The Intellectual Base and the Research Frontiers of the Monuments and Memorial Places: A Visual Analysis Based on Knowledge Graph

Guoxing Chen[1,2(✉)] and Youqing Chen[3]

[1] College of Fine Arts, Guangdong Polytechnic Normal University, Guangzhou, China
chenguoxing@gpnu.edu.cn
[2] Faculty of Decorative Arts, Silpakorn University, Bangkok, Thailand
[3] School of Art and Architecture, Guangzhou Sontan Polytechnic College, Guangzhou, China

Abstract. As various new types of monuments continue to emerge, people have been inspired to discuss how to design, build and protect the monuments and memorial places. Meanwhile, this has become a hot research topic in recent years. The functions of the visualization software CiteSpace, such as articles co-citation, the keyword co-occurrence network, centrality, cluster, and burst words, are employed in this research to make statistical analysis on relevant documents in CNKI and WOS databases from 2012 to 2021. The results show that (1) the key intellectual base of the research on the monuments and memorial places in the past decade is memory research. (2) "Sepulchral monument", "war and politics of memory", "memorial space environment" and "memory and media, preservation and/or conservation" are the research frontiers of the monuments and memorial places in four different periods over the past decade. (3) The design, construction and protection of the monuments and memorial places: The inspiration deriving from the fundamental knowledge and the cutting-edge research findings; Place of memory; Attaching much importance to the spirit of the memorial places; Providing visitors with a better on-site experience and giving a better definition for the spiritual significance of the memorial places; The best way to preserve the monuments is incessant research and publicity, which will fortify their status as important place of memory. (4) Based on this research, researchers could continuously discuss the research hotspots and trends of the problem.

Keywords: Monument/Memorial · Places · Citespace · Intellectual Base · Research Frontiers

1 Introduction

As the monuments different from traditional forms such as the Vietnam War Memorial in the United States and the Memorial to the Murdered Jews of Europe emerge continuously, people have gained familiar and unfamiliar understanding of the monuments [10, 25]. From the perspective of lexical definition, Chinese "纪念碑" (Jinianbei) could be expressed by at least two words monument and memorial in English, which
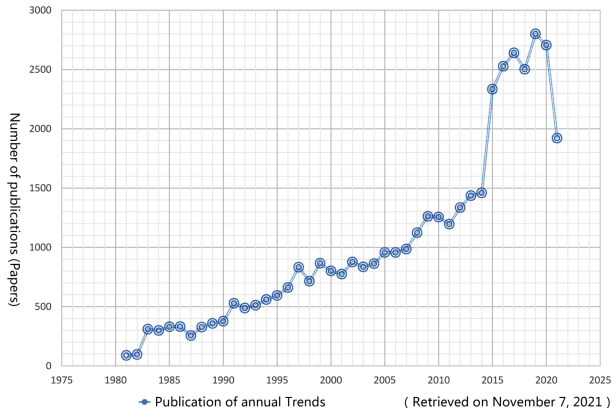
Fig. 1. The annual trend of publications on the theme of "monument or memorial" in the WOS core collection (1981–2021).

corresponds to "monument" and "mémorial" in French. Moreover, German also has "mahnmal", "denkmal" and other words corresponding to it. Austrian art historian - Alois Riegl (1982) [20] - conducted a special research of monuments in 1903, and published a seminal article in German entitled *the Modern Cult of Monuments: Its Essence and Its Development*. This article was not translated into English until 1982. It outlined the competing values (including age values, historical values and artistic values) to be considered in the preservation and/or conservation of "artistic and historical monuments", and classified monuments into the intentional and unintentional ones. In 1992, the University of Washington held a symposium in the name of "monuments" to discuss issues such as "What is a monument? Is it related to scale, power, atmosphere, specific temporality, persistence, location, and notions of immortality?" [27]. In addition, the Chinese-American scholar Hong Wu started with "monumentality" and discussed about the ancient Chinese ancestral temples, palaces, tombs, and monumental cities. His book *"Monumentality" in Ancient Chinese Art and Architecture* was published in the United States in 1995 and translated into Chinese in 2005. The book caused great repercussions in Chinese academic circles. This research is not intended to identify and analyse the meaning and classification of monuments, and the selected data include both intentional and unintentional monuments.

Over the last forty years, a lot of articles about the monuments research have been published. As shown in Figs. 1 and 2, the number of articles about monument research topics is generally on the rise. This research topic has been concerned by many scholars, and increasing numbers of research papers have been published in recent years. The CNKI and WOS databases (2012–2021) are used as the data sources in this research. Besides, quantitative analysis, information visualization, and other methods are integrated. In addition, the analysis results of CiteSpace are employed to identify and explore the time and network distribution characteristics of the monuments and memorial places
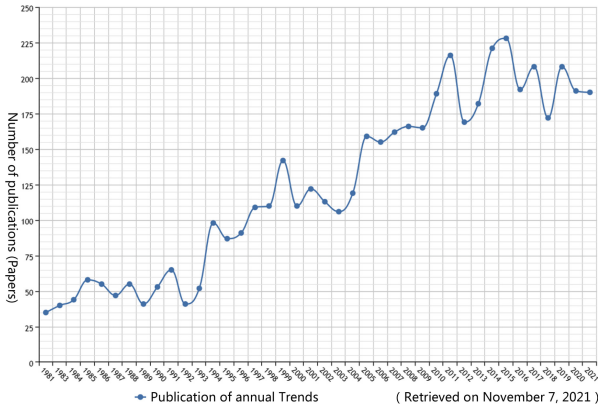
Fig. 2. The annual trend of publications on the theme of "monument or memorial" in CNKI database (1981–2021).

research, as well as the intellectual base, the research hotspots and development directions. It not only helps researchers to establish a complete set of research theory development context, but also provides theoretical support and reference for relevant scholars to deeply analyze the research status of the problem and develop the latest research frontier.

2   Data Sources and Research Methods

2.1   Data Sources

In order to filter out the effective article samples, this research adheres to the principle of objective and systematic selection, and selects CNKI as the source of Chinese articles data and WOS as the source of English articles data. According to the lexical definition, the topical terms "monument or memorial" and "place" are selected to correspond to "纪念碑" (Jinianbei) and "场所" (Changsuo) in Chinese. Meanwhile, the time span is 2012–2021, and the last update time of the data is November 11, 2021. The relevant data are summarized and statistical analysis. In the search of the WOS database, in order to ensure the representativeness and comprehensiveness of the article sources as much as possible, the web of science core collections of SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH and ESCI are included as the source categories when setting the search conditions. Besides, the types of articles are articles and essay collections, and the categories are history, architecture, humanities multidisciplinary, art, environmental science, environmental studies, cultural studies, construction building technology, philosophy, society, anthropology, engineering civil, political science, urban studies, area studies, and Asian studies. In total, the data of 3067 articles have been obtained. When the CNKI database is searched, the source category is all journals, and a total of 17 articles data have been obtained. In order to improve the accuracy of the data, interviews and book reviews are not included in the search results. At the same time, duplicate articles are merged and eliminated by software. Each article data record mainly includes the author, title, abstract, keywords and citations of the articles, etc. A total of 3032 pieces of article data published from 2012 to 2021 have been obtained.
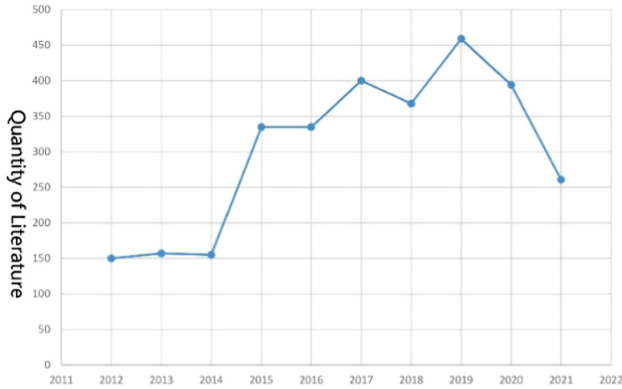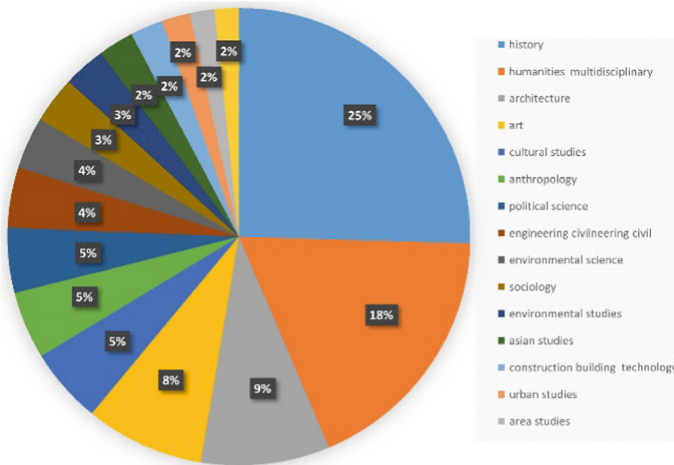
Fig. 3. Annual distribution map of the number of articles in research on the monuments and memorial places (2012–2021).

The researchers make statistical analysis on the annual distribution (Fig. 3) and subject classification (Fig. 4) of the obtained articles data to form a preliminary understanding of the research specialty of the monuments and memorial places. As shown in Figs. 3 and 4, after 2015, the number of research articles on "monuments/memorial" and "place" has grown rapidly, and this research topic has been paid attention by increasing numbers of Chinese and foreign scholars. Research on the monuments and memorial places is mainly focused on history (25%), humanities multidisciplinary (18%), architecture (9%), art (8%) and cultural studies (5%) and other disciplines and fields. Moreover, "monuments and memorial places" have become a research topic of common concern among multiple disciplines.

2.2 Research Methods

After the acquisition of 3032 article data samples, the knowledge graph method is employed in the research to make a statistical analysis on them. The knowledge map method belongs to the category of scientometrics and is a content analysis method. It combines theories of information science, graphics and other disciplines with methods such as metrology, vividly displays the knowledge structure and research fronts, and forms a visual research method for knowledge graphs [29]. Compared with the common knowledge mapping software Bibexcel, NetDraw, Pajek, etc., CiteSpace software integrates cluster analysis, social network analysis, multi-dimensional scale analysis and other methods, focuses on the internal connection between different studies, as well as the development trend of research frontier, and researches the detection and analysis of the relationship between the frontier and its knowledge base [19].

By using the CiteSpace software (5.8.R3), the research statistical analysis the relevant article data of the monuments and memorial places from the aspects of time characteristics, network distribution characteristics and research frontiers, and then draws a visual map. It is convenient for researchers to sort out and grasp the current research status and development direction of the monuments and memorial places, which provides reference and guidance for future research on related topics. In the specific operation, the time

Fig. 4. Subject distribution map of the number of articles in research on the monuments and memorial places (2012–2021).

division boundary is selected as 1 year, the node type is a keyword, and the threshold value is selected as g-index (k value is selected as 20). After running the visualization software (CiteSpace), the keyword co-occurrence network graph containing 303 keyword nodes and 775 connections is obtained. Among them, the modularity Q = 0.4798 (value > 0.3 indicates significant division structure), the weighted mean silhouette S = 0.7931 (generally a value above 0.7 indicates that the clustering results are convincing, and a value above 0.5 is considered reasonable), both of which are within a reasonable range.

3   Result Analysis

3.1   The Research Frontiers and Intellectual Base

The research frontiers are originally used to describe the dynamic nature of the research specialty, a concept proposed by Derek J. de Solla Price (1965) [18]. To clarify the nature of the research frontiers, we need to use the concept of intellectual base. Because of the development status of the research frontiers as a research specialty (such as research ideas), its citations form the corresponding intellectual base [17]. Inspired by that, Chao-mei Chen (2006) [3] defined the intellectual base as the citation trajectory of research frontiers in the articles when developing CiteSpace software, and converted the research frontiers into scientific issues or topics discussed by a group of articles with burst article as intellectual base in a certain period of time [16]. CiteSpace software analyses burst articles, burst terms and citing articles for articles sample data, which could help researchers to comprehensively judge and detect research frontiers. Besides, the emergent node articles in the articles co-citation network are regarded as its intellectual base.

3.2   The Key Intellectual Base for Research Topics of the Monuments and Memorial Places Over the Past Decade

The research conducts articles co-citation analysis through visualization software (CiteSpace), and obtains the burst node articles information in the co-citation network of research articles on the monuments and memorial places over the past decade (Table 1). The burst node articles listed in the table are those with co-citation frequencies mutations in recent years, namely the representative articles that have been highly concerned by the international academic community. It is a representative intellectual base at the research frontiers on the monuments and memorial places over the past decade. In terms of the overall citation frequency, these papers with high burst rate in Table 1 can be divided into two categories: crescendo and decrescendo type. On the one hand, the co-citation articles of the crescendo-type burst node include the articles of Sharon Macdonald (2013) [14], Patrizia Violi (2012) [23], Astrid Erll (2011) [5], Kingsley W. Baird (2015) and Marianne Hirsch (2012) (Fig. 5). On the other hand, the co-citation articles of the decrescendo-type burst nodes include the articles of Marianne Hirsch (2008) [7], Michael Rothberg (2009) [21] and Paul Williams (2007) (Fig. 6).

As a whole, crescendo-type burst node co-citation articles are on the rise in their citation frequencies. The highest node article of burst in this research is Marianne Hirsch's (2012) *the Generation of Post-Memory: Writing and Visual Culture after the Holocaust*. It is also one of the node articles with high co-citations in frequencies and centrality. In this book, the author uses the concept of post-memory to discuss the question of "whether we can remember other people's memories". In addition, he believes that "the memories of traumatic events live on to mark the lives of those who were not there to experience them" [8]. Indeed, survivors' children and their contemporaries inherit trauma histories not through direct recollection, but through haunting post-memory: namely through media images, objects, stories, behaviors, and influences that are passed down through families and across cultures. The paper provokes new understandings of history and our place in it by exposing readers to multiple facets of fundamental and cutting-edge theories on memory, trauma, gender, and visual culture.

As for Marianne Hirsch's above-mentioned work and his 2008 article *the Generation of PostMemory*, as well as Michael Rothberg's (2009) multidirectional memory, Astrid Erll's (2011) travelling memory, Patrizia Violi's (2012) Politics of Memory, Sharon Macdonald's (2013) memorylands, etc., their co-citations have a different trend of increasing or decreasing, but could be grouped into clusters of memory research. As shown by Table 1, their co-citation frequencies have reached 14, 7, 10, 10, 7 and 11 times, respectively, indicating that these articles enjoy a high degree of attention. As shown in Figs. 5 and 6, the co-citation time of these articles is mainly concentrated between 2014 and 2021, but the key intellectual base of research on the monuments and memorial places in the past decade is memory research.

3.3   Identification of the Research Frontiers

The research frontiers represent the current state of thinking in a research specialty. Identifying and tracking it could help researchers to grasp the latest evolution of disciplinary research and predict the development of the research specialty, so as to further

Table 1. A list of burst node literature information in the co-citation network of research literature on the monuments and memorial places.

No.	Freq	Burst	Degree	Centrality	Author	Year	Topic	Cluster ID
1	14	4.16	14	0.10	Marianne Hirsch	2012	*The Generation of Postmemory:Writing and Visual Culture after the Holocaust*	0
2	8	3.94	7	0.00	Paul Williams	2007	*Memorial Museums: The Global Rush to Commemorate Atrocities*	2
3	10	3.85	5	0.01	Anonymous	2011	*Communication*	1
4	10	3.38	8	0.04	Michael Rothberg	2009	*Multidirectional Memory:Remembering the Holocaust in the Age of Decolonization*	5
5	10	3.22	15	0.05	Astrid Erll	2011	*Travelling Memory*	0
6	7	3.16	7	0.04	Patrizia Violi	2012	*Trauma Site Museums and Politics of Memory: Tuol Sleng, Villa Grimaldi and the Bologna Ustica Museum*	0
7	8	2.83	8	0.01	Kingsley W. Baird	2015	*Personal communication with Ngataiharuru Taepa*	11
8	7	2.78	1	0.00	Marianne Hirsch	2008	*The Generation of Postmemory*	5
9	5	2.71	4	0.01	Anonymous	2012	*Communication*	1
10	11	2.5	13	0.06	Sharon Macdonald	2013	*Memorylands: Heritage and Identity in Europe Today*	0

identify the issues to be explored [30]. "The research frontiers are easily influenced by words or phrases with high representation in related research specialty. Identification of the research frontiers is mainly to analyze the changes in the frequency of occurrence of related words and phrases. The research results could help predict the development direction of corresponding research and get the latest evolutionary developments in research" [28]. The CiteSpace software mainly obtains these highly representative words or phrases through the detection function of keyword emergence. Through the relevant analysis functions of the visualization software, this study has obtained the top
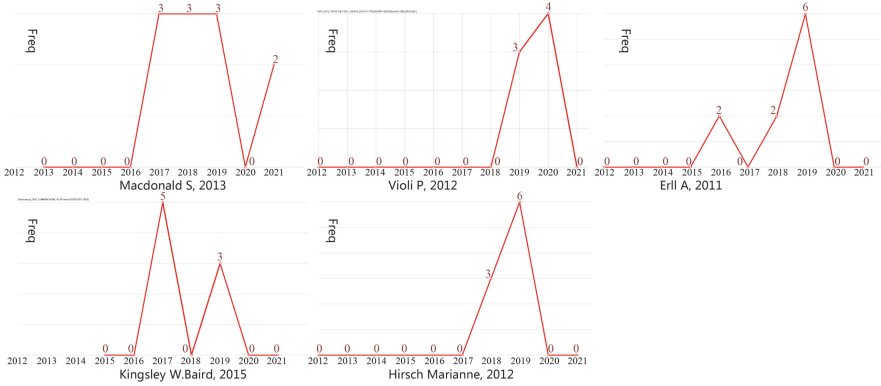
Fig. 5. The history line chart of crescendo-type burst node articles co-citation.
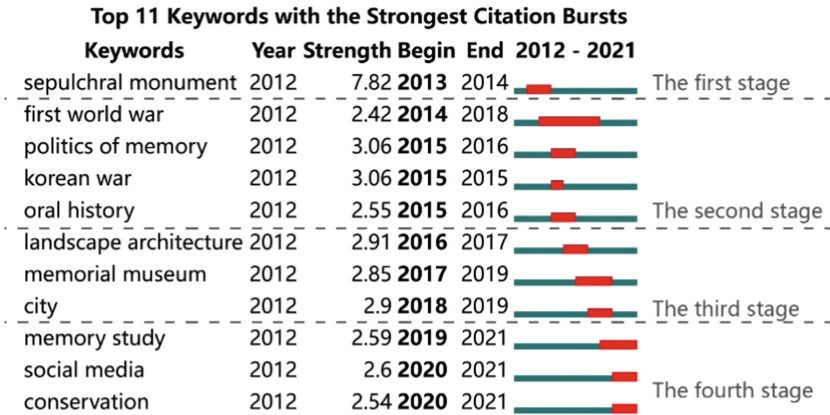

Fig. 6. The history line chart of decrescendo-type burst node articles co-citation.

11 keywords with the strongest citation burst in the research of the monuments and memorial places over the last decade (Fig. 7).

In order to further understand the research directions in different periods, and identify the dynamic and comprehensive changing trends in the research of the monuments and memorial places, the related research can be divided into four stages according to the start and end time of the keyword emergence and the relationship between each other in Fig. 7.

The emergence time of the first stage is from 2012 to 2014, and the research frontier in this stage is mainly focused on "sepulchral monument". After the First World War, the cenotaph, as an exception, is regarded as a pioneering monument to the avant-garde. Edwin Lutyens's cenotaph, inaugurated in London in 1920, served as a proof: "it is officially designated as a national monument in memory of fallen British soldiers" [12]. "According to a certain view, the earliest monument idea and its manifestation may be the grave with a specific mark: For commemoration, a primitive man buried his dead companion, and placed a raised tomb or stone on it to indicate that this was his burial

Top 11 Keywords with the Strongest Citation Bursts

Keywords	Year	Strength	Begin	End	2012 - 2021
sepulchral monument	2012	7.82	**2013**	2014	▬▬▬ The first stage
first world war	2012	2.42	**2014**	2018	
politics of memory	2012	3.06	**2015**	2016	
korean war	2012	3.06	**2015**	2015	
oral history	2012	2.55	**2015**	2016	The second stage
landscape architecture	2012	2.91	**2016**	2017	
memorial museum	2012	2.85	**2017**	2019	
city	2012	2.9	**2018**	2019	The third stage
memory study	2012	2.59	**2019**	2021	
social media	2012	2.6	**2020**	2021	
conservation	2012	2.54	**2020**	2021	The fourth stage

Fig. 7. The keywords burst graph of research on the monuments and memorial places in the past decade.

place" [13, 22]. The research of certain cemeteries and their surrounding spaces with pending identification as a kind of the monuments and memorial places, especially the research of "sepulchral monument" with historical value, could help people understand the social culture of a specific historical stage. Apart from that, studying the tombstones, inscriptions, tomb murals and sculptures in it will help people understand the culture and art of a specific historical stage. In short, the research on "sepulchral monument" meets the actual needs of heritage protection, promotes the research of monuments and memorial places, and opens up a new independent research specialty.

The burst time of the second stage is from 2015 to 2016. The research frontiers of this stage are mainly focused on the related aspects of war and politics of memory such as the "first world war", "Korean war" and "oral history". On the one hand, as a particularly common picture historical material in the historical research, German scholars' serious research on monuments is particularly prominent [12]. From the perspective of historian, a monument is a witness to a generalized historical event, and a tool to restore the historical event. Even so, it can help people remember a certain history. According to the war memory investigations on people who have experienced war, the subjectivity and physicality of memory are very obvious in terms of war memory, which often leads the respondents to misidentify the facts of the war. However, such misrecognition reflects the truth of their thinking [24]. On the other hand, as a work of art to remember and restore history, monument is also a political symbol. Since it is "a mass medium that conveys some kind of political information", it plays the function of "politics of memory" [1]. By building monuments after the war, it can help people confront the trauma and painful memories of war, and build collective imagination and common memory.

The burst time of the third stage is from 2017 to 2019. The research frontiers of this stage have transitioned from war and politics of memory in the previous stage to the theme of memorial space environment such as "landscape architecture" and "memorial museum". As history changes, Riegl believes that some unintentional memorial places will be transformed into intentional memorial places. In addition, memorial places can

be either architectural (e.g. memorial halls, sites of revolutionary activities, and former residences) or non-architectural (e.g. cemeteries or cemeteries, memorial pavilions, memorial squares, memorial gardens, battlefield remains). Researchers study monuments from the spatial environment, which can help people to deeply interpret the relationship between the monument places and social memory and emotional experience.

The burst time of the fourth stage is 2020–2021. The research frontiers in this stage are mainly focused on memory and media, preservation and/or conservation. The main keywords are "memory study", "social media", "protection", etc. After the millennium, "memory research" has flourished in the field of humanities and society. It not only connects the context of postmodernism and sociology, but also involves tradition, the distinction between history and memory as well as the classification of memory, such as collective memory, historical memory, and cultural memory [9]. As the earliest scholar to study "collective memory", Maurice Halbwachs proposed "collective memory" theory, which has been criticized by many scholars. Indeed, the "social memory" and "cultural memory" evolved from this are positively affecting a lot of scholars [2, 4, 6]. Historian Bernd Schönemann discussed collective's perception of history from the perspective of "memory culture", and pointed out that monuments are expressions of historical consciousness and rely on social systems to give meaning [6]. Regarding the historical face of memory, German scholar Aleida and her husband Jan Assmann both believe that the collective cannot create memory, and collective memory is constructed by the symbols and symbols used by society. Therefore, she considers that public buildings, architectural monuments, museums and the media are all media that witness history. In short, today's researchers focus more on the practice of memory in individual societies, rather than on memory as an entity. This has led to the criticism of monuments, namely the "counter-monuments and anti-monuments" widely discussed in academic circles memorials [26].

3.4 The Design, Construction and Protection of the Monuments and Memorial Places: The Inspiration Deriving from the Fundamental Knowledge and the Cutting-Edge Research Findings

From the above-mentioned content, we can get some enlightenment about how to design, construct and protect the monuments and memorial places:

Firstly, place of memory. Every memorial site is steeped in history, but it doesn't mean that every memorial site will remain in the people's memory. In order to elevate the monuments and its surrounding areas to the status of "memorial sites", we should ensure that the way of design and construction will enable the monuments to become a part of the "memory landscape" in a symbolic way. More importantly, we should ensure that they can evoke the memory of various stories, which involve individuals, crowds and the officials' historical records (Panzer Gerhard, 2004). It must be pointed out that some monuments became memorial sites simply because they were built at the "authentic" place where some real events have happened. Before the construction of the monuments, the place has been remembered by the group of people who have lived through the real events. More often than not, the monuments and memorial places are built at some "neutral" places, which are not directly or geographically related to any real event [11]. In such a case, we need to accentuate the significance of the memorable events in the

design of monuments. We need to give a clear answer to the questions: For whom will we build the monuments? In which form will the monument exist? How should we design the role of the monuments? By associating the monument with the ethnic identity, political concepts and political needs in the process of architectural design, we can transform the monument site into a place that is evocative of some historical events. Moreover, the function of memorial place should not be limited to the exhibition of collective memory, historical memory or cultural memory. To show the humanistic concern over the individuals' destiny, we should pay some attention to the individuals' experiences. Traditionally, monuments and memorial places serve only to preserve the collective memory of the society and to convey the dominant ideology of the society. As a narrator of historical events, they evoke the feelings of the public, exert a good influence on the public, and mobilize the whole society to support some actions. In addition to preserving the collective memory, deepening each member's affinity for the collective identity and enhancing the cohesive force among the people, the design of monument should show the humanistic concern over the individuals' destiny, which is indispensable for the disaster-stricken individuals(Their painful memory will be passed on from generation to generation). Therefore, the role of monument should not be restricted to the large-scale narration of collective memory, the juxtaposition of historical events, or the promotion of dominant ideology. Instead, the monuments should also attach due weight to the individuals' feelings and the details of their daily life. The collective memory should coexist with the individuals' feelings in the design of monument or memorial places.

Secondly, we should attach more importance to the "spirit of place", provide visitors with a better on-site experience and give a better definition for the spiritual significance of the memorial places. According to Christian Norberg-Schulz (2010) [15], the place is some clearly-outlined space whereas the spirit of place refers to something that is much more inclusive, profound and significant. The "spirit of place" can be described as the overall atmosphere of the place. When the people are engaged in an activity at a certain place, they get a sense of space from their thoughts, their actions and the place. The process of designing a monument or memorial place is actually an effort to visualize the spirit of place. Furthermore, the purpose of monument design is to create a place where visitors can experience the spirit of certain memorable events. The on-site experience is closely interrelated with the cultural environment, which has a great influence on the visitors' understanding of the "spirit of place" According to Sigmund Freud (1856–1939, originator of psychoanalytic theory), experience is an evanescent fantasy as well as the memory of past events. It is an effort to associate the past with the present, and to relive the past events at a certain place. To a greater extent, the visitors' on-site experience of the monuments and memorial places is an effort to understand the interrelations among the past, the present and the future. Nowadays, the social media are easily accessible on the Internet. Visitors no longer have to be present at the memorial places to see the monuments. They can visit the virtual memorial places on the Internet. As the virtual versions of memorial sites begin to gain popularity, we need to pay more attention to the "spirit of place" in the construction of memorial places, whether the monuments are located at an "authentic" place or at a "neutral" place. We should give a better definition for the spiritual significance of the memorial places so that visitors can get a better understanding of the memorial places.

Lastly, the best way to preserve the monuments is incessant research and publicity, which will fortify their status as important place of memory. So far, the greatest damage to the monuments and memorial places are not done by wind, frost, rain, snow or other major forces. The greatest damage is not caused by the lack of protection technologies, but by the people's lopsided concepts, misunderstandings, forgetfulness and insensibility. It is necessary to deepen the research into the subject, increase the publicity, keep the monuments in the people's memory, and awaken the public to their historical value or cultural value. This is the right way to protect the memorial places.

4   Conclusions

In this research, the information visualization software (CiteSpace) is employed to make a statistical analysis of the development status, intellectual base and research frontiers of the articles on the monuments and memorial places in the WOS and CNKI databases from 2012 to 2021. The results are as follows:

(1) The key intellectual base of the research on the monuments and memorial places in the past decade is memory research.
(2) The research frontiers of the Monuments and Memorial Places from 2012 to 2021 could be divided into four stages: The first stage is 2012–2014, and the research frontiers in this stage are mainly focused on "sepulchral monument". The second stage is 2015–2016, and its research frontiers are mainly focused on war and politics of memory and other related aspects. The third stage is from 2017 to 2019, and the research frontiers of this stage gradually transit from war and politics of memory in the previous stage to the theme of memorial space environment. The fourth phase is 2020–2021, with the research frontiers focusing on memory and media, preservation and/or conservation.
(3) The design, construction and protection of monuments and memorial places: The inspiration deriving from the fundamental knowledge and the cutting-edge research findings; Place of memory; Attaching much importance to the spirit of the memorial places; Providing visitors with a better on-site experience and giving a better definition for the spiritual significance of the memorial sites; The best way to preserve the monuments is incessant research and publicity, which will fortify their status as important place of memory.
(4) After discussing the intellectual base and research frontiers of the monuments and memorial places, based on the previously collected data, researchers could further use the keywords co-occurrence network, centrality, cluster and burst words of the visualization software CiteSpace to generate corresponding graphs. On the basis of identifying the research theme, they could continue to analyze the evolution path of research hotspots and hot topics, and then grasp the future research trend of this problem.

behind it would not have been possible without the support of Asst. Prof. Watanapun Krutasaen (Ph.D.) and Asst. Prof. Vanvipha Suneta (Ph.D.).

References

1. Alings, R., 1996. *Monumente und nation*, De Gruyter. Berlin, 412.
2. Assmann, J., 2015. *Cultural memory: words, memories and political identity in early advanced culture*, Peking university press. Beijing.
3. Chen, C.-M., 2006. CiteSpace II: detection and visualization of emerging trends and transient patterns in scientific literature. *JASIST* (3), 359-377.
4. Connerton, P., 2000. *How Society remembers*, Shanghai people's publishing house. Shanghai.
5. Erll, A., 2011. Travelling Memory. *Parallax*, 17:4-18.
6. Halbwachs, M., 2002. *On collective memory*, Shanghai people's publishing house. Shanghai.
7. Hirsch, M., 2008. The generation of post-memory. *Poetics today* (1), 103-128.
8. Hirsch, M., 2012. *The generation of post-memory: writing and visual culture after the holocaust*, Columbia university press. New York.
9. Huang, M.-Y., 2019. *The right of forgetting: analysis of denkmal für die ermordeten juden Europas through the memory-work of anti-memorials and counter-monuments*, Doctoral dissertation, National Taiwan Normal University. Taipei.
10. Li, J.-S., 2012. *Public art and urban culture*, Peking university press. Beijing, 136–148.
11. Lin, H.-W., 2008. *Changing force of collective cultural heritage: discussions on the monumentality of the event-marking monument*, Doctoral dissertation, National Cheng Kung University. Taiwan.
12. Lowan, R., 1997. Monuments - as historical materials for historical research. *Historiography quarterly* (03), 109-115.
13. Lu, D., 2021. The monument meaning of monument and its impact on the protection of immovable cultural heritage. *China cultural heritage* (03), 33-44.
14. Macdonald, S., 2013. *Memorylands: heritage and identity in Europe today*, Routledge. London.
15. Norberg-Schulz, C., 2010.*GENIUS LOCI: Towars a phenomenology of architecture by christian*, China architecture & building press. Beijing.
16. Pan, L., & Hou, J.-H., 2012. Hot topics and fronts of international higher education research - based on analysis of document co-citation of 8 international higher education journals from SSCI during 2000 - 2011.*Educational research* (06), 136-143.
17. Persson, O., 1994. The intellectual base and research fronts of JASIS 1986-1990. *Journal of the american society for information science* (1), 31-38.
18. Price D.J., 1965. Networks of scientific papers. *Science*, 149(3683):510-515.
19. Qin, X.-N., Lu, X.-L., & Wu, C.-Y., 2014. The knowledge mapping of domestic ecological security research: bibliometric analysis based on CiteSpace. *Acta ecologica sinica 34*(13), 3693-3703.
20. Riegl, A., 1982. The modern cult of monuments: its character and its origin. In *Oppositions*, MIT press. Cambridge, 21–51.
21. Rothberg, M., 2009. *Multidirectional memory: remembering the holocaust in the age of decolonization*, Stanford University press. Stanford, CA.
22. Stubbs, J. H., 2009. *Time honored: a global view of architectural conservation*, John Wiley & Sons, Inc. Hoboken, 158.
23. Violi, P., 2012. Trauma site museums and politics of memory: tuol sleng, villa grimaldi and the Bologna Ustica museum. *Theory, culture & society* (1), 36-75.

24. Wang, X.-K., 2012. Possibilities of "memory" research. *Academic monthly* (07), 126–130+137.
25. Wang, J.-G., 2005. Inscribed for the confessions in the heart of Germany - memorial to the murdered jews of Europe. *Over the party history* (08), 1.
26. Wang, Y.-L., Jin, L., Yin, S.-K., & Gao, C., 2015. A textual research on the "counter-monuments". *Chinese landscape architecture* (04), 111-115.
27. Wu, H., 2008. *"Monumentality" in ancient Chinese art and architecture*, Shanghai people's publishing house. Shanghai.
28. Zhang, E.-X., Tan, Y., Zhang, W., & Qin, X.-N., 2021. Research hotspots and trends of domestic ecotourism economy: visualization analysis based on knowledge map. *Ecological economy 37*(06), 124-133.
29. Zhang, H., & Shi, T.-T., 2018. A Study of tourism economic benefits based on domain knowledge mapping. *Journal of langfang normal university (Natural science edition) 18*(04), 76-82.
30. Zhang, M., Lan, M.-T., Chen, Y.-R., & Yuan, K.-H., 2017. Analysis on the knowledge mapping of foreign research on land use and carbon emission based on the CiteSpace Ⅲ. *China land sciences* (03), 51-60.