

VINCENT DROST, DOMINIQUE HOLLARD, FLORENCE MORET-AUGER, FABIEN PILON,  
CHRISTIAN PIOZZOLI, VÉRONIQUE PISSOT AND LUDOVIC TROMMENSCHLAGER<sup>\*,\*\*</sup>

## THE SAINT-GERMAIN-LÈS-ARPAJON HOARD (ESSONNE, FRANCE): JUST ANOTHER “BIG” RADIATE HOARD?

### *Abstract*

*The Saint-Germain-lès-Arpajon hoard, found in 2008 near Paris, is among the biggest Roman coin hoards. The two jars, successively found by workers and by archaeologists, contained nearly 34,000 copper alloy coins of the second half of the 3rd century AD. Although exceptional in size, the hoard belongs to a most common category of coin hoards. As its complete study is drawing to an end, this paper aims at discussing the methodology used and the challenges faced to complete such a long-term task. Is it really worth the effort, as several very big hoards of this kind have already been published? Every coin hoard has its interesting features and the Saint-Germain-lès-Arpajon is unique, as shown by its internal structure. Therefore, it deserves to be thoroughly studied and compared to other treasures for a better understanding of hoarding practices and coin circulation patterns.*

### *Keywords*

*Coin Hoard, Roman Empire, Gaul, Radiates, Probus, Stratigraphy*

\* Vincent Drost & Dominique Hollard: Bibliothèque nationale de France, département des Monnaies, médailles et antiques – Florence Moret-Auger & Véronique Pissot: Institut national de recherches archéologiques préventives – Fabien Pilon: UMR 7041 ArScAn, équipe GAMA – Christian Piozzoli: Direction régionale des affaires culturelles d’Ile-de-France, Service régional de l’archéologie – Ludovic Trommenschlager: École Pratique des Hautes Études et Université de Lille, UMR 8210 AnHiMA.

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## “BIG” RADIATE HOARDS

The Saint-Germain-lès-Arpajon hoard is both usual and extraordinary. Usual because it belongs to the most common category of coin hoards, those made of debased radiates of the second half of the 3rd century. Extraordinary because of its size: 33,965 coins weighing about 100 kg. Without doubt, Saint-Germain-lès-Arpajon is a big hoard. But what is a big hoard? This is of course a very subjective matter and the answer depends on various criteria such as size, intrinsic value, exceptional nature, etc. For instance, a few thousand silver denarii or copper alloy sestertii would form a big hoard whereas the same amount of debased radiates probably would not. In this paper, we arbitrarily chose to consider only hoards of debased radiates of more than 20,000 coins.<sup>1</sup>

This leaves us with a handful of hoards, all originating from Northern Gaul and Britain, where debased radiates and their copies (“barbarous radiates”) were circulating massively. Major British hoards were published in the 1980’s:<sup>2</sup> first the re-publication of an old find, the Blackmoor hoard (29,802 coins),<sup>3</sup> then the publication of more recent finds such as Cunetio (54,951 coins)<sup>4</sup> and Normanby (47,912 coins).<sup>5</sup> These publications are still reference works. Also very promising is the Frome hoard (52,503 coins), which has not yet been fully published.<sup>6</sup> In France too, massive radiate hoards have been found. The largest of all is the Évreux hoard, found in the late 19th century, which contained more than 100,000 coins.<sup>7</sup> Fortunately, the coins were not dispersed and about 70,000 were cleaned and sorted by emperor. More recently, the Pannecé II hoard (c. 38,000 coins) has been fully catalogued.<sup>8</sup> Despite sustained efforts to study these two hoards, detailed publications have not yet been completed. This shows how challenging dealing with such big hoards is.

As the study of the Saint-Germain-lès-Arpajon hoard is nearing completion, the “Too Big to Study” seminar provided a good opportunity to present the method used

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<sup>1</sup> We will leave aside hoards such as Reka Devnia, Dorchester, Éauze, Gibraltar, Komin or La Venera. Although very large, these hoards mostly consist of coins with a higher silver content. Nor will we be dealing with enormous barbarous radiate hoards such as Troyes (see *infra* or *supra*).

<sup>2</sup> The Irchester hoard, found in 1963 and consisting of c. 42,000 coins up to the reign of Probus, has not been published (see Robertson 2000, 180-1, no. 755).

<sup>3</sup> Bland 1982.

<sup>4</sup> Besly and Bland 1983.

<sup>5</sup> Bland and Burnett 1988.

<sup>6</sup> Moorhead et al. 2010 (see also *infra* or *supra*).

<sup>7</sup> Teitgen et al. 1985.

<sup>8</sup> Aubin et al. 2005.

to achieve this long-term work. Is it really worthwhile to study such big hoards? If so, how should it be done?

## METHODOLOGY AND CHALLENGES

The circumstances of the find and the reporting time frame – immediate declaration is mandatory in France – have a major impact on the study process. Regarding chance finds, research depends on the civic-mindedness of the finder(s). Paradoxically, the bigger the hoard, the more likely it is to be declared as important discoveries can hardly go unnoticed. The way the Saint-Germain-lès-Arpajon hoard was processed from the moment it was found is a model of its kind. The initial discovery occurred in November 2008. While doing leveling work in the garden of a private house in Arpajon, about 30 km southeast of Paris, two workers hit a pot full of coins (called vessel 2 below). The coins spread out of the broken jar and were collected by the workers and stored in buckets. The find was immediately reported to the authorities. The site was subsequently excavated by archaeologists (Institut de recherches archéologiques preventives). This proved to be most useful as archaeologists found a second pot (called vessel 1 below), almost complete, a few centimeters away from the first one (figure 1). The pot and its contents were blocklifted. Excavation of

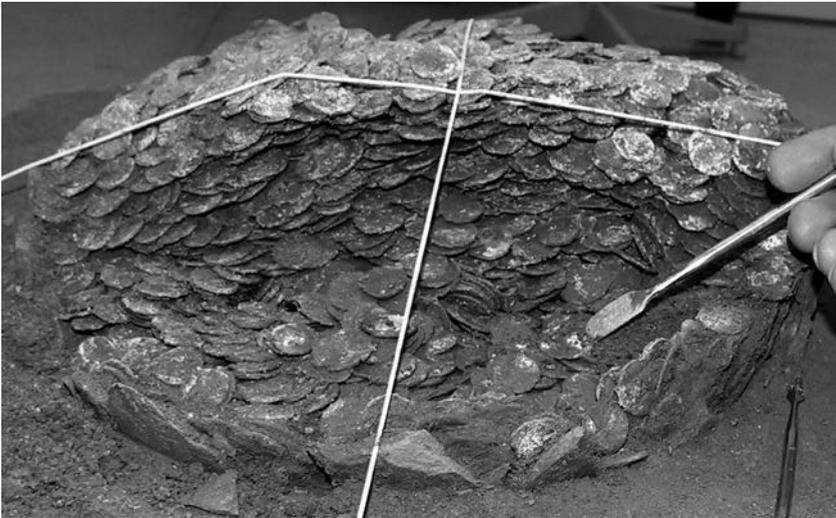


Figure 1 – The two jars right after the discovery

the surrounding area did not reveal any other archaeological remains, even though there was a Roman presence nearby at Arpajon, including a road connecting Paris to Orléans about one kilometer away from the findspot.

A coin hoard has a value but it also has a cost. The cost for studying a hoard (conservation, cataloging, publication, etc.) can even exceed its market value. The study of the Saint-Germain-lès-Arpajon hoard was supervised and supported by two parties, the Département des Monnaies, médailles et antiques de la Bibliothèque nationale de France which carried out conservation work and funded part of the cataloging work through the research program “Trouvailles monétaires”, and the Service régional de l’archéologie d’Ile-de-France which managed a “Programme Collectif de Recherche” funded by the Direction régionale des affaires culturelles d’Ile-de-France.

The first work to be performed was dismantling the blocklifted vessel (vessel 1). It was carried out by Florence Moret-Auger using a method traditionally applied to funerary urns. More and more coin hoards are benefiting from such a technique.<sup>9</sup> Coins from the top half of the jar were removed and segregated using four vertical quarters and nine horizontal layers (figure 2). Coins from the bottom half of the jar were too corroded to be removed this way. Neither significant clusters nor organic remains suggested the presence of bags within the pot.



**Figure 2 – Vessel 1 being excavated**

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<sup>9</sup> On internal excavation of Roman coin hoards, see Drost 2018.

As it went to conservation, the hoard took the following form: a large group of loose coins (vessel 2); a big cluster (lower part of vessel 1); 30+ bags singled out in the upper part of vessel 1; and various small groups of coins scattered around the vessels. Conservation work was carried out by Francine N'Diaye and Nathalie Lecerf at the Département des Monnaies, médailles et antiques de la BnF using both chemical and mechanical techniques. The main purpose of the conservation work was to make sure that the coins were in stable condition and to make them legible for study. In the end, nearly all the coins were perfectly identifiable, as less than a hundred, including fragments, could not be attributed to a specific reign. Advanced cleaning of each one of the c. 34,000 coins would not have been justified or needed, as most of the coins in the hoard are extremely common. Remarkable coins went back to conservation afterwards when needed.

The coins were catalogued over a couple of years as they came out of conservation. Cataloging 34,000 coins could hardly be done by a single individual; therefore the task was split among five persons (Vincent Drost, Dominique Hollard, Florence Moret-Auger, Fabien Pilon and Ludovic Trommenschlager). One of the challenges was dealing with multiple groups of coins. Taking internal stratigraphy into account complicates the job for both conservators and numismatists as the task is repetitive and is equivalent to processing a multitude of small hoards. To save time, and for the sake of clarity, the number of groups singled out in the catalogue was restricted to a minimum. Among the nine layers of the upper part of vessel 1, two consistent groups stood out: the seven upper layers on one side; the two lower layers on the other side, which had a similar profile as the cluster in the bottom of vessel 1. In the end, only three groups were singled out in the catalogue: lower part of vessel 1; upper part of vessel 1; vessel 2 as a whole. Once each author had produced his part of the catalogue, the data were brought together and converted onto the spreadsheet used by the BnF to record coin hoards according to the principles of open-linked data. Ten years after the find, a detailed and harmonized description of each coin in the hoard is available for further analysis.

The coins had to be handled one last time for photography. Since most of the coins were extremely common and in mediocre condition, it was neither necessary nor helpful to photograph all of them. Therefore, the decision was made to photograph a selection of representative types as well as coins of special interest.

A coin hoard is not all about the coins. The containers had to be analysed by a ceramologist. Véronique Pissot identified the two vessels as being regional products. Vessel 2 probably originated from a workshop in Paris whereas vessel 1 is similar to products from the “Carnutes area”, west of Arpajon. A specialist still has to be found for the few small metallic objects present in vessel 2, which will not be further described here. A carpologist was not needed as fruits or seeds were not present in the vessels.

At this stage, all elements have been gathered for the complete publication of the hoard, which is planned as part of the *Trésors Monétaires* series edited by the Bibliothèque nationale de France. Since a long amount of time will have passed between the time of the find and the publication of this hoard, it is therefore important to let both the academic community and the general public know about its existence while its study and characterization are ongoing.<sup>10</sup>

## OUTCOME AND PROSPECTS

General features of the Saint-Germain-lès-Arpajon hoard follow. The study is still in progress and, at this stage, we will be asking questions rather than giving answers. Table 1 shows the distribution by emperor and denomination. The earliest coins are a handful of silver denarii dating back to the 2nd and early 3rd centuries, including broken or plated specimens. Early radiates had been largely removed from circulation by the time of the accumulation of this hoard due to their relatively high silver content. Indeed, radiates prior to the sole reign of Gallienus (AD 260-268) do not exceed 1% of the total. 99% of the coins are debased radiates struck during the period of the so-called Gallic Empire (AD 260-274) by the legitimate emperors and the Gallic usurpers. This includes “barbarous radiates” that mostly copy the debased coinage of Victorinus and Tetricus (8% of the total). The hoard terminates with a handful of reformed radiates, known as *aureliani*, struck after Aurelian’s reform in AD 274.

**Table 1 – Overall structure of the Saint-Germain-lès-Arpajon hoard (figures are provisional; in tables 1, 2 and 3, barbarous radiates are included among the reigns their prototypes belong to)**

REIGN	DATE	DENARII	RADIATES	AURELIANI	TOTAL
Hadrian	117-138	1			1
Septimius Severus	193-211	1			1
Julia Domna		2			2
Caracalla	211-218	2			2
Elagabal	218-222	1			1

<sup>10</sup> Apart from the present paper, a preliminary report about this hoard was published in 2011 (Drost et al. 2011). The hoard was also displayed to the public on various events in France (Journées du patrimoine, Journées de l’archéologie, etc.).

Maximinus I	235-238	2			2
Philip I	244-249		3		3
Trajan Decius	249-251		1		1
Herennia Etruscilla			2		2
Trebonian Gallus	251-253		7		7
Volusian			6		6
Valeérian I	253-260		115		115
Gallienus			55		55
Mariniana			1		1
Salonina			118		118
Valerian II			7		7
Divus Valerian II			14		14
Saloninus			6		6
Gallienus	260-268	7	6,074		6,081
Salonina			477		477
Claudius II	268-270		4,666		4,666
Divus Claudius II	c. 270		1,456		1,456
Quintillus	270		361		361
Aurelian	270-275		99		99
Tacitus	275-276			2	2
Probus	276-282			13	13
Postumus	260-269		411		411
Laelian	269		3		3
Marius	269		45		45
Victorinus	269-271	1	4,357		4,358
Divus Victorinus	271		12		12
Tetricus I	271-274		10,607		10,607
Tetricus II			4,945		4,945
Illegible			85		85
Total		17	33,933	15	33,965

The latest coin in the hoard is an *aurelianus* struck in Lyon in late AD 281. Therefore, Saint-Germain-lès-Arpajon belongs to a large group of Gallic hoards terminating during the reign of Probus. It should be noted that the *terminus post quem* of the two containers differ by several years as the latest coins in vessel 2 date to AD 274. Had the archaeologists found only this vessel, and not both, the picture would have been misleading.

At first glance, the overall structure of the Saint-Germain-lès-Arpajon hoard is very similar to those of the other gigantic Gallic and British hoards of the second half of the 3rd century.<sup>11</sup> Indeed, the hoards in table 2 generally hold very few coins prior to 260 and consist of a majority of debased radiates struck by the last Gallic usurpers, Victorinus and Tetricus (AD 269-274). Thanks to the many extant studies of hoards of that period, patterns of coin production and circulation are becoming well-known, although some uncertainties still remain. As usual, such a big hoard inevitably brings to light previously unknown coin types. Among the rarities in the Saint-Germain-lès-Arpajon hoard are, for instance, unlisted variants for Gallienus and Claudius II, a very rare denarius of Victorinus or unusual barbarous radiates.<sup>12</sup> But the hoard did not reveal really outstanding specimens despite the great number of coins. It should be noted that the greatest rarities do not necessarily originate from very large hoards.<sup>13</sup> So, is it really worth studying one more big hoard of this kind? Is it not only too big but also too boring to study?

**Table 2 – Comparative structure of the big Gallic and British hoards**

	TPQ	Before 253 (%)	253-260 (%)	Central Empire		Gallic Empire		After 274 (%)	Qty (legible)	Qty (total)
				260-268 (%)	268-274 (%)	260-269 (%)	269-274 (%)			
Cunetio	274	1.9	19.3	26.5	4.5	26.3	21.3	–	54,928	54,951
Pannecé II (provisional)	274 (?)	0.01	0.5	14.7	12.8	1.3	70.6	–	37,455	37,866
Évreux	276-82	0.2	22.6		14.0	14.7	48.4	0.05	68,206	100,000+
Saint-Germain-lès-Arpajon	281	0.08	0.9	19.4	19.4	1.4	58.8	0.04	33,880	33,965
Normanby	289	0.002	0.2	13.7	15.0	1.5	69.4	0.2	47,912	47,912
Frome (provisional)	290	–	0.1	14.8	16.5	0.7	63.9	3.9	43,931	52,503
Blackmoor (1877 inventory)	295-6	0.02	12.9		15.4	1.3	65.4	4.9	29,786	29,802

<sup>11</sup> Many parallels could also be found among smaller hoards.

<sup>12</sup> For an example of unusual barbarous radiates, see Drost 2017.

<sup>13</sup> A good example of this is that the two known specimens in the name of Domitian II, a short-lived Gallic usurper, originate from medium-sized hoards: the Les Cléons hoard had 1,456 coins (Estiout and Salaün 2004) and the Chalgrove II hoard had 4,957 (Abdy 2004).

**Table 3 – Distribution by broad period within the three distinctive groups**

	Vessel 1 (lower part)	Vessel 1 (upper part)	Vessel 2
Before 260	2.8%	0.5%	0.3%
260-274 (Central Empire)	75.6%	30.4%	23.1%
260-274 (Gallic Empire)	21.0%	68.9%	76.3%
After 274	0.2%	–	–
Illegible	0.5%	0.1%	0.2%
<i>Quantity</i>	8,527	11,007	14,431

If we look into more details, it appears that at least some of these hoards have specific features. For instance, Cunetio includes an important proportion of silvered radiates struck during the joint reign of Valerian and Gallienus (AD 253-260) and under Postumus (AD 260-269). Similarly, a substantial portion of the Évreux hoard consists of coins of Postumus. Such a peculiarity is likely due to the addition of selected groups of coins to the overall hoard. This is difficult to prove regarding Cunetio as the contents of its two vessels were mixed prior to study.<sup>14</sup> On the other hand, the presence of a cluster almost exclusively holding coins of Postumus has been highlighted in the Évreux hoard.<sup>15</sup> This shows the importance of taking the internal stratigraphy of hoards into account. Analyzing hoards, especially large ones, this way offers new perspectives to hoard analysis.

Here, the internal excavation of vessel 1 proved to be meaningful. It clearly showed that the jar was filled with two different groups of coins (see table 3). The upper part of vessel 1 has a profile similar to that of vessel 2, containing very few coins issued before 260, about three-quarters of radiates and barbarous radiates of the Gallic emperors and no post-reform radiates struck from 274 onwards. The share of the Central Empire is a little higher in the upper part of vessel 1 as compared to vessel 2. This could possibly be the result of pollution from the lower part as the boundary between the two parts is not well defined. On the other hand, in the lower part of vessel 1, the proportions of coins of the Central and Gallic Empires are reversed. Coins in the name of the legitimate emperors amount to three-quarters of the total. The lower part also includes most of the better denarii and radiates struck before 260 and all the later *aureliani* struck after 274. The

<sup>14</sup> Besly and Bland 1983, 14-5 and 18. Evidence suggests the presence of separate groups of coins though.

<sup>15</sup> Teitgen et al. 1985, 57-8.

lower part of vessel 1 also holds less barbarous radiates than the other portions of the hoard.<sup>16</sup>

The Saint-Germain-lès-Arpajon hoard is therefore a two-in-one hoard. Coins that were placed in the bottom of vessel 1 were apparently selected – at least partly – according to their relatively high silver content. This group could be seen as a “savings hoard”. Hoarding might have started as soon as the early 260’s and ended with the addition of a handful of reformed radiates in the late 270’s/early 280’s. On the other hand, the debased coins placed on top of vessel 1 and in vessel 2 would have been gathered in the 270’s and rather belong to the “emergency hoards” category.

Regarding the deposition, we can postulate the following scenario. First, the two vessels were probably placed empty into the ground, as they were not physically strong enough to hold tens of kilograms of coins unsupported. The top of each vessel was probably cut off to make the filling easier. The coins were apparently poured directly into the vessels, as there was no evidence of subcontainers or bags. Vessel 1 was filled half-way with a group of relatively good quality coins. It was then filled the rest of the way with a group of more debased coins. Finally, the rest of this group of coins was then most likely poured into vessel 2. The Saint-Germain-lès-Arpajon hoard was probably intended as a long term deposit as it would have been difficult to recover the coins loosely placed into the pots. The fact that it is made up of two different groups of coins shows how hazardous it is to compare big hoards without paying attention to their internal structure. Each hoard is unique and tells us in its own way about hoarding practices.

The reasons why these massive but low value hoards were deposited and not recovered have been much debated. No absolute answer seems to emerge.<sup>17</sup> Are these hoards the consequence of the “barbarous invasions” or, more generally, political and military troubles?<sup>18</sup> Are they related to the imperial monetary policy?<sup>19</sup> Or could some of them be considered as ritual deposits?<sup>20</sup> In order to answer these questions,

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<sup>16</sup> The share of copies in the three distinctive groups are the following: vessel 1, lower part: 4.2%; vessel 1, upper part: 8.9%; vessel 2: 11.4%.

<sup>17</sup> For recent summaries of explanations for the numerous coin hoards buried in the second half of the 3rd century, see van Heesch 2017, 399-400 and Bland 2018, 61-2.

<sup>18</sup> The “invasions theory”, such as expressed by Blanchet 1900, has been very popular among scholars but has been quite unanimously rejected over the past decades. However, van Heesch 2017 convincingly argues that it should not be systematically denied, at least for some specific periods.

<sup>19</sup> Mattingly and Pearce 1937-9, 188 suggest that debased radiates could have been put aside because of an unfavourable exchange rate with the *aurelianus*. In the same vein, Estiot et al. 1993, 43 demonstrate that the removal of the coinage of the Gallic emperors became effective from AD 282, shortly after the Saint-Germain-lès-Arpajon hoard terminates.

<sup>20</sup> Aitchison 1988. More recently, Moorhead et al. 2010, 36 suggested that the Frome hoard might be a ritual deposit.

it is necessary to study these hoards in a serial way based on thorough studies of individual hoards. Our understanding of this kind of deposit is still very deficient and we cannot afford to skip studying big hoards such as Saint-Germain-lès-Arpajon, no matter how long they take to study.

## BIBLIOGRAPHY

- Abdy 2004: Abdy, R. "The second-known specimen of a coin of Domitian II recorded in a hoard from Oxfordshire." *Revue Numismatique* 160 (2004): 219-21.
- Aitchison 1988: Aitchison, N.B. "Roman wealth, native ritual: coin hoards within and beyond Roman Britain." *World Archaeology* 20, no. 2, 1988, 270-84.
- Aubin et al. 2005: Aubin, G., S. Berthomé, and C. Cécillon, "Dossier : Le trésor monétaire de Pannecé II (Loire-Atlantique, France)." *Bulletin de la Société française de Numismatique* 60, no. 2 (February 2005): 26-42.
- Besly and Bland 1983: Besly, E., and R. Bland. *The Cunetio Treasure: Roman Coinage of the Third Century AD*. London: British Museum, 1983.
- Blanchet 1900: Blanchet, A., *Les trésors de monnaies romaines et les invasions germaniques en Gaule*. Paris: E. Leroux, 1900.
- Bland 1982: Bland, R. *Coin Hoards from Roman Britain. Volume III. The Blackmoor Hoard*. London: British Museum Occasional Papers 33, 1982.
- Bland and Burnett 1988: Bland, R., and A. Burnett. *Coin Hoards from Roman Britain. Volume VIII. The Normanby Hoard and Other Roman Coin Hoards*. London: British Museum, 1988.
- Bland 2018: Bland, R. *Coin Hoards and Hoarding in Roman Britain*. London: Spink & Son, British Numismatic Society Special Publication 13, 2018.
- Drost et al. 2011: Drost, V., F. Moret-Auger, and C. Piozzoli. "Le dépôt monétaire de Saint-Germain-lès-Arpaçon (Essonne) : premiers résultats." *Bulletin de la Société française de Numismatique* 66, no. 10 (December 2011): 285-94.
- Drost 2017: Drost, V. "Une réutilisation clandestine de coins monétaires de l'Empire gaulois ? À propos de quelques imitations radiées avec revers exceptionnels." In *Rome et les Provinces. Monnayage et Histoire. Mélanges offerts à Michel Amandry*, edited by L. Bricault, A. Burnett, V. Drost, and A. Suspène, 389-97. Bordeaux: Ausonius Éditions, Numismatica Antiqua 7, 2017.
- Drost 2018: Drost, V. "Micro-fouille et structure interne de trésors monétaires romains." In *Monnaies et archéologie en Europe celtique. Mélanges en l'honneur de Katherine Gruel*,

- edited by E. Hiriart, J. Genechesi, V. Cicolani, S. Martin, S. Nieto-Pelletier, F. Olmer, 67-73. Glux-en-Glenne: Bibracte 29, 2018.
- Estiot et al. 1993: Estiot, S., M. Amandry, and M. Bompaire. "Le trésor de Sainte-Pallaye (Yonne): 8864 antoniniens de Valérien à Carin." *Trésors Monétaires* XIV (1993): 39-124.
- Estiot and Salaün 2004: Estiot, S., and G. Salaün. "L'usurpateur Domitianus." *Revue Numismatique* 160 (2004): 201-18.
- Mattingly and Pearce 1937-9: Mattingly, H. and J.W.E. Pearce. "The Amlwch hoard." *Bulletin of the Board of Celtic Studies* 8, 1937-9: 168-89.
- Moorhead et al. 2010: Moorhead, S., A. Booth, and R. Bland. *The Frome Hoard*. London: British Museum, 2010.
- Robertson 2000: Robertson, A.S. *An Inventory of Romano-British Coin Hoards*. London: Royal Numismatic Society Special Publication 20, 2000.
- Teitgen et al. 1985 : Teitgen, J.-F., B. Audouze, and J. Bounoure. "Restauration du trésor militaire d'Évreux." *Cahiers Numismatiques* 85 (septembre 1985): 52-66.
- van Heesch 2017: van Heesch, J. "Coins Hoards and Invasions ? The Evidence of Sites." In *Rome et les Provinces. Monnayage et Histoire. Mélanges offerts à Michel Amandry*, edited by L. Bricault, A. Burnett, V. Drost, and A. Suspène, 399-413. Bordeaux: Ausonius Éditions, Numismatica Antiqua 7, 2017.