

The intermittent imperials revisited: discontinuous production, die sharing, and the function of the Roman provincial coinage

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Abstract

This paper investigates one of the most distinctive features of the Roman provincial coinage, namely its highly intermittent production, particularly at smaller cities. It asks whether these strange rhythms of coining can be explained by the system of coin production. I conclude that the availability (or otherwise) of dies could, in some cases, have influenced the decisions of cities to begin, resume, or cease striking, but there are also instances where this does not seem to have been the case. Finally, I question the robustness of the view that the provincial coinage was primarily intended to serve as small change, in the light of the fact that cities might have been restrained by the system of production as to when and how they struck coinage.

Introduction

In one of the classic articles about the Roman provincial coinage, Tom B. Jones set out to address a key question about these coins: what are they for?¹ Beginning from a sceptical position that they might not even be coins at all, he drew on the evidence of hoards, site finds, and denominational marks to demonstrate the likelihood that they did in fact have a monetary function, and probably served as the eastern provinces' small change for everyday transactions. He noted that Roman imperial *aes* coins appear infrequently on sites in the Roman east—accounting for only about 10 to 15% of coins on the sites he surveyed—and concluded that provincial coins must have filled this gap in the local monetary economy. This view has become the *communis opinio* and is echoed in numerous works on the subject.²

Yet this interpretation of the coinage's intended purpose runs into a problem in the form of the intermittent nature of their production. We would expect a coinage that was intended to meet the needs of the everyday market for small change to be produced in a fairly regular manner, so that the new coins introduced to the economy would compensate for the natural diminution of the currency pool and/or make minor adjustments to allow for changes to the price level. This is resolutely not the case with the provincial coinage. Any number of metrics demonstrate that the rhythm of minting provincial coins was highly

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¹ JONES 1963.

² E.g., HOWGEGO 1985, p. 83; HARL 1987, p. 19; ZIEGLER 1996, p. 125; KATSARI 2011, p. 220–233. For a dissenting view, see CRAWFORD 1975, p. 572–575 who argues that the provincial coins of the third century were struck to cover financial burdens imposed on the cities by the imperial state. See also the views of Johnston, discussed below.

irregular: the number of active mints fluctuates hugely across time, with most cities issuing coinage only sporadically and not for every emperor;³ where die studies are available, they show vastly different quantities of coinage being produced at different times;⁴ and where coins are datable within imperial reigns, it is clear that minting occurred in discrete bursts, not continuously.⁵ These observations understandably led Ann Johnston to conclude that “such irregular minting cannot have been in response to the need for bronze coinage for daily transactions.”⁶

Intermittent production is not necessarily fatal for Jones’ hypothesis that provincial coins were intended to function as small change, but it does demand some kind of explanation. Two possibilities present themselves. The first is that the gaps in production simply reflect times when new coinage was not needed, perhaps because the residual coinage in circulation was already meeting the needs of the market, or because coins from other cities filled the gap.⁷ The second possibility is that periods of inactivity mark times when cities wanted to strike coins, but couldn’t. They might have lacked any one of the prerequisites for the production of coinage, namely raw material in the form of uncoined metal, dies and/or die engravers, and the facilities and expertise to bring all of this together.⁸

This second possibility becomes increasingly plausible in the light of what we know about the production of the Roman provincial coinage, particularly in Asia Minor. Beginning in the second century, it is clear that coin production was not organised solely on a city-by-city basis, but instead there was some form of collaborative system in place; this much is shown by the use of the same obverse die by multiple cities, and the appearance of dies of similar styles at different cities. The precise nature of this collaboration has been the subject of much debate, but most scholars agree on the existence in Asia Minor of itinerant workshops of die engravers, who travelled from city to city produced dies and possibly also coins.⁹ It is easy to see how a system like this could have had an impact on the rhythm of coin production, either by making professional minting services more readily available, or

³ LESCHHORN 1981.

⁴ JOHNSTON 1984, p. 253–256.

⁵ ZIEGLER 1985, p. 130–143.

⁶ JOHNSTON 2012, p. 455. Elsewhere (2007b, p. 242 n. 377), Johnston suggests that this pattern might not have held at Ephesus, which was one of the few cities to produce coinage in a consistent enough manner to suggest that the principal concern was to supply small change.

⁷ For an examination of these possibilities, see [Stroobants in this volume](#). Cf. also STROOBANTS 2014; WATSON 2019, p. 148–159.

⁸ See WATSON 2019, p. 122 Fig. 4.1 for a schema of the different elements of the minting process.

⁹ The idea was first proposed and explored in most detail by KRAFT 1972. Alternative explanations have been put forward by e.g., JOHNSTON 1982–1983; 1995; SPOERRI BUTCHER 2006; WATSON 2019, but all accept the existence of travelling workshops. For dissenting views favouring, for example, a central mint, see e.g., KELLNER 1973, p. 30; BUTCHER 1988a, p. 70–72; HOCHARD, BLET-LEMARQUAND, BAUX 2019. For an overview of this debate, see WATSON 2019, p. 11–16, and, with a particular focus on the evolving thought of Ann Johnston, WATSON 2017, p. 203–206.

because the absence of a workshop at any given time could restrict a city's access to the necessary material and skills for striking coins.

A connection between the rhythm of minting and a collaborative system of production has been drawn by many scholars, but by none more so than Johnston.¹⁰ She focused in particular on the positive impact that the workshops might have had, for example by facilitating coin production at smaller cities that might not otherwise have had the means, facilities, or expertise to strike. In this, she drew attention to the fact that for many smaller cities the expected state is surely one of non-production, and the pertinent question is therefore not “why didn't they strike coins?” but rather “why did they begin striking at all?” Johnston sought to answer this question principally on the macro scale, looking for large scale patterns in the rhythm of production to see whether they align with the activity of the workshops. In particular, she suggested that the explosion in the number of actively minting cities in the Severan period could have been facilitated by the workshops, which also began to flourish in this period.¹¹ Her argument is plausible but relies a little too much on the logic of *cum hoc ergo propter hoc*, while also insisting on the inherent efficiency of the workshops, an assumption that ought to be questioned.¹²

In this paper I propose to continue Johnston's investigations of the impact of the system of production on the rhythm of minting in the provincial coinage, but to do so by moving away from her generalisations based on patterns in the coinage as a whole and to focus instead on the micro scale.¹³ By this I mean looking at the evidence from individual cities and asking whether any connection can be made between collaborative systems of production and the decision of an individual city to strike coins. Specifically, I want to address the question of whether the availability or otherwise of dies might have influenced the rhythm of production. In what follows, I address this question through a series of case studies before returning in conclusion to the question of the function of the provincial coinage. Before going any further, however, it is worthwhile to address some points of methodology.

Methodological issues

The approach I will be taking in this paper is to look at cities that used shared dies to strike their coinage after a discernible interval of no minting activity. The aim will be to see if any evidence in the coinage itself suggests that the sharing of dies facilitated, or even perhaps stimulated, the resumption of coin production. Three parts of that initial statement of method, however, require closer examination: “cities”, “shared dies” and “discernible interval”. I address them in reverse order.

¹⁰ E.g., JOHNSTON 1982–1983, p. 63, 69; 1984, p. 248; 1995, p. 59; 2007a, p. 214; 2012, p. 459, 465. Cf. BUTCHER 1988b, p. 18–19; WATSON 2019, p. 143–159.

¹¹ See esp. JOHNSTON 2012.

¹² WATSON 2017; 2021.

¹³ JOHNSTON 1984, p. 249 briefly addresses the question from a regional perspective—asking whether the difference in minting patterns in different regions can be explained by the presence or absence of workshops—but she never thinks about the question at the level of individual cities.

“Discernible interval”: The provincial coinage is, on the whole, fairly easy to date to the reign of individual emperors, but very hard to date more precisely within those reigns. Within each reign, it is clear that coinage was not produced in a continuous steady stream, but rather in discrete bursts. Even coins from the reign of the same emperor could theoretically have been struck quite some time apart. Conversely, it is conceivable that coins of successive emperors were actually struck very close together, at the end of the first reign and at the beginning of the second. Since in both of these cases we might or might not be dealing with a break in minting, I focus in this paper only on instances where the gap in minting is certain, i.e. the reign of at least one emperor passes without the city producing coins. Even then, without precise dates for the coins, there is a problem in discerning the length of time that those gaps in minting occupied. I therefore talk throughout this paper in terms of minimum intervals without coinage. For example, if a city struck coins during the reign of Commodus (AD 180–192) and not again until the reign of Gordian III (AD 238–244), the minimum time gap between those issues is 46 years. The actual interval is likely to have been far longer—anything up to 64 years—but I will err on the side of caution and talk only about minimum intervals. I have not set a bar above which I consider a time without minting to be somehow significant, as to do so would only be arbitrary.

“Shared dies”: Any discussion of the systems of production for the Roman provincial coinage must grapple with questions of terminology. The sharing of obverse dies by more than one city has become intimately entwined in the scholarship with the itinerant workshops who are sometimes thought to have effected this phenomenon, to the extent that “die sharing” and “workshops” are sometimes used interchangeably. It is, however, crucial to separate out the two concepts. Shared dies are an observable feature of the primary evidence, whereas workshops are one possible explanation—but by no means the only one—of how that feature arose.¹⁴ In this paper, I use the term “shared dies” in its strict sense of dies used by more than one city, and I leave aside the question of what systems of production might have brought them about. I draw occasionally on the evidence of stylistic similarities, which are more closely connected with the concept of travelling workshops, but the precise nature of the production system has no bearing on my conclusions. The question I posed above related to the impact of the availability of dies on the rhythm of production, for the purposes of which it is irrelevant whether those dies came from a travelling workshop, a central mint, or from another city. Throughout this paper, I use the most up-to-date listing on known shared dies, and I employ the numbering system outlined there.¹⁵

“Cities”: The sheer scale of the provincial coinage means that it would be impossible to address the question of intermittent production at every individual city where there is a discernible gap in minting, or even at every city that used shared dies. I proceed instead on a case study basis, looking only at cities that seem to present interesting opportunities for interpretation. I focus, therefore, on cities and periods where the material is more readily

¹⁴ The three possibilities put forward by REGLING 1902, p. 201–202 to explain shared dies—namely a central mint, itinerant die engravers, or the loaning of die between cities—all remain possible, and none have been decisively proved or ruled out. See the discussion at WATSON 2019, p. 179–183, as well as other works cited above, n. 9.

¹⁵ WATSON 2020. Each shared die is referred to by a “Kraft number”, with numbers 1–374 to be found in KRAFT 1972 and numbers 375 and above in WATSON 2020.

accessible, with the result that there are fairly few case studies from the Severan age, since the *RPC* volume covering that period has not yet appeared.¹⁶ This is unfortunate, since the Severan period is precisely the time when Johnston claimed a correlation and causation between the increasing number of mints and the growth of the workshop system. It would, however, be foolish to work on the basis of incomplete data, and the publication of *RPC V* will no doubt be occasion to assess whether my findings here are also applicable in the Severan age. Nevertheless, the case studies available for other periods are revealing. In what follows, I group these case studies into over-arching patterns that help to see different possible answers to my question about whether the availability of dies impacted the rhythm of production. It is not possible, however, to generalise from these patterns, or to make quantitative claims about which might have been more widespread, since my case studies can make no claim to completeness. In each case the examples given are not intended as an exhaustive listing of all instances of that pattern, but are merely exemplars that illustrate the possibilities.

Pattern 1: Using shared dies for first ever coinage

An obvious place to start is to look for cities that used shared dies on the very first occasion that they ever struck coins. If Johnston's contention is correct that the growth of collaborative minting practices ("workshops" in her terminology) allowed cities that had never struck before to produce coinage, we would expect to find numerous cities that began their coinage using shared dies. Such instances are, however, relatively rare.

Eleven cities in Lycia fit this pattern, namely Acalissus, Antiphellus, Aperlae, Arycanda, Corydalla, Cyaneae, Myra, Olympus, Phellus, Rhodiapolis, and Trebenna. They all struck coins for the first time under Gordian III, and shared dies amongst themselves while doing so.¹⁷ However, the region of Lycia is something of an outlier in the provincial coinage. After late republican and early imperial issues for the Lycian League, and a few early imperial civic issues, no coinage was produced in the region until the reign of Gordian III, and there was no coinage subsequent to his reign either.¹⁸ The reason for this idiosyncratic pattern of minting has been much discussed, but it seems that the reason for the sudden burst of production under Gordian III lies in a response to specific local circumstances.¹⁹ The Lycian cities, and their reasons for minting, must therefore be considered *sui generis*, and are not a suitable place to investigate the link between die sharing and the start of coin production.

Outside of Lycia, there are only two cities that certainly used shared dies in the same reign as they struck coinage for the first time, with one further possible case. The two certainties are Siochorax and Themisionium, both in Phrygia. Siochorax struck coins for the first time under Septimius Severus and also shared dies with Apamea, Bagis, Bruzus, and Otrus in this

¹⁶ At the time of writing, *RPC I, II, III, VII-1, and IX* have appeared in print; the material for *RPC IV, VI, VII-2, and VIII* is available online. The *RPC* material has been my principal source for whether or not a city was minting during a given reign; where *RPC* is not available, I have used FRANKE, LESCHHORN, STYLOW 1981 and other relevant publications (e.g., mint corpora).

¹⁷ Kraft nos. 346–8, 458–63.

¹⁸ For the late republican and early imperial coinage of Lycia, see *RPC I.3301–3362*.

¹⁹ VON AULOCK 1974, p. 20–22; JOHNSTON 1980, p. 207–208; TEK 2005, p. 950–953.

period.²⁰ Themisonium, too, began its coinage under Septimius Severus, and shared dies with Aphrodisias and Bargasa in this period.²¹ In both of these cases, it seems reasonable to suggest that the easy availability of dies could have been a factor, as Johnston argues, in the decision of the cities to begin minting.

The third case, that of Accilaeum in Phrygia, is more complicated. The bulk of this city's coinage bears a portrait of Gordian III—four obverse dies are currently known—but there are also “pseudo-autonomous” coins showing personifications of the city Boule and the Roman senate, each known from one obverse die.²² The Boule die was also used for neighbouring Tiberiopolis.²³ The “pseudo-autonomous” coins have, however, proved difficult to date. Three principal schemes have been proposed. Konrad Kraft dated the *Boule* coins to the reign of Maximinus, on the basis of the similarity between the Accilaeum reverse and a reverse used at Acmonia under Maximinus; he dated the Senate coins to the period AD 200–204, on the basis of the style of the obverse die.²⁴ Hans von Aulock rejected Kraft's arguments and preferred to allocate both “pseudo-autonomous” issues to the reign of Gordian III, the only period when we can be certain that the city was producing coins.²⁵ Most recently, Marguerite Spoerri-Butcher in *RPC VII-1* has taken a middle ground, accepting Kraft's dating of Senate coins, but assigning the Boule coins to the reign of Gordian III, on the grounds that the same die engraver could well have produced dies for both Accilaeum under Gordian III and Acmonia under Maximinus.²⁶ Accilaeum fits the pattern of using a shared die on the first occasion that it ever struck coinage if and only if we accept von Aulock's dating. According to both of the other proposed schemes, the city would already have produced coinage on at least one occasion before it struck the Boule coins.

What is striking about these examples is how few and far between they are. Of the 177 cities of Asia Minor outside of Lycia that ever shared dies, only three (at most!) did so on the first occasion that they ever struck coinage. In general, cities that used shared dies already

²⁰ For the coinage of Si chorax, see VON AULOCK 1980 nos. 899–907; the appearance of the same magistrate's name on all coins of the city suggests just one occasion of minting. The shared dies are Kraft nos. 256, 264, 271; the obverse die of Plautilla (VON AULOCK 1980 no. 903) was also used for Apamea and Otrus (= Kraft no. 273; use at Si chorax previously unrecorded). The entire coinage of Si chorax was therefore struck from obverse dies also used elsewhere.

²¹ Kraft nos. 277, 366, 383. There are “pseudo-autonomous” coins of Themisonium (e.g., *BMC* 1–8, *SNG von Aulock* 4013–16) that could conceivably pre-date the use of shared dies, but it is more probable that these also date to the Severan period, see e.g., *BMC ad loc.*, KRAFT 1972, p. 88; they are not included in *RPC I–IV*.

²² Coins with Gordian III: *RPC VII-1*.673–7; VON AULOCK 1980 nos. 5–35. Coins with Boule: *RPC VII-1*.678; VON AULOCK 1980 nos. 2–4. Coins with Senate: VON AULOCK 1980 no. 1.

²³ Kraft no. 455.

²⁴ KRAFT 1972, p. 97–98.

²⁵ VON AULOCK 1980, p. 44. His dating of the Boule coins was accepted by MARTIN 2013 vol. II, p. 146. IMHOOF-BLUMER 1901, p. 192 also appears to date the Senate coins to the reign of Gordian III.

²⁶ *RPC VII-1*, p. 253.

had a history of coin production when they did so, and Siochorax, Themisonium and Accilaeum should be considered the exceptions that prove the rule.

This being the case, we must acknowledge that the sharing of dies cannot have been the motor for beginning production *ex novo*. If shared dies did have any impact upon the rhythm of production, it can only have been in the case of resuming coinage after a longer or shorter interruption. It is to this question that I now turn.

Pattern 2: Resuming coinage with all dies from same source

I have been able to identify four cities in Asia Minor that, when resuming coinage after a discernible interval, only used shared dies (Table 1). For example, Colossae in Phrygia struck no coins between the reigns of Elagabalus and Trebonianus Gallus, a minimum interval of 29 years. When it resumed its coinage, it used only one obverse die, a die that was also used by neighbouring Peltae and Eumenea.²⁷ Peltae itself in the same time period was also resuming its minting after a gap of at least 16 years.²⁸ The two obverse dies it employed were both also used elsewhere, one at Eumenea alone, and the die we have already seen used at Colossae and Eumenea.

City	Stopped minting under	Resumed minting under	Minimum interval (years)	Shared dies on resumption (Kraft nos.)
Colossae, Phrygia	Elagabalus	Trebonianus Gallus	29	190
Peltae, Phrygia	Severus Alexander	Trebonianus Gallus	16	190, 191
Briula, Lydia	Maximinus	Philip	9	92
Neapolis ad Harpasum, Caria	Gordian III	Trebonianus Gallus	7	104, 105, 106

Table 1: Cities whose coinage after a discernible interval without minting is struck only from shared dies

It seems reasonable to me to suggest that the sharing of dies could have played a role in the decision of these cities to resume minting. We can imagine numerous plausible scenarios. Perhaps the cities wanted to coin but had no dies to hand, so turned to larger neighbouring cities—Eumenea in the case of Colossae and Peltae, Colophon in the case of Briula and Neapolis—for their obverses. Perhaps the cities had no intention to coin, but were persuaded to by a travelling workshop that offered a cheap deal on the production of coins with second-hand dies. Perhaps the cities only decided to strike in the knowledge that they could recoup some of their costs by passing the obverse dies on elsewhere. The precise course of events is unimportant; what is key is that there is some plausibility to a connection between the availability of dies through die sharing and the resumption of coinage after a period of inactivity.

These four cases can be supplemented by a further group that exhibit a similar but slightly different pattern. These are cities who, after a discernible interval of no coinage, struck coins using both shared and non-shared obverse dies, but where the non-shared dies are stylistically similar to the shared dies, suggesting that they could have come from the same source. This is most easily explained on the basis of an example. During the reign of Philip,

²⁷ *RPC IX.789*.

²⁸ *RPC IX.801–804*.

the city of Synaus in Phrygia struck coins for the first time in at least 64 years.²⁹ Four obverse dies are currently known for this coinage, two of which were also used at Ancyra, one which was also used at Ancyra and Germe, and one, a 22 mm “pseudo-autonomous” type with a personification of the Senate, used only at Synaus. Crucially this Senate obverse is stylistically similar to the other three dies, suggesting that they all originated in the same place. Given that this style of engraving is also found at Ancyra and other neighbouring cities,³⁰ it seems reasonable to suggest that Synaus, when resuming its coinage under Philip, drew upon an external source for all of its obverse dies. This pattern is repeated at a number of other cities (Table 2).

City	Stopped minting under	Resumed minting under	Minimum interval (years)	Shared dies on resumption (Kraft nos.)
Synaus, Phrygia	Marcus Aurelius	Philip	64	143, 149, 153
Neapolis ad Harpasum, Caria	Antoninus Pius	Severus Alexander	59	47, 49
Anineta, Lydia	Septimius Severus	Trajan Decius	37	103
Nacoleia, Phrygia	Caracalla	Gordian III	21	330, 457
Apollonshieron, Lydia	Severus Alexander	Trajan Decius	14	493
Eumeneia, Phrygia	Severus Alexander	Philip	9	144, 146, 156
Prymnessus, Phrygia	Pupienus & Balbinus	Valerian & Gallienus	9	187, 188, 189
Themisonium, Phrygia	Maximinus	Philip	6	144, 146, 151
Elaea, Aeolis	Gordian III	Trajan Decius	5	170, 447, 448

Table 2: Cities whose coinage after a discernible interval without minting is struck from obverse dies that appear to come from the same source

In all of the cases listed in Tables 1 and 2, the cities appear to have been supplied with dies for their resumption of coinage by a single external source. In these cases, it is reasonable to postulate a possible connection between the supply of dies and the decision to resume minting. It is difficult to be more precise about the nature of this possible connection. Did the easy availability of dies from elsewhere merely facilitate the production of coinage that had already been agreed upon? Or did the easy availability of dies actually provide the impetus for some cities to strike coins when they otherwise would not have done so? The likelihood is, of course, that each scenario was different, and that the first explanation might hold in some instances, the second in others. In some cases, there may even have been no connection between the supply of dies and the decision to resume coinage. The point here is simply that in these instances, such a connection is possible, which is not the case for the next group of cities that we will look at.

Pattern 3: Resuming coinage with dies from different sources

A further group of cities use shared dies for the resumption of their coinage, but also appear to have a different source of dies available to them (Table 3). In these instances, it is harder to imagine that the use of shared dies either facilitated or encouraged the resumption of minting.

²⁹ *RPC VIII* online IDs 20255–20260, 77123.

³⁰ KRAFT 1972, p. 36 attributes this style to his »Sardis« workshop.

City	Stopped minting under	Resumed minting under	Minimum interval (years)	Shared dies on resumption (Kraft nos.)
Lyrbe, Cilicia	Marcus Aurelius	Gordian III	58	468, 469
Lamus, Cilicia	Hadrian	Septimius Severus	55	276
Stectorium, Phrygia	Marcus Aurelius	Severus Alexander	30	184
Alia, Phrygia	Caracalla	Gordian III	21	327
Tiberiopolis, Phrygia	Caracalla	Gordian III	21	455
Eucarpia, Phrygia	Caracalla	Maximinus	18	182, 183
Coracesium, Cilicia	Philip	Valerian & Gallienus	5	351, 506, 511
Maoenia, Lydia	Gordian III	Trajan Decius	5	100, 101, 102

Table 3: Cities whose coinage after a discernible interval of no minting is struck from shared dies and dies from another source

The pattern and its significance is again best explained on the basis of some examples. Lyrbe in Cilicia struck a reasonably large issue of coins under Gordian III, having previously only ever struck a very small issue under Marcus Aurelius.³¹ Two dies used for this resumption were shared with the neighbouring cities of Casae, Etenna, and Side, but there were at least 11 other obverse dies used only at Lyrbe.³² In my recent study of this coinage, I suggested that some of these dies were produced by a workshop operating at multiple cities in the area, others by an engraver operating only at Lyrbe, and a final set came from an unclear source.³³ The availability of the two shared dies that Lyrbe used therefore seems rather insignificant, since it could easily have asked for more dies from its other sources if necessary. In particular, the presence of a local engraver operating only at Lyrbe suggests that the city could probably have obtained dies whenever it required, and thus it would be foolish to posit a connection between Lyrbe's resumption of coinage under Gordian III and its use of shared dies.

The city of Lamus, further east down the Cilician coast from Lyrbe, provides another useful example. Having not struck coins since the reign of Hadrian, the city resumed its coinage under Septimius Severus.³⁴ Eduardo Levante's 1982 corpus records two obverse dies for Septimius Severus himself, one die for Julia Domna, and three for Caracalla. Since the coins of Caracalla and Julia Domna could well date to Caracalla's sole reign, I focus here on the two dies of Septimius Severus.³⁵ One of these dies was also used at Philomelium in Phrygia, and we can be reasonably certain that it came from Philomelium to Lamus, since the Phrygian city uses other dies of a similar style.³⁶ The second obverse at Lamus, however, is

³¹ Marcus Aurelius: *RPC* IV-3 temp no. 9332. Gordian III: WATSON 2019 nos. 623–678.

³² The count of dies comes from WATSON 2019; while some new specimens and types are recorded on *RPC online*, there do not appear to be any new obverse dies.

³³ WATSON 2019, p. 80–85 and catalogue ad loc.

³⁴ Hadrian: *RPC* III.3190–3191 & 3189A. Severans: LEVANTE 1982 nos. 1–6.

³⁵ The inclusion of the Caracalla and Domna coins would, in fact, only strengthen my case. Although Levante's corpus is now rather old, any new material would also have no impact on my argument. In any case, the only two coins of Severus that I am aware of that have come to light since 1982 were both struck from the same obverse die as LEVANTE 1982 no. 2 (Leu Numismatik AG 4 (25 May 2019) lot 493; Nomos AG 20 (10 July 2020) lot 338).

³⁶ KRAFT 1972, p. 58–59 attributes this style to a workshop labelled »Philomelium-Lamus«, which he suggests was also active at Pisidian Antioch, Timbriada, and Hadrianopolis.

of a very different style. This again suggests that Lamus was not dependent on shared dies for the resumption of its coinage but, like Lyrbe, was also able to draw on other sources.

At Lyrbe and Lamus, as well as at the other cities listed in Table 3, it seems improbable that the resumption of coinage was in any way connected with their use of shared dies. We cannot disprove it entirely, but the fact that all of these cities could draw on multiple different sources of dies strongly suggests that the decision to coin was driven by the city's wants and needs, rather than the practicalities of the production process.

Conclusions

The three patterns identified above suggest that very different processes were at work in determining the rhythm of minting at different cities. Sweeping statements about whether or not the system of production had an impact upon the stops and starts of civic minting seem out of place, since different cities exhibit different patterns. The only generalisation that we can make is that cities striking coinage for the first time did not tend to use shared dies, but even that has its exceptions, in the form of Lycia, Siochorax, Themisonium, and possibly Accilaeum. Future investigation of this question must, therefore, take place at the level of the individual city.

Nonetheless, it seems reasonable to suggest that in at least some of the cases outlined in patterns 1 and 2 above, the resumption of minting might have been facilitated by the availability of dies through die sharing. That being so, it is worth considering the implications of this conclusion for our understanding of the question with which I began this paper—namely, what was the function of the Roman provincial coinage? These implications will necessarily be contextual, differing from city to city and from case to case. It is therefore useful to consider a range of possible implications, depending on precisely how we conceive of the connection between the availability of dies and the rhythm of production.

The weakest formulation of this connection is that cities that had already decided to mint coins simply found it easier because some of the tools for minting were more readily available. In this form, our discussion has little bearing on the idea that the intended function of these coins was to serve as small change. But even in accepting that weak formulation, we are also led to accept its correlate, namely that on some of the occasions when cities did not strike coins, it might have been because they could not acquire the necessary dies.³⁷ This would imply that the system for supplying small change to the market was rather inefficient. Cities—or at the very least, smaller cities—could not simply strike coins whenever they were needed, but were also dependent on the availability of the prerequisites of production.

It is also possible, however, to frame the connection between the rhythm of minting and the system of production in a more forceful manner. By “the resumption of minting was facilitated by the availability of dies”, we could understand not just that shared dies made it easier to strike coins, but that the availability of shared dies actually provided the impetus

³⁷ The difficulties of studying a lack of evidence mean that this conclusion can only be approached through its positive correlative.

to coin. It is easy to imagine a scenario in which a small city suddenly gains access to the raw materials for minting, either through the arrival of an itinerant workshop or through contact with another city, and chooses to take that opportunity to strike coins, despite having had no previous intention to do so. In that case, it is hard to conceive that the city's prime intention would have been the provision of small change. Rather, alternative motivations such as the expression of civic pride would seem to be to the forefront here.³⁸

Ultimately, the intended function of each issue of provincial coins probably differed from city to city. While the provision of small change may have been a concern for larger cities, this may not have been so important for smaller centres that could rely on using the coins of their larger neighbours. As with issues of die sharing, questions about the function of the provincial coinage therefore demand to be studied at the level of individual cities, and not generalised into a one-size-fits-all pattern. What I hope to have shown in this paper is that the study of the system of production, through its possible impact on the rhythm of coining, can contribute to our answer to this fundamental question about the very purpose of the provincial coinage.

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³⁸ As famously suggested by the Menas inscription from Sestus (*OGIS* 339), on which see ROBERT 1973, p. 49–53. On the provincial coinage as an expression of civic pride, see HOWGEGO 2005.

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