

Identification of the mummified remains of the Kuffner's family members

¹Bodoriková S., ^{1,2}Panenková P., ¹Beňuš R., ¹Dörnhöferová M., ³Masnicová S., ²Zatkalíková L., ²Bazovský R., ²Turanská M., ⁴Mazura I., ⁵Zachová M., ⁵Pexa T.

¹ Department of Anthropology, Faculty of Natural Sciences, Comenius University, Bratislava, Slovak Republic

² Department of Criminalistic Biology and Genetic Analysis, Institute of Forensic Sciences, Ministry of Interior, Slovak Republic

³ Department of Criminalistics and Forensic Sciences, Academy of Police Forces, Bratislava, Slovak Republic

⁴ Department of Medical Informatics, Institute of Computer Science, Academy of Sciences of Czech Republic, Prague, Czech Republic

⁵ Laboratory of Forensic Genetics, Department of Forensic Medicine, Faculty of Medicine, Masaryk University, Brno, Czech Republic

Abstract: Department of Anthropology has been appealed for identification of remains which were believed to belonged to the three members of baron Karl Kuffner's notable family. The remains were mechanically damaged and fragmented. Standard morphometric and morphoscopic methods were used for identification, sex diagnosis and age estimation. We separated the remains according to the laterality and the size. We assume that the remains belong to Baron Karl Kuffner de Dioszegh, his wife Maria Franziska von und zu Firmian and their daughter in law Cara Carolina von Haebler. Finally we confirmed our conclusions with DNA analysis.

Key words: Karl Kuffner de Diosegh, anthropology, identification, fragmentary remains, mummification, DNA analysis

Address for correspondence: Silvia Bodoriková, Department of Anthropology, Faculty of Natural Sciences, Comenius University, Mlynská dolina, 842 15 Bratislava, Slovak Republic, e-mail: bodorikova@fns.uniba.sk

Introduction

In 2009 Silvia Bodoriková has been appealed by Eva Sudová (Sládkovičovo Municipal Cultural Centre) and Lórant Talamon (Civil Association Ponvagli) for identification of three questioned members of the Kuffner's family.

The Kuffners had great impact on development of the Dioszegh town (renamed in 1947 to Sládkovičovo) and on the development of economy of the whole region, too.

In occasion of 160th birthday of Baron Karl Kuffner de Dioszegh (23.10.1847 – 12.12.1924) the town Sládkovičovo organized celebrations to commemorate his personality. Since his death in 1924, people affected by historical events and by own cupidity were the cause of necessity to identify and after that worthily lay to rest the body remains of this famous and influential Austro-Hungarian family once for all.

Baron Kuffner was born in notable Jewish Kuffner's family, running a business in sugar-refineries since 18th century. His ancestors adopted the surname "Kuffner" after the Joseph II's Patent allowed Jews to adopt the German-sonant surnames. Wide branched Kuffner's family can be divided into three main branches: Austrian, Moravian and Hungarian.

The Austrian branch is represented by Ignat Edler von Kuffner, who lived in Austrian Ottakring, owned the brewery and was also Mayor of the city. He was ennobled to the aristocratic status in 1878.

Hermann Hirsch Edler von Kuffner represented the Moravian branch of Kuffner's. He established in Břeclav the first family sugar-refinery, distillery and the yeast producing factory, which was working continuously until 90s of 20th century. Hermann was the Mayor of the town Břeclav. Because of his Mayor's activities, he was ennobled to the aristocratic status in 1900. His brother Jacob Kuffner has been the Břeclavas Reeve for the period 1847 – 1848. He had nine children and one of them was Karl Kuffner – the representative of Hungarian branch. Karl was born on 25.7.1847 in Břeclav. He was educated in Jewish school and in secondary grammar school in Ottakring and Oberdöbling (Vienna). Later he attended the agricultural school in Mosonmagyaróvár and the Vienna University of Technology.

The arrival of Kuffner's to the Dioszegh resulted from the purchase of lands from count Ferenc Zichi in that area. In 1867 they founded Dioszeghs sugar-refineries. Karl Kuffner settled down in Dioszegh when he was 22 and stuck to the town and sugar-refineries for his life (Fig.1). Headed by him the number of employees increased from 200 to 1200. He was the author of patents which improved sugar production. In 1899 under his leadership the power station was built and in 1900 the first telephone network was working in sugar-refineries. During World War I. the first public lighting was built in Dioszegh centre – the electricity was produced for free by sugar-refineries. It is impossible to neglect the field-railway and Voluntary Sugar-refineries Fire-fighting Brigade that was helpful during the fires in town. In 1914 the Kuffner's factories were visited by prince Belay from Abesinia. Baron Karl Kuffner established moreover the Research Institute of Agricultural in Dioszegh (Sudová 2009).

Karl Kuffner was awarded by several prizes for his activities, e.g. the Royal Diploma (by Emperor Franz Joseph I. in 1872). At 7th of December 1904 he was ennobled to the aristocratic status and gained predicate de Dioszegh allowed to be used by his wife and the whole family. In a appreciation of his attendance at Paris World Exhibition in 1900 and for civil merits his was awarded the "Gold Cross with Crown". Karl Kuffner was Vice-President of Bratislava Stock-Exchange and President of Credit Bank in Galanta.

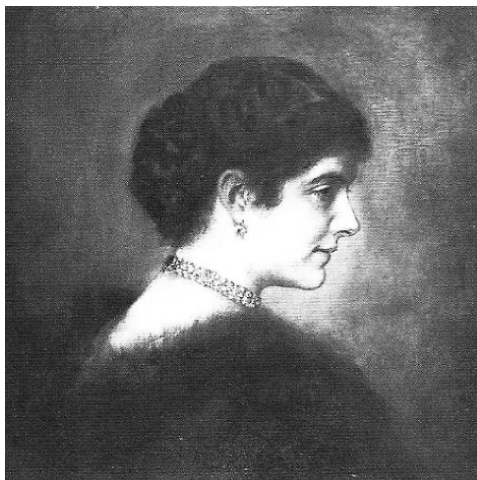


Fig. 2.: Maria Franziska von und zu Firmian

Karl Kuffner married Maria Franziska von und zu Firmian (23.3.1856 – 28.6.1925). She was descended from the aristocratic family; moreover she was niece of Salzburg's archbishop. Both families of engaged were against this wedding. In response to this reservation Karl converted to Catholicism and later at 16th of November 1884 they married. At 25th of July 1886 their sole son Raul was born (Fig. 2).

In 1917 Raul married Cara Carolina von Haebler (20.8.1889 – 8.6.1932). From this marriage two children were born – Peter Karl Maria Kuffner de Dioszegh (11.10.1920 – 17.2.2000) and Louisanne Lilly de Dioszegh (31.1.1925 – 12.11.2009).

Besides the indisputable economic merits, Baron Kuffner and his wife paid attention to charity. In 1907 they founded first

nursery school. They supported talented children from poor families and stressed the importance of learning of foreign languages such as English, German and French. Baron Kuffner de Dioszegh founded small number children schools in remote farmsteads. Accommodation and salary for teachers were paid from sugar-refineries. These small number children schools were very popular among the people and many of parents preferred them from Dioszegh School. During the World War I Baron Kuffner and his wife grounded hospitals and by reason of eliminating a war plundering the home guards were founded. In 1924 in Dioszegh the Baron Kuffner de Dioszegh died. He was laid to rest in tomb built in park and designed by Michal Milan Harminec.

After decease of Baron Kuffner de Dioszegh the management of business was taken over by his son Raul. Raul was many more interested in art and travelling, was not as business aptitude contrived as his father. It is a fortunate that Raul published his father knowledge in manual *Grundprinzipen der Wirtschaftweise der Dioszegher Ökonomie Zucker- und Spiritusfabriks A. G. Ba.* Raul's wife Cara Carolina deceased suddenly in 1932 (Fig.3). According to the newest information her death was caused by wrong blood transfusion during her hospitalisation in Vienna (personal communication Eva Sudova). After her death Raul married his long-time friend Tamara de Lempicki, the decadent artist and representative of art deco.



Fig.3: Cara Carolina von Haebler

The year 1938 finished all the activities of Raul Kuffner in Dioszegh. He sold his share of sugar-refineries and emigrated do USA. Interestingly, that he emigrated without his children because they did not obtained the papers, so it was not possible for them to leave the country. Peter and Louisanne Lilly met their father not until 1940. Emigration saved their lives thanks to Baron Kuffner has converted to Catholicism. Some of the distant relatives of Kuffner's family died in concentration camp in Auschwitz.

Raul Kuffner lived with his second wife Tamara de Lempitzki in Beverly Hills, Hollywood and later in New York. The last person, who lived in Sládkovičovo during the Kuffner's era was Luisianne Lilly Kuffner, who died in 2009.

Methods

The remains examined have been naturally mummified by dry airflow in the mausoleum. Unfortunately, the bodies were not complete, no head was found. Remains were found in poor conditions, some of them have been found in the crypt and the others have been scattered in the park near the mausoleum. The remains were saved by the local grave-digger, who picked up and ordered them in his house. According to the witnesses, dogs were playing with parts of bodies in the park. All remains were mechanically damaged, in some parts, mainly with preserved skin, was present activity traces of invertebrates and other animals. Grass seeds and other plant material were found on the remains surface. Pieces of clothing were preserved in some parts of the bodies.

It is known from the historical sources that Karl Kuffner had been buried with all honours and also his sabre had been in the grave goods. The crypt was rifled several times; vandals and despoilers strewed the remains around the crypt. Anything from the grave furnishings was not found.

Standard morphometric and morphoscopic methods were used for identification, sex diagnosis and age estimation (Martin and Saller 1957, Knussmann et al. 1988, Stloukal 1999). The main goal of our research was

the identification of all buried individuals. The largest preserved part was the trunk with skin on the back (Fig 4.). Skin of the chest and abdomen was missing; ribs, bodies of vertebrae (except L4 and L5) and sacrum were exposed. Both facies symphysialis were damaged. Two separate lumbar vertebrae – L4 and L5 were present between the remains and they were allocated on the basis of the size to the trunk. There were also right and left pelvic bones, which were assigning to the trunk, too. The right limb with the hand and left upper limb without the hand were present; both elbows were covered with the bandages. Other findings were the right forearm with the hand with preserved black sleeve, and a separate left tibia. Furthermore, the left lower extremity with pelvic bone and damaged distal part (almost whole tibia and the foot were missing) was found. Remnants of clothing (underpants?) were also maintained. The left tibia with the foot and the right lower extremity with the foot were the last fragments for the analysis. One of the interesting findings was a mummified membranous tissue with orange rubber hose inside. The rest of findings were unidentifiable mummified tissues.

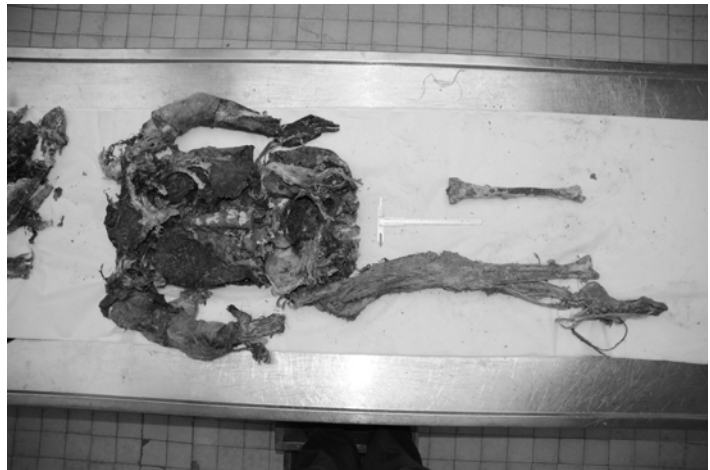


Fig. 4.: Remains identified as Cara Carolina von Haebler

According to the present body parts, minimum three individuals were present. Our conclusion is consistent with the records, that three persons had been buried in the Kuffner's family crypt – Baron Karl Kuffner de Dioségh, his wife Maria Franziska von und zu Firmian, and their daughter in law Cara Carolina von Haebler. Baron Kuffner died at the age of 77 years, Maria Franziska at 69 years, and Cara Carolina at the age of nearly 43 years.

Results

In the first step, we separated the remains according to the laterality and the size.

The right and left arms with bandages were assigned to the trunk on the basis of size and color. On the upper right extremity, the maximum length of humerus (269 mm), and epicondylar width (56 mm) were possible to measure. The upper left extremity was not able to measure because of presented mummified tissues. According to the historical sources, Cara Carolina von Haebler died in the hospital for sepsis. Initially, we thought that she had had bandaged elbows because of better arms fixation during the funeral. After the bandages removal, however, we saw that the skin and the bandages from deeper layers were dark brown in color. The skin above the left elbow was surgical sewed. On the basis these facts, we began to consider that the torso had belonged to Cara Carolina von Haebler. This assumption was confirmed by age estimation on the basis of sternal surface of ribs (Russel et al 1993) and degenerative changes in the vertebrae. The age was between 29 and 37 years. Both pelvic bones were bracket to the trunk on the basis of morphology and size. The age according to the auricular surface (Lovejoy 1995) was estimated at 35-39 years. The morphology of pelvic bones and ischiopubic index indicated female gender. Other parts, which have been assigned to this individual, were the right lower extremity with foot, and the left tibia. We could measure the physiological length of femur (397 mm), epicondylar width (78 mm), length of tibia (338 mm), length of fibula (335 mm), foot length (204 mm), footprint length (194 mm), and footprint width (59 mm). A separate left tibia, without mummified tissues, was also allocated to this individual. Its medial length was 332 mm.



Fig. 5: The single part of Baron Kuffner's remains

The incomplete, but robust, left lower extremity with pelvic bone was assigned to Baron Kuffner de Dioségh. The physiological length of femur was 428 mm, and epicondylar width was 98 mm. This is the single part of baron's remains which has been preserved (Fig.5).

The rest remains – left tibia with foot, right forearm in black sleeve, and right scapula – had belonged to female and were allocated to baron's wife Maria Franziska von und zu Firmian (Fig.6).

We also wanted to confirm our assumptions obtained by the morphometric and morphoscopic analysis, using the DNA analysis. DNA was isolated from bone tissues. Analyses were realized at Department of Criminalistic Biology and Genetic Analysis in Slovenská Ľupča. DNA was isolated from femur of the left lower extremity (Baron Kuffner), left tibia (Baroness Maria Franziska von und zu Firmian), femur of the right lower extremity and isolated tibia (Cara Carolina von Haebler).

Analysis showed that DNA profile of femur assigned to Baron Kuffner had been male. DNA profiles of other samples were female, and DNA profiles of the right femur and isolated left tibia are identical. On the basis of morphoscopic traits, age estimation and bandaged elbows, we suppose that they had belonged to Cara Carolina von Haebler. DNA profile of the left tibia is female and different from the previous one. We assume that these remains had belonged to Baron's wife Maria Franziska von und zu Firmian. Analyses from bone tissues realized in Slovenská Ľupča was successful, three different profiles have been confirmed.

We also tried to analyze DNA preserved in mummified tissues. Seven samples of soft tissues were taken: muscle of the hand in a black sleeve, muscle of the torso, skin of the torso, muscle of the forearm with bandage, blood-vessel of the forearm with bandage, part of bandage with dry blood and membranous tissue of supposed bladder (found with an orange rubber hose inside). DNA samples were isolated at Department of Anthropology in Bratislava. Subsequent DNA analyses were realized at Laboratory of Forensic Genetics, Department of Forensic Medicine in Brno. Considering the previous manipulation with remains, the conditions in which had been kept, and many people (and dogs) that had come into contact with them, we did not expect the relevant results. Our assumptions were confirmed, we did not obtain any comprehensive DNA profile.

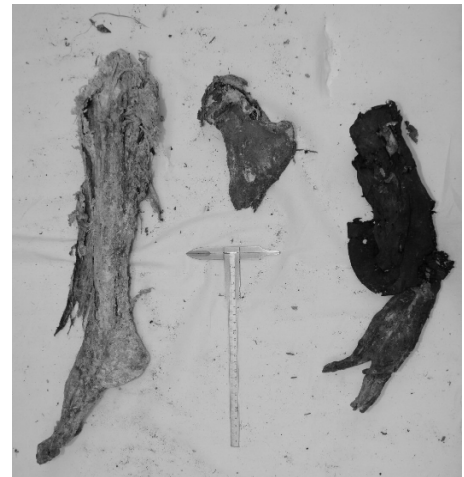


Fig. 6: The remains of Maria Franziska von und zu Firmian

Conclusions

The aim of our research was to identify mummified remains of Kuffner's family members using anthropological methods, and DNA analysis. Most of the remains were allocated to Cara Carolina von Haebler – the incomplete trunk, both pelvic bones, lower right limb, separate left tibia, and both upper limbs with bandaged elbows. The preserved remains of her mother-in-law Maria Franziska von und zu Firmian were left scapula, left tibia with foot, and forearm with hand in a black sleeve. Remains of Baron Karl Kuffner de Dioszegh are represented by only left lower limb with pelvic bone. Since we have no comparative material of examined individuals, and investigated persons had not been the blood relatives, our results can be expressed in terms of probability.

The members of Kuffner's family, among other things, participated in building of the Břeclav synagogue or the Vienna Observatory. We mentioned the extensive historical background of this family for illustration and highlight the irony how their remains were treated after their death.

One year before death, Baron Kuffner de Dioszegh had built a mausoleum with more than 20 tombstones. Finally, however, only three family members had been buried there. We believe that after the second funeral they finally will find an undisturbed final resting.

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