

Experience of Conservation Laboratory of Anatolian Civilizations Museum

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Anatolian Civilization Museum which is established in a constellation of Ankara Castle by the suggestion of Atatürk in 1921 during the most pessimistic period of the national struggle has been among the leading museums all over the world by its unique collections, unit and events.

The first effective protection works in the Anatolian Civilizations Museum begins with the formation of an additional place in order to prepare Çatalhöyük Mural Paintings for exhibiting following the restoration of Kurşunlu Han where the administration staff of the museum settles down in 1968. Mural paintings removed from Çatalhöyük excavation site were brought to Ankara during 1962 – 1963 and some part of this mural paintings were restored by Pamela Pratt French in this conservation workshop during the years of 1969 – 1972 – 1973. In order to prepare the wooden objects obtained from the Gordion Tumulus belonging to the Phrygian Period for exhibiting them, this conservation workshop began to develop as equipment and gained movement by the initiation of the Gordion Wooden Objects Conservation Project under the presidency of Elizabeth Simpson in 1982.

Since 1990, this conservation workshop has been in development process; and it has reached an undeniable standard as a museum laboratory by gaining its conservation laboratory identity in terms of both knowledge and experience through national / international projects and grant programs that it has executed/ to which it has attended.

Conservation Laboratory that has the characteristic of being the only museum protection unit of our Country working actively also provides restoration conservation service for the artifacts belonging to the museums and excavation sites throughout Anatolia as well as the collections of Anatolian Civilizations Museum and artifacts belonging to the excavations; and it has the characteristics of Central Laboratory by this feature of it.

I would like to list the important stages of the professional improvement and practices that could be set as an example of the Conservation Laboratory of Anatolian Civilizations;

❖ Personnel who received conservation training is employed.

While the restorations were being performed by those who have manual skills in 1980s, personnel who have received conservation training by various intervals or a professional course have begun to be employed since 1992. It currently consists of totally 13 people; 4 Chemist – Conservators, vocational school conservation program graduates 6 Restorer – Conservators, 1 Ceramist – Conservator, 1 Sculptor – Conservator and 1 Painting Restorer.

❖ Laboratory prepared its own manifest.

Although it is not stated in the Internal Service Regulations of the Museums and Museum Studies Guidance, the personnel of laboratory determined their scope of duties by making the Professional definition; It declared by making announcement to the administration of the museum as below that it would provide service under this responsibility.

- Performing diagnostic examination on the Cultural Properties by nondestructive methods,
- Making documentation about the current state of the Cultural Properties and during each stage of the effective and preventive protection practice applied on them,
- Determining the protection method and material for the Cultural Properties,
- Planning and practicing the protection process to be applied on the Cultural Properties
- Planning and applying the preventive protection applications necessary for the constant and effective protection of the Cultural Properties,
- Finding the decomposition reasons of the Cultural Properties by observing them in their environment periodically, and following the performance of the further action by making precaution planning.

❖ Archive has begun to be created.

Documentation cards are made for each object subjected to the effective conservation process in the laboratory. These cards consists of minute number, laboratory number, laboratory entrance – exit dates, pretreatment state, treatments performed and the state after the treatment, practitioner and conservation information as well as the inventory information belonging to the object. All images (drawing – photography – radiography), measurement, examination and analysis information taken before the treatment, after the treatment and during the treatment are filed with this card. There was a conservation archive consisting of laboratory treatment card of the artifacts over 25.000 pieces formed until the end of 2009. It is a fact that this archive which I believe that it would be discussed on artifact basis or collectively in the future is very important in terms of the development of the conservation science in our country. Therefore the works to digitize this archive on database were initiated in 2009.

❖ Working Arrangement has been made.

It is needed to make a working arrangement in terms of the workload of our laboratory and the value given to the object on which a study is performed. According to this;

- The artifact is accepted to the laboratory by an official minute or official letter. The document shall be added to the minutes archive.
- The artifact will be examined by the personnel of the laboratory, the personnel who would work on it shall be assigned and the relevant personnel shall open a laboratory treatment card for the relevant artifact/ artifacts.
- The current state of the artifact shall be explained and documented. Therefore the data such as the drawing, photography, X – Ray Radiography image and analysis information and the dimensional and weighting measures shall be taken, and the observations related to the decomposition types shall be recorded onto the card.

- Conservation works shall be initiated. During each stage of these works, data shall be taken by all or several of the above – mentioned methods, and the documentation shall be made and recorded onto the card in chronological order.
- Conservation process shall be completed by performing packaging process especially on the metal pieces or pieces to be kept in the depot. Data regarding the current state of the piece shall be enclosed to its file by being recorded onto the card again.
- The artifact shall be delivered by writing the conservation suggestions onto the card or by its being reported if considered necessary and over an official minute again.

❖ Turk – Japan Information and Technology Exchange Project:

A synergy project oriented to the comparison of the conservation techniques applied in Japan and Turkey was carried out between 1993 – 1998 on the matters of especially the conservation of the museum objects by the supports of Japan Foundation and by the participation of the specialists and laboratory personnel from Fine Arts Department of Tokyo National University, Art and Design Department of Tohoku University and Tokyo National Museum. Not only the laboratory is reinforced in terms of equipment but also it is achieved for laboratory personnel to increase its fund of knowledge by examining the decomposition processes on the objects made up from different materials and making comparison between different conservation applications by this project.

❖ Cultural Grant Program of Japanese Government:

As a result of the application made to the Japanese Cultural Grant Program in 2002, Laboratory of Anatolian Civilizations Museum was chosen among the important institutions of Turkey to receive this equipment – oriented support. After a process lasting for 3 years, devices and materials at the value of totally 33,4 million Japanese Yen New (over 500.000 TL) was granted to the Anatolian Civilizations Museum. These equipments consist of devices that could ensure the protection of our cultural properties by making Conservation Laboratory to provide better restoration and conservation service proper to the today's technology and that could enable to make research on the cultural properties, and the sound and video devices for preparing and presenting the presentations to the visitors of the museum on the field of introduction and training. The laboratory has reached up to the competence to make physical examinations of the archeological objects by the various microscopes procured especially by being X – Ray Radiograph Monitoring System through this program.

❖ International Atomic Energy Agency (IAEA) Project:

Sarayköy Nuclear Training and Research Center (SANAEM) and Conservation Laboratory of Anatolian Civilizations Museum took part in the regional project supported by IAEA and titled "Nuclear Techniques for the Protection of the Cultural Heritage in Mediterranean Region, RER/1/006" in 2005. The purpose of the project was to intensify and generalize the interests and works of the institutions and people who have experience and knowledge on the nuclear field on the matter of the protection and identification of the cultural properties, and to form a standard and proficiency on the matter of the examination techniques made on the Cultural Properties as well as creating cooperation between the institutions. Workshops are held by the coordination meetings where the events are determined, group training courses, proficiency tests, scientific visits, and requests of the specialists, national and regional common studies within the scope of this project. The project has continued to be lasted by being expanded in a way to be within the scope of the Europe since 2009 by means of the achieved positive results.

❖ Cooperation Protocol made with Turkish Atomic Energy Authority (TAEK):

Nowadays, conservation understanding consists of documentation, practice and precautions required a scientific procedure to be followed and related to the protection of the cultural properties within its own ethical rules. Research and analyses oriented to the determination and diagnosis are inevitable methods necessary to be applied to each stage of this conservation procedure.

The most significant difference between the chemical and physical analyses of the Cultural Properties and other analyses is that the analysis does not lead to any damage on the cultural properties as far as possible. Therefore analysis method is important. In recent years, nondestructive analysis methods are developed and their usage on the cultural properties becomes widespread. Even in many developed countries, nondestructive examination methods are the integral part of the conservation stages especially during the documentation, diagnosis and practice stages on the processes of the protection of the historical artifacts.

SANAEM – Anatolian Civilizations Museum Conservation Laboratory cooperation brought to the agenda by UAEA project signed a protocol titled “Usage of the Nuclear Techniques in the Examination and Protection of the Cultural Properties” between Ministry of Culture and Tourism (KTB) and TAEK in 2007 in order to make the studies that are being performed sustainable and make them become widespread by officializing the cooperation without depending on the people.

The scope of this protocol consisting of 11 articles shall be to provide support to the analysis needs of the institutions affiliated to the Ministry of Culture and Tourism by the specialist personnel and equipment infrastructure of TAEK – SANAEM on the matter of the documentation, examination and protection of the Cultural Properties. The purposes of this protocol arranging the official parts of the cooperation could be listed as below;

- Initiating and spreading the usage of the nondestructive, rapid, reliable analytical techniques on the protection of the Cultural Properties which is one of the inevitable part of the protection science,
- Providing an opportunity to complete the necessary scientific procedure by filling a gap on the field of the protection of the cultural properties and to take an important step towards making our country which is among the limited number of countries all over the world in terms of the abundance of cultural properties to the reach up to the level that it deserves on the field of protection,
- Nondestructive analysis methods require independently the specialty and they are performed by high cost instruments. It requires such an important amount of Money and human resource that procuring for our ministry the usage and spread of these techniques without any need to make important investments,
- removing the dependence on the abroad on the matter of the examination of the Cultural Properties,
- Training specialists working on the field of examination and protection of the Cultural Properties within the structure of KTB and TAEK.

By this cooperation that has been lasted for over two years:

- Chemical Analysis Need regarding the Routine Conservation Service is met.

Since their formation, the Cultural Properties enter into the process of decomposition by being exposed to the different environmental conditions. Determination of the original material, both the current state of the material and the determination of their decomposition processes and products have a critical importance in terms of both the documentation and the methodology of the conservation processes. Therefore Conservation Laboratory of Anatolian Civilizations Museum receives support from SANAEM in a manner to bring portable devices (especially portable XRF: X-Ray Fluorescence Spectrometer) to the museum and sometimes to bring an object or the sample to the research center.

- It is benefited from the cooperation in the Protection Projects in which Anatolian Civilizations Museum takes part.

Especially “Pigment Analysis on Çatalhöyük Mural Paintings” work among these works is remarkable in terms of the museum carried out its own scientific research on a group from the own collection of the museum and a specialist from abroad was assigned to work in this research.

- Research Works required by the Local and Foreign Scientists:

Research works were performed by the assistant professors from various universities and excavation foremen on the objects both belonging to the collection of our museum and the findings of the excavation. Remarkable ones of them could be listed as; soil mixture analysis used for restoration purpose on Diyarbakır rampart walls, Analyses of Alacahöyük gold – iron Dagger, Metal Tablet Analysis, Initial Analyses of Gordion Metal Objects.

Analysis and identification works of the Mural Paintings found in Gordion excavation site and metal objects belonging to the Karun Treasures in Uşak University were planned as well as lasting the work of Analysis of Alacahöyük Metals initiated by the leadership of Prof. Ünsal Yalçın in 2009 available in the Collections of the Anatolian Civilizations Museum.

C – 14 Dating Unit was established within the structure of SANAEM by the expansion, synergy brought by the cooperation and the supports of TAEK officials. In this unit that begins to operate by making relevant personnel to have training on the matter of dating on the cultural properties, as a first work, C – 14 dating was performed on Female Mummy available in Karaman Museum and it is reported.

These cooperation works executed with the coordination of the Laboratory of Anatolian Civilizations Museum has increased both the research capacity of the laboratory and protection service standard that it provides as well as making Conservation Laboratory become an application institution in the identification of the cultural properties.

Archeo-metric works performed within the scope of cooperation protocol were presented and published in various platforms inland and abroad.

❖ Effective Protection Practices:

Effective protection, in other words Conservation is generally determining the reasons and impacts leading to the decomposition of the cultural properties, and it is finding and applying the necessary best protection methods. As well as requiring to have a knowledge about the relevant matters regarding various disciplines, the conservation is a discipline requiring to have knowledge on the arts, aesthetic and technology matters of the history and which has a very wide scope requiring common sense, manual skill and visual memory. In today's sense, conservation has expanded its scope further and it is even divided into many sub – groups within itself; it has lead those interested in this work to be specialist on certain matters.

Conservation Laboratory of Anatolian Civilizations Museum becomes specialized in the full protection works (site protection, emergency actions, lifting the objects from the ground safely, physical – chemical examination, cleaning, reinforcement, intensification, combination, completion, stabilization, coating, packaging and preparing for exhibition or depot) of especially the archeological materials by its trained and experienced personnel.

Conservation Laboratory performs and documents complete conservation works of the movable cultural properties between 1500 and 2000 annually. Therefore while physical examinations are performed by X – Ray Monitoring System and Stereo Microscopes, the protocol signed with TAEK is used in the chemical examinations. Micro – sand blasting is used with the various mechanic equipments and chemicals for cleaning purpose. Reinforcement and stabilization are performed in vacuum tank according to the condition of the object. The object whose effective conservation works are completed is packaged; and this practice is developed and becomes routine in our laboratory. The artifact will be vacuumed in a transparent bag made up from polyethylene or a micro – climate is procured for the object by closing it completely with oxygen and acetone inert materials,

❖ Preventive Protection Practices:

Laboratory of Anatolian Civilizations Museum perform measurements on the points and rooms determined within a plan in the museum buildings by a data logger device (devices making humidity and temperature measurement and recording it) in the showroom and artifact depots (Picture 8). Data within the data logger device are transferred to the database by this work carried out incrementally with the available device number; mapping and determination studies related to the change of humidity is performed by daily – monthly and seasonal humidity – temperature relation. According to the data obtained during this study, preventive protection interventions such as weather stripping, keeping the objects in a cupboard are performed.

Annual cleanup works of the inner parts of the showcases in the showroom are performed by the laboratory for preventive protection purpose; and the artifacts exhibited by this work are reviewed each year and the arrangement and effective protection interventions needed by them are performed. Apart from them, show cases of the showroom and artifacts exhibited in open area are fixed as a precaution to any shake.

❖ Other works:

Conservation Laboratory of Anatolian Civilizations Museum meets the need for a specialist to control the storage and exhibition environments in the other museums affiliated to the Ministry of Culture and Tourism and the environment in which cultural properties exists as well as the effective protection works of all archeological pieces in the excavations.

Students receiving education in the schools providing 2 or 4 years conservation education under the protection – restoration name and the departments of archeology art history or graduate students are provided with an apprenticeship opportunity in the laboratory.

Specialists of the laboratory both give seminar on the matter of the importance of the promotion and protection of the cultural properties and their protection methods and take part in the inland and abroad organizations organized on these fields.

Conservation Laboratory of Anatolian Civilizations Museum perceives all these summarized works and responsibilities with an amateur spirit but with a professional approach. It has increased the standard of the service that it provides with constant self – improvement efforts within the bounds of possibility. It undertakes an important mission in this sense since it is one of the limited units in our country on the field of the Protection of the Cultural Properties.