion of characteristic entities such as monuments, archaeological remains, historic cities, traditional architecture, abstract, industrial, and technological heritage, public artworks, cultural and natural landscapes, transportation modes, and historical knowledge and technical skill practices.
Genovese, 2016	It stated that recognition of cultural diversity and respect for it contribute to the development of intercultural dialogue and sustainable development.
Csapó & Berki (2008)	The definition emphasized the need for cultural routes to be approached within the framework of a thematic route. It stated that the primary factor in a thematic route is the structure of attraction centers that connect the region's development to external and internal factors.
Terzić & Dogramadjieva, 2022	The definition stated that cultural routes have evolved from linear or circular routes into complex tourism networks, expanding in geographical, historical, social, cultural, tourism, or thematic areas.
Graf & Popesku, 2016	It emphasized that they are creative tourism products that thematically connect different attraction centers and interesting destinations within a country or across various countries.
Klarić et al., 2013	It was noted that they offer opportunities for economic growth through tourism activities and are valid concepts for various complex sets of cultural heritage and tourism resources.
Gomez Ullate, 2016	The definition emphasized that cultural routes are valid concepts for different complex sets of cultural heritage and tourism resources.
Häfele, 2013	The statement suggests that beyond being known as cross-border cultural connection routes, they can also be defined as a specific geographical region linked by the same theme.

Literature reviews indicate that cultural routes can be summarized as follows:

- Providing a fresh perspective on cultural heritage,
- Facilitating the reinterpretation of culture,
- Establishing a new and dynamic system,
- Independent of any scale,
- Ensuring the preservation and respect of cultural diversity,
- Demonstrating intercultural interactions and connections,

- Encompassing abstract and concrete cultural values around any theme,
- Evaluable as a tourism product, and
- Enabling the realization of local economic development strategies through a multi-stakeholder participation model.

1.2. Bibliometric Analysis

Bibliometric analysis is defined as the numerical analysis of relationships among academic publications produced on a specific topic. Utilizing numerical data through bibliographic information obtained from publication databases, bibliometric analysis emerges as a method for analyzing and presenting results such as citation analysis, citation graphs, and keyword graphs concerning authors, institutions, and countries. Bibliometric analysis aims to reveal the impact of researchers who produce academic publications on a particular subject and the dimensions of interaction among researchers.

Bibliometric analysis is a quantitative research method involving the systematic examination of bibliographic data to better understand patterns and trends within a specific field or discipline. This method enables researchers to identify significant authors, influential publications, and emerging topics in the research field. Bibliometric analysis involves collecting and analyzing bibliographic data from scientific databases, journals, conference proceedings, and other relevant publications. Typically, bibliometric analysis allows the determination of key metrics such as citation counts, co-authorship networks, publication patterns, and keyword analysis through software tools or platforms.

Bibliometric analysis can be facilitated through various tools and techniques. These tools assist in collecting, organizing, and analyzing relevant scientific publications. Some of these tools include:

- Scopus: Scopus is a comprehensive bibliographic database that facilitates searching and retrieving scientific literature across various disciplines. It provides access to a wide range of publications related to the topic and enables advanced bibliometric analyses such as citation analysis and co-authorship analysis.
- Web of Science: Similar to Scopus, Web of Science is a bibliographic database covering a broad range of disciplines. Its citation indexing feature allows tracking the citation patterns and impact of scientific publications in the field.
- Google Scholar: As a popular search engine for scholarly literature, Google Scholar offers access to a vast academic source, making it suitable for basic bibliometric analyses such as counting citations and identifying influential publications in the relevant field.
- VOSviewer: VOSviewer is a software tool used to visualize and analyze bibliometric networks. It allows researchers to create maps and visualizations of co-authorship networks, citation networks, and keyword co-occurrence networks in the field of cultural routes.

2. Research Methodology

Bibliometric analysis in the context of cultural routes involves the systematic collection and analysis of scientific publications related to the study and exploration of these routes. In this study, research articles, books, conference papers, and other scientific publications from the Web of Science database are identified and collected. The obtained data is then analyzed using bibliometric methods, including citation analysis, co-authorship analysis, and network analysis, through the use of the VOSviewer data mining application.

Citation analysis involves examining citations in scientific publications to determine the impact and influence of specific works and authors in the field of cultural routes. Co-authorship analysis reveals the dimension of collaboration and network formation in the field by examining collaboration patterns among researchers, institutions, and countries. On the other hand, network analysis maps and analyzes connections and relationships among researchers or institutions through collaboration networks.

By employing VOSviewer, a data mining application, to analyze the position of the concept of cultural routes in the literature, various data sources, including API files such as OpenAlex, Crossref, Europe PMC, Semantec Scholar, OCC, COCI, and Wikidata, as well as database files like Web of Science, Scopus, Dimensions, Lens, and PubMed, are utilized. Additionally, data from reference management files such as RIS, EndNote, and RefWorks are processed to create bibliometric maps, offering valuable insights into the information landscape of cultural routes research. This allows stakeholders to understand the most influential authors, institutions, and countries in the field.

Within the scope of the study, a search was conducted on September 25, 2023, in the Web of Science database using the keywords "Cultural routes" and "cultural route," resulting in a total of 236 publications. The obtained results were analyzed using the VOSviewer 1.6.20 version program.

The results from the Web of Science database were exported in the "tab-delimited format" option and subsequently subjected to analysis using the VOSviewer program. In VOSviewer 1.6.20, the steps "Create-Create a map based on bibliographic data-Read data from bibliographic database files" were selected, and the file exported from the Web of Science database was chosen to initiate the analysis process.

Within the study, citation analysis for authors, institution citation analysis, country citation analysis, keyword analysis, bibliographic coupling analysis of texts, and co-citation analysis of co-authors were performed. The results are presented under the "Findings" heading.

3. Findings

The bibliometric analysis conducted on September 25, 2023, using the keywords "Cultural routes" and "cultural route" in the Web of Science database yielded a total of 236 results. It was observed that the first publication on the subject entered the literature in 2002, with 35 publications produced in 2019. As of 2023, there were limited studies on the subject, with only 17 publications.

Among the 236 results, it was identified that there were 164 articles, 59 conference papers, 6 book chapters, 6 editorial materials, 4 review articles, 2 book reviews, 2 early access publications, and 1 film review related to the concepts of "Cultural routes" and "cultural route" in the literature. The obtained results were further analyzed based on authorship, citation, journal, country, institution, and keywords.

3.1. Co-authorship Analysis

Co-authorship analysis is utilized to identify collaboration networks within a research field. This analysis reveals which authors collaborate, which institutions cooperate, and the extent of these collaborations. Additionally, it assists in identifying significant players and institutions within a research field and helps map out research networks. The co-authorship analysis revealed that out of 278 authors working on the topics of "cultural route" and "cultural routes," there is no direct connection between all of them. The most extensive connection set in the interaction graph consists of 10 authors. Antonia Moropoulou and Marta Severo were identified as the authors with the most publications on the subject, while Greg Richards and Julie Wilson, with one publication, received the highest number of

citations (487). The number of publications and citations for the authors in the interaction graph is presented in the table below.

Table 4. Number of publications and citation counts of authors

Name of authors	Number of publication	Number of citation
Krogmann, Alfred	3	9
Mroz, Franciszek	3	4
Ambrosio, Vitor	1	4
Nemcikova, Magdalena	1	4
Solvoça, Lucia	1	4
Kramarekova, Hilda	2	5
Petrikovicova, Lucia	2	5
Ivanic, Peter	1	5
Petrovic, Frantisek	1	5

The co-author analysis graph for authors with the given number of publications and citations is presented below in the table.

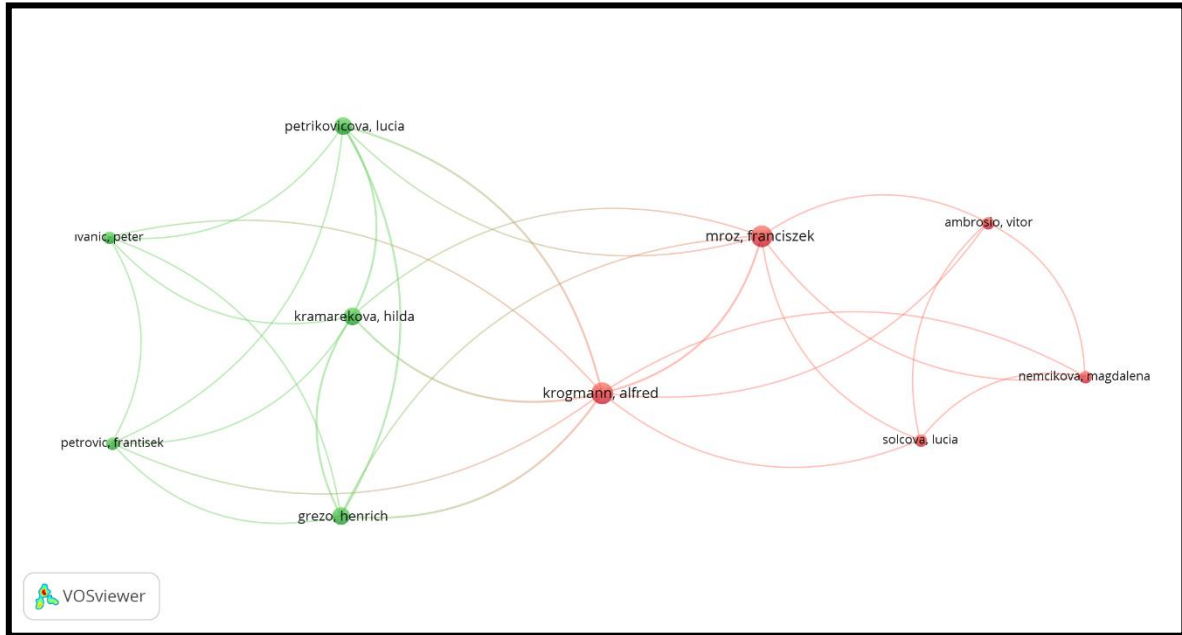


Figure 1. Distribution of co-author analysis for authors

When examining Figure 1, it is evident that Alfred Krogmann is the author who received the most citations, despite not having the highest number of publications. Additionally, it is noteworthy that other authors have significant publication and citation numbers, with some authors receiving more citations than expected given their lower number of publications. For instance, authors like Lucia Petrikovicova and Peter Ivanic have received more citations relative to their publication counts. This suggests that their work may have had a substantial impact in the academic community. Their

publications might have filled a significant gap in their respective fields or offered a new perspective. Their work could have contributed to the understanding or development of a particular topic in the literature, hence being frequently referenced by other researchers. On the other hand, it is also notable that some authors have received fewer citations than expected based on their publication counts. This could indicate that their work has not yet gained widespread recognition or acceptance. In conclusion, this scenario provides an important tool for evaluating the academic impact of specific authors and can be used to understand which works attract more attention within the field.

3.2. Author Citation Analysis

The author citation analysis revealed that out of 278 authors working on the topics of 'cultural route' and 'cultural routes,' there is no connection among all of them. Therefore, the interaction graph shows the widest connection set consisting of 10 authors. It was observed that the graphs of author citation analysis and co-author analysis are the same. The resulting interaction graph is presented below.

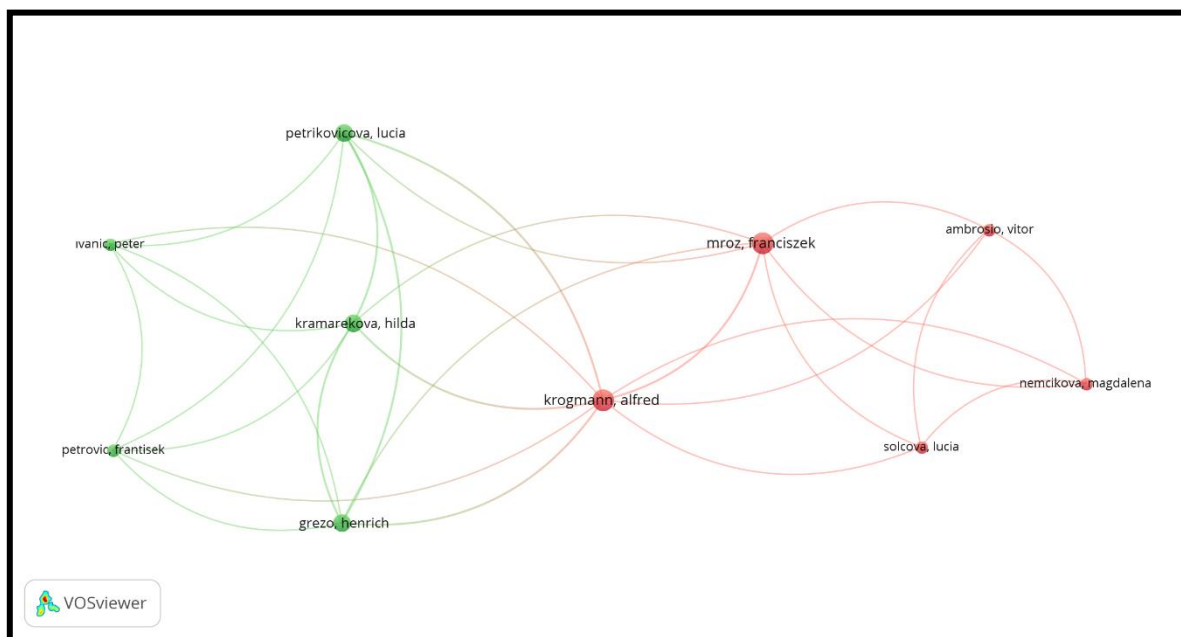


Figure 2. The distribution of author citation analysis and co-author analysis

When examining Figure 2, it is observed that the author who received the most citations is Alfred Krogmann.

3.3. Source Citation Analysis

Citation analysis is a method that examines the relationships and interactions between studies conducted in a particular research field. By analyzing the references of a paper, this method evaluates which other studies the paper cites and assesses the nature of these citations. The source citation analysis reveals the relationship between the publications receiving the most citations on the subject and the number of citations they have received. In this context, it was observed that the most cited source is 'tourism management' with 585 citations, followed by 'environment and planning d-society & space' with 130 citations. Through the source citation analysis, it was determined that, out of 88 sources related to the topics of 'cultural route' and 'cultural routes,' none of them are connected, resulting in the widest connection set comprising 35 sources in the interaction graph.

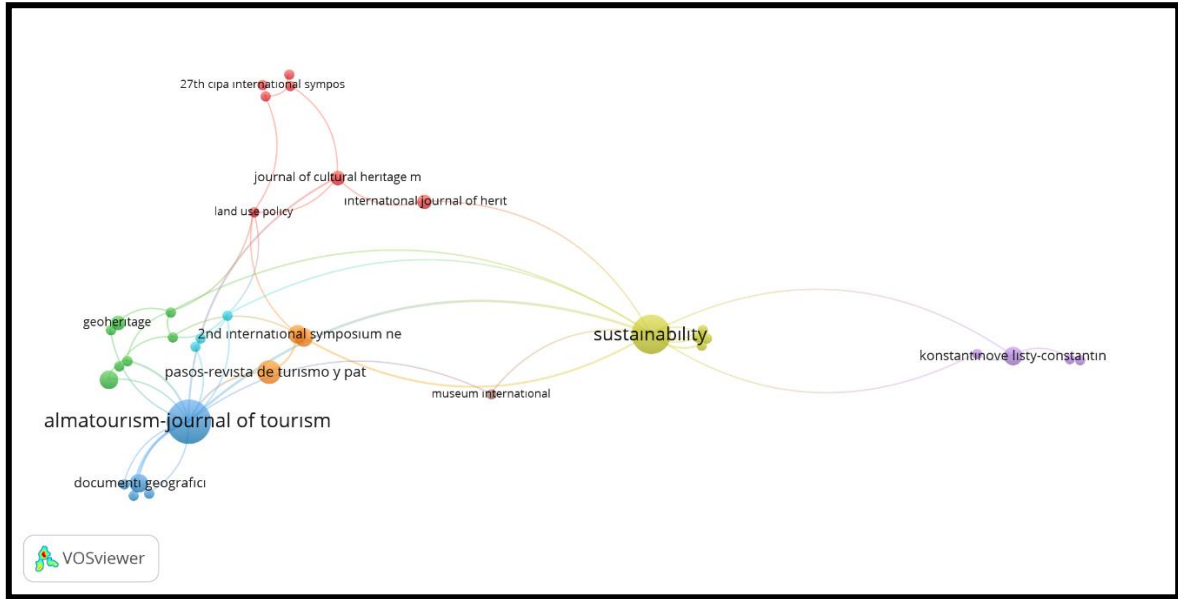


Figure 3. The distribution of source citation analysis

In Figure 3, the relationships between the most cited sources are depicted. In this context, it can be seen that the journals "Sustainability" and "Almatourism - Tourism, Culture and Territorial Development" have the highest value in terms of citation relationships. It is observed that the journal "PASOS. Revista de Turismo y Patrimonio Cultural" follows these two sources.

3.4. Country Citation Analysis

The country citation analysis reveals the distribution of publications related to the subject according to countries and the interaction between the number of citations they received. Looking at the results based on citation counts, it is observed that Spain is in the first place with 37 publications and 733 citations, Italy is in the second place with 342 citations, and the United Kingdom is in the third place with 169 citations. The interaction graph resulting from the country citation analysis is presented below.

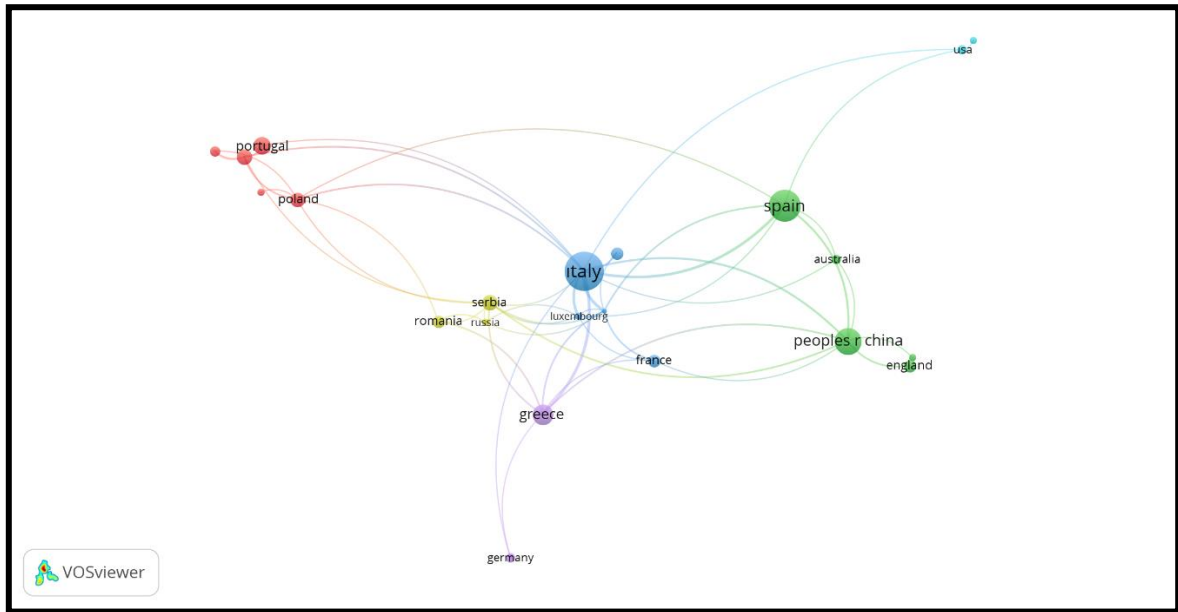


Figure 4. The distribution of country citation analysis

When looking at Figure 4, it is evident that the interactions between the most cited publications are predominantly between publications affiliated with Italy and Spain.

3.5. Organization Citation Analysis

The analysis results below depict the relationship between the institutions to which the referenced publications are affiliated.

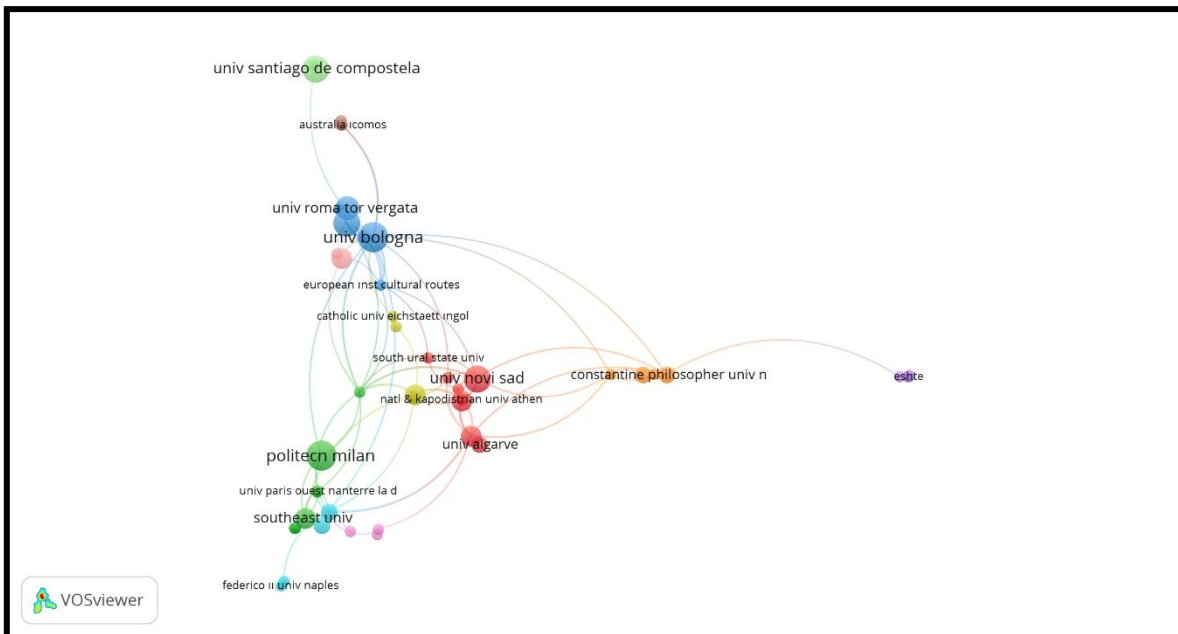


Figure 5. The distribution of organization citation analysis

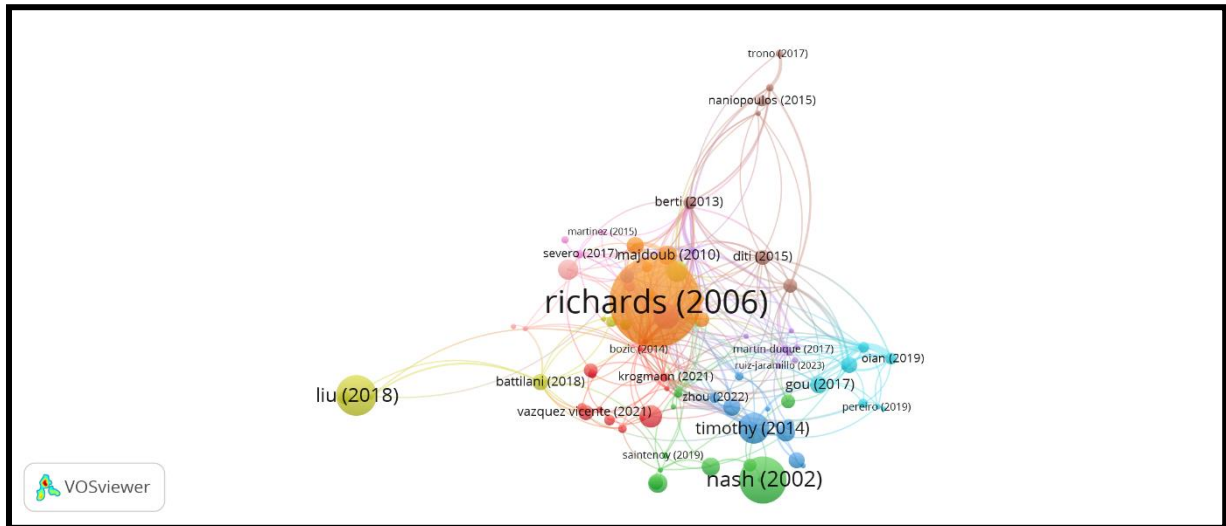


Figure 7. The distribution of bibliographic coupling analysis of authors

When examining the graph based on the interactions of the citations present in the content of the publications related to the topic, 'richards (2006)' is in first place with 487 citations, 'nash (2002)' is in second place with 130 citations, and 'Puglisi (2008)' is in the third place with 123 citations. The mentioned graph is shown below.

3.8. Co-citation Analysis of Authors

The analysis aimed to examine the citations received by authors who appeared together in the same articles and to evaluate the impact of collaborative research conducted by co-authors, as well as to determine research networks. In this analysis, citations to authors who appeared together in the same article were identified in other articles referencing the same article. The results of the analysis are presented below.

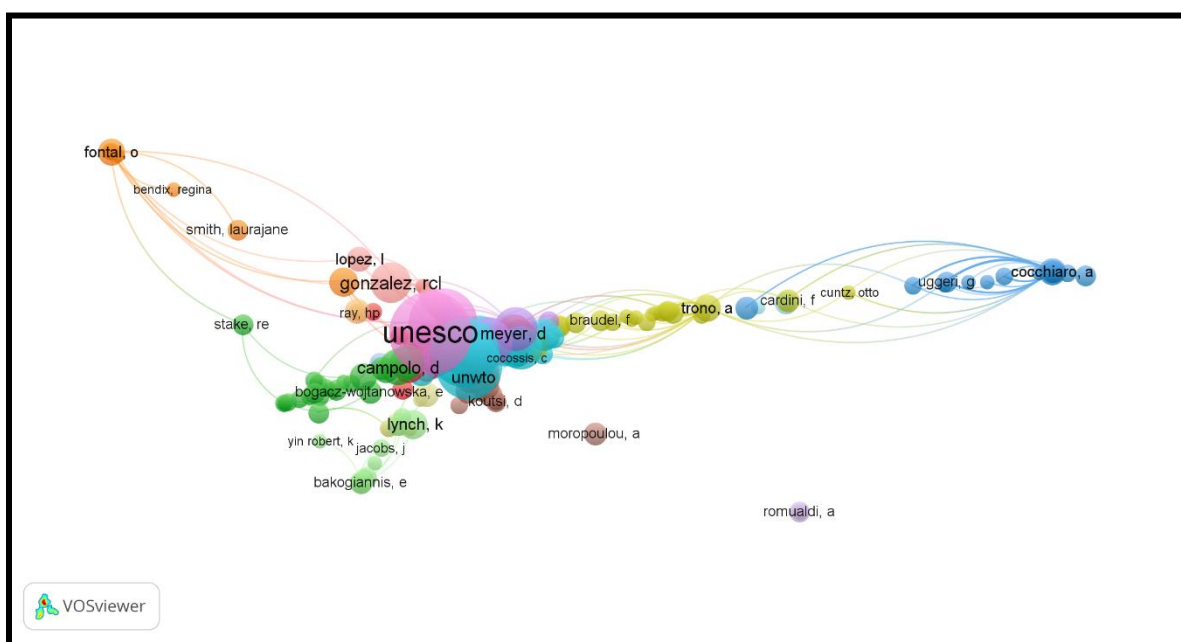


Figure 8. The distribution of co-citation analysis of authors

Cluster 5 (8 words)	Cluster 6 (8 words)	Cluster 7 (7 words)	Cluster 8 (7 words)
<i>Cultural itineraries</i>	<i>Ancient tea horse road</i>	<i>Landscapes</i>	<i>Cultural tourism</i>
<i>Local development</i>	<i>Camino de Santiago</i>	<i>Marginal areas</i>	<i>Industrial heritage</i>
<i>Network</i>	<i>China</i>	<i>Rural areas</i>	<i>Integrated conservation</i>
<i>Responsible tourism</i>	<i>Instagram</i>	<i>Sustainability</i>	<i>Mediterranean basin</i>
<i>Spain</i>	<i>Mapping</i>	<i>Tourism destination</i>	<i>Middle ages</i>
<i>Sustainable development</i>	<i>Spatial analysis</i>	<i>Tourism development</i>	<i>Territorial ages</i>
<i>Way of St James</i>	<i>Sustainable</i>	<i>Tourism product</i>	<i>Tourist routes</i>
<i>Wine tourism</i>	<i>Text mining</i>		
Cluster 9 (5 words)	Cluster 10 (4 words)	Cluster 11 (4 words)	Cluster 12 (4 words)
<i>Cultural landscape</i>	<i>Authenticity</i>	<i>Geotourism</i>	<i>Cultural ecosystems service</i>
<i>Cultural route</i>	<i>Cultural routes</i>	<i>GIS</i>	<i>Dissonant heritage</i>
<i>Earthquake</i>	<i>Europe</i>	<i>ICOMOS</i>	<i>Sustainable tourism</i>
<i>Heritage conservation</i>	<i>Mediterranean</i>	<i>Serbia</i>	<i>Vernacular Landscape</i>
<i>Intangible heritage</i>			
Cluster 13 (3 words)	Cluster 14 (2 words)		
<i>Gastronomy</i>	<i>Digitization</i>		
<i>Mexico</i>	<i>Photogrammetry</i>		
<i>Routes</i>			

CONCLUSION AND EVALUATION:

The study aimed to reveal the impact and interactions of publications on cultural routes and a bibliometric analysis was conducted using the Vosviewer program.

Co-author analysis, which is an important tool for understanding collaboration and communication networks in the research field regarding publications on cultural routes, was conducted to show how research groups or disciplines are organized and interact. It was found that Alfred Krogmann received the most citations, although he did not have the highest number of publications; it was also noted that other authors had significant publication and citation numbers, with some authors receiving more citations despite having fewer publications. Upon examining the most cited publications on the subject, it was observed that the publication titled "Richards, G. (2006) Attitudes of Barcelona residents towards tourism (in Catalan). Municipality of Barcelona" received 487 citations, followed by "Nash, C. (2002). Genealogical Identities. Environment and Planning D: Society and Space, 20(1), 27-52" with 130 citations, and "Puglisi A, Baronchelli A, Loreto V. Cultural route to the emergence of linguistic categories. Proc Natl Acad Sci U S A. 2008 Jun 10;105(23):7936-40." with 123 citations.

Another analysis conducted in the study was citation analysis of information sources. This analysis is usually conducted as part of bibliometric research and provides researchers with the opportunity to understand the history, current status, and future trends of studies conducted on a specific topic. It is also used to identify important researchers and institutions in a research field, define knowledge exchange and collaboration networks, and reveal trends in scientific publications. In this context, it is

seen that the journals "Sustainability" and "Almatourism - Tourism, Culture and Territorial Development" have the highest value in terms of citation relationships. These two sources are followed by the journal "PASOS. Revista de Turismo y Patrimonio Cultural".

A country citation analysis was conducted in order to see the most influential countries on the subject. With this analysis, it was observed that especially Italy and Spain are the most influential countries in the international arena in terms of scientific publications on cultural routes.

Organization citation analysis was conducted to determine which institutions are influential in scientific research and publications on cultural routes. It was observed that the institutions 'Autonomous Univ Barcelona Univ W England', 'Tourism Res & Mkt', and 'Univ Roma La Sapienza' are prominent.

Bibliographic coupling analysis of authors was conducted to evaluate the relationships between different researchers based on citations to the same sources. In this context, 'Richards (2006)' ranks first with 487 citations, 'Nash (2002)' ranks second with 130 citations, and 'Puglisi (2008)' ranks third with 123 citations.

Keyword analysis was conducted to determine the most commonly used keywords in publications related to cultural routes. It was observed that the keywords 'cultural route,' 'cultural routes,' 'cultural tourism,' 'sustainable tourism,' 'Council of Europe,' and 'World Heritage' stand out.

Cluster density analysis was conducted with the study to observe that the keywords used in publications on cultural routes form a total of 14 clusters.

The bibliometric analysis indicates that the topic of cultural routes is comprehensively addressed in international publications, covering various categories related to the subject. The increasing presence of publications on cultural routes in the literature is crucial, considering the significance of cultural routes in preserving cultural heritage, supporting sustainable tourism, and fostering local economic development dynamics.

Compliance with the Ethical Standard

Conflict of Interest: *The author(s) declare that they do not have a conflict of interest with themselves and/or other third parties and institutions, or if so, how this conflict of interest arose and will be resolved, and author contribution declaration forms are added to the article process files with wet signatures.*

Ethics Committee Approval: *Ethics committee approval is not required for this article, and a wet-signed ethics committee decision form stating that it is not required has been added to the article process files on the system.*

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