

To Save a Corpse from Decomposition – the Purpose of Petrification in the Second Half of the 19th Century

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Abstract

We present this interesting note on the petrification of corpses, published in 1890 in the Italian Journal of Natural Sciences. After a brief review of the oldest forms of embalming, the author, Michele Martone, presents petrification as the only way to obtain the perfect conservation of the corpse. **Conclusion.** This scientific note presents some considerations regarding the constant search of humanity to arrest, if not the death of a person, the decomposition of their body.

Key Words: Petrification of the Corpse ▪ Michele Martone ▪ Italian Journal of Natural Sciences.

Introduction

“Gentlemen, from today I am available to those who care about their dead, and I am sure that with an invitation, even if telegraphic, to my address, I will arrive in time

to save the spoiling of your loved ones from corruption for the total expense of 1000 Lira for my travel expenses”.

With this invitation, Professor Michele Martone, Principal of the Technical Institute of Catanzaro and then Professor of Science at the Royal Technical Institute of Reggio Calabria, closed his interesting contribution with the title *On the conservation and petrification of corpses*, published in 1890 in the Italian Journal of Natural Sciences (1). Unfortunately, we do not have biographical information about the author. Looking in the various issues of the Italian Journal of Natural Sciences, we find the name of Michele Martone only in the issue published in 1892, in which the author requested: “to exchange beetles and Lepidoptera or minerals of any kind, as well as offering birds in exchange [...], with mammals or reptiles of any kind” (1).

In his brief but interesting article, Martone recalls that there were many in the past who had speculated from ancient times in the positive sciences about how to stop the decay of corpses, furthermore reiterating that the remedies to save the dissolution of the body in the past did not care about the “flattering sentence ... let nature complete its evolution because life is born from death”. However, the constant search, since ancient civilizations, for practices aimed at preserv-

ing dead bodies from the inexorable course of the decomposition process, attests how man has always been attracted by the bodily remains of a life now over, and by the constant desire to free himself from every temporal constraint (2).

We present and discuss the article published in 1890 by Michele Martone in the Italian Journal of Natural Sciences.

Presentation and Comment on Michele Martone's Article

In particular, we would like to focus the attention of our readers on this very interesting note in which the author supported the practice of petrification by intra-arterial injection. Firstly, Prof. Martone recalls the oldest forms of embalming from reports on the mummified remains of the Egyptians, witnessed by the archaeological excavators of the Egyptian tombs, and the descriptions of Herodotus, Diodorus of Sicily and Porphyrus, who told of the Egyptian funerals and their embalming techniques (3, 4).

He recalls that in the 15th century, in the Canary Islands, the indigenous Berber Guanche people practiced embalming corpses through the evisceration of the organs. This treatment was also present among the Jews, Greeks and Romans without having, however, the same meaning that it had for the Egyptians, whose religion required of them the duty to embalm the deceased (5). He then reports that historians recalled that embalming was also practiced among the Persians, Arabs and Ethiopians for their kings, princes and magnates. Publius Papinius Statius, in some of his verses, reports how the body of the famous Alexander the Great was rubbed with honey, because this substance was attributed with the property of "not corrupting" (1, 6).

The professor also recollects that his colleague Angelo Comi, at the last medical congress held in Perugia, attributed this prop-

erty to honey because the animal substances immersed in it, after putrid fermentation, mummified naturally when exposed to the air. However, Martone argues that he himself repeated the experiment on anatomical pieces but did not obtain mummification.

In his narrow historical review, he concludes by saying that the art of embalming fell into disuse from the Roman era up to the seventeenth century when the practice of preserving the corpse was resumed for anatomical research. In particular, he cites the research of the famous Dutch anatomists Swammerdam and Ruysch. The professor recalls that from the seventeenth century onwards embalming was practiced with very different recipes, without logic, and was often ineffective. Evisceration was practiced and the tongue was removed. In this way the corpses of Henry III, the king of France, Pope Alexander VI, Louis XVIII and other well-known personalities of that time were embalmed. This system was progressively discontinued after Tranchina's discovery in 1835 in Naples. Also Gannal and Sucquet in France began to inject a liquid preserver through a main artery: "With a simple incision of about ten centimeters it is sufficient to operate to preserve the dear departed".

The method of dissection of Tranchina, Gannal and Sucquet was performed by the author who, after completion, was not satisfied with the results because it caused disfigurement (1). The author believed that the only way for conservation to be perfect and lasting was petrification. Unfortunately, the author does not mention the technique used but well distinguishes mummification and other types of embalming from petrification. In this regard, he cites Girolamo Segato and Paolo Gorini, although he complains that their techniques were never disclosed (7, 8). For this reason, we think that Martone approached this type of preservation of bodies using a technique based on injections

of biological liquids with chemical preservatives (9-14).

After all these considerations, Martone said that he had devoted himself completely to petrification of cadavers and described that the corpse, after a few hours of corruption, in a short time assumed the consistency of stone, indefinitely preserving itself without being deformed by dissection. Finally, the author reports that on February 19th, 1889, the corpse of Dr. Giuseppe Piccolo was petrified by him, and even though it was in an advanced state of putrefaction he managed to preserve the body. It is interesting to report the emotional motivations that the author describes in the act of preserving the remains of loved ones.

“Who can deny that we always want to see a dear deceased person again? Does not a mother have it on her heart to see the remains of her dead baby or those of her adult son whose education did not spare her efforts? And would not a son like to look at his lost parents who in his life were not always lavish with care and kindness?” (1). “And if you allow me to express it this way: death makes us more disgusting, there are more weaknesses, because we think of the debacle and putrefaction which the body must undergo, including such pitiful feelings, so for several years I have studied the great problem of embalming”.

It is clear that the thoughts expressed by Martone were born in a time in which people lived daily with death. The possibility of preserving loved ones with all their physical features could allow the continuity of sharing life with the deceased. Currently, plastination, developed at the University of Heidelberg by the German anatomist Gunther von Hagens in 1977, replaces water and fats in anatomical tissues with plastic polymers (such as resin, silicone and polyester), allowing for the indefinite preservation of bodies in their entirety, as individual body parts or

as cross-sectional slices of individual body parts (15).

This revolutionary technique has proven very helpful for several human and animal medical disciplines (anatomy, neuroanatomy, pathology, histology, surgery, etc.) and the plastinated material is highly valued for educational purposes, research and educational display for the public. A plastinated body can be preserved in perfect condition for a very long time, challenging the natural transient condition of the human body. If, in petrification, we think that the procedure was carried out without any involvement of the person and, therefore, without consent, the strict procedures of plastination ensure that each body so treated belonged to an individual who voluntarily left his mortal remains for scientific purposes. Apart from the ethical, cultural and legal questions regarding respect for the dignity of the deceased and their body (16, 17), plastination reveals the constant and incessant search of humanity to arrest, if not the death of the person, the integrity of the body (18). As Freud claims, “no one believes in his own death, or to put the same thing another way, in the unconscious, every one of us is convinced of his own immortality” (19).

Conclusion

The myth of immortality (to continue to exist even after the end of our lives) that the Polish writer Stanisław Jerzy Lec denounced in the famous aphorism “The first condition of immortality is death”, is intensified in the desire to move to eternity with the solemnity that enhances the dynamism and vitality of your body, rather than its consumption under the earth. And yet the vivid immobile gazes coming from the bodies treated by Dr. Von Hagens are not very different from what the mummified or petrified face of a corpse returns to us.

The images tell us that they were like us and that we will be like them.

What Is Already Known on this Topic:

Knowledge about petrification of bodies in the second half of the nineteenth century is very limited. Among the most famous Italian scientists who worked in this field were Girolamo Segato and Paolo Gorini.

What this Study Adds:

This study focuses attention on an interesting note on the petrification of corpses, underlining the importance that was still attributed to the conservation of bodies at the end of the nineteenth century.

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