

JOHN's PHOTOS

Jan 18 - John's images

John and I were in centre ville Rennes today getting my PCR test and we saw some digging in the square between the Opera House and the City Hall.

You can see the flat stones that must have been a previous surface layer of the square in the middle ages. In the lower right hand corner of image 1 you can see the curving cobblestone pattern of the present surface.

Image 4 (the loose fabricated stone items on top of the cobblestones) looks to be some medieval building parts that were excavated.





an 19 - John's images





Jan 20 -- John's images



It's not obvious that the archeologist/excavator has a baguette in hand but John was there and saw him waving around a baguette sandwich and conversing with passersby while standing in an excavated grave (note the skull and bones collection bags right behind his elbow in the second image).

I thought any digging work in this protected area of Rennes would require a pass with ground penetrating radar before work would begin but no. See info on ground penetrating radar below. "While digging trenches to plant trees in the center, construction workers discovered human bones." There's been much more digging these last few years in Rennes due to a development boom, including building a second metro line.

Outline

Rennes Excavation
Science in archaeology

Types of archaeological sciences
Rennes universities archaeology programs
dating methods in archaeology
Preventive archaeology in France

Previous recent excavations in Rennes

2018 Parc du Tanners

2016 Archaeological excavations at the Hôtel Dieu 110 skeleton

2011-2015 Covenant of Jacobins 800+ skeletons

2022 Rennes Excavation

Rennes: Human bones discovered under the cobblestones of the town hall square

<https://gettotext.com/rennes-human-bones-discovered-under-the-cobblestones-of-the-town-hall-square/>

<https://www.tellerreport.com/news/2022-01-15-human-bones-discovered-under-the-town-hall-square-in-rennes.Hkm0IJTY.html>

1/15 A diagnosis has been carried out for a week by the Inrap teams, before the planting of several trees. Several graves were discovered this week under the cobblestones of the Place de la Mairie in Rennes. The bones, which could date back to the Middle Ages, will be analyzed. The diagnosis carried out by Inrap precedes the planting of trees desired by the municipality. The last time they had been removed was perhaps in May 1968 to be thrown at the forces of order. This week, it was in a much calmer

Several graves were discovered this week under the cobblestones of the Place de la Mairie in Rennes.

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- The diagnosis carried out by Inrap precedes the planting of trees desired by the municipality.

Researchers from the National Institute for Preventive Archaeological Research worked on the town hall square in Rennes. Engaged in a diagnosis prior to the planting of trees between the Town Hall and the opera, the archaeologists of Inrap have brought to light several burials. Human bones belonging to three or four bodies were discovered in the square, but also an element of masonry, learned

Since Monday, two trenches have been opened in the square.

Two others will be drilled next week to continue this diagnosis prior to tree planting.

If the elements discovered by Inrap reveal a strong archaeological and heritage interest, a more substantial excavation site could be carried out.

In the meantime, the discovered bones have been removed for closer study.

The discovery of bones is not surprising in this part of the city inhabited since the Middle Ages.

National Institute for Preventive Archaeological Research (Inrap) archaeologists have unearthed five skeletons previously buried less than 1.50 meters under the cobblestones of the town hall square, where the City will plant 18 trees in February. A discovery that appeals to passers-by, even if it is not so surprising.

Less than five feet under their feet, archaeologists have dug and discovered since January 11, no less than five skeletons.

No nails, no coffins

"Skeletons? But it's mind-blowing!" Pierre, a Costa Rican passing through downtown Rennes, can't believe it... "And the rectangles, there: were they their coffins?"

"If there had been wooden coffins, they would have disappeared a long time ago, but we would have found nails" continues Cyril Hugot, one of the archaeologists mobilized on this preliminary archaeological diagnosis. "Here, nothing, only bones... The fairly poor people were wrapped in shrouds."

Note from Ruth: nails were expensive a thousand years ago. They had to be made individually by a blacksmith so only royalty and other rich people used nails in their coffins. Instead they used wooden pegs to connect and secure the wooden coffins.

Amazed and wide-eyed, young and old alike listen with great interest to the open-air history lesson unfolding under their noses.

Unlike passers-by, the archaeologist is not so surprised by the presence of these skeletons: "In Rennes, it's quite often! It's not [Rome](#) either (note: Italian city where the discovery of ancient treasures blocks the advance of the metro). But remember, under the [Couvent des Jacobins](#) , or even at the [Hôtel Dieu](#) !"

The secrets of the bones

Once the scene has been photographed and the samples have been taken, an in-depth analysis of these discoveries will make it possible to learn more ("to characterize and date" as they say in the trade), but the find is already incredible for all neophytes who are approaching.

"It's not that deep!" notes Henri, who gave him a little detour to see the famous skeletons with his own eyes. Orange jacket on the back and cap screwed on the head, the archaeologist approached the gates which encircle the site to answer a few questions. "The bodies were only 1.20 meters deep, he confirms. Knowing that we are only allowed to search at 1.50 meters deep, that's the rule."

The five skeletons discovered were taken to Cesson, to the premises of Inrap , where they will be carefully examined. "First, we will dust them with a toothbrush" then they will be subjected to the technique of carbon 14 dating to reveal some of their secrets.

To compensate for the disappointment of some who have not seen them, the archaeologist then shows a photo of one of the skulls discovered.

But there is a hell of a hole!" is astonished in the crowd that has formed. "Yes, we did that, it happens often. In fact, the skull is always higher than the rest of the body. When searching by stratum, you often come across it first . "

Then ribs, a femur, tibiae were unearthed. Bones that would date at first sight from the first part of the Middle Ages.

The preliminary excavation will be completed on January 28 (Next soil for 18 trees)

One thing is certain: this preliminary archaeological site will be completed in a week, on January 28 at the latest. "It's frustrating, reacts Henri. Because there are surely plenty of other skeletons under the town hall square or in the street!"

Probably indeed, but this is the limit of this type of research carried out by Inrap, at the request of the Regional Directorate of Cultural Affairs of Brittany. It is mandatory before any change in the layout of a site, but its scope and duration are limited.

The DRAC could possibly have decided, in view of the potential discovered during this diagnosis, to carry out a more exhaustive study (what is called "archaeological excavations") but for that " it would be

necessary to come across the necropolis of Alexandre Legrand. ..." smiles Cyril Hugot who tempers at the same time: "We can't search everything either!"

In a press release published Thursday, January 20, the town hall specifies that "the Drac considers that additional excavations are not necessary because of the limited nature of the work." The discoveries will be processed by Inrap, as for the City, it is maintaining its development project: "By building the city of tomorrow, we are reconnecting a little more with our common history", welcomes Nathalie Appéré, Mayor of Rennes, President of Rennes Métropole. Remember that the goal of the developer, the City of Rennes, is then to green the town hall square. The metropolis plans to plant eighteen trees there " 10 to 12 meters high in adult size " in response to a request from Rennes residents who demanded during a consultation within the framework of Rennes 2030 "more nature in the city". . Trees that will be planted this winter, in the middle of February.

<https://france3-regions.francetvinfo.fr/bretagne/ille-et-vilaine/rennes/decouverte-de-cinq-squelettes-au-pied-de-l-hotel-de-ville-de-rennes-c-est-frustrant-il-y-en-a-surement-plein-d-autres-en-dessous-2424901.html>

As part of preventive archaeological excavations, for developments on the town hall square, five skeletons were discovered at the foot of the town hall of Rennes.

<https://www.geo.fr/histoire/a-rennes-cinq-squelettes-ont-ete-decouverts-au-pied-de-l-hotel-de-ville-208010>

The purpose of preventive archaeology is to detect and undertake the scientific study of archaeological remains (on land and under water) that might otherwise be destroyed by land development work. Buried less than 1.50 meters underground, at the foot of the Rennes town hall , five skeletons were discovered during a preventive archaeological site , with a view to redeveloping the town hall square. No coffins were found, "if there had been wooden coffins, they would have disappeared a long time ago, but we would have found nails. Here, nothing, only bones... wrapped in shrouds" , explained to France 3 Region , Cyril Hugot, one of the archaeologists mobilized on this archaeological diagnosis. According to him, this discovery is not so surprising, the city of Rennes possessing many vestiges. "In Rennes, it's quite often! It's not Rome either. But remember, under the Convent of the Jacobins, or even at the Hôtel Dieu!" , he told France 3 Region. He adds, "What is more surprising is the axis in which they were buried. Usually, among Christians, the head is turned towards the South, towards Jerusalem, and always on the back but here, it's rather South-West..."

Skeletons dating from the Middle Ages

The five skeletons were then brought to an INRAP (National Institute for Preventive Archaeological Research) center in order to analyze and date them. But according to archaeologists, they could have been buried in the Middle Ages, between the 6th and 14th centuries. As for the cemetery, it could be that of a church dating from the 10th or 11th century: the Saint-Pierre-du-Marché church. This project should be completed within a week. For archaeologists "it's frustrating. Because there are surely plenty of other skeletons under the town hall square or in the street!"

Difficult, at this stage, to give a precise age to these graves, but various elements make it possible to specify the period a little: "We know that the vestige of the cemetery that we have before our eyes predates the hotel which was built over it, details Cyril Hugot. This hotel, of which Inrap also revealed a few walls, would be the Hôtel de Brissac where the Parliamentarians were housed at the end of the 17th century.

The skeletons could therefore have been buried here, between the current Rennes Opera and the town hall, between the 6th and 11th centuries. As for the cemetery, it could be the one that surrounded a church dating from the 10th or 11th century: the Saint-Pierre-du-Marché church .

Archaeological research in the town hall square in Rennes has also revealed a wall one meter wide which may have belonged to the Hôtel de Brissac.

While waiting to find out more, Cyril continues his diagnosis. Back on his end of the site, he works around the wall more than a meter wide which has also been brought to light: "This for example: the rounded shape (note: on which it leans, at the bottom of the photo) , it may be an ancient well

curb. But we need datable elements to find out..."

In the other trench, the archaeologists revealed traces of the great fire of 1720, in particular the remains of slates, floor tiles and burnt briquettes found in the embankments, and various clues evoking the filling of a ditch in the city. at the end of the Middle Ages, re-occupied by buildings of which some elements remain, specifies the town hall.

Geophysical Methods and Tools

Archaeologists use several geophysical methods, including GPR, electrical resistivity imaging (ERI), magnetometry, and electromagnetic induction (EM or EMI).

What do we learn from the graves discovered at the foot of the town hall of Rennes?

16 January 2022

<https://www.ouest-france.fr/bretagne/rennes-35000/video-que-nous-apprennent-les-sepultures-decouvertes-au-pied-de-la-mairie-a-rennes-156303e8-7538-11ec-bf95-2d0bee5037ae>

These bones will be taken this Friday, January 14, 2022, in the afternoon, to be subjected to the technique of carbon 14 dating.

Site Archaeologists

INRAP - company doing the excavation

<https://www.inrap.fr/actualites/recherche>

Cyril Hugot - INRAP archaeologist in Rennes also of ADLFI Archéologie de la France – Informations

Dominique Pouille, archaeologist research engineer,

Preventive Archaeology in France

<https://www.inrap.fr/en/rubrique/preventive-archeology-france>

What is preventive archeology ?

The purpose of preventive archaeology is to detect and undertake the scientific study of archaeological remains (on land and under water)

The excavation process

Following the evaluation, the State may stipulate that a preventive excavation be undertaken ahead of

The evaluation process

The French State may prescribe an archaeological evaluation ahead of any public or private development project to ascertain whether the land in...

Science in archaeology

There are lots of scientific methods which are used in the field of archaeology for dating the past, like **Carbon-14, Potassium argon, Thermo luminescence, Fission Track, Pollen Analysis, Dendrochronology, Archaeomagnetism, Obsidian Hydration, Soil Analysis, and Magneto Meter.**
<https://www.ijsr.net/archive/v3i7/MDIwMTQxMTc4.pdf>

NOTE: Background suppressed spectrometers with sample size of few grams are used for this purpose. Typically, about 1 - 3 days of counting time is required. In spite of many uncertainties, this method gives fairly good idea about the age of the sample up to about 60000 years.

As you can guess, due to many nuclear tests since last few decades, this technique may fail to give us proper indication in future.

<http://www.madsci.org/posts/archives/2006-12/1165769241.Es.r.html>

- Archaeological science, also known as **archaeometry**, consists of the application of scientific techniques to the analysis of archaeological materials and sites.
- https://en.wikipedia.org/wiki/Archaeological_science

Types of archaeological science

Archaeological science can be divided into the following areas:[4]

- physical and chemical dating methods which provide archaeologists with **absolute** and **relative chronologies**
- artifact** studies
- environmental approaches which provide information on past landscapes, climates, flora, and fauna; as well as the diet, nutrition, health, and **pathology** of people
- mathematical methods for data treatment (including computer-based methods)
- remote-sensing** and **geophysical-survey** techniques for buried features
- conservation sciences**, involving the study of decay processes and the development of new methods of conservation

Techniques such as **lithic**

analysis, archaeometallurgy, paleoethnobotany, palynology and **zooarchaeology** also form sub-disciplines of archaeological science.

https://en.wikipedia.org/wiki/Archaeological_science#Types_of_archaeological_science

Rennes Universities Research Center in Archaeology, Archeosciences, History (CReAAH) (LAHM)

- <https://international.univ-rennes2.fr/structure/creaah-lahm>

•Created in 1991, CReAAH is an interdisciplinary research unit at the intersection of social sciences, environmental sciences and physical and chemical sciences. Under the supervision of the French National Centre for Scientific Research (CNRS), the universities of Rennes 1, Rennes 2, Nantes and Le Mans, the French Ministry of Culture, and with the French National Institute for Preventive Archaeological Research (INRAP) as a partner institution, CReAAH is characterized by its structuring and unifying position in a large north-western quarter of France. Its field of activity revolves around the study of changes in human societies over the very long term, from ancient prehistory to the early modern period, and covers a very broad geographical area. For France, this mostly involves the Atlantic Coast. CReAAH holds a prominent position in the national archaeological and archaeological sciences research landscape.

Dating methods in archaeology

Same as **geologists** or **paleontologists**, **archaeologists** are also brought to determine the age of both ancient and recent humans. Thus, to be considered as archaeological, the remains, objects or artifacts to be dated must be related to human activity. It is commonly assumed that if the remains or elements

to be dated are older than the human species, the disciplines which study them are sciences such as geology or paleontology, among some others.

Nevertheless, the range of time within archaeological dating can be enormous compared to the average lifespan of a singular human being. As an example [Pinnacle Point's](#) caves, in the southern coast of [South Africa](#), provided evidence that marine resources (shellfish) have been regularly exploited by humans as of 170,000 years ago.^[16] On the other hand, remains as recent as a hundred years old can also be the target of archaeological dating methods. It was the case of an 18th-century [sloop](#) whose [excavation](#) was led in [South Carolina \(United States\)](#) in 1992.^[17] Thus, from the oldest to the youngest, all [archaeological sites](#) are likely to be dated by an appropriate method.

Dating material drawn from the [archaeological record](#) can be made by a direct study of an [artifact](#), or may be deduced by [association](#) with materials found in the [context](#) the item is drawn from or inferred by its point of discovery in the [sequence](#) relative to datable contexts. Dating is carried out mainly [post excavation](#), but to support good practice, some preliminary dating work called "spot dating" is usually run in tandem with [excavation](#). Dating is very important in archaeology for constructing models of the past, as it relies on the integrity of dateable objects and samples. Many disciplines of [archaeological science](#) are concerned with dating evidence, but in practice several different dating techniques must be applied in some circumstances, thus dating evidence for much of an archaeological sequence recorded during excavation requires matching information from known absolute or some associated steps, with a careful study of [stratigraphic relationships](#).

In addition, because of its particular relation with past human presence or past human activity, archaeology uses almost all the dating methods that it shares with the other sciences, but with some particular variations, like the following:

Written markers

- [Epigraphy](#) – analysis of inscriptions, via identifying graphemes, clarifying their meanings, classifying their uses according to dates and cultural contexts, and drawing conclusions about the writing and the writers.
- [Numismatics](#) – many coins have the date of their production written on them or their use is specified in the historical record.
- [Palaeography](#) – the study of ancient writing, including the practice of deciphering, reading, and dating historical manuscripts.

Seriation

[Seriation](#) is a relative dating method (see, above, the list of relative dating methods). An example of a practical application of seriation, is the comparison of the known [style](#) of artifacts such as [stone tools](#) or pottery.

Age-equivalent stratigraphic markers

- [Paleomagnetism](#) (a relative dating method, see the corresponding list above)
- [Marine isotope stages](#) based on the [oxygen isotope ratio cycle](#) (a relative dating method, see the corresponding list above)
- [Tephrochronology](#) (an absolute dating method, see the corresponding list above)

Stratigraphic relationships

The [stratigraphy](#) of an archaeological site can be used to date, or refine the date, of particular activities ("contexts") on that site. For example, if a context is sealed between two other contexts of known date, it can be inferred that the middle context must date to between those dates.

Refer to link for specifics

https://en.wikipedia.org/wiki/Chronological_dating#Dating_methods_in_archaeology

Ground Penetrating radar

<https://www.geophysical.com/using-ground-penetrating-radar-archaeological-sites>

Archaeologist Peter Leach, a technical trainer at GSSI, on the best way to use GPR for archaeology:

GPR works by sending a tiny pulse of energy into a material via an antenna. An integrated computer records the strength and time required for the return of any reflected signals. Subsurface variations create reflections that are picked up by the system and stored on digital media. GPR is considered the most accurate, highest resolution geophysical technology. It works best in dry sandy soils with little salt content; the technique is not useful on the coasts where there is a high salt content, for example salt marsh. Dense clay-based soils are difficult to penetrate with GPR, it cannot see through metal and is also incapable of identifying bone.

Before even starting to scan, it is absolutely critical to obtain as much information as possible about the site. GPR surveyors should seek out any historical maps and make sure they have access to the results of walkover surveys showing concentrations of archaeological features and artifact density. GPR surveyors should also have an idea of what researchers expect the GPR to show them so they can get a sense of what they should be looking for.

As part of this information gathering, researchers should pay close attention to what the landscape looks like. Is it at the side of a mountain where it may be difficult to access? Is it clear of vegetation or densely vegetated? GPR equipment needs to be pushed in a straight line and the antenna sits on the ground, so if a site is overly vegetated it must be cleared before conducting a GPR survey. Essentially, anything one would not want to go over with a lawn mower would also be difficult for GPR equipment.

Other factors surveyors should know is the time period being investigated, results from the initial archaeological investigation, and the density of archaeological features to be mapped. A pre-contact Native American site may contain mainly debris from making stone tools or food remains, so there may not be much to image. A historical 17th century farm complex might contain at least one building or a cellar hole, or perhaps a large underground feature that can help orient the site, like a barn, well, privy or farm lane.

My number one recommendation is for surveyors to arm themselves with an open mind and data collection parameters that are at a high enough resolution to capture things one is looking for – but also allow for unexpected items to be found. GPR surveys are a great tool to fill in gaps between shovel tests to ensure a complete picture of a site. Surveying budgets are always tight, so the key is to collect as much data as possible within the time and budget allocated.

Context is everything, so the right surveying parameters will always be based on the type of site and the findings of the initial archaeological investigation. Collection parameters will vary by the type of site and the density of features. Ideally, one should carefully consider line spacing parameters and direction of lines based on the specific site features.

GPR surveys should always be collected on grids. Surveyors should place a larger grid over a feature so they can determine what is happening near the feature or is associated with it. A recommended practice is to bracket the area with space buffers to collect more information. This can be difficult, since projects are often restricted spatially by property boundaries. Development projects affected by the National Preservation Act's Cultural Resource Management (CRM) requirements are generally restricted to the area of potential effect; surveyors do not usually have permission to survey beyond the project boundaries. For academic projects, one should keep surveying to collect as much data as possible in the allotted time. A GPR survey provides a digital archive of the recording process; even if the site is damaged or destroyed, the digital archive will remain.

The GPR surveyor conducts the survey and tells researchers where there are anomalies. In an ideal world, the GPR surveyor would later get feedback about the anomalies, with information on what was eventually found. This would enable surveyors to go back in and re-examine the data, providing a better sense of what particular data findings mean.

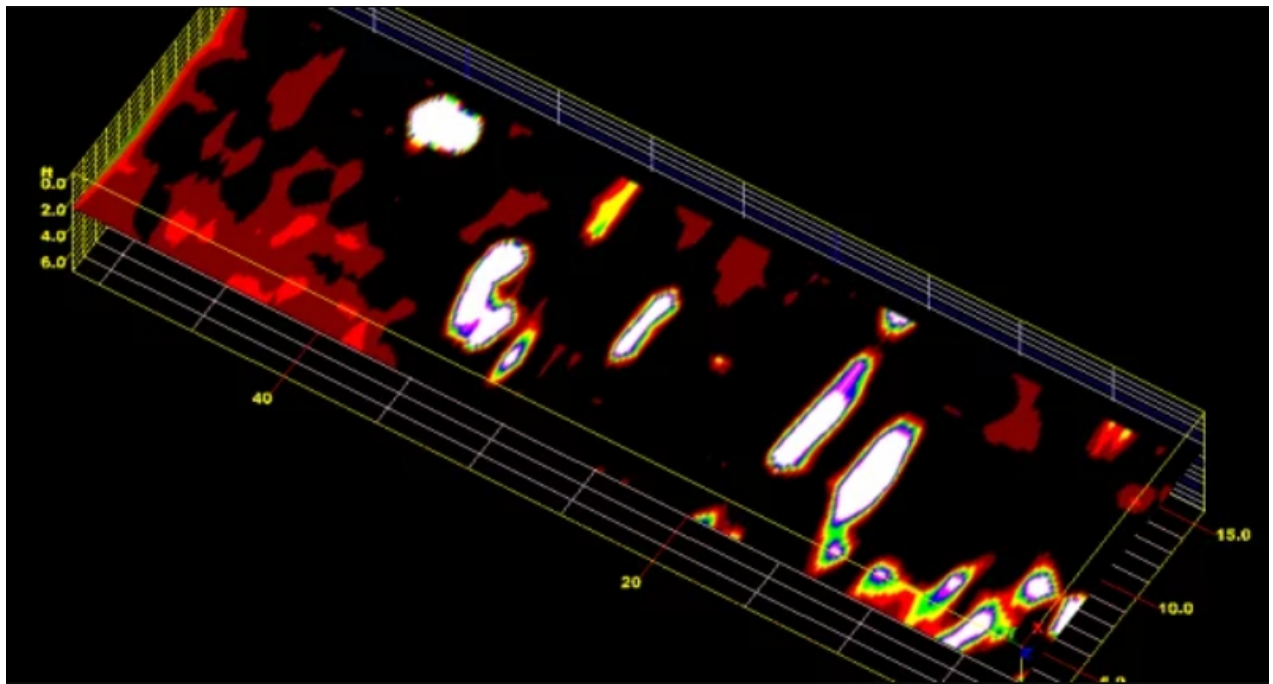
ERI is used for mapping the depth of soils and rock. It involves placing stakes in the ground and measuring electrical resistance. Technicians must set up a row of about 24-48 sensors (metal stakes) along the ground typically in a straight line; information is only collected along that one line. This tool works well in clay soil, but takes longer and costs more to get the required data coverage than GPR. One can collect 80 or more profiles of similar length with GPR in the same time it takes to collect 2-4 profiles using ERI.

Magnetometers are passive sensors that measure the strength and sometimes the direction of a magnetic field. By detecting irregularities in the earth's magnetic field, a magnetometer can indicate the location of items made of ferrous material. Archaeologists use them to measure human activity that increases magnetism. For example, old fire pits have higher magnetic readings, as do bricks, storage pits, and even old trenches. Magnetometers do a good job of finding ferrous objects, but do not provide accurate depth information like GPR.

Electromagnetic induction (EM or EMI) devices measure the change in mutual impedance between a pair of coils on or above the earth's surface. Most EM instruments are comprised of two or more sets of coils, electrically connected and separated by a fixed distance. EM devices can simultaneously examine soil conditions and locate objects found beneath the surface of the earth spatially, but do not provide good depth information.

It is important to emphasize that these methods are often complementary, because each is better at measuring different things. For example, magnetometers are often paired with ER surveys. But here's the vital point: Only GPR can provide true depth information that can be calibrated. Unlike other available geophysical methods, a GPR survey can indicate where an anomaly or archaeological feature is in high resolution spatially, enabling archaeologists to say how deep it is below the surface.

Post-processing software enables users to reduce or remove noise to accentuate what they are looking for. The accompanying figure shows a three-dimensional GPR data image that identifies nine anomalies that could represent burials. The data was processed with RADAN post-processing software.



One excellent software-based technique is called time-slicing, in which all the individual lines of data

collected are stitched together using the assigned coordinates into a three-dimensional cube of the survey area. Horizontal slices (also called time slices) can isolate specific depths to show the soil layers and review lateral relationships and actual feature shapes. Time slices help researchers really see the shape of a feature, like a circular well or building foundation, or a long linear pipeline. The slices add an immense amount of interpretative data and are often the best way to illustrate findings to the general public.

Other recent excavations in Rennes

Parc des Tanneurs 2018 dozens of skeletons

Rennes: archaeological excavations in the Tanners Park

<https://france3-regions.francetvinfo.fr/bretagne/ille-et-vilaine/rennes/rennes-remonter-temps-fouilles-archeologiques-du-parc-tanneurs-1490863.html>

Uncovering dozens of skeletons, dating from the 4th to the 7th century at the Parc des Tanneurs. The site was indeed home to an early Christian cemetery. For a month, a dozen archeology students work on this site in the heart of Rennes, a long and meticulous job. This school project, led by the National Institute for Research in Preventive Archeology (Inrap), represents a real boon for these future archaeologists, allowing them to train in the field.

Go back to the time of the ancient Rennes

"It's a little stressful, we have bones that are quite fragile, we mustn't make any mistakes" confides Mathieu, one of the students present on the site, who says he is also having fun, "a skeleton, Reminds me of Indiana Jones!" , For everyone, it is a question of going back in time with the study of this northern district of the ancient city of Rennes and the discovery of this necropolis from the end of Antiquity. "We are in the ancient city of Rennes, continues Mathieu, and we are not far from one of its main entrances, so there is a lot of information to be found on the site." An urban construction site, where it is easier for example to observe the different strata, "We have all the aspects of archeology represented, explains the archaeologist Dominique Pouille, the excavation of buildings, which is a constant of urban archeology and then these burials, which require a finer, more specific approach . "

An archaeological garden in the long term

The students will work until mid-July, to highlight part of the remains, and the site will eventually become an archaeological garden .

A site open to the public on June 15, 16, 17 on the occasion of the national days of archeology . With on the program: an archaeological investigation game, discovery workshops, an excavation simulator and the screening of two documentary films on Rennes' heritage.

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The report in Rennes by Catherine Carlier and Bruno Van Wassenhove
video length: 02 min 05

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allowfullscreen></iframe>

2016 Archaeological excavations at the Hôtel Dieu: the ancient past of Rennes is revealed

110 skeletons found

<https://france3-regions.francetvinfo.fr/bretagne/ille-et-vilaine/rennes/fouilles-archeologiques-l-hotel-dieu-le-passe-antique-de-rennes-se-devoile-1081161.html>

Published on 08/09/2016 at 2:20 p.m. • Updated 06/15/2020 at 10:54 a.m.

Written by Lucas Hobe photos by © Lucas Hobe

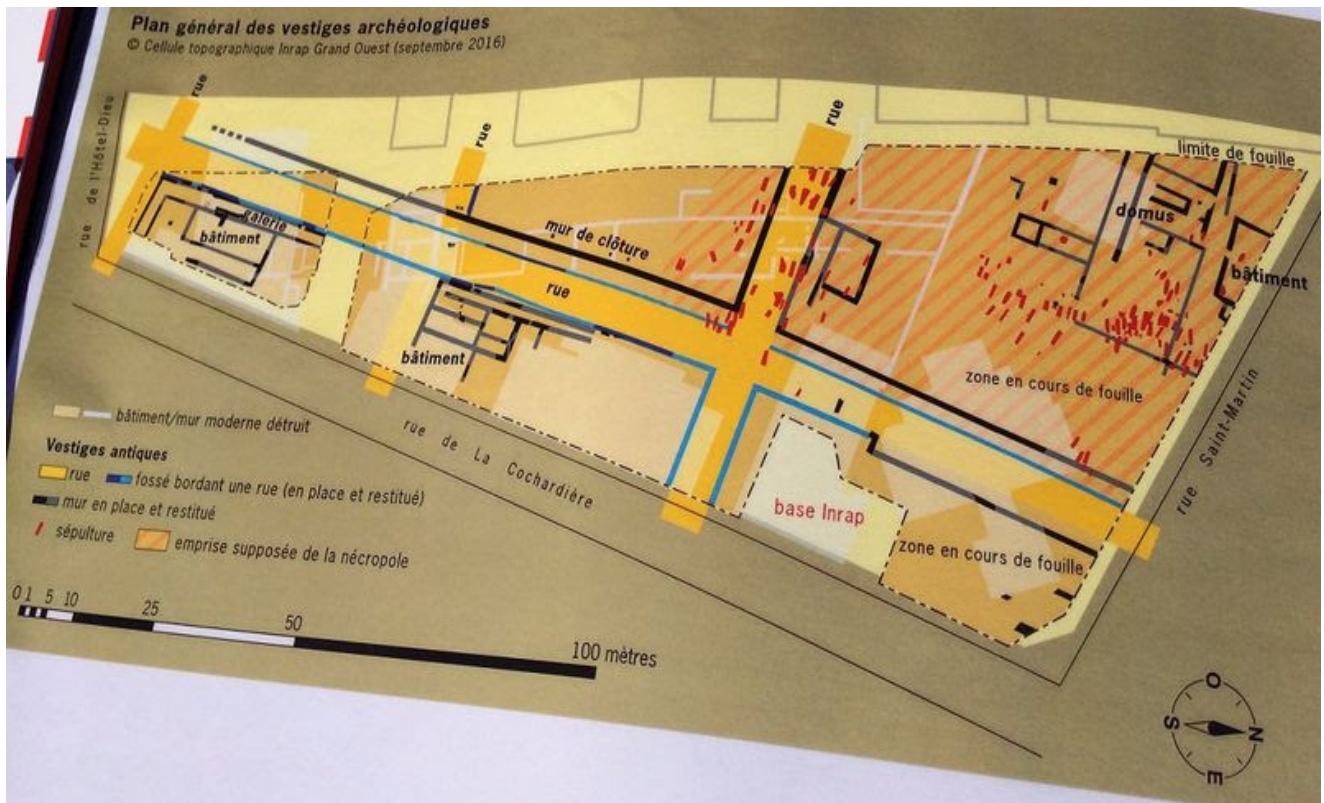
Since May, an Inrap team has been carrying out archaeological excavations on the Hôtel-Dieu site in Rennes as part of the construction of a residential complex by the Bati-Armor company. As discoveries are made, the history of the city unfolds.

About fifteen archaeologists, anthropologists, topographers and specialists have been busy since May on the site of the Hôtel-Dieu in Rennes to uncover traces of life dating from the Gallo-Roman period (2nd century BC - 476 A.D). In 2012, a diagnosis had made it possible to detect the presence in the basement of vestiges of the ancient city.

After four months of excavations, the 7,500 m² site has revealed some secrets about the ancient past of the Breton town. " We discovered several streets, one in a north-south direction and three in an east-west direction. They intersect at right angles and delimit the different buildings. We found the foundations of dwellings, a domus (house, editor's note) of a wealthy Rennes, a garden, a large

public space that continues under the hospital and a necropolis " says Romuald Ferrette, operations manager.

Archeology days: with the discovery of a necropolis dating from the 4th to the 7th century, the second excavation campaign, carried out in the Parc des Tanneurs north of Rennes, represents a real journey into the past. A school project carried out with students.



110 skeletons found

By going through the area with a fine-toothed comb, the team from the National Institute for Preventive Archaeological Research (Inrap) got their hands on several ancient objects testifying to the presence of human life on the Rennes site between the 1st and 3rd centuries: jewellery, amphoras or coins .



More than 110 skeletons were discovered in the necropolis dating from the 4th century. The deceased were buried in a coffin, in a simple shroud or laid out in formwork made from materials from the abandonment of buildings. According to Romuald Ferrette, nearly 300 skeletons are present on the site.



“ We make a safeguard by the study. All the skeletons, the objects and all the furniture will be preserved . They will then be visible in places like museums to allow people to discover the history of the city. Studies and publications will be available on the DRAC website to report on what was found during the excavations at the Hôtel-Dieu. The remains will be destroyed for the establishment of the residential complex "explains Yves Ménez, regional curator of archaeology.

Discovery days for the public

The archaeological work carried out [at the Couvent des Jacobins](#) , during the [digging of the second metro line](#) or at the Hôtel-Dieu provide information on the history of the city of Rennes.



Covenant Jacobin 2011-2015 24 February 2021 article

IN RENNES, A NEW VISION OF THE HISTORY OF DEATH

From 2011 to 2013, an Inrap team, under curation by the State (Drac Bretagne), conducted an integral preventive excavation of the Jacobin convent, the site of the future Rennes Métropole conference center.

<https://www.inrap.fr/en/rennes-new-vision-history-death-12072>

STUDY OF A DECEASED POPULATION FROM THE 14TH TO THE 18TH CENTURY

Archaeologists distinguish two burial periods at the Jacobins convent. The individuals buried from the 14th to 15th century show no evidence of post-mortem interventions. From the 16th to 18th century, approximately 1250 subjects were interred, 483 of whom were studied in depth. According to the archives of the time, which mention the burial of 113 subjects, nobles composed 74% of this population, clergy members 8%, and 4% were of the Third Estate, the rest being undetermined. Among the 483 remains studied, only 18 subjects (twelve complete skeletons, one cadaver and five hearts) and 18 scattered bones bear evidence of post-mortem interventions (craniotomy, opening of the thorax and/or the abdomen and/removal of the heart).

SECULARIZED DEATH IN THE MODERN ERA?

The evolution of funeral practices from the Middle Ages to the Modern era is considered as a process of secularization. Certain interment procedures that were initially religious and reserved for kings during the Medieval period, would have been gradually extended to many nobles with the intention, very contemporary, of preserving the body and presenting a peaceful image of the deceased to the family.

At the Jacobins convent, however, at which many nobles were buried, only 2.7% of the sample bears evidence of post-mortem intervention.

Furthermore, these interventions, craniotomy and heart removal, are acts that mutilate the bodies. The influence of religious dogma is very visible. In the case of Louise de Quengo and her husband, the burials were inversed and complementary – the heart of one with the body of the other and vice versa – and thus prove the attachment between the spouses. The two religious centers of which they were benefactors are also honored. The multiplication of burial sites increased the number of masses and prayers honoring the dead. In addition, removing just the heart represented a middle ground between numerous funeral services and the integrity of the body advocated in the papal bull issued by Boniface VIII in 1299.

We also know that lead coffins, which had been known since the end of Roman times, were intentionally ostentatious and preserved bodies that had not been treated, which was a sign of saintliness. The intention was clearly to preserve the body, but not to display it. This practice was also valorized by Council of Trent, which equated the Resurrection of the Flesh with the resurrection of flesh.

A multidisciplinary approach, with medical examiners, radiologists and anthropologists contributing to the work of archaeologists, permitted an exhaustive study of this convent in Brittany and a new vision of the history of death.

At the Forensic Institute of Toulouse, the Inrap team led by Rozenn Colleter continues its collaboration with Fabrice Dédouit, medical examiner, for a new autopsy: that of four human hearts contained in lead chests discovered in Rennes two years ago.

© Inrap – 2015

Discovered in 2014, during preventive excavations at the Jacobins convent

Images and descriptive text including artifacts, clothing, scan of preserved heart and CT scan of a well preserved body

It was in 2014 during an excavation at the Jacobin convent in Rennes that archaeologists made this discovery . Among hundreds of graves, Louise's body is found perfectly protected in a lead sarcophagus, a sign of wealth. Re-exposed to ambient air, the body had to be studied in less than 4 days.

Louise de Quengo is honored in a new exhibition at the Musée de Bretagne in Rennes. This woman of the Breton nobility lived in Rennes in the 17th century. His remarkably well-preserved burial was unearthed during preventive excavations at the Jacobin convent.

<https://france3-regions.francetvinfo.fr/bretagne/ille-et-vilaine/rennes/rennes-exposition-autour-louise-quengo-dame-du-17eme-siecle-1377715.html>

The 17th century at your fingertips. This is what the visitor to this exhibition at the Musée de Bretagne in Rennes feels. Headdresses, mules, a homespun dress, it's a whole way of life from that time that is on display. These clothes were worn by a deceased, found in an exceptional state of preservation. Her name: Louise de Quengo de Tonquédec . Died in 1656 at the age of 65, this

Breton woman from the nobility also had near her a reliquary containing the embalmed heart of her husband, an unprecedented discovery.

In this regard, the editorial staff recommends

[Rennes: a burial of the Convent of the Jacobins reveals its secrets](#)

Findings - pathologies

The samples from these excavations have not yet revealed all their secrets, especially at the medical level. But scientists have already been able to identify very contemporary cardiac pathologies. As for Louise, her body was finally buried on the land of her ancestors in Tonquedec, in the Côtes d'Armor, very close to her brother's castle, where she should now be able to rest forever.

In this he editorial staff recommends

[Four centuries later, Louise de Quengo finds a tomb in Tonquédec](#)

This temporary exhibition, at the Champs Libres in Rennes , sheds new light on certain funerary practices of this period. It has been open since Sunday, December 1 and only continues until January 14, 2018 , given the fragility of the fabrics and objects. The report at the Museum of Brittany in Rennes by Karine Cevaër and Thierry Bréhier

video length: 01 min 49

<https://france3-regions.francetvinfo.fr/bretagne/ille-et-vilaine/rennes/rennes-exposition-autour-louise-quengo-dame-du-17eme-siecle-1377715.html>

The last battle of Anne of Brittany: Solving mass grave through an interdisciplinary approach (paleopathology, biological anthropology, history, multiple isotopes and radiocarbon dating) Thursday, January 20, 2022

<https://hal.archives-ouvertes.fr/hal-03331776/document>

<https://hal.archives-ouvertes.fr/view/index/identifiant/hal-03331776>

Abstract : Mass graves are usually key historical markers with strong incentive for archeological investigations. The identification of individuals buried in mass graves has long benefited from traditional historical, archaeological, anthropological and paleopathological techniques. The addition of novel methods including genetic, genomic and isotopic geochemistry have renewed interest in solving unidentified mass graves. In this study, we demonstrate that the combined use of these techniques allows the identification of the individuals found in two Breton historical mass graves, where one method alone would not have revealed the importance of this discovery. The skeletons likely belong to soldiers from the two enemy armies who fought during a major event of Breton history: the siege of Rennes in 1491, which ended by the wedding of the Duchess of Brittany with the King of France and signaled the end of the independence of the region. Our study highlights the value of interdisciplinary approaches with a particular emphasis on increasingly accurate isotopic markers. The development of the sulfur isoscape and testing of the triple isotope geographic assignment are detailed in a companion paper [13].

[**TED talk about not focusing n the wealthy in archaeology**](#)