

Press release
April 14, 2022

End of the excavation of the intersection of the transept of the Notre-Dame de Paris cathedral: update

The day after the fire on April 15, 2019, archaeologists were called to attend to the Notre-Dame de Paris cathedral. The law of July 30, 2019, granted to Inrap the task of carrying out the archaeological rescue interventions associated with this unique restoration program. Due to its missions, Inrap has extensive experience in combined projects integrating research and construction on sites involving preserved architectural sites, as well as collapsed and buried ones, from various periods. In parallel, the Institute intervenes on historic monuments classified at the national and UNESCO World Heritage levels. Therefore, following a federal prescription (Drac Île-de-France, Regional Archaeology Service), and in close collaboration with the public establishment and contractor responsible for the conservation and restoration of the Notre-Dame de Paris cathedral, Inrap has participated for the past three years in the restoration of the cathedral via a program of diagnostics, surveys, and archaeological excavations.

Among the archaeological teams, numerous specialties have been solicited: ceramology, anthracology, metal, geophysical, quarrying, and construction materials specialists.

At the intersection of the transept, an excavation was prescribed by the State in advance of the construction of the scaffolding necessary to carry out the reconstruction of the spire, as part of the restoration schedule. Funded by the contracting authority—the public establishment in charge of the restoration of the cathedral—this excavation was conducted by Inrap from February 2 to April 8, 2022. This project yielded significant data on the construction and evolution of the cathedral and the graves, as well as numerous exceptionally well-preserved elements of the medieval choir screen (destroyed during the reign of Louis XIV).

Notre-Dame, an archaeological emergency

Faced with the urgency to secure the site the day after the fire, the archaeologists immediately intervened inside the Notre-Dame cathedral to identify, sort and preserve all the materials (wood, stone, metal) that fell onto the floor and arches, employing robotic devices on the floor, rope access technicians on the arches, and photogrammetric surveys. To preserve the remains fundamental to research and the study and restoration of the edifice, the collection techniques adhered to a scientific protocol jointly defined by the Regional Archaeology Service of the Drac and the Historic Monuments Research Laboratory.

Starting in 2019, Inrap archaeologists also intervened outside the cathedral, to the southeast of its apse chapel, in advance of the installation of a large tower crane to detect unknown cavities and masonry features. A geophysical survey session thus revealed structural anomalies in the choir, apse, and side aisles.

The transept intersection

The cathedral edification began in 1163. The transept construction, which perpendicularly traverses the nave, thus forming a cross, followed that of the apse and choir. The scientific specifications annexed to the excavation prescription predicted land grading approximately 35 cm below the level of the current paving. At this level, the excavation revealed a concrete apron dated to between the 14th and 17th centuries, above a stratigraphy consisting of several ground layers constructed from sand and lime. Some of these layers displayed signs of rubefaction that could indicate a fire (that of 1218?).

The lost choir screen of Notre-Dame de Paris

Constructed at around 1230, the monumental partition that separated the choir (reserved for the clergy) from the nave (open to worshippers) was destroyed at the start of the 18th century to accommodate new liturgical functions. Under the reign of Louis XIV, the choir screen section separating the transept and the choir was demolished. Today, there remains only a section of the choir screen along the lateral walls of the choir, to the north (13th century) and south (14th century), today known as the “choir partition.”

Of this decorated and sculpted wall only a few elements remain, revealed during the work of Viollet-le-Duc (kept at the Louvre), and a few blocks in the lapidary reserves of the cathedral. During the excavation, several hundred lapidary pieces, weighing from several hundreds of grams to nearly 400 kg were found buried in the transept zone.

These lapidary artifacts consist of polychrome sculpted fragments, human figures, and religious architectural elements. An initial stylistic analysis of the vegetal decorations, and the manner of representing faces, hair, draperies, etc., suggests they date to the 13th century. Unlike those kept at the Louvre museum, these fragments are unusual due to their polychromatic colors, sometimes superimposed with additions, repairs, the application of gold leaves, etc.

Their arrangement in the pit intrigues the archaeologists because, while they were probably kept in the cathedral for practical reasons, they were nonetheless “inhumed” with care: the layers are well-organized and agglomerated with a binding agent.

The graves

Humans were inhumed in churches and cathedrals throughout the medieval and modern periods, with the locations nearest the choir being the most desired. Queen Isabelle, the wife of Philippe-Auguste, was thus interred in the choir of the cathedral and, during the work of Viollet-le-Duc, most of the lead coffins discovered in the nave and choir belonged to the archbishops.

During the excavation of the intersection, the archaeologists identified and exhumed several burials. They were organized and did not intercept each other, which is rare in such a restricted space. Though they have not yet been studied, their dating is estimated to be between the 14th and 18th centuries. The archaeologists have so far identified around a dozen plaster sarcophagi, most of which were very disturbed by the flues. In one of them, nevertheless, fabric remains embroidered with gold thread were found, along with a few bones in place. At least four tombs were also found in the ground.

An anthropomorphic lead sarcophagus was also found in the western part of the area. This object was later moved, at a currently undetermined time, into a plaster tomb. Other than a few perforations, it is well-preserved and measures 1.95 m long and 48 cm wide. Using an endoscopic camera, the archaeologists identified the presence of vegetal remains under the head of the individual, possible hair, textile materials, and dry organic materials. While this ensemble remains to be dated and identified, this was probably an important individual, perhaps among the diocesan inhumations.

The excavation also yielded ceramic artifacts that are uniformly dated to the 14th century. The back dirt of the 19th-century flues contains Antique artifacts that attest to intrusions into earlier archaeological levels by the furnaces (sigillated ceramics and marble). Finally, the archaeologists are intrigued by an older wall that does correspond to the gothic edifice.

The recently finished excavation will now be followed by a long period of analysis of the artifacts, organic remains, DNA, materials, stylistic elements, the polychromatic elements, the iconographic repertoire, etc...

The Drac Île-de-France

In the domain of preventive archaeology, the Drac studies, preserves, conserves and enforces the legislation and regulations associated with archaeological discoveries and excavations, the use of above-ground and underground spaces, and the protection of archaeological remains. It prepares the programming of research excavations and annual surveys in concordance with the national recommendations and prescribes and supervises the preventive archaeology operations (diagnostics and excavations) made necessary by development projects undertaken by certified operators.

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.

Created on February 1, 2002, the Institute celebrates its twenty years of existence, and archaeological research and discoveries. From 2002 to 2021, Inrap conducted nearly 50,000 archaeological operations, including 5,000 excavations in metropolitan France and underwater, and transmitted archaeological knowledge to more than 12 million people via site visits, exhibitions, colloquia, etc.

The public administrative establishment responsible for the conservation and restoration of the Notre-Dame de Paris cathedral

Prescribed by the law of July 29, 2019, the public administrative establishment responsible for the conservation and restoration of the Notre-Dame de Paris cathedral was created on December 1, 2019. It is presided by the army general, Jean-Louis Georgelin. Under the tutelage of the Ministry of Culture, it ensures the conduct, coordination, and realization of the studies and operations ensuring the conservation and restoration of the cathedral. Its mission is also to valorize the restoration site and the professions participating in this endeavor.

To learn more and follow the progress of the project, consult:

@rebatirnotredamedeparis on Facebook and Instagram.

Developer **Établissement public chargé de la conservation et de la restauration de la cathédrale Notre-Dame de Paris**

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

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

Archaeological research **Inrap**

Site director **Christophe Besnier, Inrap**

Contact

Mahaut Tyrrell

Media communication

Inrap, direction du développement culturel et de la communication

+33 1 40 08 80 24 / +33 6 07 40 59 77 – mahaut.tyrrell@inrap.fr