THE BELGRADE MUMMY: CURRENT RESEARCH AND FUTURE POSSIBILITIES

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The Belgrade mummy research agenda, apart from the Egyptological examination, encompassed analysis of the linen wrappings, the pigments used for painting the cartonnage, bacteriological, entomological, resin and DNA analyses, as well as taking fingerprints, X-raying and CT scanning of the head. Further investigation should include CT of the whole mummy, endoscopy, electron microscopy, molecular-biological, biochemical, chemical-physical and other analyses, C14, a facial reconstruction and the papyrus extraction.

Key words: Belgrade mummy, Egypt, mummy research, papyrus, DNA, 300 B.C., ethics.

The story of the mummy now known as the Belgrade mummy began in Luxor, Egypt, in February 1888, when the nobleman Pavle Riđički, who was 82 at the time, purchased a valuable ancient Egyptian mummy with the intention to fulfill his long-time desire to donate some edifying Egyptian antiquity to his Serbian nation (Anđelković 1995). In 1888 the antiquity market of Luxor was particularly well supplied with numerous pieces from the necropolis of Akhmim, some 200 km downstream, hence we presume that this particular item likewise originated from there. In July 1888, this mummy reached its final destination – the National Museum in Belgrade – thus becoming in August 1888, the first Serbian museum to exhibit an ancient Egyptian piece. The exhibition was, needless to say, a great success.

The mummy spent most of the 104 years following the public debut in the National Museum of Belgrade, stored for approximately half of that time in the museum's collection storage. To the best of the present author's knowledge, no research of any kind was conducted during that time. In accordance with an official, signed contract, the mummy was transferred to the archaeological collection of the Faculty of Philosophy, University of Belgrade, in October 1992.

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Not only was the amount of the data we started from zero, but we also had to first eliminate some misleading information. The name of the donor and the year the donation was made were forgotten, while a mix of an amulet, a few parts of cartonnage, several bone fragments, a fractured mandible, and some wrappings were stored in small, separate box, with no mention that all of it had been detached from the very same mummy. It took several years of "detective archaeology", namely research in the National Museum's archive, the Archive of Yugoslavia, Đurđe Bošković's bequest, the National and University of Belgrade libraries, plus success in tracing of the Riđički family's coat of arms, which explained two barely visible seal impressions in sealing wax on the mummy coffin, until we were able to reconstruct most of the mummy's recent past (Anđelković 1991: 70, 75 n. 62-64; idem 1993; idem 1994a; idem 2002a: 214-215, 222-223).

After several months of necessary preparations, the coffin was opened in May 1993, and the first systematic, non-destructive examination and multidisciplinary research started. The obviously damaged mummy consisted of a torso, including arms, with the head detached at the neck, whereas the lower parts of the legs were detached at the knees. The torso itself had an enormous opening at the shoulders, especially the left one, which enabled a partial view into the thoracic cavity. A thin coating of black resinous matter, in addition to the mummy wrappings, was severely damaged in a number of places. The mummy was removed from the coffin in June 1993. What was left in the coffin was a dusty mix of bone fragments, pieces of wrappings, resinous matter, cartonnage, papyrus, and some recent dirt. Careful picking, sorting, and shifting of this material was called for. Aside from the already mentioned detritus, what was left consisted of two amulets of lapis lazuli and faience respectively, and a few faience beads. In the same year, two samples of linen wrappings were examined at the Faculty of Technology and Metallurgy, University of Belgrade (Anđelković 1994b). The Laboratory of the National Museum, Belgrade, investigated the pigments applied over the layer of gesso background to paint the cartonnage, by optical and chemical microscopy as well as X-ray fluorescence and X-ray diffraction (Ristić-Šolajić 1994).

In June 1995, the mummy was X-rayed at the Institute for Radiology, University of Belgrade. Through the X-ray examination we were able to obtain a great deal of data concerning the mummification technique, exact position and state of the wrapped body, pathological changes, and the presence and location of amulets and jewellery.

In April 1996, some of the amulets and beads located by means of X-raying, which were clearly no longer in their original positions, were extracted through the existing opening at the shoulders. Two of the amulets were made of gold, whereas the rest were made of faience. The greatest surprise was discovery of the source of scattered papyrus fragments, namely a papyrus roll located between the body and the outer bandages, near the left, upper arm, which was

not visible by X-raying (Anđelković 1997; idem 2002b: 40). The same year samples were taken for bacteriological analysis and some insect remains were given for the entomological analysis. These analyses were performed at the Faculty of Biology, University of Belgrade, and the Natural History Museum, Belgrade. Identified were cockroach *oothecae* and the *exuviae* of the museum beetle, whereas no spore-forming bacteria were detected (Anđelković, Anđus and Stanković 1997). In June 1996, Computerized Tomography (CT) scanning of the head was undertaken.

In May 1998, DNA samples were extracted for analysis by PCR amplification at the Faculty of Biology and Institute of Biological research, Belgrade (Čuljković, Anđelković, Stojković and Romac 2000).

In June 2001, some of the fingerprints were collected from the surface of the resinous matter coating.

Also in June 2002, analysis of the resin used in the mummification process began at the Faculty of Chemistry. The first steps to confirm the type of pigment and a binding medium, namely ink, used to inscribe the papyrus have recently been taken.

The time between the dates mentioned was taken up with the processing and publication of results.

The next step is Computerized Tomography of the whole mummy, which should provide a great deal of significant data. By means of CT we hope also to obtain a "virtual Belgrade mummy," which can be unwrapped by computer. CT scans will also allow for the production of an exact synthetic model of the skull that should provide enough information for a facial reconstruction. The range of C14 dates of bone, wood, papyrus, and linen could be compared to the Egyptological aspects of mummy dating. The further research should include endoscopy, electron microscopy, and serological analyses, as well as other histological, molecular-biological, biochemical, and chemical-physical analyses. Because certain foods leave chemical traces in the body, by means of chemical analysis we will hopefully obtain some information on paleonutrition. The same is valid for paleopharmacology, since the traces of an ancient "medical therapy" can also be detected in the soft and hard tissues.

The damaged papyrus roll will be extracted and an independent process of unrolling, restoration, conservation, translation, and publication of the Belgrade papyrus will begin. As stressed by John H. Taylor, Assistant Keeper of the British Museum (personal communication, January 14, 1997) "the presence of (...) papyrus roll within the wrappings of the Belgrade mummy is a feature of exceptional interest [because] relatively few papyri can be reliably associated with a particular mummy" (cf. Clarysse and Verreth 2000).

The work of cleaning, restoring, and conserving the wooden coffin and cartonnage items should follow. After this phase of research and conservation is complete, the Belgrade mummy, papyrus, and other accompanying items should be presented, with all respect, as a permanent exhibit.

Only a very few mummies have been investigated in such a detailed manner. The aims of the research on the Belgrade mummy are to gain as much data as possible relating to the life, death, and afterlife of this particular individual in his contemporary surroundings, which may allow us to understand properly the cultural codes and context of the civilization he came from, as well as to contribute to a methodology for the examination of Ancient Egyptian human mummies in general. The Belgrade mummy, an approximately 50 year-old male, is no longer a mute witness to the history of Egypt, but begins to tell us the story of his own fate as an individual who can bear witness to his time, *ca.* 300 B.C. His "testimony" should allow us a better understanding of the stories that his ancient mummified countrymen could tell.

Lastly, we would like to call your attention to the matter of ethics. As the archbishop of Vienna wrote in the 18th century concerning the mummy of an African, Angelo Soliman, a moor in the service of the Prince of Liechtenstein, the human body is to be "covered in life by clothes and in death by the earth" (Seipel 1998: 14). We argue here not to expose the dead human body to the mercy of very often voyeuristic and sensationalistic public eye without limit, merely to fulfil curiosity and everlasting appetite for the bizarre. A proper balance is to be found between public interest, protection and care for the exhibit, educational values, scientific needs, and ethics. Egyptian mummies as the representatives – ambassadors so to speak – of the ancient Egyptian civilisation that lasted three thousand years (cf. Anđelković and Panić-Štorh 2002), are thus to be treated in civilised way, with all dignity and respect owed to these physical remains of what was once a human individual. A similar view is maintained in the "Code of Ethics" issued by ICOM, which states that exhibiting human remains "must be done with great tact and with respect for the feelings of human dignity" (ICOM 2001: 19). We consider a personal identity, which exhibited human remains are more often than not deprived of, as an important part of that dignity. Therefore, what should be given back to the mummies are their respective identities. That is why the present author named this particular male mummy "the Belgrade Mummy" until hopefully one day his former earthly name might again become known, perhaps from the papyrus he brought to us. Finally, aren't we all, as individuals, nations or species, in the search for some kind of an identity?

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БРАНИСЛАВ АНЂЕЛКОВИЋ

БЕОГРАДСКА МУМИЈА: ДОСАДАШЊА ИСТРАЖИВАЊА И БУДУЋЕ МОГУЋНОСТИ

Резиме

Започета 1993, систематска, неинвазивна, мултидисциплинарна истраживања Београдске мумије, до сада, поред египтолошких проучавања, обухватила су анализу ланених овоја, испитивање пигмената којима је осликана картонажа, радиолошко испитивање, бактериолошку, ентомолошку и ДНК анализу, прелиминарне структурно-инструменталне анализе, узимање отисака и преглед главе скенером. Могућности будућих истраживања подразумевају преглед скенером целокупне мумије, уз добијање "виртуелне мумије" која се може даље компјутерски испитивати, укључујући и њено виртуелно размотавање, реконструкцију лица, датовање радиоугљеником костију, платна, папируса и дрвета ковчега, ендоскопију, електронску мокроскопију, хистолошке, молекуларно-биолошке, биохемијске, хемијско-физичке и друге анализе. Свитак папируса ће, после одговарајућих припрема, бити извађен, како би могло уследити његово ишчитавање и тумачење. Нагласимо да је присуство свитка папируса унутар овоја Београдске мумије од изузетног значаја, будући да се веома мали број папируса у свету може везати за конкретну мумију. Мишљења смо, што је у складу и са етичким кодексом ICOM-а, да почивајуће људско тело не би, без одређених ограничења, требало излагати, неретко сензационализму наклоњеном и поштовању људског достојанства и права на приватност још увек ненаученом, "оку јавности". Надајмо се да ће враћању потпуног идентитета мумификованим људским остацима, до тада названим Београдска мумија, допринети папирус који овај својеврсни "амбасадор" староегипатске цивилизације носи под својом руком.