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## **Features and Modern Trends in the Development of Museums within the System of Higher Education**

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*The specificity of museums within the system of higher education lies in a unique combination of museum functions in conjunction with the scientific problems of a research institution. The absence of a clear boundary between the process of learning, the research process and the actual activities of the museum is a unique factor in the process of preparing highly qualified specialists of high school. As an important part of the educational and scientific process museums of higher education have an impact on the socio-cultural development of the region, bringing science to society, culture, and historical interpretation, acquiring the value of a multi-level learning space, a community center with the interaction of various spheres of cultural life. There are enough emerging large-scale projects and programs based on new communication and management technologies that are supported at the national level, but striving to go beyond a certain state in order to improve access to the cultural heritage stored in the collections of university museums around the world. An example is the interdisciplinary study of the collections of university museums in Germany, web organization – POMUI in Italy, a system of regular updates of relevant scientific data and replicating the videos in various educational institutions (USA). Another vector of the modern development of the university museum gives direction to work with visitors, covering interests of various categories and groups, the principle of a multi-layer display.*

*Today, university museums, which are inextricably geographically and ideologically linked with universities, go beyond the campus environment through the use of modern information and technology expositions. In this context, the university museum is unique in its versatility and availability of space for research and education.*

*Keywords: museum, network organization, multifunctionality of university museums, informational support, new means of communication, management technologies.*

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Today, when the world community is transforming social and cultural space with the introduction of new means of communication into the everyday reality, the social significance of museums of higher education is being redefined

in the light of the training of specialists in various fields of activity. As museums occupy a significant place in the system of higher education, being an important part of the educational and scientific process, they create prerequisites for

the development of a network of university museums, as well as contribute to the awareness of the need of interaction between museums. In addition, the relevance of the inter-museum university space is conditioned by the factor of growing influence of university museums in the academic and scientific processes of society, as well as the definition and the impact of space on the socio-cultural development of the region as a whole.

The specificity of university museums lies in the synthesis of museum functions in conjunction with scientific problems of a research institution. The result is that there is a new knowledge based on empirical evidence of the seriousness of the theoretical basis. The uniqueness of this synthesis is that this knowledge gives a true (not distorted) perception of the object of study, excludes fraud and falsification of facts, historical interpretation in terms of education and scientific research. This feature is most relevant in the era of dominance of large amounts of information of different levels and content. Understanding of the subject matter of the collection, its interconnections, theoretical training of a museum worker carries a great level of responsibility on the employees and managers of the modern university museums for safety, quality and contextual description of the cultural heritage to an audience of young researchers, the scientific community and the ordinary visitor.

Another feature of the university museum is the lack of a clear boundary between the process of learning, the research process and the actual activities of the museum. This specificity has historical roots. The first information on the establishment of the university museum refers to 1685, when the Oxford Ashmolean Museum opened a permanent exhibition to the public. Ashmolean Museum was the first successful model of the museum-laboratory, which gained

acceptance in almost every university in Europe. Collections, which served as the basis for its creation, including the naturalist John Tradescant collection, were donated to the University by Elias Ashmole in 1677. Receiving the gift of armchair collections, antiques, coins and other antiquities was typical of universities and colleges up to the 17<sup>th</sup> century. The formation of such gifts of systematic collections related to specific disciplines, laid the foundation for the later establishment of a number of major university museums, which served not only the training function, but also had value for research. These include Sedgwick Museum, University of Cambridge (1727), The Hunterian Museum at the University of Glasgow (1807), Manchester Museum (1888), and numerous less significant collections.

European universities were the first to establish their own museums. In this case, the impetus for their creation was the necessity for teaching and research collections, which can be used in various fields, especially in the natural sciences, anthropology and classical archeology. Over the centuries of its existence, many old museums, as well as younger universities around the world have collected tens of millions of items. These rich collections are usually stored in special facilities and are not only priceless heritage of world culture, but actively working and constantly growing database that allows you to organize the training of highly qualified personnel in different areas of knowledge. Support and openness of the database depends on the university museum: an established cooperation between the universities and museums, based on the rich experience of cooperation, expressed itself in the implementation of joint training, research, exhibitions and other projects, the availability of qualified personnel able to provide training, the presence of the university skilled and material resources for the teaching

of foreign languages, information technology, management, marketing and other necessary modern specialist subjects, the presence of unique museum exhibits and conditions for practical mastering the fundamentals of a particular field of activity. Accordingly, a high school museum is an educational and scientific, research and educational unit of the university, whose main task – taking part in the training of specialists and to improve the forms and methods of teaching and research and education work that promotes the transfer of knowledge concentrated in the expositions, forming a world view of the researcher. As a result educational work becomes an essential element of the modern museum communication. The openness of the modern educational system, a variety of educational programs can be used in an educational museum during non-traditional forms and methods of teaching, to introduce the study of individual disciplines within the framework of a supplementary and basic education. Given the specificity of educational programs, university museums are seamlessly integrated into the educational structure and have the opportunity to represent and develop new courses and forms of learning that not only reflect the results of scientific research, but also for skilled expositions can learn a variety of opinions and approaches, interpretations, discussion points and alternative hypotheses.

Prospects for the development of museums of higher education are closely related to changes in the image of museums, with their transformation into a social institution that stores and provides the necessary information. Computerization of museum activities can be a powerful factor in the preservation of cultural and historical heritage of the individual provinces and regions. It is able to improve some aspects of university museums, improve their social status in general, and to strengthen the teaching and educational function

in the training of specialists in various fields of science.

Current trends and priorities for the development of museums in higher education are the development of innovative methods of work, which include: the introduction of computer and information technologies in the museum space, professional publishing work, the publication of scientific catalogs that allow for greater access to the historical and cultural heritage of the region, the integration into a single science museums and educational space on the basis of regional historical, cultural and natural components. New ways of working are designed to direct the activities of the modern museum in the mainstream of contemporary social and cultural changes in society. As the modern understanding of the functions of the museum is complemented by new forms of museum communication, which do not preclude its traditional components. The museum activities are being expanded, using new means of communication and control, allowing to be plunged into the wonderful world of real things, "reviving" the history and culture of the new target audience, consolidating its status as a laboratory for scientists, apprentices for teachers, modern museum for the visitor.

The need to use new forms of communication and presentation of collections for different target audiences, for both: the scientific community and the ordinary visitor, is dictated by trends in the global cultural space. The involvement of university museums in this process is the most relevant, because they contain unique socio-cultural artifacts and scientific activities. Museum collections at universities reflect existing in the school research directions and tutorials. The result is that certain university museums have collections that are beginning to excel similar gatherings of other museums in their entirety and the scientific component. For example, the University of Pavia (Italy) contains

a collection on physics, collected by Professor Alessandro Volta. The University of Amsterdam has a medical collection gathered by professors of Vrolik family. At the University of Oklahoma there is a collection on the history of science, which is part of the library of the University, which houses 87 thousand volumes published since the 15<sup>th</sup> century to the present day. In this collection there are also biographies of scientists and various illustrative materials on the history of science and reprint reproductions of original research papers.

Taking into account the importance of university museums for scientific, historical, cultural community there is a need for the development of programs and projects based mainly on international partner relationships. The improvement of digital technologies is essential for the growth of the cooperation that can bring substantial benefits to many university museums. At the national level, such a partnership is considered to be a priority in improving the accessibility of cultural heritage and in many European countries, supported by the government, which has the potential to universities and mutually beneficial contacts, including local administrative structures, schools and colleges, as well as providing financial support, which in itself is a powerful incentive for the establishment of various partnerships. In addition, in support of this activity of university museums special foundation organizations are being created for joint projects involving research collections, structuring, and promotion of scholarship. Thus, the project of the exhibition from the collection of Petrie Museum became successful in cooperation between the Petrie Museum of Egyptian Archaeology, and two museums in Croydon and Glasgow. It was a mutually beneficial endeavor for all the parties. The special program gave these museums a unique opportunity to expand the audience through advertisements, marketing and

media responses. As a result, a collection of little-known university was seen by more than ninety thousand people.

In addition, in the last decade there is enough large-scale projects and programs through the use of new means of communication and management technologies that are supported at the national level, but striving to go beyond a certain state in order to improve access to the cultural heritage stored in the collections of university museums around the world. An example is the interdisciplinary study of the collections of university museums in Germany. In 2004, a small group of researchers of the Helmholtz Center, Kulturtechniken interdisciplinary center of the Humboldt University in Berlin, created a project of interdisciplinary research of university collections in Germany [1]. This is the ordering of records and documents of three-dimensional models of the German academic collections and their presentation by means of public Internet multimedia databases. The purpose of this project was to catalog and collect data on university collections, as well as to form the basis for research on the history and origin of collections, the history of science and the material culture of the universities. The project was officially completed in 2009. It resulted in a publicly available database, which has free access to more than thousands of university collections in Germany, as well as providing information on the various groups of objects existing in the collections: chemical material, geological, animals, plants, human remains, artifacts, etc. But after that it was followed by a new project "Material models in teaching and research: indexing, documentation and analysis of the models in the collections of universities" (2010) [2]. This project aims at the development and completion of on-line information system that provides information to researchers at the exhibits from various universities and specialties.

Ordering, registration and documentation of museum objects that are part of the scientific collections, as well as their performance over a public Internet multimedia database is making a constructive contribution to the scientific study of material culture. This model is integrated into an already created information system of university museums and collections in Germany, which gives rise to the creators of the project to identify new targets for the implementation of an interdisciplinary approach to the study of museum objects, and in particular it is planned: by means of the electronic system to provide public access to the cultural heritage stored in private collections; to create a standardized thematic dictionaries for different groups of objects; the development of an integrated information system aimed at a single collection, which will help the museum staff to reduce the time to describe the same type of objects housed in various museums, the creation of an on-line information system connected to the European database (for example, in Europeana, a multi-lingual on-line server with millions of digitized items from European museums, libraries, archives and multi-media collections [3]).

An example of the creation and support of networking based on other principles than in Germany, is a new web organization in Italy – POMUI [4], which brings together all of the existing web portals and websites of Italian university museums and creates a new connection between them in order to improve their general availability. It is intended to serve as a vehicle for information, knowledge and services, emphasizing the uniqueness of each university, presenting its museums on the Internet. The creators of this project noted the need to transform outdated models of museum communication and the need to comply with the current trends of the information society and globalization, as well as a competitive advantage

in the representation of heritage in the use of new means of communication and network organization in the museum industry. According to Italian researchers network cooperation is facilitating access to cultural heritage, as well as to the knowledge and services in the field of culture. Creating a digital network of Italian university museums is relatively simple and practical way to overcome their differences and to promote inter-museum exchanges. POMUI project aims to solve these problems as a horizontal portal, addressed to a wide audience: employees of the museum, museum professionals, students, researchers, scientists, the general public. POMUI serves as a system of access to the cultural heritage of Italy, the collections of university museums, offering participants to create a network of cooperation, dissemination and exchange of historical and cultural, scientific resources intended for the research community. Moreover, POMUI represents a communicative network, as a meeting place for teachers, professors, students, leaders of scientific and cultural institutions, social services. POMUI, a web portal of Italian university museums, creates links between individual institutions and the virtual structure, which is characterized by the uniqueness of the material presented, as well as the ordering of images and centralization of action on the provision of cultural and scientific artifacts. The POMUI creators consider this project as a step towards the creation of a number of interactions across Europe, in particular in the project MICHAEL [5], which is designed to provide quick and easy access to the digital collections of museums, libraries and archives from different European countries, as well as the project Europeana, which gives the opportunity to explore the digital resources of Europe's museums, libraries, archives and audio-visual collections and promotes networking in a multilingual space.

The creation and implementation of such network and electronic projects is being done in many states and countries at different levels. But it is worth noting that the projects are in progress, are being corrected and adjusted. Hence it seems to be promising to develop cooperation and networking between museums communication with the aim of providing access to the world cultural heritage, hidden in university museums.

Another vector of the modern development of the university museum gives direction to work with visitors, covering the needs of different categories of the population. Managers of the modern museums are trying to create a special opportunity to interpret the collection, which consists of various formats that meet different level and type of education of people, the exposure gives the impression of something multi-layered and multi-faceted in order to allow the visitor advance from one level to another. Creativity in the use of advanced information and communication technologies creates conditions that ensure the availability of the museum wider audience. The museum not only opens from the point of view of science and education, but shows the formation of culture and the dialogue of cultures. In search of a new model of representation of its rich collections, the staff of the university museums adjusts principles of exposure and selection of a thematic approach.

The exposure technology in the information society is connected with the modernization of methods, techniques, methods of museum work on the basis of variability, flexibility, openness to innovation. At the same time, the principle of the need for flexibility in pre-given optimal combination of traditional and innovative elements of the museum in contemporary culture. A specificity of the museum's form of communication is that the museum exhibition as a model of reality through concrete museum objects conveys not only the facts, but statements,

views and attitudes. The present level of exposure as the main form of interaction with the visitor determines the need for new, more effective approaches to improve it, which are shown: a change in the methodology of exposure, based on the so-called conceptual approach or "scenarios", involves the development of both scientific and artistic concept of the submitted material, the active use of audiovisual media in the exhibition, which is a method to enhance the emotional impact that helps a modern human, in everyday life of whom similar agents are actively involved and are accustomed, to adapt to the historical and cultural space of the museum.

With rich collections and related exposition centers, having a staff of trained museum educators, natural history museums of universities today are involved in the creation of thematic (system) series of education and training videos. It is therefore sufficient perspective view of their activity (within the association) in the future may be a system for regular updating of relevant scientific data and relevant video information (such systems already exist in the U.S., consumers have access to them by subscription and free). Later the footage which was shot at "museum" studios can be replicated in a variety of educational institutions, as well as used in popular educational television programs.

University museums on the basis of their exhibitions actively create traveling exhibits and printed materials, participate in the formation of permanent columns in local papers and special collections of the museum, museum workers conduct educational activities as lectures and teaching, and research work.

Today, university museums are inextricably linked geographically and ideologically with universities beyond the campus environment through the use of modern information and technology expositions. Museums in universities acquire not only the status of the scientific

institution, but also actively participate in the social processes, bringing science to society, culture, and historical interpretation, gaining the value of a multi-layer learning space, community

center with the interaction of various spheres of cultural life. In this context, the university museum is unique in its versatility and availability of space for research and education.

### References

1. Cornelia Weber (2010). Material models as recorders of academic communities: A new project on university collections in Germany University Museums and Collections as Recorders of Cultural and Natural Communities Worldwide. Proceedings of the 10th Conference of the International Committee of ICOM for University Museum and Collections (UMAC), Shanghai, China, 7th – 12th November 2010, pp. 65-72.
2. Universitätssammlungen in Deutschland (2012), Available at: [www.universitaetssammlungen.de/modelle](http://www.universitaetssammlungen.de/modelle) (accessed 10.09.2012).
3. Evropeana think culture (2012), Available at: [www.europeana.eu/portal/](http://www.europeana.eu/portal/) (accessed 10.09.2012).
4. Elena Corradini POMUI. The web portal of Italian university museums. University Museums and Collections as Recorders of Cultural and Natural Communities Worldwide. Proceedings of the 10th Conference of the International Committee of ICOM for University Museum and Collections (UMAC), Shanghai, China, 7th – 12th November 2010, pp. 77-84.
5. Michal-culture (2012), Available at: [www.michael-culture.org](http://www.michael-culture.org) (accessed 12.06.2012).

## Особенности и современные тенденции в развитии музеев системы высшего образования

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*Особенность музеев системы высшего образования заключается в уникальном сочетании музейных функций в совокупности с научной проблематикой научно-исследовательского учреждения. Отсутствие четкой границы между процессом обучения, процессом исследования и собственно музейной деятельностью является уникальным фактором, влияющим на процесс подготовки высококвалифицированных специалистов высшей школы. Являясь важной частью учебного и научного процесса, музеи высшей школы оказывают влияние на социокультурное развитие региона, привнося в развитие общества науку, культуру, историческую интерпретацию, приобретая значение многоуровневого учебного пространства, общественного центра, где происходит взаимодействие различных сфер культурной жизни. Появляются достаточно масштабные проекты и программы на основе использования новых средств коммуникации и управленческих технологий, поддерживаемые на национальном уровне, но стремящиеся выйти за пределы определенного государства с целью повышения доступности культурного наследия, хранящегося в фондах университетских музеев по всему миру. Примером может послужить междисциплинарное*

*исследование коллекций университетских музеев в Германии, веб-организация – ROMUI в Италии, система регулярного обновления профильных научных данных и тиражирование видеоматериалов в различные учебные заведения (США). Еще один вектор современного развития университетского музея задает направление в работе с посетителями, охватывающее интересы различных категорий и групп населения, принцип многослойности экспозиции.*

*Сегодня университетские музеи, неразрывно связанные и территориально, и идеологически с университетами, выходят за пределы университетской среды за счет использования современных информационных и экспозиционных технологий. В таком контексте университетский музей становится уникальным по своей многофункциональности и доступности местом для исследовательской и просветительской работы.*

*Ключевые слова: музей, сетевая организация, полифункциональность университетских музеев, информатизация, новые средства коммуникации, управленческие технологии.*

*Научная специальность: 24.00.00 – культурология.*

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