

## METHODS FOR PRESERVATION OF BODY RELICS USED BY THE CHRISTIAN CHURCH

Nikolay Dimitrov<sup>1</sup>, Dimitrinka Atanasova<sup>1,2</sup>, Ivelina Ivanova<sup>1</sup>, Antoaneta Georgieva<sup>1</sup>,  
Sevinch Hamza<sup>1</sup>, Yordan Stoyanov<sup>1</sup>, Dimitar Sivrev<sup>1</sup>

<sup>1</sup>*Department of Anatomy, Faculty of Medicine, Trakia University, 11 Armeyska Str, 6000  
Stara Zagora, Bulgaria*

<sup>2</sup>*Institute of Neurobiology, Bulgarian Academy of Sciences, bl. 23 Acad. G. Bonchev Str, 1113  
Sofia, Bulgaria*

In the Christian tradition, the bodies or parts of the bodies of revered individuals are considered relics and are an important object of veneration. Practical considerations dictate the need for their preservation.

The aim of the present report is to study the methods traditionally used by the Church to preserve bodily relics for a long time. Our results show that the methods for preservation of whole body relics and parts of relics differ substantially. Whole bodies are mostly preserved in wooden, glass or metal caskets. Bodies are generally wrapped in fabric, which is periodically changed. Commonly, the natural conditions surrounding whole bodies are characterized by constant temperature and moisture. The practice of pretreatment of bodies with preserving/impregnating mixtures is not uncommon. Partial body relics are preserved in metal or glass reliquaries, and the smallest of them – in small containers, embedded in disks, containing beeswax and other natural ingredients.

Moreover, the Roman Catholic Church and the Orthodox Church also use different methods. The western tradition often employs traditional and contemporary methods for artificial preservation, while the eastern practice relies mostly on natural body preservation with minimal influence.

In conclusion, the preservation of bodily relics in the Christian tradition is a combination of environmental factors and methods for preservation. Those methods lead to slowing down the natural processes of decomposition and inhibition of bacterial activity.

**Keywords:** *relics, Church, preservation*

### INTRODUCTION

“Relics” is an umbrella term for bodies, parts of them, and other bodily remains of distinguished individuals, revered in the Christian practice. They are an important object of worship by the faithful. Therefore, their conservation and proper display is a question of great practical importance, regardless if whole body or partial relics are concerned.

Preservation of the body after physical death is often regarded as a sign of sanctity and righteous life. The lack of decay is interpreted as a sign of divine intervention, but even if the natural cause of post-mortem processes is not altered, the bodies of saints are highly revered by the faithful. The physical remains of those individuals were kept as valuable material and spiritual treasures since the early years of the Church, as documented in the writings of St John Damascene of the VII century (Chase, 1998). The importance of relics is outlined by Thomas Aquinas in his monumental work *Summa Theologica*: “In memory of [the saints], we ought to honor any relics in a fitting manner, principally their bodies, which were temples of the Holy Spirit dwelling and operating in them, and destined to be likened to the body of Christ by the glory of the Resurrection” (Aquinas, 1947).

The relics of a saint are a prerequisite for a consecration of an altar table in the main Christian traditions. Presence of relics is absolutely necessary for the celebration of the Eucharist, regardless if they are whole bodies or just parts of them (Percival, 1900). Preservation of relics and building them in altars calls for specific measures to protect the relics. Those measures should serve the practical purpose to conserve them, while simultaneously keeps them accessible for veneration by the faithful.

### AIM

The aim of the present report is to study, analyse, and categorize the methods used by the Christian Church for preservation of body relics of saints.

### MAIN ASPECTS OF BODY PRESERVATION

Body preservation has been a traditional practice of many cultures throughout the ages. Different methods have been implemented to conserve the bodily remains of prominent individuals. As a general rule, ancient mummification involves removal of internal organs, the brain, and the adipose tissue, with preservation of the remaining tissues. Regardless of the details of the method, the process can always be summarized as following three main stages: fixation, dehydration, and impregnation. The same three principles are also the basis of modern plastination (Sivrev et al., 2005a). Usually, as an addition to the before mentioned measures, the bodies preserved in best condition are also additionally protected: by low temperatures, low humidity, air currents, and/or insulating covering of the body (Sivrev et al., 2005b).

The artificial body preservation is a difficult and expensive process, which was historically available only to selected members of the social elite. The Catholic church has implemented a multitude of methods, aiming to preserve the bodies of prominent hierarchs (Tomov, 2018). Actually such elaborated measures are not absolutely necessary for body preservation. Keeping a dead body away of moisture and heat can cause a natural process of mummification, with little or no outside help. This is more commonly seen in the practice of the Orthodox church.

### PRESERVATION OF WHOLE BODIES

In the Orthodox tradition a practice of preservation of bodies with minimal external influence. Whole body relics of saints are being kept in condition which benefit natural preservation – constant (low) temperature and dry air, like it is done in the natural caves of the Kyiv Pechersk Lavra. The caves of the monastery are 10 to 20 meters deep and up to 400 meters long. The bodies preserved in the caves are laid to rest in the monastic cells (2x2 m rooms) which were inhabited by the deceased monks, and are afterwards left untouched. (Bertash et al., 2016). Keeping bodies in caves is however rarely seen. Bodies are usually stored in temples and other buildings of worship, in caskets or boxes, made of various materials. Those containers are per se a barrier before the aggressive factors of the environment. Commonly the relics are insulated by clothing them in vestments, covering them with drapes or otherwise using textile material (Figure 1 a, b.).

Some local churches have preserved an interesting ritual of “washing” the relics. Its classical description includes pouring not water, but oil over the relics, during a special service (Moussine, 2003). This is actually a process of impregnation of an already dehydrated tissue, which additionally protects it against external influence (Sivrev et al., 2005a).

Western tradition widely uses a variety of substances and solutions for embalming and impregnating of dead bodies. It is nowadays known that embalming was a common practice for the elite during the Middle ages. For instance, king Richard I Lionheart and John Lancaster, first Duke of Bedford were preserved in this fashion (Charlier et al., 2013; Charlier et al., 2015). Similar procedures were implemented following the death of the Roman popes, in order to preserve them (Tomov, 2018). Generally, during the Middle ages, bodies were treated with the most advanced and sophisticated procedures of the time

Treating the body of the deceased Roman pope is a continuous practice, which is gradually developed Pope John XXIII (died in 1963) was perfused with an embalming solution (Bobbio, 2001),

containing ethanol, formalin, sodium sulphate and potassium nitrate (Carroll, 2001). After the retrieval of the body from the crypt in 2001, it was additionally treated with formalin, alcohols, camphor, nitrobenzene, turpentine, benzoic acid, and mercury salts (Potenza, 2014). Popes Paul VI and John Paul I were also treated, to a different extent, with embalming fluids. Regardless if embalming was performed, the traditional papal burial is done by placing the bodies in multiple hermetically closed wooden and metal coffins, which are laid to rest in dry tombs, thus facilitating natural mummification (Quigley, 2006; Jeremiah, 2012). Many whole body relics were retrieved from similar tombs.

### **PRESERVATION OF PARTIAL RELICS**

In the Orthodox church, separated from the body smaller fragments are commonly kept in reliquaries, usually made using glass and metal. Silver, which is widely used, is not only a precious adornment, but also possesses oligodynamic antibacterial properties (Lansdown, 2006). Glass coverings, usually well fitted, are a barrier for noxious factors of the environment.

The smallest tissue particles are placed in small containers, embedded in disks of beeswax and other natural ingredients (Figure 2). This also enables easier transportation of the said relics. Embedding of small relic particles in wax is a widely known practice since the early days of the Church. Tradition requires that relics should be built in the altar table itself (Краснопевков-Румовский, 2013), which is normally done using a similar method. Embedding of relics in disks as well as building them in in the altar table both employ a similar method. A mixture of wax and other natural ingredients called ceromasticum or wax-mastic is used to be poured over the relics and/or to serve as material for the abovementioned wax disks. This mixture contains, besides natural beeswax, frankincense, olibanum, aloe, rose oil and sometimes marble dust. Those ingredients act alongside with the impregnating wax, with their conserving properties (Tomov and Dzhangozov, 2018).

The Roman Catholic church also preserves separated pieces from the body in metal or glass reliquaries, and the smallest particles in small containers, embedded in wax or glued on a piece of textile fabric.

Data is suggestive, that internal organs of saints were embalmed and preserved separate from the body. A modern examination of the preserved heart of the Blessed Anne-Madeleine Remuzat revealed, that the organ was not naturally (“miraculously”) preserved, but was rather embalmed using myrtle, honey, and lime (Charlier et al., 2014).

### **DISCUSSION AND CONCLUSIONS**

Preservation of whole bodies and parts of them is widely distributed, both in the Orthodox as well in the Roman Catholic practice. Throughout the centuries different preservation approaches were created, sophisticated, and implemented, in order to preserve the relics for a maximal time. Differences in the approaches depend both from the size of the relics preserved, and from the local ecclesiastical traditions.

Long term preservation of whole bodies and larger fragments of them is done using wooden or metal caskets. The relics are insulated from external influence by hermetically closed lids and/or textile garments, which are periodically changed. Sometimes whole body relics are kept in constant environmental conditions in natural caves. In all cases constant temperature and low humidity are key factors for preservation.

Separated from the body fragments are kept in glass or metal reliquaries. Smallest fragments are preserved by placing in small containers, embedded in wax and other natural ingredients.

Occasionally bodies and body fragments are treated with conserving and/or impregnating mixtures, containing various ingredients of natural or artificial origin. Such methods are more commonly implemented in the Roman Catholic church, while the Orthodox church relies more on natural conservation with minimal influence

Regardless of their nature, all methods, used by the Christian Church for preservation of relics, ultimately slow down their natural decomposition and disintegration.

**Figure captions**

Figure 1 (a,b). The relics of St Stephen Milutin, preserved in Sveta Nedelya Cathedral in Sofia, Bulgaria



Figure 2 (a, b, c, d). Reliquaries containing partial body relics from monasteries in Bulgaria



### References:

1. Aquinas, T. 1947: Aquinas, T. *Summa Theologica*. New York.
2. Bertash A, Keypen-Warditz D, Levoshko S.: “Orthodox Cave Churches and Monasteries of the V-XX Centuries in Russia and Ukraine: Architectural Traditions and Technologies” *Procedia Engineering*, 165: 1829 – 1835, 2016.
3. Bobbio, A. “Il "miracolo" di papa Giovanni”. *Famiglia Cristiana*, 22, 2001. [<http://www.stpauls.it/fc01/0122fc/0122fc32.htm>]
4. Carroll, R. “Pope welcomes embalmed predecessor on a saintly mission”. *The Guardian*, 04.06.2001. [<https://www.theguardian.com/world/2001/jun/04/catholicism.religion>]
5. Charlier P, Huynh-Charlier I, Poupon J, Fox CL, Keyser C, Mougnot C, Popescu SM, Brun L, Pietri S, Thévenard F, Laquay L, Hurel A, Ellul JP, Hervé C. “The heart of Blessed Anne-Madeleine Remuzat: a biomedical approach of "miraculous" heart conservation”. *Cardiovascular Pathology*. 23(6): 344 – 350, 2014.
6. Charlier P, Poupon J, Jeannel GF, Favier D, Popescu SM, Weil R, Moulherat C, Huynh-Charlier I, Dorion-Peyronnet C, Lazar AM, Hervé C, de la Grandmaison GL. “The embalmed heart of Richard the Lionheart (1199 A.D.): a biological and anthropological analysis”. *Scientific Reports*. 3: 1296, 2013.
7. Charlier, P., J. Poupon, G.F. Jeannel, D. Favier, S.M. Popescu, A. Augias, I. Huynh-Charlier, L. Laquay, O. Boudouma, C. Dorion-Peyronnet. “The embalming of John of Lancaster, first Duke of Bedford (1435 AD): A forensic analysis”. *Medicine, Science and the Law*. 56(2):107 - 115, 2015.
8. Chase, FH, 1958: Chase, FH. *Saint John of Damascus: Writings*. Washington.
9. Jeremiah, K, 2012: Jeremiah, K. *Christian mummification: an interpretative history of the preservation of saints, martyrs and others*. Jefferson.
10. Lansdown, AB. “Silver in health care: antimicrobial effects and safety in use”. *Current Problems in Dermatology*, 33: 17 – 34, 2006.
11. Moussine, A. 2003. “The worship of holy relics in Mediaeval Russia: liturgical aspect”. In: *Eastern Christian relics*. Moscow: Прогресс – Традиция, 363 – 385
12. Percival, HR, 1900: Percival, HR.. *The Seven ecumenical councils of the undivided church: their canons and dogmatic decrees, together with the canons of all the local synods which have received ecumenical acceptance*. Oxford.
13. Potenza, T. “Vatican’s secret, and deadly, project to mummify saints” *New York Post*, 22.03.2014. [<https://nypost.com/2014/03/22/making-of-a-saint-the-vaticans-quest-to-preserve-its-leaders/>]
14. Quigley, C, 2006: Quigley, C. *Modern Mummies: The Preservation of the Human Body in the Twentieth Century*. Jefferson.
15. Rollo-Koster, J. 2009: Rollo-Koster, J. *The People of Curial Avignon: A Critical Edition of the Liber Divisionis and the Matriculae of Notre Dame la Majour*. Cincinnati.
16. Sivrev, D, Georgieva, A, Dimitrov. N. “From mummification to plastination”. *Acta morphologica et anthropologica*,10: 288 – 290, 2005b.
17. Sivrev, D, Miklosova M, Georgieva A, Dimitrov N. “Modern day plastination techniques – successor of ancient embalment methods”. *Trakia Journal of Sciences*, 3(3): 48 – 51, 2005a.
18. Tomov, N, Dzhangozov, J(Y). “Wax embedding as a method for preservation of body relics used by the Orthodox Church”. *Acta Morphologica et Anthropologica*, 25: 122 – 125, 2018.
19. Tomov N. “Preserving the Pontiff: an account of the body preservation methods used by the Roman Catholic Church”. *Acta Morphologica et Anthropologica*, 25: 117 – 121, 2018.

20. Краснопевков-Румовский, В. 2013: Краснопевков-Румовский, В. Новая Скрижаль, или Объяснение о церкви, о литургии и о всех службах и утварях церковных. Почаев.