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Protection of objects from the Collection of Musical Instruments at the Ethnographic Museum in Zagreb

In the paper the author approaches the problem of protection of musical instruments as museum objects at the Ethnographic Museum in Zagreb in a theoretical way, taking constantly into account practical appliance of theoretical premises and choosing examples from practice. As professional literature translated into the Croatian language has not so far published a text which deals with practical ways of protecting musical instruments in museums, this paper discusses theoretical premises of international museological and ethno musicological organizations.

Keywords: Ethnographic Museum (Zagreb)
Collection of musical instruments, physical protection of objects, documentation

Short description of the Collection of musical instruments and the Collection of musical instruments of Franjo Ksaver Kuhač

There exist two collections of musical instruments in the Ethnographic Museum Zagreb. The Collection of musical instruments of Franjo Ksaver Kuhač has been in custody at the Museum since November 7th 1920, as property of the Croatian Music Institute in Zagreb, while the second Collection of musical instrument started to fill in from 1921 on, right after the foundation of the Ethnographic Museum and along the way with the foundation of the Department for Folk Music[1]. It is the property of the Ethnographic Museum.

1 The Department for Folk Music existed in the Museum from 1921 to 1945. Part of the collected

Franjo Ksaver Kuhač was born in Osijek in 1834 and died in 1911. He is considered one of the most versatile explorers of Croatian folk music who with his work put "…the foundation for the development of Croatian science of music and was ranked among the most prominent Croatian scientists of the second half of the nineteenth century" (Marošević 2009: 237). Between 1857 and 1886 he was gathering musical instruments for his collection through field research on the territory of Croatia, and also in the broader area of the Balkans, enveloping almost all the countries of the Slavic south. The collection of fifty-eight pieces in total makes the Kuhač collection extremely important for the Museum, in the same time offering the opportunity to get to know, reconstruct and preserve the Croatian traditional musical heritage in general. The importance does not lie solely in the fact that these are the oldest specimen, some of which are over 250 old, but also because particular objects point at the continuity of musical traditions in a particular area. Such is the example of *bordunske dvojnice* – the bourdon double flute (of the inventory number POH.465/1920) with the finger-hole arrangement 6:0, which points to the usage of bourdon two-part playing in Bukovac as a specific way of playing the instrument in which one part produces a flat constant tone, while the other plays the melody of a small range. *Dvojnice* (double flute) from Žminj in Istria are also of great importance, because the instrument proves the use of a thumb-hole as early as in 1882 (the finger-hole arrangement for playing the melody being 4:3, POH-463/1920) (comp. Galin 1984: 12). *Trojke* – the triple flute from Hrvatsko Zagorje (POH-461/1920) can very rarely be found in use today, as is the case with *orgljice* – a xirinx (POH-467/1920), a night-watch horn from Slavonia (POH-436/1920) or *bučina* – a gourd trumpet from Slavonia (POH-437/1920, POH-438/1920). In 1886 Kuhač sold his collection of musical instruments to the Croatian Music Institute. Only a year after the foundation of the Ethnographic Museum Zagreb, the Croatian Music Institute entrusted the Kuhač collection to the Museum in permanent custody. Instruments belonging to this collection have been signed with inventory numbers from POH-416/1920 to POH-468/1920 (Fig. 1/p. 338). Kuhač published detailed data of his field research in his "Prilog za poviest glasbe južnoslavjenske: kulturno historijska studija" (Contributions to the history of South-Slavic music: a cultural-historic study) (1877-1879, 1882).

material was then transferred from the Department into the newly founded Institute for folk art. The Collection of musical instruments, which had already existed as independent unit, remained in the Museum.

Collection of musical instruments in property of the Ethnographic Museum consists of about 550 traditional instruments which are made by self-taught village craftsmen and semiskilled craftsmen. Instruments were made and decorated in various techniques, and were played in their original context during different social events. The majority of items belong to the period from the mid-nineteenth century to the end of the twentieth century. Instruments were collected on the territory of the whole Slavic south and also in the broader area. Therefore, along with specimens from Croatia which prevail, the collection also comprises instruments from Bosnia and Herzegovina, Slovenia, Macedonia, Albania, Serbia, Montenegro, Bulgaria, Kosovo, and even from Poland. We can divide instruments in categories according to the internationally accepted scientific HS-classification[2] into aerophone, chordophone, membranophone and idiophone instruments. Among aerophones we can find the simplest specimen as *rogovi* (animal horns), *bučine* (gourd trumpets) and *trube* (trumpets made of tree bark) (Fig. 2/p. 339), also single and double flutes usually made by shepherds for their own entertainment. By the end of the nineteenth century such instruments could be heard on the whole territory of Croatia. *Sopile, roženice* (double-reed woodwind instruments of oboe-type) and *šurle* (reed pipes) are instruments characteristic for Istria, Croatian Littoral and Quarnero Islands. They were made by local musical instrument builders and were usually played as accompaniment to the dance. *Diple* are reed pipes with clarinet-type reeds. They can be played as such, or can be attached to the bag made of a goat or sheep skin which serves as an air reservoir, therefore composing a new type of instrument – *mješnice, mišnice, gajde* or *dude* (various types of bagpipes). *Mješnice* are the simplest, they have only *prebiralica* (a chanter) and a short blow pipe for inbreathing the air into the bag, while *gajde* and *dude* have *prebiralica* and additional long pipes for playing the bourdon tone. *Dude* has also a separate *mijeh* (bellows) for blowing the air into the bag. While playing these instruments, the player can occasionally sing, while he presses on the bag and plays the chanter. Among chordophones the largest in number are *gusle* – fiddles with one or two strings over a sound-box covered with a thin animal skin. *Gusle* are the characteristics of a Dinaric cultural area, to the difference of *lirica*, which is found in southern parts of Dalmatia. *Lirica* (Fig. 5/p. 339) has a pear-shaped body,

2 In mid-1960s the International Council for Traditional Music (ICTM) of UNESCO's officially accepted the classification of musical instruments by Erich M. von Hornbostel and Curt Sachs. Their classification was taken over by a large number of researchers and museums which poses collections of musical instruments.

three strings and a bow, the player accompanying a group of dancers. While the Museum Collection comprises about fifty specimen of *gusle*, the number of *lirice* is much smaller – only 11 items. *Tamburica* (tamburitza, tamboura, a long-necked lute) is far the most popular "folk" string instrument in Croatia today. Collection includes many members of the *tamburica* family: small *bisernice* and *dangubice* for the solo playing, somewhat bigger *bugarije* and *tambure* and *berde* – a bass. These instruments can be played in small groups, but they can also compose whole orchestras. Two *šargije*, long- necked lutes from Bosnia, are also present in the chordophone part of the collection. The smallest is the group of membranophones: there are only two smaller drums from the territory of Croatia, while the group of idiophones consists of about twenty items. These are mostly rattles which were used as signal music in the Carnival period of time, or during the last three days of Lent before Easter, when they announced the time for the church service. Beside a musicological worth, many instruments bear an artistic value as well, because self-taught craftsmen decorated them according the tradition of their region. Thus single and double flutes are usually ornamented in an intricate geometrical pattern done in techniques of wood-carving. Wood burning was the decoration technique used in some regions. *Diple* are ornamented in wood-carving technique named *rovašenje*, while a stylized human head is usually carved on the upper part. Decoration on bagpipes is made by incrustation of smelted lead or tin. *Tambure* are mostly ornamented with inlaid wood and sometimes with mother-of-pearl or bone. Vegetal and animal motives are often found here. *Gusle* definitely bear the richest decoration: their sound-box and neck are usually covered with a carved dense geometrical ornament, while the end of the neck is cut in the form of a plastically shaped head of an animal (a horse, a chamois, a bird) or a man; sometimes a whole human figure is shaped out. Beside these, other animals can be found on the neck and the sound-box of *gusle*, for ex. a snake or a lizard, which points at a magical component in the folk creation (comp. the web page of the Ethnographic Museum under construction).

With its contents, the Collection of musical instruments bears witness to Croatian traditional musical heritage and the intertwining of different cultures on the territory of the whole country.[3] This is why we can recognize influences of Slavic, Balkanic and Mediterranean cultures in Croatian musical culture. Beside hand-made traditional musical instruments, made by local craftsmen and

3 About traditional musical instruments from the Ethnographic Museum in Zagreb see more: Bezić et al. 1975, Randić 2007.

used exclusively for playing folk music, the Collection also keeps folklorized instruments accepted from so-called artistic music, as are for example the already mentioned violin, harmonica and guitar. Although made by professional musical instrument builders, these instruments are used in folk music.

Protection of musical instruments in the Ethnographic Museum Zagreb

According to Maroević: "Protection of museum objects, groups of objects or museum collective funds, represents one of the basic segments of the museum activity and is a specific way of protecting the cultural as well as the natural heritage" (1993: 170). Furthermore, Maroević refers to Peter van Mensch's terms: "*idealistic and materialistic protection*". Accordingly, "materialistic … protection is the one which is manifested in protecting the material of objects of the heritage and their features, while the idealistic protection deals with keeping the ideas deposited in the material world through other media" (Ibid). In museums, conservators and restorers deal with the "materialistic protection" under the expertly guidance of a curator, while curators and documentalists deal with the "idealistic" one. Moreover, basic duties of a curator are, beside the physical protection of objects itself, also the research and communication through exhibition and publishing activity. Curators therefore have to understand the nature of physical characteristics of objects, the influence of the physical state to the change of the object's significance, and the fact that it is important to consider the place in the museum where the object has been permanently stored.

Musical instruments have been kept and stored in the Ethnographic Museum under the same conditions, in joint rooms with various other kinds of objects, which had noticeable usability in their primary context. However, there exists an essential difference between musical instruments and other kinds of objects, and this is the production of the sound, the melody. Sound is precisely their primary aesthetic component and the reason why the instrument has been made. This is the reason why, while taking care of the material of which the instrument has been made (the ornament, the artistic component), it is important to preserve its sound as well.[4] However, musical instruments have been restored in the Museum in the way that attention is focussed on

4 About interpretation and protection of musical instruments from Museum collections see more: Birley et al. 1998, Myers 1989.

one segment only, this usually being the material of which the instrument was made, and its shape. For example, the wood used to make the resonance box of the cimbalom, which is placed on its wooden legs, may – after a long storing in inadequate conditions – become too dry and deformed. The appearance of the instrument can be improved and adjusted by putting it on a pedestal, or by fixing its legs with appropriate tools. However, its sound will be completely altered. Attention should also be paid to the choice of paint or varnish used for smearing wooden instruments in order not to lose authenticity. It is also important to keep optimal conditions of custody in the storage of musical instruments in accordance with standards and regulations concerning the preservation of objects in museums. Due to the lack of space, musical instruments in the Museum storage are hard of access, what can jeopardize them and hamper any research work. In such circumstances it is very difficult to strictly observe regulations of the Law of protection and preservation of cultural goods and various guidelines for physical protection of musical instruments. According to the fact that new working and storage premises have been planned for the Museum, in this paper I shall deal with physical protection[5] of musical instruments in the Ethnographic Museum, taking into account professional literature concerning the work on protection of musical instruments and their documentation.

Physical protection

A preventive protection which understands the creation of favourable conditions for permanent preservation of museum objects in museum storages, exhibition premises, as well as in research premises, should precede entering the object into the museum. However, there usually exists a large disproportion between the praxis and theoretical postulates implying ideal conditions, so regulations prescribed by the law are not always easy to carry through. It should nevertheless be taken into consideration that inhospitable conditions

5 As a theoretical basis for physical protection of musical instruments in museums I shall refer to the book written by the museologist Ivo Maroević "Introduction into Museology" and editions of international museological and ethno-musicological organizations: "Recommendations for Regulating the Access to Musical Instruments in Public Collections" (see Barclay et al. 1985), "Recommendations for the Conservation of Musical Instruments" (see Barclay et al. 1993) and the book "The Care of Historic Musical Instruments" (Barclay ed. 2005). All three titles are available in e-version edited by CIMCIM – International Committee for Museums and Collections of Musical Instruments.

speed up the process of decay of the material, and if early actions are undertaken in premises, it is possible to diminish the frequency of decomposition of whole musical instruments or their parts. Due to already mentioned lack of space and financial funds, the storage in which musical instruments are kept in the Ethnographic Museum is almost filled up with different objects. Musical instruments are arranged in wooden cases with glass doors, often piled up one over the other. Most musical instruments are made of wood, therefore the primary role of museum restorers is to preserve the instrument from worm-hole, which can easily be spread and if it affects one instrument, it can jeopardize others. Regular deratization of premises is essential as protection from a rodent, which has been carried out in the Museum every several months. Regular cleaning of objects is being more difficult because of their cramped condition. Non-regular cleaning allows dust particles to settle on musical instruments which can cause abrasion and dissipation of all surfaces. These facts point at the necessity to enlarge museum storages in order to enable proper custody and protection of objects. At the same time the space should remain passable and clean. In the near future the Ethnographic Museum will undergo an adaptation of the building. It is expected that reconstruction will not affect only working and exhibition premises, but will include storages as well.

The largest part of musical instruments (aerophones) kept in the Ethnographic Museum is made of wood. A smaller number is created by combining wood and animal skin. Membranophones are mostly made of wood and animal skin, while for production of particular kinds of horns, animal horn and bone are used. Chordophone instruments are made of wood and animal skin, with metal, animal or plastic strings, while wood and, usually, animal hair is used for bows. *Trstenice* (pan flutes) and some kinds of trumpets are made of organic material, parts of cane, tree-bark or gourd (Fig. 3/p. 339). In order to satisfy the basic assumption of preventing the decay of various materials of which instruments are made and thus deter the wasting away of museum objects, it would be desirable that museum storages meet the following: "… quality crypto-climatic conditions, quality and stable relation between temperature and relative air humidity, and good protection of museum objects from light and polluted air" (Maroević 1993: 175). Here "…ideal crypto-climatic conditions should be a temperature from 18-22°C and 50-60% of relative humidity during the year, 24 hours a day…"(Ibid). Particular materials, like metal, for example, of which only one trumpet has been made in the Collection of musical instruments, do not have to follow the proscribed

standards, according to the fact that metal is somewhat differently treated than other kinds of material. Metal needs a dry surrounding in order to slow down the process of corrosion, while the same surrounding may cause drying out of organic material. This is the reason why metal musical instruments should best be stored in separate premises under special conditions. Protective layers are a simpler solution for this problem than construction of partitions. Bearing in mind the fragility of musical instruments, special attention should be paid to conditions in future storages, in order to preserve the look but also the sound of the instrument. At least twice as much space is needed for musical instruments than they occupy for the moment. The space should be doubled and wooden cases replaced with metal ones, with the interior adapted to the shape and construction of the instruments. Wooden blowing instruments should be placed in cases horizontally on soft, elastic pads, while the chordophones should be placed in a gently vertical position, with protective pads on the upper and bottom parts of the instrument, namely under the part on which the instrument leans to the surface. It would be desirable to ensure a working space in the premise in order to avoid shifting of musical instruments. The space should be fitted out with a computer, a camera and audiovisual equipment for recording the sound. The sound-recording is namely an important part in preserving the instrument in the whole.

Today in urban and rural environment air is often polluted with sulphuric and nitric dioxide, what has a very harmful impact on organic and inorganic matters. This situation is recognized as a big problem in museums (Barclay et al. 2005). Air which circulates through storages of musical instruments may be full of sulphuric dioxide which is very harmful upon organic matter like animal skin, tree-bark and paper, and also of nitric dioxide which has a very harmful impact on textile. Therefore M. Cassar and R. L. Barclay suggest installing filters into airing system of the building in order to preserve the premises from poisonous gasses and particles from the air. Such protective systems are considerably expensive and their installation is often very complex, thus larger financial means should be provided for such interventions. Installing of textile fabric with the capacity of absorbing polluted particles from the air is somewhat more affordable (Barclay et al. 2005: chapter 2.2.). In storages of the Ethnographic Museum hygrometers are installed for measuring the humidity of the air, while pressure in the room is equalized by airing the premises.

Fabrication of replicas is also a very important way in protecting museum

exhibits. They are used for communication with the public. Ivo Maroević quotes Peter van Mensch (1992) who distinguishes "four kinds of duplicates (or copies) of museum objects" which are used:
- as educational or artistic exercise
- for research needs
- as didactic tool
- as substitution for a fragile original, or if the original lacks" (Maroević 1993: 264).

Likewise, Maroević lists copies of musical instruments among museum objects, considering them equal elements.

Copies of musical instruments have not so far been made in the Ethnographic Museum, mostly because of the lack of financial funds. Instead of this, musical instruments are being "salvaged" according to the photograph or following curator's suggestions in Museum's restoring premises for wood, ceramics and metal. This is the reason why musicians and instrument players who are engaged in educative musical workshops for children and adults, bring their own instruments.

In 1985 CIMCIM published *Recommendations for Regulating the Access to Musical Instruments in Public Collections*, where tasks of museums and public collections have been defined (see Barclay et al. 1985). A great responsibility of museum institutions is pointed out here, which should be brought about not only through physical protection, but in various research-works into musical instruments with the goal of widening scientific and professional information. According to the mentioned CIMCIM Recommendations, museums should represent a kind of bridge between modern builders of musical instruments, instrument players, research-workers and all individuals interested in music and musical instruments on one side, and persons whose work is built into collections of musical instruments and presented at museum exhibitions and workshops, on the other. In the following part of my paper I intend to refer to further protection of musical instruments through creating museum documentation.

Documentation

Documentation is a basic way of protecting every object which enters the museum and it follows all undertaken measures of protection. It achieves its highest sense of purpose when simultaneously protecting the unity of mate-

rial, shape and meaning of every museum object (Maroević 1993). The majority of musical instruments entered the Museum for the permanent stay, and every specimen got its accompanying primary documentation. Primary documentation comprises the largest group of information on the object, while data thus acquired are the result of evidencing, analysis and interpretation of the object, done by the curator. In such a way every object gets in fact its "identity card" on the basis of which it can be identified. As the majority of musical instruments were gathered in the course of field-work research, their documentation comprises the following data: time and place of manufacturing, name of the person who made the instrument, name of the person who inherited it, kind of material of which the object was made, kind of tools used in manufacturing, and also which were the occasions when the instrument was used. Sometimes it is impossible to get all these pieces of information, so the card file remains uncompleted.

Today the processing of museum objects is carried out by entering all data into inventory and catalogue cards of the computer program named M++. The computer basis is non-specific, adapted to various objects in possession of the Ethnographic Museum. Therefore there is no particular section where the already mentioned HS mark can be entered, together with the appropriate number or classification sign for the type of instrument, and its constructive and acoustic characteristics.

In his master's work "*Aerophone and idiophone instruments in Croatia in the first half of the twentieth century*", the ethno-musicologist and ethno-organologist Krešimir Galin deals intensively with the question of documenting musical instruments. He uses the model from "The manual for European folklore instruments" (a several years-long international project of which his work was an integral part). Galin analysed idiophone and aerophone instruments (from different areas of Croatia) in detail, following the model which arranges relevant data in six groups: 1. nomenclature: a) of the instrument itself or b) of particular components, 2. ergology (description of all phases of production of the instrument, of technical procedures and tools), 3. the playing technique and acoustic particularities of the instrument present in traditional practice, 4. the repertory of particular players and instrumental pieces typical for local traditions, 5. the social role of instruments, formation of groups, development, and 6. historical sources, iconographic sources and diffusion (Galin 1983a: 2,3).

If we take up Galin's guidelines in catalogue processing of musical instru-

ments in the Ethnographic Museum, descriptions of particular instruments would comprehend, beside the present data, also ergology, playing technique and acoustic characteristics of the instrument, repertory of particular players and instrumental parts typical for local tradition, also social role of the instrument and formation of groups. In order to deal with mentioned data, it would be necessary that the curator in charge of the Collection of musical instruments have basic musical education. In the frames of suggested patterns for catalogue processing of musical instruments, I would additionally stress out the social role which the instrument carries, part related to the repertory, and instrumental pieces typical for local tradition for the reason that there exists a certain difference which should be marked in defining artistic and folk musical instruments. In 1961, while defining traditional, folk musical instruments, members of ICTM (Study Group on Folk Music Instruments) agreed that the role of instruments within the social context was the only criterion which clearly distinguishes "folk musical instruments" from "artistic musical instruments". Their identifiability is not determined by different ergologic or musical characteristics, nor is it necessary that they might be technically less developed or found in rural environment. Some artistic musical instruments can, in the course of time, become folk instruments and vice versa (Moore 2007). Social context is the fact which decides about their placement among folk or artistic musical instruments. According to this, evidence about the social context should be no omissible integral part of the description of the instrument and it should enter the catalogue card.

Example of a catalogue card:

Gusle – Fiddle	HS: 321.322
Inventory number:	POH-416/1920
Local name of the object:	gusle
Standard (expertly) name of the object:	gusle
Locality:	Prnjavor, Slavonia
Instrument builder:	Pavao Treporić
Date of production of the instrument:	1830

Description of the instrument (ornament, pattern): fiddle – a chordophone musical instrument. The body and neck are made of one piece of wood. Two holes are drilled through the upper part of the neck and two wooden pegs are pulled through them. Strings, across which the bow passes while making the tone, are attached to the pegs. At the bottom part strings are knotted and fixed with a cord. The bottom, oval shaped part of the fiddle (the sound-box)

is covered with animal skin fixed with small nails. It is decorated with four small holes grouped in two. The instrument was made by Pavao Treporić in 1830. Prnjavor is a small village in the neighbourhood of Slavonski Brod. The bow is made of wood and horse hair.

Social context:	Along playing the fiddle, heroic deeds, ballades and various tragic events were usually narrated.
Material:	wood, animal skin, cord
Technique of production:	wood carving, hollowing, turning work, tanning, perforation
Inscriptions and marks:	*Gusle (Gega) iz Slavonije od god. 1830* (Fiddle – gega – from Slavonija from 1830)
Dimensions:	length of the whole instrument = 60 cm breadth of the body = 15 cm length of the bow = 41 cm
Use and history (time, place):	first half of 19th century, Prnjavor
State:	instrument is kept in a good state
Acquisition (method, source, address, place, price, reg. no., comment:	Collection of Franjo K. Kuhač, custody from 07.11.l920, property of HGZ
Estimated value:	5.000,00 kn
Location of the object:	DG (storage of musical instruments)

Conclusively

Traditional musical instruments kept in the Ethnographic Museum in Zagreb have been systematically collected since 1857, including the Collection of musical instruments of Franjo Ksaver Kuhač in custody in the Museum. Development of the Collection showed great dynamics till 1940s, while experts on the field of ethno-organology and ethnomusicology were engaged in the Museum. Further development of the Collection has continued till nowadays in somewhat slower pace and more modest scale. Considering the long period of time of collecting objects, and the fact that the Collection comprises various musical instruments from different parts of the Republic of Croatia, and also from a wider area, the Ethnographic Museum treasures valuable data

which bears witness to Croatian musical and cultural heritage. As museum exhibits, musical instruments become an important part of cultural heritage at musical and non-musical levels. Many instruments had dual function in their primary role, thus being witnesses of music playing and of traditional crafts, skills and trades (Fig. 4/p. 338). Though the fund of the Collection has not often been used in museum presentation and education, so exhibits have not been exposed to certain perils which can be the result of too often and inadequate usage, their keeping must be in concordance with regulations for protecting cultural goods. Silent and non-used musical instruments which can no more produce a sound can still contribute plenty of useful information, from those which tell us about artistic and technical skills of building the instrument itself, to numerous decorative representations and ornaments giving us valuable information on the importance and purpose of the particular musical instrument within a primary context. By incorrect storing it is possible to irreversibly lose part of valuable information which musical instruments bring along to the Museum. For example, it is possible that by lack of maintenance a part of or whole ornament might be lost, even part of the instrument itself, while objects made of biologically easily decomposed material might be completely destroyed. Measures for protection and preservation of musical instruments must take into consideration a multitude of aspects presented so far, because only in this way instruments may be the proof of the musical past and be useful to different expertly and scientific investigations. Task of the Museum is therefore multiple: responsibility for protection and preservation of musical instruments, spreading data on them through exhibition activities, workshops and scientific investigations.

Translated by: Mirjana Randić

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