Data S1

The Lariey cemetery (Puy-Saint-Pierre, Hautes-Alpes, France)

The Lariey cemetery was excavated in 2002 CE as part of a programmed excavation. This burial site is located in a wooded area, on the edge of the three hamlets that make up the village of Puy-Saint-Pierre, about 5 km from Briançon[1]. The cemetery is marked out in the topography by walls of rough stone blocks, both visible on the Napoleonian cadaster and today. It is located on the edge of a clearing, which likely corresponds to the site of an infirmary. Since no structural remains of this hospital have been find, it was hypothesized to have consisted of wooden huts or tents that were burnt down after the epidemic. On the basis of four ^{14}C dating analyses and the ceramic types, this site could be dated to the early 17th c. CE. The cemetery is known to have been used to bury the victims of the 1629-1630 CE epidemic, according to historical archives indicating the presence of the plague in 1630 CE throughout the Durance valley and in particular at Pinet, one of the hamlets of Puy-Saint-Pierre (Archives Municipales de Briançon séries G 122 to GG 137[2,3]). All the 34 bodies present in this burial space were excavated. Archaeological excavations revealed that the individual burials located to the north of the area corresponded to the first deaths. These gradually gave way to double and simultaneous burials, located more centrally, and finally to multiple burials, located south. This organisation reflects an obvious progression in mortality during the outbreak[4]. The surge for burrying increasing number of bodies in the southern part of the site is also shown through the lack of sediment to cover the corpses and the use of stone blocks to preserve them from scavenging.

The hôtel-Dieu Saint-Jean-Baptiste (Amiens, Somme, France)

The preventive archaeological excavation carried out at 12, rue de la Résistance in Amiens (Somme, France) by the *Service archéologie préventive d'Amiens Métropole* in the second half of 2017 CE uncovered part (13%) of the former cemetery of the plague victims of the city of Amiens. This cemetery was originally established during the first third of the 16th c. CE, following the decision of the aldermanic council. It was built at the western end of the urban domain of the Hôtel-Dieu Saint-Jean-Baptiste, which represented the main charitable establishment in the parish of Saint-Leu. This specialized burial area was located in a wet urban environment marked by its relative isolation thanks to the surrounding canals. A corpus of 259 individuals were distributed across 107 burials of three main types. Approximately one third of the burials were individual graves. A total of 26 multiple graves, in the same stratigraphic phase (16th-17th c. CE), included 2 to 12 individuals. Finally, a total of 97 subjects were buried in four multiple graves including 14 to about 100 individuals, following a general rehabilitation of the site. The 166 adults identified during the excavation showed a balanced male/female distribution and an excessive mortality in young adults. The multiple pits characterize a sudden peak in mortality, putting an end to the funerary use of this space. Historical research and ceramic data have confirmed that the large mass graves excavated at 12, rue de la Résistance dated to the second half of the 17th c. CE.

The burial area of the plague victims of the Maladrerie Saint-Lazare (Beauvais, Oise, France)

Between 2002 CE and 2014 CE, the Maladrerie Saint-Lazare was subjected to several preventive archaeological campaigns by the municipal archaeological service of the city of Beauvais. The Maladrerie Saint-Lazare was founded between the end of the 11th c. CE and the beginning of the 12th c. CE. It was built outside the city on a 3-hectare site, was intended to accommodate lepers and people suffering from skin diseases. Probably due to the significant decline of leprosy, part of this space was later used for the hospitalization of the sick and the burial of plague victims[5,6]. The historical archives indicate that, from 1623 CE onwards, a place dedicated to people suffering from the plague was set up to the south-east of the sick house and outside the boundary wall. The burial site of the plague victims was discovered between August and December 2013 CE. This area was organized with buildings arranged in a U-shape and a ~200 m^2 area for burials, mostly consisting of multiple graves with barely perceptible borders, and including two to several hundred individuals of all age groups. The overlap observed between burials suggests two periods of high mortality during the first half of the 17th c. CE.

Some individuals were wrapped into a textile enveloping their entire body, which sometimes can be a garment, as indicated by the presence of pins, eyelets or staples. This, and the fact that many individuals were buried on their backs, with their arms bent over their chest, indicate that the deceased were treated with a certain amount of care. However, many corpses were found to be laying on their sides, their stomachs, or were arranged head to toe. This testifies to a period of high epidemic mortality and the need to maximize burial space[7,8].

The mass grave of La Major Cathedral (Marseille, Bouches-du-Rhône, France)

The preventive excavation carried out in autumn 2008 CE in the eastern part of the esplanade of the Cathedral of La Major revealed a mass grave contemporary to the plague epidemic of 1720 CE[4]. The archives of the city of Marseille attest to the digging and use of pits in this sector in September 1720 CE: "Sr. Bouys will pay on the present note one hundred and seventy-one pounds for the days of the peasants who worked on the 3rd and today to make pits in the cemetery of the Major, in Marseille this 4th September 1720, Estelle" (*Archives municipales de Marseille*, GGL 371). This time period corresponds to the heights of plague mortality in Marseille, with more than a thousand people dying every day[9]. The excavation of skeletons still in connection or anatomical coherence through four levels supports the nearly simultaneous deposition of the bodies in various orientations and positions, indicating a situation of funerary emergency. This was further supported by the many valuable objects found on the skeletons, such as coins, shoe or belt buckles and clothing buttons, which were usually taken by undertakers as payment. One of the coins uncovered dated to 1720 CE, a sixth of a silver shield of Louis XV. A total of 81 adults and 25 immature subjects could be identified from the excavated skeletons.

Les Rayettes, Capucins de Ferrières trenches (Martigues, Bouches-du-Rhône, France)

This site was named according to its geographic location on the heights of the Ferrières district, one of the three parishes of Martigues, near a Capuchins' convent that was used as an infirmary during the epidemic of 1720-1721 CE[4,10]. A total of 208 individuals, representing 122 adults and 86 immatures, were excavated from five parallel trenches. The great diversity of postures, contacts and orientations of the 35 skeletons found on trench I clearly indicated bodies simultaneously unloaded from dumpsters. The deposition of the 97 skeletons from trench IV, which was the most densely filled, evolved from one end of the structure to the other. The first 12 meters to the west showed skeletons arranged together three at a time and transversally to the axis of the trench, heads pointing west. The presence of sediment between these rows showed that they had been backfilled over time. In the remaining part of the trench, the bodies were deposited disorganized and on several levels. One of the deceased had a sixth of a Louis XV silver shield identical to the one discovered on the site of the Cathedral of La Major. Historical archives suggest that the deceased came from the nearby district of Ferrières and two more distant parishes of Martigues (Jonquières and L'Île). Previous work based on F1 antigen analysis[11] and DNA[12] indicated that the bodies were infected by *Y. pestis*.

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