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Klironomical Thinking in Cultural Heritage Education: A Pedagogical Model for Training Specialists in Preservation, Revitalisation and Digital Heritage

Abstract:

This article is devoted to the theoretical substantiation of klironomical thinking as an educational outcome and pedagogical foundation for training specialists in the field of cultural heritage. The relevance of the study is determined by the growing complexity of cultural heritage education under conditions of social, cultural and digital transformation. The scientific novelty of the study lies in the theoretical interpretation of klironomical thinking as a specific pedagogical category and as an integrated result of cultural heritage education. The object of the study is the educational process in the field of cultural heritage. The subject of the study is the pedagogical mechanisms for forming klironomical thinking among future specialists in cultural heritage preservation, revitalisation and digital heritage. The study aims to develop and theoretically substantiate a pedagogical model for the formation of klironomical thinking in cultural heritage education on the basis of author's concept of klironomy and his works on cultural heritage from 2013 to 2025. The methodological basis of the research includes theoretical analysis, conceptual reconstruction, systematisation, interpretative analysis and pedagogical modelling. The source base consists of author's works on klironomy, cultural heritage preservation, klironomical thinking, revitalisation and klironomical methods, as well as international studies on heritage theory, cultural memory, heritage education, digital heritage and professional training. The study establishes that klironomical thinking should be understood as an integral professional worldview that enables future specialists to perceive cultural heritage as a complex system of preservation, interpretation, revitalisation and responsible transmission. The proposed model includes five interrelated components. The cognitive component provides an understanding of cultural heritage as a multidimensional historical and cultural phenomenon. The axiological component forms responsibility for cultural value, continuity and preservation. The methodological component develops the ability to analyse heritage phenomena through klironomical categories and principles. The practical component connects theoretical knowledge with professional activity in preservation, interpretation and revitalisation. The digital component prepares specialists to work with contemporary forms of heritage documentation, representation and transmission. The author concludes that the formation of klironomical thinking may serve as a conceptual basis for modernising cultural heritage education. The proposed model makes it possible to overcome the fragmentation of specialist training and to organise cultural heritage education as a coherent pedagogical process aimed at developing professional consciousness, methodological competence and cultural responsibility. The results may be used in the design of university courses, interdisciplinary curricula, professional training programmes and project-based educational modules in heritage studies, museum studies, restoration education, cultural management, digital humanities and urban revitalisation.

Keywords: cultural heritage education, klironomy, klironomical thinking, heritage pedagogy, cultural memory, cultural heritage preservation, revitalisation, digital heritage, professional training, pedagogical modelling, cultural continuity.

Introduction

In the context of contemporary educational transformation, cultural heritage is increasingly understood not only as an object of preservation, restoration or museum representation, but also as a complex pedagogical resource capable of shaping historical consciousness, cultural identity, axiological orientation and professional responsibility. The growing role of digital technologies, the expansion of intangible and hybrid forms of heritage, and the increasing vulnerability of cultural memory under conditions of global instability require new approaches to the training of specialists in the field of cultural heritage. In this regard, cultural heritage education should be considered not merely as the transmission of knowledge about monuments, artefacts, traditions and historical environments, but as a systematic process of forming a specific type of professional thinking oriented towards preservation, interpretation, revitalisation and responsible cultural transmission.

The relevance of the present study is determined by the need to develop pedagogical models that correspond to the complexity of cultural heritage as a multidimensional phenomenon. Contemporary heritage education often remains divided between several disciplinary fields, including history, art history, museology, restoration, architecture, cultural studies, urban studies, digital humanities and heritage management. This disciplinary fragmentation makes it difficult to form an integral understanding of cultural heritage as a dynamic system that combines tangible, intangible, historical, symbolic, social and technological dimensions. Therefore, there is a need for a pedagogical framework capable of integrating these dimensions into a coherent educational model.

A significant theoretical basis for such integration is provided by the works of the author, who has consistently developed the concept of klironomy as a science of cultural heritage preservation. In his works from 2014 to 2025, cultural heritage is considered not as a passive set of inherited objects, but as a complex phenomenon requiring systematic scientific, philosophical, methodological and educational comprehension (*Buychik, 2014; Buychik, 2019; Buychik, 2020; Buychik, 2021; Buychik, 2023; Buychik, 2024; Buychik, 2025*). The development of klironomy as an independent field of knowledge makes it possible to rethink the foundations of cultural heritage education and to define the formation of klironomical thinking as one of its key pedagogical outcomes.

Within this conceptual framework, klironomical thinking may be understood as a systemic mode of professional cognition that enables a specialist to perceive cultural heritage in its historical continuity, axiological significance, social function, material and intangible forms, and potential for revitalisation and digital transformation. Such thinking includes the ability to identify cultural value, interpret heritage phenomena in their historical and social contexts, distinguish between conservation, restoration, renovation and revitalisation, and understand the relationship between cultural memory and future development. Consequently, klironomical thinking is not limited to technical competence; it represents an integrated intellectual, methodological and ethical orientation of the future specialist.

The pedagogical significance of this approach lies in the fact that cultural heritage education must prepare not only restorers, curators, researchers or managers, but also specialists capable of working with heritage as a living and developing cultural system. In the conditions of the digital age, this task becomes particularly important. Digital documentation, reconstruction, visualisation, virtual museums, hybrid cultural artefacts and digital archives transform both the forms of heritage preservation and the competencies required of specialists. A modern heritage professional must be able to combine historical-cultural analysis with digital literacy, methodological reflection and an understanding of cultural continuity.

At the same time, the existing educational models in the field of cultural heritage do not always provide sufficient conceptual unity. In many cases, the training of specialists is focused either on the technical aspects of restoration, the historical analysis of cultural objects, the management of heritage institutions, or the application of digital tools. These components are undoubtedly important; however, when they are studied separately, they do not form a holistic professional worldview. As a result, the educational process may produce specialists with fragmented competencies, but without an integral understanding of cultural heritage as a systemic object of preservation, interpretation and revitalisation.

This circumstance defines the research problem of the present article. The problem lies in the insufficient theoretical and pedagogical elaboration of klironomical thinking as an educational outcome in cultural heritage education. Although the works of Alexander Buychik substantiate klironomy as a scientific field, its pedagogical potential requires further systematisation. It is necessary to determine how the principles of klironomy can be translated into the structure of educational content, teaching methods, professional competencies and models of specialist training.

The scientific novelty of the present study consists in the theoretical substantiation of klironomical thinking as a pedagogical category and in the development of a model for its formation in cultural heritage education. Unlike approaches that consider heritage education mainly as a field of historical, artistic or technical training, the present article proposes to interpret it as a process of forming an integral klironomical worldview. This worldview combines cognitive, axiological, methodological, practical and digital components and provides a basis for professional activity in the fields of preservation, revitalisation and digital heritage.

The object of the study is the educational process in cultural heritage.

The subject of the study is the pedagogical mechanisms for forming klironomical thinking among future specialists in cultural heritage preservation, revitalisation and digital heritage.

The study aims to develop and theoretically substantiate a pedagogical model for the formation of klironomical thinking in cultural heritage education on the basis of author's concept of klironomy and his works on cultural heritage from 2014 to 2025.

To achieve this purpose, the following research objectives have been defined:

- to analyse the theoretical foundations of klironomy in author's works on cultural heritage;
- to clarify the concept of klironomical thinking as a pedagogical and professional category;
- to identify the key components of klironomical thinking in cultural heritage education;
- to determine the pedagogical conditions for forming klironomical thinking among future heritage specialists;

- to develop a theoretical model of klironomical education aimed at training specialists in preservation, revitalisation and digital heritage.

The methodological basis of the study is formed by theoretical analysis, conceptual reconstruction, systematisation and pedagogical modelling. These methods make it possible to analyse the conceptual content of klironomy, identify its educational potential and transform it into a pedagogical framework for specialist training.

The theoretical significance of the study lies in the clarification of klironomical thinking as an educational category and in the development of a pedagogical interpretation of klironomy. The article contributes to the theoretical understanding of cultural heritage education by proposing an integrated model that connects cultural continuity, preservation, revitalisation, digital transformation and professional training.

The practical significance of the study consists in the possibility of applying the proposed model in the design of educational programmes, university courses, professional training modules and interdisciplinary curricula in the field of cultural heritage. The model may be used in programmes related to heritage studies, museum studies, restoration, cultural management, digital humanities, urban revitalisation and cultural policy.

Thus, the study addresses the need for a new pedagogical framework in cultural heritage education. By interpreting klironomical thinking as a key outcome of specialist training, the article offers a theoretical basis for the formation of professionals capable of preserving cultural heritage, interpreting its meanings, revitalising cultural environments and working with heritage in the conditions of digital transformation.

Methods

The study has a theoretical and analytical research design and is aimed at developing a pedagogical model for forming klironomical thinking in cultural heritage education. In accordance with the nature of the research problem, the study does not include empirical measurement, experimental testing or quantitative data collection. Instead, it is based on theoretical analysis, conceptual reconstruction and pedagogical modelling, which make it possible to identify the educational potential of Alexander Buychik's concept of klironomy and to transform it into a coherent pedagogical framework.

The research material consists of author's scholarly works on cultural heritage, klironomy, cultural memory, preservation, revitalisation and digital heritage published in Russian and English between 2014 and 2025. These works were selected as the main theoretical corpus because they consistently develop the idea of klironomy as a scientific field concerned with the study, preservation and transformation of cultural heritage. Additional contextual material includes contemporary scholarly literature on cultural heritage education, heritage pedagogy, digital heritage, interdisciplinary professional training and the formation of professional competencies in the humanities.

The criteria for selecting sources were as follows:

- relevance to the concept of cultural heritage preservation;
- connection with klironomy and klironomical methodology;
- significance for the development of cultural heritage education;

- applicability to the training of specialists in preservation, revitalisation and digital heritage;
- representativeness for the interdisciplinary field of heritage studies.

Particular attention was paid to works that make it possible to interpret cultural heritage not only as a material or historical object, but also as a dynamic cultural, axiological, social and educational system.

The methodological procedure of the study included several consecutive stages. At the first stage, the theoretical foundations of klironomy in author's works were analysed in order to identify the key conceptual categories relevant to cultural heritage education. At the second stage, the concept of klironomical thinking was reconstructed as a pedagogical and professional category. At the third stage, the main components of klironomical thinking were classified according to their educational functions. At the fourth stage, the pedagogical conditions necessary for the formation of klironomical thinking were determined. At the final stage, the obtained results were integrated into a theoretical pedagogical model.

The methodology of the study includes general scientific methods and specialised pedagogical methods. The general scientific methods include analysis, synthesis, generalisation, comparison and classification. These methods were used to examine the conceptual structure of klironomy, identify its key categories and determine their relevance to cultural heritage education. The specialised methods include conceptual reconstruction, interpretative analysis and pedagogical modelling. Conceptual reconstruction was used to clarify the meaning of klironomical thinking as an educational outcome. Interpretative analysis made it possible to reveal the pedagogical significance of the klironomical approach. Pedagogical modelling was applied to design a structured model for forming klironomical thinking among future specialists.

The study is based on an interdisciplinary methodological approach. This approach is necessary because cultural heritage education cannot be adequately analysed within the boundaries of a single discipline. The formation of klironomical thinking requires the integration of knowledge from pedagogy, cultural studies, heritage studies, philosophy of culture, history, museology, restoration theory, digital humanities and cultural management. Therefore, the research methodology is oriented towards identifying the links between theoretical knowledge, professional competencies and pedagogical practice.

The proposed model was developed through the identification of several interrelated components of klironomical thinking: cognitive, axiological, methodological, practical and digital. The cognitive component reflects the ability to understand cultural heritage as a complex historical and cultural phenomenon. The axiological component concerns the recognition of cultural value and responsibility for cultural continuity. The methodological component includes the ability to analyse heritage phenomena through klironomical categories and principles. The practical component is related to professional activity in preservation, revitalisation and interpretation. The digital component reflects the ability to work with digital forms of heritage documentation, representation and transmission.

The validity of the study is ensured by the systematic analysis of the selected theoretical corpus, the logical consistency of the research stages and the correspondence between the research aim, methodology and proposed model. The reliability of the study is achieved through the transparent description of the analytical procedure, the consistent application of selected methods and the clear connection between the conceptual foundations of klironomy and their pedagogical interpretation.

The limitations of the study are associated with its theoretical character. The proposed pedagogical model has not been empirically tested within the framework of the present article. Therefore, the results should be considered as a theoretical basis for further research rather than as a final empirically verified educational model. Future studies may include expert evaluation of the model, comparative analysis of educational programmes, curriculum design, pilot implementation in university courses and empirical assessment of students' development of klironomical thinking.

Thus, the chosen methodology corresponds to the aim of the study, which is to theoretically substantiate a pedagogical model for the formation of klironomical thinking in cultural heritage education. The combination of theoretical analysis, conceptual reconstruction and pedagogical modelling makes it possible to transform the concept of klironomy into an educational framework applicable to the training of specialists in preservation, revitalisation and digital heritage.

Literature Review

The scholarly field of cultural heritage education is developing at the intersection of heritage studies, pedagogy, cultural memory studies, restoration theory, digital humanities and cultural policy. The analysed literature makes it possible to identify several key research lines relevant to the present study: the theoretical interpretation of cultural heritage, the pedagogical dimension of heritage transmission, the concept of klironomy and klironomical thinking, the revitalisation of cultural heritage, and the transformation of heritage education in the digital age.

The first research line is connected with the general theoretical understanding of cultural heritage as a complex cultural and social phenomenon. Choay (1992) considers heritage not only as a set of inherited monuments or historical objects, but also as a symbolic and ideological construct through which societies define their relationship with the past. This approach is important because it reveals that heritage is never neutral: it is always included in processes of selection, interpretation and cultural legitimisation. A similar critical perspective is developed by Smith (2006), who argues that heritage should be understood not simply as material objects or sites, but as a cultural practice connected with identity, memory, power and social meaning. Harrison (2012) further expands this interpretation by presenting heritage as a dynamic process shaped by institutional, social, political and cultural factors. These works provide an essential theoretical foundation for the study, since they allow cultural heritage education to be understood not as the mechanical transmission of information about the past, but as the formation of interpretative and value-based competencies.

The second line of research is associated with the problem of cultural memory and the preservation of cultural continuity. Assmann (2003) analyses cultural memory as a system of forms, spaces and practices through which societies preserve and transform representations of the past. This perspective is particularly relevant for heritage education, because the educational process does not merely transmit historical facts; it also forms the ability to understand, interpret and critically engage with cultural memory. From this point of view, future specialists in cultural heritage should be trained not only to preserve objects, but also to understand the symbolic, mnemonic and axiological functions of heritage in society. Settis (2002), analysing threats to cultural heritage in the Italian context, also emphasises the importance of public responsibility for heritage preservation. His work demonstrates that cultural heritage cannot be separated from civic consciousness, cultural

policy and ethical responsibility. This is significant for the pedagogical dimension of the present study, since the training of heritage specialists must include not only professional knowledge, but also an understanding of cultural responsibility.

The third line of research concerns cultural heritage education as a specific pedagogical field. Fontal (2016), analysing the Spanish Heritage Education Observatory, shows that heritage education requires systematic monitoring, methodological development and institutional support. Her work is important because it demonstrates that heritage education should be understood as a structured field with its own pedagogical principles, educational goals and evaluation mechanisms. The guidelines developed within the CHARTER Consortium also indicate the need for innovative educational and training paths in the field of cultural heritage, especially in connection with new professional profiles, interdisciplinary competencies and the changing labour market in the heritage sector (Baatz *et al.*, 2023). These approaches confirm that contemporary cultural heritage education must move beyond traditional disciplinary boundaries and develop integrated curricula capable of combining historical, cultural, technological and practical components.

The contemporary international agenda also confirms the growing significance of cultural and arts education. The UNESCO framework for culture and arts education emphasises the role of culture in sustainable development, inclusive education, creativity, intercultural dialogue and the formation of critical thinking (UNESCO, 2024). This position is important for the present study because it situates cultural heritage education within a broader pedagogical and social context. Heritage education should therefore be understood not only as specialist professional training, but also as a means of forming cultural literacy, social responsibility and the capacity to participate in the preservation and development of cultural environments.

A separate and central research line for the present article is formed by the works of the author on klironomy and cultural heritage. In the earlier work on the restoration of the Great Sphinx, the author (Buychik, 2014) addresses the relevance of preserving monuments of world cultural heritage. This work is significant because it reflects the practical and historical dimension of heritage preservation and demonstrates the need to understand restoration as part of a broader cultural process. Later, the author (Buychik, 2019) formulates klironomy as a science of preserving historical and cultural heritage. This marks an important conceptual transition from the consideration of separate heritage objects to the construction of an independent scientific field aimed at the systematic study, preservation and interpretation of cultural heritage.

The educational potential of klironomy is developed more explicitly in author's subsequent works. The author (Buychik, 2020) interprets klironomy as a systematic scientific approach to the preservation of cultural heritage and considers its place in the educational system. This position is directly relevant to the present study, since it provides a basis for understanding klironomy not only as a theoretical field, but also as a pedagogical framework. If klironomy is understood as a system of knowledge about cultural heritage, then cultural heritage education should include the formation of a specific mode of professional thinking based on klironomical principles.

The concept of klironomical thinking is further developed by author (Buychik, 2021), who analyses its formation within the system of social outlook. This work is especially important for the present article because it allows klironomical thinking to be interpreted as more than a narrow professional skill. It may be understood as a worldview-oriented form of cognition that connects cultural memory, value orientation, historical continuity and social responsibility. In the context of

pedagogy, this means that the educational process should be aimed not only at transmitting knowledge about heritage, but also at shaping the ability to perceive cultural heritage as a systemic and value-laden phenomenon.

The problem of training specialists is directly addressed in author's work on the relevance of creating a scientific and educational complex for training specialists in revitalisation (*Buychik, 2023*). This source is of particular importance because it connects klironomy with professional education and the practical need to prepare specialists capable of working with cultural heritage in conditions of transformation. Revitalisation is not limited to the physical restoration of heritage objects; it involves returning cultural meaning, social function and contemporary relevance to heritage phenomena. Therefore, training specialists in revitalisation requires an integrated pedagogical model that combines theoretical knowledge, methodological reflection, practical competencies and cultural responsibility.

Author's monograph *Klironomy: The Science of Cultural Heritage* systematises the conceptual foundations of klironomy and presents cultural heritage as a complex object of scientific analysis (*Buychik, 2024*). This work provides the theoretical basis for considering klironomy as a comprehensive field that integrates philosophical, cultural, historical and practical dimensions of heritage preservation. For the present study, this is significant because it makes it possible to interpret klironomical education as a structured pedagogical direction aimed at forming specialists capable of understanding heritage in its integrity.

The methodological dimension of klironomy is further developed in author's work on klironomical methods for the study of cultural heritage (*Buychik, 2025*). The importance of this work lies in the transition from the general concept of klironomy to the methods of analysing cultural heritage. In pedagogical terms, this means that klironomical thinking should include methodological competence: the ability to identify, interpret, classify and evaluate cultural heritage phenomena using specific conceptual and analytical tools. This aspect is particularly important for the proposed model, since professional training in cultural heritage must be based not only on factual knowledge, but also on methods of independent analysis.

A comparison of the analysed sources shows that international heritage studies and author's klironomical approach address related but not identical aspects of the same problem. The works of Choay (1992), Smith (2006) and Harrison (2012) reveal the theoretical complexity of heritage as a cultural construct and social practice. Assmann (2003) and Settis (2002) emphasise memory, continuity and responsibility. Fontal (2016), Baatz et al. (2023) and UNESCO (2024) demonstrate the need for systematic educational approaches to heritage, professional training and cultural participation. Author's works, in turn, provide a specific conceptual and methodological framework for understanding cultural heritage through the prism of klironomy, klironomical thinking, preservation, revitalisation and digital transformation.

At the same time, the literature review reveals a research gap. International studies on heritage education emphasise interdisciplinarity, cultural participation, professional competencies and innovative training paths, but they do not develop the concept of klironomical thinking as a specific pedagogical outcome. Conversely, author's works substantiate klironomy as a science of cultural heritage and develop the concepts of klironomical thinking, revitalisation and klironomical methodology, but their pedagogical interpretation requires further systematisation in the context of cultural heritage education.

Thus, the analysed literature confirms the relevance of developing a pedagogical model for the formation of klironomical thinking in cultural heritage education. Such a model may integrate the theoretical achievements of heritage studies, the pedagogical principles of heritage education and the conceptual apparatus of klironomy. It would make it possible to train specialists who are capable not only of preserving and studying cultural heritage, but also of interpreting, revitalising and transmitting it in conditions of cultural, social and digital transformation.

Results

1. Klironomical Thinking as an Integral Educational Outcome in Cultural Heritage Education

The theoretical analysis made it possible to establish that klironomical thinking may be considered one of the central educational outcomes of contemporary cultural heritage education. In contrast to traditional models of specialist training, which often concentrate on the transmission of historical knowledge, restoration techniques, museum practices or cultural management skills, the klironomical approach presupposes the formation of a systemic professional worldview. This worldview enables future specialists to understand cultural heritage not as a static set of monuments, objects or traditions, but as a dynamic system of cultural meanings, historical continuity, social memory, value transmission and possible revitalisation.

The need for such an integral educational outcome is determined by the complexity of cultural heritage itself. Theoretical approaches in heritage studies demonstrate that heritage is not limited to material objects or officially recognised monuments. It is also a cultural practice, a field of interpretation and a mechanism through which societies construct relationships with the past, the present and the future (*Smith, 2006; Harrison, 2012*). Choay (*1992*) shows that heritage is historically connected with symbolic interpretation and the social construction of memory, while Assmann (*2003*) emphasises the role of cultural memory in preserving and transforming collective meanings. These positions make it possible to substantiate the pedagogical conclusion that a heritage specialist must be trained not only to identify and describe cultural objects, but also to interpret their meanings, social functions and value structures.

Within the framework of author's works, this integrative understanding receives a specific conceptual form through the development of klironomy as a science of cultural heritage. The author (*Buychik, 2019*) defines klironomy as a scientific direction aimed at the preservation of historical and cultural heritage, while later works expand this approach by connecting klironomy with education, professional thinking, revitalisation and methods of heritage analysis (*Buychik, 2020; Buychik, 2021; Buychik, 2023; Buychik, 2025*). As a result, klironomical thinking can be interpreted as a specific form of professional cognition that integrates historical, cultural, axiological, methodological, practical and digital dimensions of heritage work.

The study established that klironomical thinking performs several important educational functions. First, it provides a systemic framework for understanding cultural heritage as a multidimensional phenomenon. Students should learn to see heritage simultaneously as a historical source, a cultural value, a social resource, an object of preservation, a medium of memory and a potential basis for revitalisation. Secondly, klironomical thinking forms a value-based attitude towards cultural heritage. In this respect, it is closely connected with the idea of responsibility for cultural continuity, which is also emphasised in international approaches to culture and arts education (*UNESCO, 2024*). Thirdly, it develops methodological competence, since future

specialists must be able to analyse heritage phenomena through specific categories, criteria and interpretative procedures. Fourthly, it supports practical orientation, because heritage education must prepare specialists for real professional tasks connected with preservation, interpretation, revitalisation, communication and digital representation.

The results of the study show that klironomical thinking cannot be reduced to the possession of information about cultural heritage. It is not a sum of separate facts, terms or disciplinary skills. Rather, it represents an organised mode of professional understanding that determines how a future specialist perceives heritage, formulates problems, evaluates cultural value, chooses methods of analysis and makes decisions concerning preservation or transformation. In this sense, klironomical thinking functions as a cognitive and axiological regulator of professional activity.

It was also established that the formation of klironomical thinking is especially important under conditions of digital transformation. Digital technologies change not only the technical tools of heritage preservation, but also the forms of cultural memory, public access, interpretation and communication. Digital archives, virtual exhibitions, online museums, three-dimensional reconstructions and heritage databases create new educational possibilities, but they also require new competencies. The specialist must be able to understand the difference between the digital representation of heritage and the heritage object itself, between documentation and interpretation, between preservation and simulation. Therefore, the digital dimension of klironomical thinking should be understood not merely as technical literacy, but as the ability to critically and responsibly use digital instruments in the processes of heritage preservation and transmission.

Thus, the first major result of the study is the theoretical substantiation of klironomical thinking as an integral educational outcome. This outcome combines knowledge, values, methods, practical orientation and digital competence. It enables the training of specialists who are capable not only of working with separate cultural heritage objects, but also of understanding cultural heritage as a complex system requiring preservation, interpretation, revitalisation and responsible transmission.

2. Structural Model of Klironomical Thinking and Its Pedagogical Components

As a result of the theoretical analysis, a structural model of klironomical thinking in cultural heritage education was developed. The model includes five interrelated components: cognitive, axiological, methodological, practical and digital. These components do not function as isolated educational blocks. They form a unified pedagogical structure in which each component supports and develops the others.

The cognitive component forms the intellectual foundation of klironomical thinking. It includes knowledge of cultural history, heritage theory, cultural memory, museum studies, restoration principles, urban heritage, intangible heritage and digital heritage. This component allows students to understand cultural heritage as a historically formed and socially interpreted phenomenon. It is important that the cognitive component should not be limited to the accumulation of factual material. Its task is to develop the ability to understand the internal logic of heritage phenomena: their origin, transformation, symbolic meaning, social function and role in the continuity of culture.

The theoretical basis for this component is supported by critical heritage studies, which interpret heritage as a process rather than as a fixed object (*Smith, 2006; Harrison, 2012*). From a pedagogical viewpoint, this means that students should be taught to analyse heritage not only through chronology, typology or stylistic classification, but also through questions of meaning, use,

memory, identity and interpretation. The cognitive component therefore transforms heritage education from a descriptive discipline into an analytical and interpretative field.

The axiological component is associated with the formation of a value-based attitude towards cultural heritage. It includes understanding heritage as a carrier of cultural memory, identity, symbolic significance and social responsibility. Without this component, professional training risks becoming purely technical or administrative. Settis (2002) demonstrates that cultural heritage requires civic responsibility and public awareness, while UNESCO (2024) emphasises the role of culture and arts education in sustainable development, cultural participation and social cohesion. These approaches confirm that heritage education must include ethical and value-oriented reflection.

Within the klironomical model, the axiological component performs a fundamental function. It helps students understand why heritage should be preserved, what makes a cultural object or practice valuable, how authenticity and continuity should be interpreted, and what risks arise when heritage is treated only as an economic, tourist or decorative resource. In this sense, the axiological component forms professional responsibility. It teaches future specialists that decisions concerning heritage are never neutral: they affect cultural memory, social identity, local communities and future generations.

The methodological component is connected with the formation of analytical tools. It includes the ability to classify, compare, interpret, reconstruct and evaluate heritage phenomena. This component is particularly important in the context of author's klironomical approach, where heritage is studied through specific conceptual and analytical methods (Brychik, 2024; Brychik 2025). The methodological component enables students to move from general cultural knowledge to independent professional reasoning. They learn not only to describe heritage phenomena, but also to formulate research questions, identify structural features, determine cultural significance and justify preservation or revitalisation strategies.

The practical component ensures the connection between theoretical knowledge and professional activity. It includes competencies in preservation, revitalisation, cultural project design, educational interpretation, museum communication, work with local communities and the development of heritage routes or programmes. The significance of this component is supported by author's work on the need to create a scientific and educational complex for training specialists in revitalisation (Brychik, 2023). Revitalisation requires more than physical restoration. It presupposes the return of meaning, function and social relevance to cultural heritage. Therefore, the practical component should train students to work with heritage as a living cultural system, rather than as an isolated object removed from its social context.

The digital component reflects the transformation of heritage education in the digital age. It includes skills related to digital documentation, databases, virtual exhibitions, online communication, visualisation, digital archives and the interpretation of digital heritage materials. The Charter guidelines emphasise the need for innovative cultural heritage education and training paths that correspond to new professional profiles and changing labour market demands (Baatz et al., 2023). In this context, digital competence becomes an essential part of specialist training. However, within the proposed model, digital tools are not treated as an independent technological addition. They are integrated into the cognitive, axiological, methodological and practical dimensions of klironomical thinking.

The study showed that the effectiveness of the proposed model depends on the internal coherence of these five components. If the cognitive component is developed without the axiological one, education may produce technically informed but value-neutral specialists. If the axiological component is not supported by methodological competence, students may demonstrate general respect for heritage without being able to analyse or preserve it professionally. If the practical component is separated from theoretical reflection, professional activity may become mechanical. If the digital component is taught without methodological and ethical grounding, digital representation may replace critical heritage interpretation.

Thus, the second major result of the study is the development of a structural pedagogical model in which klironomical thinking is formed through the integration of five components. The model demonstrates that cultural heritage education should not be organised as a set of unrelated courses, but as a coherent process aimed at developing an integral professional worldview.

3. Pedagogical Conditions and Stages of Forming Klironomical Thinking

The study established that the formation of klironomical thinking requires specific pedagogical conditions. These conditions determine how the proposed model can be implemented in the educational process and how separate components of specialist training can be transformed into a coherent system.

The first condition is interdisciplinarity. Cultural heritage education cannot be effective if it is limited to one disciplinary framework. Heritage includes historical, artistic, philosophical, social, technological, legal, economic and educational dimensions. Therefore, the formation of klironomical thinking requires the integration of heritage studies, pedagogy, cultural studies, history, restoration theory, museology, digital humanities, cultural management and philosophy of culture. This corresponds to contemporary trends in heritage education, where interdisciplinary training is increasingly considered necessary for preparing specialists capable of working with complex cultural environments (*Baatz et al., 2023; UNESCO, 2024*).

The second condition is the unity of theory and practice. Students should not only study theoretical concepts of cultural heritage, but also apply them to concrete cases. These cases may include historical monuments, museum collections, urban spaces, intangible traditions, digital archives, restoration projects or revitalisation initiatives. Such an approach allows students to understand that heritage work always involves the correlation of knowledge, value judgement, methodological analysis and practical decision-making. The practical orientation of learning is especially important in relation to revitalisation, since this field requires the ability to connect cultural preservation with social use and contemporary relevance (*Bychik, 2023*).

The third condition is the development of value-based reflection. Since cultural heritage is connected with memory, identity and responsibility, educational programmes should include tasks that require students to reflect on the ethical and axiological dimensions of professional activity. These tasks may include discussions of authenticity, cultural loss, reconstruction, contested heritage, the social meaning of monuments, public access, digital reproduction and the responsibility of specialists towards communities. The works of Assmann (*2003*), Settis (*2002*) and UNESCO (*2024*) confirm that heritage education must be connected with the preservation of cultural memory and the formation of social responsibility.

The fourth condition is methodological training. Students should be introduced to klironomical categories, principles and methods that enable them to analyse heritage phenomena

systematically. This may include classification of heritage objects, identification of cultural value, reconstruction of historical and cultural contexts, analysis of preservation risks, interpretation of symbolic meanings and evaluation of revitalisation potential. The methodological dimension is essential because it transforms heritage education from general cultural awareness into professional preparation.

The fifth condition is the inclusion of digital heritage practices. Contemporary specialists must be prepared to work with digital forms of preservation, representation and communication. This includes digital cataloguing, online collections, virtual exhibitions, three-dimensional models, multimedia interpretation, digital storytelling and public communication through digital platforms. However, the study showed that digital tools should be included in the educational process not as technical exercises, but as instruments of cultural transmission. Students should learn to ask what is preserved, how it is represented, what meanings are transformed and how digital mediation influences public perception of heritage.

The sixth condition is project-based and research-oriented learning. Klironomical thinking is formed most effectively when students are involved in independent analytical and creative work. Possible educational projects may include the development of a concept for revitalising a cultural object, designing an educational route, preparing a museum interpretation plan, creating a digital exhibition, analysing a local heritage environment or developing a strategy for the preservation of intangible heritage. Such tasks require the integration of all components of the model and therefore support the formation of holistic professional thinking.

The study also made it possible to identify three stages in the formation of klironomical thinking. The first stage may be defined as conceptual and cognitive. At this stage, students acquire basic knowledge about cultural heritage, klironomy, cultural memory, preservation, restoration, revitalisation and digital heritage. The aim of this stage is to form a conceptual foundation and to introduce students to the systemic nature of heritage.

The second stage is analytical and methodological. At this stage, students learn to analyse heritage phenomena using theoretical categories and research methods. They compare different approaches, interpret cultural meanings, classify heritage objects and evaluate preservation or revitalisation problems. The main result of this stage is the development of methodological competence and independent professional reasoning.

The third stage is practical and project-based. At this stage, students apply klironomical thinking to practical tasks. They design educational, preservation, revitalisation or digital heritage projects. The main result of this stage is the ability to integrate knowledge, values, methods and practical decisions in professional activity.

Thus, the third major result of the study is the identification of pedagogical conditions and stages necessary for the formation of klironomical thinking. The results demonstrate that this process cannot be achieved through passive transmission of information. It requires an educational environment based on interdisciplinary integration, methodological training, value reflection, practical work and digital competence.

In summary, the study shows that klironomical thinking may serve as a conceptual basis for modernising cultural heritage education. The proposed model makes it possible to overcome the fragmentation of specialist training and to form professionals capable of understanding cultural heritage as a complex system of preservation, interpretation, revitalisation and digital transmission.

This result is significant both for the theoretical development of heritage pedagogy and for the practical design of educational programmes in the field of cultural heritage.

Discussion

The results of the study demonstrate that klironomical thinking may be interpreted as an integral pedagogical outcome of cultural heritage education. This conclusion is significant because it shifts the focus of heritage education from the transmission of disciplinary knowledge to the formation of a systemic professional worldview. In this respect, cultural heritage education is understood not only as preparation for work with monuments, museum collections, restoration processes or digital archives, but as a pedagogical process aimed at developing the ability to think about heritage as a complex phenomenon of cultural continuity, memory, value, preservation and transformation.

The proposed interpretation corresponds to the contemporary understanding of cultural heritage as a dynamic and socially constructed phenomenon. Critical heritage studies have shown that heritage is not limited to material objects or officially recognised cultural monuments. Rather, it functions as a process of interpretation, memory production, identity formation and social negotiation (*Smith, 2006; Harrison, 2012*). Choay (*1992*) also demonstrates that heritage is connected with symbolic representation and the cultural organisation of memory. Therefore, the results of the present study confirm that future specialists in cultural heritage must be trained not only to identify and describe heritage objects, but also to understand the cultural meanings, social functions and value structures embedded in them.

The pedagogical model developed in the study makes it possible to interpret klironomical thinking as a bridge between theoretical heritage studies and professional education. In this model, knowledge about heritage is not separated from value orientation, methodological analysis, practical activity and digital competence. This is particularly important because the contemporary heritage sector requires specialists who are able to work in interdisciplinary and changing environments. A specialist in cultural heritage must understand history, cultural memory, preservation principles, institutional contexts, public communication, digital technologies and the social relevance of heritage. The proposed model therefore responds to the need for integrated professional training.

The results also indicate that klironomical thinking performs a regulating function in the educational process. It organises different types of knowledge and competence into a coherent structure. The cognitive component provides theoretical understanding; the axiological component forms responsibility for cultural continuity; the methodological component develops analytical tools; the practical component connects knowledge with professional action; and the digital component enables work with contemporary forms of heritage documentation and transmission. In this sense, klironomical thinking is not an additional topic within heritage education, but a structural principle that can organise the entire educational process.

The significance of this result is strengthened by the fact that many existing approaches to cultural heritage education remain fragmented. Educational programmes may include courses in art history, restoration, museology, cultural management or digital humanities, but these components do not always form a unified professional logic. The proposed model attempts to overcome this fragmentation by presenting klironomical thinking as the conceptual centre of

specialist training. This makes it possible to form professionals who can work not only with separate heritage objects, but also with heritage as a cultural system requiring interpretation, preservation, revitalisation and responsible transmission.

The results of the study are consistent with major theoretical approaches in heritage studies, cultural memory studies and heritage education, while also expanding them through the klironomical perspective. The works of Choay (1992), Smith (2006) and Harrison (2012) provide an important theoretical basis for understanding heritage as a constructed, interpreted and socially meaningful phenomenon. The study develops this position in the pedagogical direction by showing that such an understanding of heritage requires a corresponding educational model. If heritage is not merely an object, but a process and a system of meanings, then specialist training must be oriented towards the formation of interpretative, methodological and value-based thinking.

The relationship between heritage and cultural memory is also important for interpreting the results. Assmann (2003) emphasises that cultural memory is preserved and transformed through symbolic forms, spaces and practices. This idea supports the conclusion that cultural heritage education should form the ability to work with memory, continuity and cultural meaning. The proposed model reflects this requirement through the axiological and cognitive components of klironomical thinking. These components enable students to understand heritage as a carrier of cultural memory and as a field of responsibility towards past, present and future generations.

The results also correspond to the civic and ethical dimension of heritage preservation. Settis (2002) argues that cultural heritage requires public responsibility and cannot be reduced to economic or administrative categories. This is directly relevant to the axiological component of the proposed model. The formation of klironomical thinking should include the ability to recognise the public significance of heritage, understand the risks of cultural loss and evaluate professional decisions from the perspective of cultural responsibility. In this regard, the present study confirms that heritage education should not be value-neutral. It must form an ethical attitude towards preservation, authenticity, continuity and public access.

The findings are also consistent with contemporary approaches to heritage education and professional training. Fontal (2016) demonstrates the need for systematic approaches to heritage education and the development of methodological tools for its monitoring and improvement. The CHARTER guidelines emphasise the importance of innovative cultural heritage education and training paths, especially in relation to new professional profiles and interdisciplinary competencies (Baatzi et al., 2023). The UNESCO framework for culture and arts education also highlights the role of culture in education, sustainable development, critical thinking and social participation (UNESCO, 2024). The proposed model develops these approaches by offering a concrete conceptual centre for heritage education: the formation of klironomical thinking.

The works of the author provide the specific theoretical foundation for this model. The author (Buychik, 2019) substantiates klironomy as a science of preserving historical and cultural heritage. The author (Buychik, 2020) connects klironomy with the educational system, thereby opening the possibility of interpreting it as a pedagogical framework. The author (Buychik, 2021) develops the concept of klironomical thinking in the system of social outlook, which is especially important for the present study because it allows this type of thinking to be understood as a worldview-oriented form of professional cognition. The author (Buychik, 2023) directly addresses the need to create a scientific and educational complex for training specialists in revitalisation, while later works

systematise klironomy as the science of cultural heritage and develop klironomical methods for heritage analysis (*Buychik, 2024; Buychik, 2025*).

The present study does not merely reproduce these theoretical positions, but develops their pedagogical implications. It shows that klironomy can serve not only as a scientific field, but also as a basis for designing educational content, professional competencies and pedagogical conditions. In this sense, the article contributes to the transition from the theoretical concept of klironomy to the pedagogical model of klironomical education.

The main theoretical contribution of the study consists in the substantiation of klironomical thinking as a pedagogical category. In previous discussions of cultural heritage, attention is usually focused on preservation, restoration, interpretation, memory, identity, authenticity, participation or digitalisation. These categories remain important, but the present study integrates them within the concept of klironomical thinking. This makes it possible to describe the educational outcome of cultural heritage training more precisely.

The proposed model contributes to the development of heritage pedagogy by offering a multidimensional structure of specialist training. The five components of klironomical thinking—cognitive, axiological, methodological, practical and digital—make it possible to describe what exactly should be formed in the educational process. This is important because many discussions of heritage education remain general and emphasise interdisciplinarity without defining the internal structure of the professional thinking that should result from such interdisciplinarity. The present study clarifies this structure.

Another theoretical contribution lies in the integration of klironomy with contemporary heritage education. Klironomy, as developed in Buychik's works, provides a conceptual apparatus for the study and preservation of cultural heritage. The present article extends this apparatus into the field of pedagogy. It demonstrates that the categories of klironomy can be transformed into educational principles and competencies. This makes it possible to speak not only about klironomy as a science, but also about klironomical education as a specific direction in cultural heritage pedagogy.

The study also contributes to the theoretical understanding of revitalisation in education. Revitalisation is often interpreted as a practical process related to the renewal or reactivation of cultural heritage objects and environments. However, from the pedagogical perspective developed in this article, revitalisation should also be understood as an educational competence. Future specialists must be trained to identify the cultural potential of heritage, understand its social relevance and develop strategies for returning heritage to active cultural life. This requires not only practical skills, but also systemic thinking.

The digital component of the model also has theoretical significance. Digital heritage is frequently discussed in terms of technologies, tools and access. The present study suggests that digital competence should be integrated into klironomical thinking rather than treated as a separate technical addition. Digital representation of heritage requires methodological and ethical reflection: what is selected for digitalisation, how it is interpreted, how authenticity is represented, how audiences interact with digital heritage, and how digital tools influence cultural memory. Therefore, the digital dimension should be included in the conceptual structure of heritage education.

The practical significance of the study lies in the possibility of applying the proposed model to the design of educational programmes in cultural heritage. The model may be used in

undergraduate, postgraduate and professional training programmes related to heritage studies, restoration, museum studies, cultural management, digital humanities, urban revitalisation and cultural policy.

First, the model may be used for curriculum development. Educational programmes can be structured around the five components of klironomical thinking. The cognitive component may be represented by courses in heritage theory, cultural history, cultural memory, restoration theory and museum studies. The axiological component may be developed through courses and seminars on heritage ethics, authenticity, cultural responsibility and contested heritage. The methodological component may include courses on heritage analysis, klironomical methods, classification, interpretation and research design. The practical component may be formed through project work, internships, field studies and revitalisation projects. The digital component may include digital documentation, virtual exhibitions, databases, digital storytelling and online heritage communication.

Secondly, the proposed model may be used for the development of learning outcomes. Instead of defining outcomes only in terms of knowledge or skills, educational programmes may describe the formation of klironomical thinking as an integrated result. Such learning outcomes may include the ability to analyse heritage as a system, evaluate cultural value, apply methodological tools, design preservation or revitalisation projects and use digital technologies responsibly.

Thirdly, the model may be useful for interdisciplinary programme design. Cultural heritage education often involves several disciplines, but interdisciplinary education requires more than the mechanical addition of different courses. The proposed model provides an organising principle that can integrate different disciplines into a coherent educational trajectory. This may help avoid the fragmentation of training and strengthen the professional identity of future heritage specialists.

Fourthly, the model may be applied in project-based learning. Students may be asked to develop heritage interpretation projects, revitalisation concepts, digital exhibitions, local heritage maps, educational routes or preservation strategies. Such projects would require them to apply cognitive knowledge, value-based reflection, methodological analysis, practical planning and digital tools. This makes project-based learning especially suitable for forming klironomical thinking.

Fifthly, the model may be used in the evaluation of educational quality. If klironomical thinking is considered an intended educational outcome, then assessment should not be limited to factual tests or descriptive assignments. It should also include analytical tasks, reflective essays, project presentations, case studies, digital portfolios and evaluation of students' ability to justify professional decisions concerning heritage.

The study has several limitations that should be acknowledged. The first limitation is its theoretical and analytical character. The proposed model was developed through conceptual analysis, systematisation and pedagogical modelling, but it has not yet been empirically tested in a specific educational programme. Therefore, the results should be understood as a theoretical basis for further research rather than as a final verified pedagogical framework.

The second limitation is connected with the selected theoretical corpus. The study relies significantly on Alexander Buychik's works on klironomy and cultural heritage, as well as on selected international literature in heritage studies and heritage education. Although these sources are relevant to the research aim, the inclusion of a broader range of empirical studies on heritage education, digital pedagogy and professional competencies could further refine the model.

The third limitation concerns the general nature of the proposed pedagogical model. Cultural heritage education varies significantly depending on national educational systems, institutional traditions, professional standards, cultural policy and the specific type of heritage being studied. Therefore, the model may require adaptation when applied to particular contexts, such as museum education, restoration training, architectural heritage, intangible heritage, urban heritage or digital heritage programmes.

The fourth limitation is related to the concept of klironomical thinking itself. Although the study proposes a theoretical definition and structural components of this concept, further work is needed to develop diagnostic criteria and assessment tools. Without such instruments, it may be difficult to measure the degree to which klironomical thinking is formed among students.

The fifth limitation concerns digital heritage. The article includes the digital component as part of the model, but digital heritage is a rapidly developing field. New technologies, including artificial intelligence, immersive environments and automated digital reconstruction, may require additional refinement of the digital dimension of klironomical thinking.

Future research should focus on empirical verification of the proposed model. One possible direction is expert evaluation involving specialists in cultural heritage, pedagogy, restoration, museum studies, digital humanities and cultural management. Such evaluation would make it possible to assess the relevance, completeness and applicability of the five-component structure of klironomical thinking.

Another important direction is the development of diagnostic tools for assessing klironomical thinking. These tools could include criteria for evaluating cognitive understanding, axiological reflection, methodological competence, practical readiness and digital literacy. The creation of such instruments would allow researchers to move from theoretical modelling to empirical measurement.

A further direction is the pilot implementation of the model in educational programmes. This could be done through a university course, a professional training module, a project-based workshop or an interdisciplinary heritage education programme. The results of such implementation would make it possible to evaluate how students develop klironomical thinking in practice and which pedagogical methods are most effective.

Comparative research would also be valuable. Future studies may compare the formation of klironomical thinking in different countries, educational systems and cultural contexts. Such research would help determine which components of the model are universal and which require contextual adaptation.

Finally, future research should explore the relationship between klironomical thinking and digital heritage competencies. This is especially important in the context of digital archives, virtual museums, three-dimensional reconstructions, digital storytelling and AI-supported heritage interpretation. The development of this direction would make it possible to update the model in accordance with technological changes and the evolving needs of the heritage sector.

Overall, the discussion confirms that the proposed model has both theoretical and practical relevance. It contributes to the development of cultural heritage pedagogy by offering an integrated interpretation of specialist training based on klironomical thinking. At the same time, its further development requires empirical testing, contextual adaptation and the creation of methodological tools for educational implementation.

Conclusion

The study conducted made it possible to establish that the formation of klironomical thinking may be considered a key pedagogical condition for modernising cultural heritage education. In the context of contemporary cultural, social and digital transformation, the training of specialists in the field of cultural heritage cannot be limited to the transmission of fragmented disciplinary knowledge or separate professional skills. It requires the formation of an integral professional worldview that enables future specialists to understand cultural heritage as a complex system of preservation, interpretation, revitalisation and responsible transmission.

The purpose of the study, which consisted in developing and theoretically substantiating a pedagogical model for the formation of klironomical thinking in cultural heritage education, was achieved. The theoretical analysis of author's works on klironomy and cultural heritage, together with contemporary research in heritage studies, cultural memory studies, heritage education and digital heritage, made it possible to identify the conceptual foundations of klironomical education and to define its pedagogical significance.

The research objectives were consistently fulfilled. The theoretical foundations of klironomy were analysed as a scientific and methodological basis for cultural heritage education. The concept of klironomical thinking was clarified as a pedagogical and professional category. The key components of klironomical thinking were identified and systematised. The pedagogical conditions for its formation were determined. Finally, a theoretical model of klironomical education aimed at training specialists in preservation, revitalisation and digital heritage was proposed.

The main result of the study is the substantiation of klironomical thinking as an integrated educational outcome. It was shown that this type of thinking includes five interrelated components: cognitive, axiological, methodological, practical and digital. The cognitive component provides an understanding of cultural heritage as a multidimensional historical and cultural phenomenon. The axiological component forms responsibility for cultural value, continuity and preservation. The methodological component develops the ability to analyse heritage phenomena through klironomical categories and principles. The practical component connects theoretical knowledge with professional activity in preservation, interpretation and revitalisation. The digital component enables future specialists to work with contemporary forms of heritage documentation, representation and transmission.

The proposed model demonstrates that these components should not be treated as isolated educational elements. Their effectiveness depends on their integration within a coherent pedagogical process. Klironomical thinking is formed when students acquire not only knowledge about cultural heritage, but also the ability to interpret its meanings, evaluate its value, apply methodological tools, design practical solutions and use digital technologies responsibly. Therefore, cultural heritage education should be organised as a process of gradual formation of professional consciousness, methodological competence and cultural responsibility.

The theoretical contribution of the article lies in developing a pedagogical interpretation of klironomy. The study shows that klironomy can function not only as a science of cultural heritage, but also as a conceptual foundation for educational modelling. This makes it possible to define klironomical education as a specific direction in cultural heritage pedagogy aimed at forming

specialists capable of systemic analysis, value-based judgement and practical work with heritage in changing cultural conditions.

The practical significance of the study consists in the possibility of applying the proposed model in the design of university courses, professional training programmes, interdisciplinary curricula and project-based educational modules. The model may be used in heritage studies, museum studies, restoration education, cultural management, digital humanities, urban revitalisation and cultural policy programmes. It may also serve as a basis for developing learning outcomes, assessment criteria and educational projects aimed at forming klironomical thinking.

At the same time, the study has several limitations. Its results are theoretical and require further empirical verification. The proposed model has not yet been tested in a concrete educational programme, which determines the need for future research. Further studies may include expert evaluation of the model, comparative analysis of existing cultural heritage curricula, pilot implementation in university education and the development of diagnostic tools for assessing the formation of klironomical thinking.

In conclusion, the article demonstrates that klironomical thinking may serve as a conceptual basis for overcoming the fragmentation of cultural heritage education. By integrating cognitive, axiological, methodological, practical and digital components, the proposed model allows cultural heritage education to be understood as a holistic pedagogical process. Such an approach contributes to the formation of specialists who are capable not only of preserving cultural heritage, but also of interpreting, revitalising and transmitting it in the conditions of contemporary social and digital transformation.

Conflict of Interests

The author declares that there is no conflict of interests that could have influenced the objectivity of the study, the interpretation of the results, or the presentation of the conclusions. The article was prepared independently, without external funding, institutional pressure or the involvement of organisations or individuals with a direct financial or personal interest in the outcomes of the research.

The study is based on theoretical analysis, including the author's previous works on klironomy and cultural heritage, as well as relevant international scholarly literature in the fields of heritage studies, cultural heritage education, cultural memory, digital heritage and pedagogy. The use of the author's own previous publications as part of the theoretical corpus is openly stated and is determined by the research aim, which is to develop and theoretically substantiate a pedagogical model for the formation of klironomical thinking on the basis of the concept of klironomy.

The author confirms that the inclusion of these works did not affect the independence of the analysis and does not constitute a financial, institutional or personal conflict of interests. All conclusions presented in the article are the result of independent theoretical interpretation, conceptual systematisation and pedagogical modelling.

Thus, the declaration confirms compliance with the principles of academic integrity, transparency of scholarly publication and ethical standards of academic research.

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