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Development of a complex of sciences on cultural heritage based on the formation of documentation about it and its economic effectiveness

Abstract: Cultural heritage is of great importance for raising new generations in respect of world and national history. No state can talk about any values when there is no purposeful education of specialists in the field of cultural heritage in the country. This is especially true for those countries where cultural heritage dates back many centuries, for example, many countries in Europe, Asia and America. The novelty of this research lies in the fact that the author examines the scientific complex of cultural heritage through the prism of accumulated documentary experience and economic potential. The study object is the world and national cultural heritage. The study subject is a complex of sciences on cultural heritage. The study aims to analyse the structure of cultural heritage sciences based on its relevance in creating an educational complex for future specialists in cultural heritage. Logical, analytical, comparative and historical methods were used to achieve the purpose of the study and solve the developed tasks. The study used UNESCO and ICOMOS documentation, as well as research materials from experts in cultural heritage and the author of the article. The authors conclude that the fact of forming documentation on cultural heritage in the basic international organizations – UNESCO, ISO and ICOMOS – and the economic efficiency of cultural heritage, enshrined in the ISO standards, make it possible to move on to forming a complex of sciences that will aim to produce specialists engaged in various fields of conserving existing objects, items and elements of cultural heritage and the formation of a basis for preserving existing and currently created objects, items and elements that meet the requirements of preservation for future generations. The complex of Klironomy, or the sciences of cultural heritage, will provide a unique scientific look at the principles and traditions of preserving what will be of fundamental importance for future generations.

Keywords: klironomy, cultural heritage, unesco, icomos, iso standarts, science of cultural heritage.

Abbreviations:

CRM is Conceptual Reference Model,
ICOMOS is International Council on Monuments and Sites,
ISO is International Organization for Standardization,

OUV is Outstanding Universal Value.

Introduction

Cultural heritage is of great importance for raising new generations in respect of world and national history. No state can talk about any values when there is no purposeful education of specialists in cultural heritage in the country. This is especially true for those countries where cultural heritage dates back many centuries, e.g., many countries in Europe, Asia and America.

The novelty of this research lies in the fact that the author examines the scientific complex of cultural heritage through the prism of accumulated documentary experience and economic potential.

The study object is the world and national cultural heritage.

The study subject is a complex of sciences on cultural heritage.

The study aims to analyse the structure of cultural heritage sciences based on its relevance in creating an educational complex for future specialists in cultural heritage.

Based on the purpose of the study, the following tasks were developed:

- analyse the international documentation on cultural heritage aimed at its definition and use in practice;
- analyse the general economic preferences from using the potential of cultural heritage within the framework of UNESCO, ISO, and ICOMOS documentation;
- present an updated version of the complex of Klironomy, the sciences of cultural heritage.

Logical, analytical, comparative and historical methods were used to achieve the purpose of the study and solve the developed tasks.

The study used UNESCO and ICOMOS documentation, as well as research materials from experts in cultural heritage and the leading author of the article.

Results

International Experience and Standards

Cultural heritage plays a key role in shaping national identity and strengthening social cohesion. It serves as a link between generations, transmitting values, traditions, and historical experience. Studind and preserving cultural heritage contribute to increasing the level of cultural self-awareness in society, which is particularly important in the context of globalisation and cultural homogenization. Recognising this field as a distinct scientific discipline will allow for a deeper understanding of the mechanisms through which cultural heritage influences social processes and will help develop effective strategies for its preservation.

The relevance of defining cultural heritage as a separate scientific discipline is determined by its significance for preserving and transmitting cultural values, as well as for forming national identity and the sustainable development of society. Cultural heritage includes both tangible and intangible assets created by previous generations that possess historical, artistic, scientific, or other cultural value. However, there is still no unified approach to defining and studying cultural heritage, which highlights the necessity of considering it as an independent field of scientific inquiry.

Defining cultural heritage as a distinct scientific discipline necessitates a robust framework of international standards. These standards, developed and adopted by intergovernmental

organizations like UNESCO and ICOMOS, provide a common language and methodology for identifying, protecting, and managing cultural heritage globally. (*Charters and other doctrinal texts…, 2024*)

A cornerstone of these standards is the 1972 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (*2022*). This convention established the concept of OUV, a criterion used to determine if a cultural or natural site deserves inclusion on the World Heritage List. OUV signifies cultural and/or natural significance, which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity (*2022*). For instance, the Great Wall of China, recognised for its OUV as a testament to ancient architectural and military prowess, is inscribed on the World Heritage List. (*The Great Wall, 2024*)

Furthermore, the ICOMOS Charter for the Analysis, Conservation and Restoration of Architectural Heritage (1964, revised 1994) offers guidelines for the conservation and restoration of historic buildings and sites. It emphasises the importance of authenticity and integrity, urging practitioners to respect the original fabric and historical context of heritage sites. An example of this is the conservation of the Venice Lagoon, where restoration efforts adhere to the principles of minimal intervention and respect for the existing materials and techniques (*Venice and its Lagoon, 2024*).

The UNESCO 2003 Convention for the Safeguarding of the Intangible Cultural Heritage broadened the definition of cultural heritage beyond tangible monuments to encompass intangible forms like oral traditions, performing arts, and traditional crafts (*2003*). This convention highlights the importance of community involvement in identifying and safeguarding intangible heritage, as seen in the recognition of Mediterranean diet as an intangible cultural heritage, emphasising the social practices and knowledge transmitted across generations (*Saulle La Torre, 2010*).

The UNESCO 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions addresses the broader cultural landscape, including contemporary artistic expressions and cultural industries. It recognises the importance of cultural diversity as a source of creativity and innovation, and promotes policies that support the production and dissemination of diverse cultural goods and services (*Convention on the Protection…, 2005*).

Dated 1994, the Nara Document on Authenticity significantly influenced heritage conservation by challenging the Eurocentric notion of authenticity (*The Nara…, 2012*). It acknowledged that authenticity can be expressed in various ways, depending on the cultural context. This document allows for multiple interpretations of authenticity, recognising the dynamic nature of cultural heritage. For example, in the restoration of Japanese temples, the use of traditional materials and techniques, even if they involve periodic rebuilding, is considered authentic (*Coservation approach, 2005*).

The ICOMOS Principles for the Preservation of Historic Timber Structures provides specific guidance on the conservation of timber heritage, recognizing its unique characteristics and vulnerabilities. The conservation of the stave churches of Norway, which are predominantly built of wood, is guided by these principles (*Bertolin & Cavazzani, 2022*).

Finally, the UNESCO Recommendation on the Historic Urban Landscape of 2011 promotes an integrated approach to managing urban heritage, considering the interplay between

built environment, natural environment, and social and cultural factors (*UNESCO Recommendation…, 2012*). This approach is evident in the urban planning of cities like Kyoto, where heritage preservation is integrated with contemporary development (*Heritage Architecture, 2024*).

These international standards provide a framework for a scientific approach to cultural heritage, emphasizing the importance of documentation, analysis, and ethical conservation practices.

The Economic Potential of Cultural Heritage

The economic potential of cultural heritage is intrinsically linked to its preservation and sustainable management, both of which are guided by a robust framework of international standards. These standards aim to balance the safeguarding of irreplaceable assets with their potential for economic development, primarily through tourism and related industries.

A cornerstone is the 1972 UNESCO World Heritage Convention, which establishes the concept of (OUV). This principle dictates that sites considered for World Heritage listing must possess cultural and/or natural significance that transcends national boundaries and be of common importance for present and future generations of all humanity. The OUV framework acts as a benchmark for assessing and managing cultural heritage, ensuring that economic activities do not compromise the integrity of these sites. For instance, the management plan for the Great Barrier Reef (a natural World Heritage site) incorporates stringent regulations to mitigate the impact of tourism and fishing, ensuring the long-term viability of its OUV.

ICOMOS plays a vital role in providing expert advice on cultural heritage conservation (*Introducing ICOMOS*). The ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites (*2008*) emphasizes the importance of authenticity and integrity in presenting heritage to the public. This standard directly impacts the economic potential of sites by guiding the development of visitor experiences that are both informative and respectful. For example, the restoration of historical buildings in Kyoto, Japan, adheres to ICOMOS guidelines, promoting authentic cultural tourism that generates substantial revenue while preserving the city's historical character.

Furthermore, ISO standards, while not exclusively focused on cultural heritage, contribute to sustainable tourism practices. ISO 14001 "Environmental Management Systems" (*2023*) and ISO 26000 "Social Responsibility" (*2021*) are increasingly adopted by tourism operators at cultural heritage sites to minimize their environmental footprint and ensure ethical engagement with local communities. These standards are crucial for long-term economic benefits, as they foster responsible tourism that preserves the very assets that attract visitors.

The 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage also plays a role. Intangible heritage, such as traditional crafts, music, and dance, can be a powerful economic driver when sustainably integrated into tourism offerings. Recognising and protecting these practices ensures that they remain viable for future generations, contributing to both cultural preservation and economic diversification. For example, the recognition of traditional Korean mask dance, Talchum, as intangible cultural heritage has increased tourism and related economic activity.

In conclusion, international standards provide a crucial framework for harnessing the economic potential of cultural heritage while ensuring its sustainable preservation. They promote responsible tourism, authentic visitor experiences, and ethical engagement with local communities, ultimately contributing to long-term economic benefits.

The Need to Systematise Knowledge about Cultural Heritage

Cultural heritage is a complex and multifaceted phenomenon that encompasses various aspects of human activity. Its study requires an interdisciplinary approach combining history, art history, archaeology, anthropology, sociology and other sciences. However, the lack of a unified scientific discipline specifically devoted to cultural heritage leads to fragmentation of knowledge and methodological approaches. The creation of a separate science will make it possible to systematise research, develop generally accepted terms and methods, which will increase the effectiveness of preserving and using cultural heritage.

To systematise knowledge about cultural heritage highlights the imperative of organising and structuring information concerning cultural assets to ensure their preservation, accessibility, and sustainable management. This endeavor is intrinsically linked to the adoption and implementation of international standards that provide frameworks for identifying, documenting, and protecting cultural heritage.

International standards in cultural heritage are crucial for fostering global cooperation and consistency. These standards encompass a broad spectrum, from defining what constitutes cultural heritage to establishing protocols for its safeguarding. One prominent example is the UNESCO 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage. This convention establishes the concept of OUV and provides criteria for inscribing cultural and natural sites on the World Heritage List. It emphasises the significance of states parties identifying, protecting, conserving, and presenting their cultural and natural heritage. For example, the inscription of the Great Wall of China or the Taj Mahal on this list signifies their global significance and necessitates adherence to the convention's guidelines (*Convention Concerning…, 2022*).

Another significant standard is the ICOMOS charters and doctrines. These documents provide detailed guidance on the conservation and restoration of historic buildings and sites (*Principles for the Analysis…, 2003*). The Venice Charter of 1964 is a foundational document that outlines principles for the conservation and restoration of monuments and sites. It stresses the importance of respecting the original fabric and avoiding conjectural restorations. Later doctrines, like the Nara Document on Authenticity, broadened the understanding of authenticity to encompass cultural contexts and values beyond material form. The Nara document arose from a realization that western-centric views of authenticity were insufficient for the world's diverse cultures. This document shifted to a more inclusive perspective, acknowledging that authenticity judgments can vary significantly across cultures and time periods (*The Nara Document…, 2012*).

The ISO standards also play a role in cultural heritage management. For instance, ISO 21118:2020 (*2020*) provides guidelines for the long-term preservation of digital cultural heritage. With the increasing digitisation of cultural resources, this standard is vital for ensuring that digital archives remain accessible and usable for future generations. It provides a framework for

managing metadata, ensuring file format sustainability, and implementing long-term storage solutions.

Furthermore, the Council of Europe's Faro Convention (*2005*) emphasises the value of cultural heritage as it relates to human rights and democracy. It promotes a broader understanding of cultural heritage that includes intangible elements and the active participation of communities in heritage management. This convention recognises that cultural heritage is not just about objects and sites but also about the values, practices, and knowledge that communities associate with them.

The implementation of these standards necessitates the development of robust documentation systems. The CIDOC CRM, an ISO 21127 (*2023*), provides a formal ontology for cultural heritage information. It enables the integration and exchange of data across different institutions and disciplines. This is crucial for creating comprehensive and interoperable databases of cultural heritage. For example, the CRM allows for the linking of archaeological finds, historical documents, and museum objects, providing a more holistic understanding of cultural heritage.

The challenges in systematising knowledge about cultural heritage include the diverse nature of heritage, the varying levels of resources and expertise across countries, and the need to balance preservation with access and sustainable use. However, by adhering to international standards and fostering collaboration, we can ensure that cultural heritage is effectively managed and transmitted to future generations. The ongoing development of digital tools and platforms also presents opportunities for improving the accessibility and management of cultural heritage information (*Siliutina et al., 2024*).

Thus, the systematisation of knowledge about cultural heritage is crucial for its preservation and accessibility. International standards provide the necessary frameworks for achieving this goal, ensuring that cultural heritage is recognized, protected, and enjoyed by all.

Klironomy As the Science of Preserving Cultural Heritage

In the context of distinguishing cultural heritage into a separate scientific discipline, the concept of klironomy deserves special attention. Klironomy is considered as the science of preserving historical and cultural heritage, combining various areas related to the study, conservation, restoration and popularisation of cultural values. The author notes that Klironomy is designed to integrate the achievements of social sciences and humanities to develop a systematic approach to the preservation of cultural heritage (*Buychik, 2018a*).

In the realm of cultural heritage preservation, a nascent science, Klironomy, emerges as a vital tool for understanding and safeguarding the dynamic evolution of cultural landscapes. Moving beyond the static documentation of artifacts, Klironomy aims to map the temporal tapestry of cultural heritage, revealing the intricate web of interactions, transformations, and layers that define a site's significance. It emphasises the diachronic dimension, treating cultural heritage not as a fixed entity, but as a living, evolving process (*Buychik, 2019c*).

Klironomy draws upon a multidisciplinary approach, integrating archaeological excavation, historical research, environmental analysis, and digital modelling to reconstruct the chronological sequence of events that shaped a cultural site. It seeks to understand how human activity, natural processes, and societal shifts have interacted over time to create the heritage we see today.

Klironomical thinking is formed solely within the framework of studying the features of the formation and preservation of objects, objects and elements of cultural heritage (*Buychik, 2019a*). To educate specialists in cultural heritage, specialised education is needed in which students and future scientists will study not only the archaeological features of heritage formation, but also all the basic methods of preserving culture and art – restoration, conservation, renovation, revitalisation and reconstruction (*Buychik, 2020*).

Therefore, it is necessary to create a clear system of cultural heritage sciences, a hierarchy of sciences and a methodological basis. The basic system of cultural heritage sciences developed over the past 10 years is presented below.

Definition. Klironomy is the science of preserving cultural heritage.

Place in the system of sciences. Klironomy is a new cross-border scientific field at the intersection of natural, humanitarian, social, and economic sciences. Therefore, the definition of "Klironomy Science" is nearer to the Social Sciences and Humanities.

Relevance. Cultural heritage preservation is a priority in the evolution of society because it carries a social genome that forms the image of new social generations. Cultural heritage preservation dates back to ancient civilisations in its primary sense. Some scientific research in this field was already registered in the 18th century, and comprehensive studies have been conducted over the past 100 years.

The science subject is the process of preserving cultural heritage objects and elements.

The object of the science is tangible and intangible cultural heritage.

The science aims to preserve cultural heritage objects and elements.

The tasks of the science:

- describe the state of the objects and elements of cultural heritage for the relevance and scope of restoration work;
- analyse the state of the objects and elements of culture and art to include them in the cultural heritage list and categorise them;
- develop methods of preservation, restoration, renovation, revitalisation and reconstruction of the cultural heritage objects and elements;
- form a scientific base;
- conduct scientific and educational activities;
- prevent cultural heritage preservation.

Functions of the science:

- preserving all kinds of cultural heritage;
- recovering damaged or partially lost parts of the cultural heritage objects or elements;
- reconstructing the lost cultural heritage objects or elements.

Principles of the science:

- Not harm, but restore if did harm.
- Assume based on available knowledge.
- Reconstructing proof in search of counterpart.

Basic theoretical methods of the science:

- The axiological method allows one to determine the value of cultural objects or elements and classify them as part of the cultural heritage.

- The analytical method makes it possible to analyse the main stages of the creation and existence of cultural heritage objects or elements for the purpose of realising a competent approach to its preservation or restoration.
- Synthesis allows connecting the achievements of human thought isolated from various sciences in a single whole to preserve cultural heritage objects and elements.
- Comparative analysis serves as a basis for determining the main directions for preserving cultural heritage – restoration, conservation, renovation, and revitalisation – and separating them in the process of choosing one direction.
- System analysis allows differentiation of the separate sciences within the framework of this scientific direction and identification of the path of sequence and interaction of Klironomical Sciences.

Classification of the science. Klironomy is the science of cultural heritage preservation in the complex, considering two basic directions for forming this heritage type – tangible and intangible. The theoretical basis is the crown of the Science. Consequently, Klironomy includes three scientific klironomical directions of its development:

(1) Tactile Klironomy is the direction of the Klironomy of tangible cultural heritage: architecture, sculpture, paintings, decorative arts;
(2) Facile Klironomy is the direction of the Klironomy of intangible cultural heritage: mythology, folklore, religion, music;
(3) Theoretical Klironomy is the direction of the Klironomy combining fundamental, applied and historical research in cultural heritage preservation.

Thus, Klironomical Sciences can be presented as a complex of the preservation sciences, which are included in three main directions presented in the appendix (*Figure 1*).

Now, it is necessary to start with Tactile Klironomy as a scientific direction of Klironomy.

Definition. Tactile Klironomy is a scientific direction of Klironomy of tangible cultural heritage. We can observe tangible cultural heritage, but we can also touch it through tactile perception. Visual and tactile sensations are the main ones for a person, and they retain information best of all. Restoring cultural heritage objects is visual and tactile, like working with any material object. Hence, Tactile Klironomy is logical and natural in defining tangible cultural heritage preservation: conservation, restoration, renovation, and revitalisation.

Place in the Klironomical Sciences system. Tactile Klironomy, or klironomy of tangible cultural heritage, is one of three areas of cultural heritage preservation science.

Relevance. Preserving tangible cultural heritage is highly significant. It is based on the fundamental development goals of any society. Society cannot develop from nothing. It forms new cultural values in isolation from the past. Materialised into objects, the past can preserve valuable information necessary for forming the correct worldview of the individual.

The scientific direction's subject is preserving objects recognised by the cultural heritage.

The scientific direction's object is tangible cultural heritage.

The scientific direction aims to preserve cultural heritage objects.

The tasks of the scientific direction:

- describe the condition of the objects of tangible cultural heritage and determine the scope of recovery work;

- analyse the state of objects of culture and art to include them in the list of tangible cultural heritage and to categorise them;
- develop methods of preservation, recovery, and reconstruction of tangible cultural heritage objects;
- form a scientific base;
- conduct scientific and educational activities;
- prevent tangible cultural heritage preservation.

Functions of the scientific direction:

- preserving all types of tangible cultural heritage;
- recovering damaged or partially lost parts of tangible cultural heritage objects;
- reconstructing lost objects of cultural heritage.

The main theoretical methods of research remain basic for the scientific direction:

- The axiological method allows one to determine the value of tangible cultural objects and classify them as part of the cultural heritage.
- The analytical method allows one to analyse the main stages of creation and existence of tangible cultural heritage objects to purposely take a competent approach to their preservation or recovery.
- Synthesis allows us to connect the achievements of human thought isolated from various sciences and use them to preserve tangible cultural heritage objects in a single whole.
- Comparative analysis serves as a basis to determine the main directions of cultural heritage preservation – restoration, conservation, renovation, and revitalisation – and to separate them in choosing one of the directions.
- System analysis allows us to differentiate separate sciences within the scientific direction of the Tactile Klironomy and identify the path of sequence and interaction of the Tactile Klironomical Sciences.

The system of the Tactile Klironomy is present in the appendix (*Figure 2*).

Next, it is offered to meet the characteristics of the second direction of Klironomy – Facile Klironomy.

Definition. Facile Klironomy is the scientific direction of the klironomy of the intangible cultural heritage of society. The "intangible cultural heritage" means the practices, representations, expressions, knowledge, and skills – like the instruments, objects, artefacts and cultural spaces associated in addition to that – that communities, groups and, in some cases, individuals recognise as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, interaction with nature, and history. It gives them a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. For this Convention, consideration will be given solely to such intangible cultural heritage compatible with existing international human rights instruments, like the requirements of mutual respect among communities, groups and individuals, and sustainable development. The UNESCO Convention lists specific manifestations of intangible cultural heritage in several areas:

- oral traditions and expressions, including language as a vehicle of intangible cultural heritage;
- performing arts;
- social practices, rituals and festive events;
- knowledge and practices concerning nature and the universe;
- traditional craftsmanship.

The term "facil klironomy" comes from the Latin word "facile", translated as "easy" in English. This variant is chosen to ratio spiritual, intangible cultural heritage to tangible. Therefore, Facile Klironomy is the klironomical direction of intangible (spiritual) cultural heritage: mythology, folklore, religion, music, i.e., oral traditions, performing arts, knowledge, abilities, skills and customs of different peoples and social groups.

Thus, the term "facile klironomy" is logical and natural for the definition of "intangible cultural heritage preservation: conservation, restoration, renovation and revitalisation".

Place in the Klironomical Sciences system. The Facile Klironomy, or the klironomy of intangible cultural heritage, is one of three areas of the science of cultural heritage preservation.

Relevance. The preservation of intangible cultural heritage is essential for the fundamental development of any society. Society cannot develop from anything and form new spiritual and cultural values in isolation from the past. The past, enclosed in the elements of oral creativity, knowledge and traditions, can preserve valuable information necessary to form the correct worldview of the individual.

The scientific direction's subject is preserving intangible heritage elements recognised by society's cultural heritage.

The scientific direction's object is intangible cultural heritage.

The scientific direction aims to preserve intangible cultural heritage elements.

Tasks of the scientific direction:

- hold a description of the status of intangible cultural heritage elements and a definition of the restoration work scope;
- analyse the state of intangible cultural elements to include them in the list of cultural heritage and categorise them;
- develop methods of preservation, recovery and reconstruction of intangible cultural heritage elements;
- form a scientific base;
- conduct scientific and educational activities;
- prevent intangible cultural heritage preservation.

Functions of the scientific direction:

- preserving all types of intangible cultural heritage;
- recovering damaged or partially lost elements of intangible cultural heritage;
- reconstructing lost elements of intangible cultural heritage.

The main theoretical methods of research remain basic for the scientific direction:

- The axiological method allows for determining the value of an element of culture and classifying it as part of intangible cultural heritage.

- The analytical method allows for analysing the main stages of creation and existence of an intangible cultural heritage element to aim at a competent approach to its preservation or recovery.
- The synthesis allows us to connect the achievements of human thought, isolated from various sciences, in a single whole to the purpose of their use in preserving intangible cultural heritage elements.
- Comparative analysis serves as a basis for determining the main directions for preserving intangible cultural heritage – restoration, conservation, renovation, and revitalisation – and their separation in choosing one of the directions.
- System analysis allows differentiation of a separate science within the scientific direction of "Facile Klironomy" and identification of the path of sequence and interaction of the Facile Klironomical Sciences.

The system of the Facil Klironomy is present in the appendix (*Figure 3*).

Finally, it is necessary to characterise the third direction of Klironomy – Theoretical Klironomy.

Definition. Theoretical Klironomy is a special scientific direction of the klironomy of cultural heritage. In contrast to Tactile and Facile Klironomy, which combine the applied sciences of Klironomy, i.e., the body of knowledge in which research and discovery have immediate, direct orientation to the practice and support the development of new technologies – the algorithms of steps to obtain the desired product, the Theoretical Klironomy analyses questions of the basis of all science – history, methodology, systematics and statistics in preservation of the objects, items and elements of cultural heritage – tangible and intangible.

Thus, "Theoretical Klironomy" is logical and natural in defining "the theoretical foundations of the preservation of tangible and intangible cultural heritage: conservation, restoration, renovation and revitalisation."

Place in the system of the klironomical sciences. Theoretical Klironomy is one of three fields of the science of preserving cultural heritage.

Relevance. The development of a theoretical basis for preserving cultural heritage includes a large set of foundations that should be widely used in the applied fields of the science directions – Tactile and Facile Klironomy. The analysis of the history of actions for the preservation of the social life heritage is one of the most significant fields of Theoretical Klironomy because it allows the creation of a clear and verified chronology of the human mind evolution in the area of the significance and grandeur of cultural heritage. Taxonomy of the sciences and scientific directions of Klironomy allows the structure of the professional activities of specialists in cultural heritage preservation, like separate profiles of specialisation. It substantiates the pedagogical basis for preparing these specialists. The methodology of theoretical and practical studies sums up the basis of the philosophical criteria to select each klironomical science and the base to create academic disciplines from the point of pedagogical view. The statistics should become the basis for the analytical activities in cultural heritage preservation in all research directions and separate klironomical sciences. The collection of artefacts, the geography of the location and findings, the different levels of their condition, belonging to certain ethnic and social groups, methods, and techniques of conservation, restoration, renovation and revitalisation are subjects to

statistics on the basis of which further systematics of various types does. Therefore, the Theoretical Klironomy is a separate and significant direction of Klironomy as the science of preserving cultural heritage.

The scientific direction research's objects are tangible cultural heritage objects and intangible cultural heritage elements.

The scientific direction research's subjects are history, methodology, statistics, and the systematics of preserving tangible and intangible cultural heritage.

The scientific direction aims to develop the theoretical bases of klironomy as a science of preserving tangible and intangible cultural heritage.

Tasks of the scientific direction:

- perform historical analysis of human and society's activity in the field of cultural heritage preservation;
- develop a methodology for the formation of the scientific directions of Tactile and Facile Klironomy;
- perform statistical research in Tactile and Facile Klironomical directions, i.e., objects, items and elements of cultural heritage, like methods and techniques of their conservation, restoration, renovation and revitalisation;
- systematise the received statistical data in preserving cultural heritage.

Functions of the science:

- preserving all types of cultural heritage;
- systematising archaeological artefacts of cultural heritage, methods, and techniques of their conservation, restoration, renovation and revitalisation;
- historiography of research in preserving cultural heritage.

The main theoretical methods of research remain basic for the scientific direction:

1. Historical methods are a method of sociological research, including techniques and tools used to study and interpret the texts of primary sources and search for other evidence, including archaeological evidence. Historical methods are also used for presenting historical events and as theory knowledge methods.
2. The analytical method allows us to analyse the main stages of human thought regarding the evaluation of cultural heritage, aiming for a competent approach to its preservation or recovery.
3. Synthesis allows us to connect in a single whole the achievements of human thought isolated from various sciences, aiming to use them in preserving cultural heritage elements.
4. Comparative analysis is the basis for determining the main directions of preserving cultural heritage – restoration, conservation, renovation, and revitalisation – and separating them to choose one of the directions.
5. System analysis allows for differentiation of the research of directions and their particular sciences, identifying the path of klironomical sciences' sequence and interaction.

The system of the Theoretical Klironomy is present in the appendix (*Figure 4*).

Discussion

This study has been performed for more than 10 years after actualising the separation of restoration into a separate science, since in a number of leading countries of the world restoration work has received a great methodological basis that has allowed the opening of professional courses for bachelor's degrees in restoration and then for the training of scientists in restoration. There are several problematic factors that affect the theoretical part of the study. One of the main factors can be considered the extreme passivity of the scientific world to changes after a period of rapid discoveries and innovations. In fact, we have to admit that most leaders in science and management of art and culture do not see obvious trends towards defining special attention to cultural heritage not only as a science about the past, but also as a science about the future existence of those cultural objects, items and elements that is worth predetermining as a future cultural heritage. To form such a vision or professional worldview, it is necessary to train professional specialists in cultural heritage, which is fundamentally different from the training, e.g., of specialists in museology. Another important factor that hinders the development of this research is the low sensitivity of the scientific community of social sciences to innovation. On the one hand, stylistic innovations and transformations periodically occur in art. On the other hand, these changes require special efforts from theorists in understanding the processes of transformation. In culture, scientific thought, more often than not, also follows trends but does not shape them.

The example of the actualisation to allocate and form a complex of sciences about cultural heritage clearly shows the inhibition of scientific thought and activity in culture and the arts. As a result, it is quite difficult to find associates in developing this scientific thought, especially among the leading scientists and managers from science.

By 2025, the primary methodological framework has been developed in all three areas of the complex of sciences on cultural heritage, as well as in 19 separate sciences of Klironomy. Now it is necessary to develop two directions:

(1) The first direction is related to the description of klironomical blocks – tactile, facil and theoretical klironomy. They are basic to the individual sciences of Klironomy.
(2) The second area of research is related to the creation of basic textbooks or scientific papers on each of the klironomical sciences. This requires either the complex work of a separate specialised department or a small community of specialists and researchers in culture, art and cultural heritage.

Conclusion

Thus, the fact of forming documentation on cultural heritage in the basic international organizations – UNESCO, ISO and ICOMOS – and the economic efficiency of cultural heritage, enshrined in the ISO standards, make it possible to move on to forming a complex of sciences that will aim to produce specialists engaged in various fields of conserving existing objects, itemss and elements of cultural heritage and the formation of a basis for preserving existing and currently created objects, items and elements that meet the requirements of preservation for future generations.

The complex of Klironomy, or the sciences of cultural heritage, will provide a unique scientific look at the principles and traditions of preserving what will be of fundamental importance for future generations.

Conflict of interests

The authors declare no conflict of interest.

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Appendix

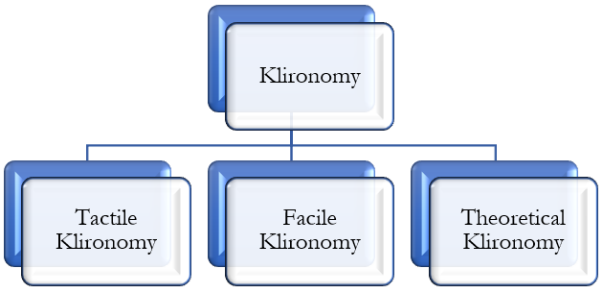

Figure 1. The first level structure of the Science of Klironomy

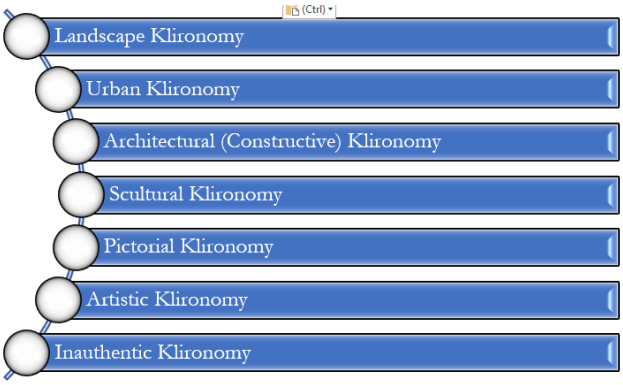

Figure 2. The Tactile Klironomy sciences: the second level structure of the Science of Klironomy

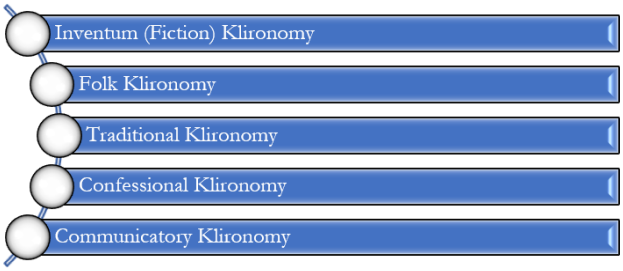

Figure 3. The Facile Klironomy sciences: the second level structure of the Science of Klironomy

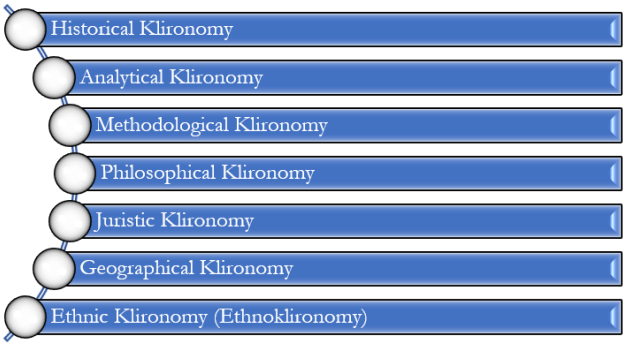

Figure 4. The Theoretical Klironomy sciences: the second level structure of the Science of Klironomy