

Press release
9 December 2022

Laboratory excavation of the two sarcophagi of Notre-Dame de Paris



In early 2022, Inrap archaeologists exhumed two lead sarcophagi at the intersection of the transept of Notre-Dame de Paris. Relatively well preserved, they were sent to the Toulouse University Hospital to be opened and excavated before undergoing several analyses. In the framework of a scientific partnership with the Faculty of Medicine, one of the deceased, who died in the 18th century, was identified by an epitaph on their coffin. The identity of the other, older, one, remains unknown.

Excavation of the transept intersection

The day after the fire on April 15, 2019, archaeologists were called to the bedside of the cathedral Notre-Dame de Paris. The law of July 30, 2019 entrusts Inrap with the responsibility of preventive archaeological interventions related to this extraordinary restoration project. It is, therefore, by prescription of the State (Drac Île-de-France), in close connection with the public establishment in charge of the conservation and restoration of the cathedral of Notre-Dame de Paris, the leader of the project, that the Inrap teams have been working for three years on diagnostics and archaeological excavations to accompany the cathedral restoration project. The excavation of the transept intersection, which took place between February and June 2022, provided, in addition to the two sarcophagi, exceptional data on the construction and evolution of the cathedral - including elements of the medieval rood screen - and the burials.

The lead sarcophagi

Burials were carried out in cathedrals throughout the medieval and modern periods, the most sought-after locations being near the choir. Only elites were buried in lead coffins.

The two sarcophagi were transported to the forensic institute of the Toulouse University Hospital - where the mummy of Louise de Quengo had already been studied - for expertise by its staff and its state-of-the-art medical imaging equipment allowing for rapid studies (histology, microscopes, CT scans, X-rays): the excavation took place from November 21 to 26. The study was carried out in protective clothing and using sterilized instruments to protect the workers from the risk of lead contact and the burials from potential human contamination. Though lead usually favors conservation, these sarcophagi are pierced and their contents have been altered. Nevertheless, the study will focus on determining the geographic origin of the deceased, their dietary habits, their deficiencies, the causes of death, the date of death, the physical stature, and the specificities of the burials. The two coffins are very different: they have neither the same shape, the same method of assembly, the same alloy, nor the same age (they were integrated within distinct archaeological layers).

Antoine de la Porte (1627-1710), le “chanoine jubilé”

In a stone vault, the lead coffin bears the epitaph "cY EST LE CORPS DE MESSIRE ANTOINE DE LA PORTE CHANOINE DE L'EGLISE [word deleted] DECEDE LE 24 DECEMBER 1710 EN SA 83E ANNEE. RESQUIETCAT IN PACE". Nicknamed the "Canon Jubilee", this rich prelate participated financially in the reorganization of the choir enclosure of Notre-Dame in fulfillment of the Vow of Louis XIII and he is buried surrounded by the remains related to the

destruction of the medieval rood screen. On his sarcophagus were placed three medals in his effigy representing him in profile.

The coffin is not intact and the oxygen supply has decomposed the organic tissue over the years. All his bones are preserved as well as his hair and beard. More rarely, archaeologists have been able to collect textile remains.

For archaeologists and anthropologists, this rare identification will make it possible to compare his biography with the observations of his bone remains.

An unknown illustrious figure

The individual in the other lead coffin brought to light during the excavation remains anonymous for the moment. Also subject to the destructive effects of oxygen, the sarcophagus did not yield any organic tissue. Surprisingly, the sarcophagus seems to have been molded onto the body of the deceased.

As revealed by an endoscopic camera, the coffin contained remains of the shroud as well numerous remnants of leaves and flowers near the skull, probably originating from a crown of flowers. Other leaves were found near his abdomen. His funerary treatment differs radically from that of the canon of La Porte and suggests an aristocratic status. In effect, while all the bones are preserved, the skull is sawed, indicating a different mortuary treatment: he was embalmed, which will perhaps be confirmed by the analysis of the foliage, which contains several embalming plants. The skeleton is that of a man between 25 and 40 years of age, an equestrian since his youth, with marked physical activity of the upper limbs. After the analyses, the scientists will meet again to pool their results and discuss the overall analysis. The first results are expected in the first half of 2023.

Inrap

The French National Institute for Preventive Archaeological Research is a public institute under the tutelage of the Ministries of Culture and Research. It identifies and studies archaeological heritage sites in advance of development projects, each year conducting some 1,800 diagnostic operations and more than 200 excavations on behalf of private and public developers in metropolitan France and its overseas territories. Its work also includes the scientific analysis and interpretation of excavation data and the transmission of archaeological knowledge. Its 2,200 agents, distributed among eight regional and interregional directorates, 42 research centers and the headquarters in Paris, constitute the largest archaeological research operator in Europe.

The Toulouse University Hospital Center (CHU)

In the heart of the Occitanie West region and a city with a sustained demographic growth rate, the Toulouse University Hospital Center (CHU) is the reference health structure. Consisting of several sites located in the north and south of the city, the Toulouse University Hospital is the largest employer in the region, fulfilling its missions of care, prevention, teaching and research via the work of nearly 4,000 doctors and 12,000 hospital staff (i.e., nearly 16,000 people working in the health sector). It cares for approximately 280,000 patients and 800,000 consultants each year, placing it in fourth place among French hospitals in terms of activity. As the only university hospital in the Western Occitania region, more than 50% of its activity is referral care, facilitated by its high-quality technical facilities and teams. The Toulouse University Hospital coordinates, or is associated with, 19 reference centers for rare diseases and 68 expertise centers at the national level.

University of Toulouse III – Paul Sabatier

The University of Toulouse III - Paul Sabatier is one of the main French universities with more than 37,000 students.

The diversity of its laboratories and the quality of its teaching in the fields of science, health, sports, technology and engineering have ensured its scientific influence for more than 50 years.

The university has 64 laboratories and federative structures focused on research. From the atom to exoplanets, from big data to oncology, from human and social sciences to

ecosystems, the range of research is extremely broad and first-rate. It is recognized as one of the world's top 300 universities and is among the top 10 French universities according to the Shanghai Academic Ranking of World Universities.

La Drac Île-de-France

In the field of preventive archaeology, the Drac studies, protects, preserves, ensures and monitors the application of legislation and regulations concerning archaeological excavations and discoveries, the use of soils and subsoils and the protection of archaeological remains. It prepares the programming of research excavations and annual surveys per national recommendations and prescribes and controls preventive archaeology operations (diagnoses and excavations) made necessary by spatial planning operations and implemented by various approved operators.

The public administrative establishment in charge of the conservation and restoration of Notre-Dame de Paris Cathedral

Provided for by the law of July 29, 2019, the public establishment in charge of the conservation and restoration of Notre-Dame Cathedral in Paris was created on December 1, 2019. It is chaired by army general Jean-Louis Georgelin. Placed under the supervision of the Ministry of Culture, it ensures the conduct, coordination and implementation of studies and operations contributing to the conservation and restoration of the cathedral. Its mission is also to promote the site and the trades and know-how involved.

To learn more and follow the news of the site: @rebatirnotredamedeparis on Facebook and Instagram.

Developer **Public establishment in charge of the conservation and restoration of the Notre-Dame de Paris Cathedral**

Curator **Regional Archaeology Service (Drac Île-de-France)**

Prescription **Dorothée Chaoui-Derieux (SRA)**

Archaeological research **Inrap**

Site director **Christophe Besnier, Inrap**

Sarcophagus excavation team

Eric Crubézy, Université de Toulouse: scientific expertise

Hélène Civalieri, Inrap: sector director, recording monitor

Pascal Raymond, Inrap: Fine cutting of coffins

Mehdi Belarbi, Inrap: orthophotography and 3D

Camille Colonna, Inrap: anthropologist

Sylvie Duchêne, Inrap: anthropologist

Delphine Barbier-Pain, Inrap: palynologist

Frédérique Durand, Inrap: Carpologist

Fabienne Médard (Laboratoire Anatex): textile analysis

Mohammed Dallel (LRMH): textile analysis

Aurelia Azema (LRMH): lead and coffin assemblage analysis

Norbert Telmon, Fabrice Dedouit (medical examiners): bone x-rays and scans

Delphine Maret, Géromine Fournet (dentists): dental scans

Philippe Walter, Férédéric Bourcier (Start-Up Lumetis): ultra-violets

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