

ZHENYA ZHEKOVA – STELA DONCHEVA, *Production of Imitative Byzantine Folles in the First Bulgarian Kingdom*. Veliko Tarnovo: Faber 2022. 316 pp., color illustrations. – ISBN 978-619-00-1586-4

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The degree to which the economy of the First Bulgarian Empire (681–1018) was monetized has been hotly debated by economic historians for the past fifty years. Scholars of the late nineteenth and early twentieth centuries enthusiastically discussed the gold *стылазь* mentioned in the Slavic *Law for Judging the People*,¹ the coinage of Sermon (last defender of Sirmium against Basil II),² and the alleged coins of Vladimir-Rasate (ill-fated leader of a failed pagan restoration in Bulgaria in the late 880s).³ The great Bulgarian numismatist TODOR GERASIMOV (1903–1974) debunked all of these as misunderstandings of the source material, forgeries, or misattributions.⁴ Combined with Marxist-influenced analyses,⁵ this ‘unmasking’ of types originally thought to belong to the ninth or tenth centuries has produced a scholarly consensus viewing the economy of the First Bulgarian Empire as a ‘natural’ or ‘pre-feudal’ one, with little use of coins as a means of exchange. More recently, MICHAEL HENDY (1942–2008), STOYAN AVDEV († 2012), IVAN YORDANOV (1949–2021), and the still active VLADIMIR PENCHEV have argued for the existence of a long tradition of imitative coinages in the Bulgarian lands, starting with local copies of Byzantine anonymous folles from the period of Byzantine rule in North-eastern Bulgaria and ending with copies of Byzantine, Venetian, and even official Bulgarian coins from the 13th and 14th centuries.⁶ The book under

1. VENELIN GANEV (ed.), *Законъ соудный людьмь*. Sofia 1959, p. 242.

2. GUSTAVE SCHLUMBERGER, *Monnaies d’or d’un chef bulgare du XIe siècle : Sermon, Gouverneur de Sirmium*. *Revue archéologique* II.33 (1877) pp. 173–176.

3. SIME LJUBIĆ, *Opis jugoslavenskih novaca*. Zagreb 1875, p. vi.

4. TODOR GERASIMOV, *Секли ли са монети владетелите на Първата българска държава?* *Известия на Българското историческо дружество* 26 (1968) pp. 407–411.

5. E.g. STEFAN A. TSONEV, *Стоковото производство във феодална България в светлината на колективните монетни находки*. *Трудове на държавния университет в гр. Сталин: Стопански факултет* 2 (1952–1953) pp. 541–560.

6. The literature is extensive; see for example MICHAEL HENDY, *Coinage and Money in the Byzantine Empire (1081–1261)*. Washington DC 1969, pp. 218–222; IVAN YORDANOV, *Византийски фалшиви златни монети (VI–XI в.)*. *Нумизматика* 4 (1979) pp. 8–16; V. PENCHEV, *Ранни български имитации на византийски монети*,

review inserts itself in this long debate by attributing to the Bulgarian state a series of cast imitations of Byzantine copper coins from the late 9th and 10th centuries, discovered in several metalworking workshops near Preslav, capital of Bulgaria between ca. 893 and 972.

The monograph is in many ways a culmination of both researchers' previous work in the field. STELA DONCHEVA has published an article version of her chapters.⁷ ZHENYA ZHEKOVA has long been investigating the possibility of a monetized economy and coin production existing in the First Bulgarian Empire, including a co-publication with IVAN YORDANOV of a series of lead stampings of Byzantine copper coins from the hinterland of Preslav,⁸ a study of the so-called 'pattern' coins of Romanos I Lekapenos from Bulgaria, a study of an imitation of a Byzantine gold coin from the 10th century, and various studies on coin circulation from the period of the First Bulgarian Empire in Northeastern Bulgaria.⁹ The result of almost two decades of work is the production of a stunning, methodologically rigorous, well-researched, and logically structured monograph, which conclusively proves that the cast copper imitations of Byzantine folles from the late 9th

намерени при археологическите разкопки в Силистра. Нумизматика и сфрагистика 2 (2000) pp. 40–48; STOYAN AVDEV, Имитации на венециански грошове от България. Нумизматика 16.1 (1982) pp. 19–25.

7. STELA DONCHEVA, Производство византийских фоллисов в центрах художественного металла в окрестностях Преслава в X веке. *Stratum plus* 5 (2020) pp. 411–424.

8. IVAN YORDANOV – ZHENYA ZHEKOVA, Отпечатьци на византийски монети върху оловни пластинки, намерени в хинтерланда на столицата Велики Преслав. *Археология* 47.4 (2006) pp. 191–200.

9. ZHEVAN ZHEKOVA, A New 'Pattern' Coin of Emperor Romanus I Lecapenus (920–944) from Bulgaria. In: ELENE G. ΠΑΡΑΕΦΘΥΜΙΟΥ – IOANNES P. TOURATSOGLU (eds.), *Holocotinon: Studies in Byzantine Numismatics and Sigillography in Memory of Petros Protonotarios*. Athens 2013, pp. 71–80; EADEM, Имитация на златна византийска монета от X век. In: IGOR LAZARENKO (ed.), *Нумизматични, сфрагистични и епиграфски приноси към историята на черноморското крайбрежие: Международна конференция в памет на ст.н.с. Милко Мирчев, Варна, 15–17 септември 2005 г.* Varna 2008, pp. 331–337; EADEM, Находки на византийски монети от Североизточна България (VIII – първата половина на IX в.). *Проблеми на прабългарската история и култура* 4.1 (2007) pp. 237–246; EADEM, Монетите на император Роман I (920–944) от българските земи: Разпространение и характерни особености. *Нумизматика, сфрагистика и епиграфика* 3.1 (2006) pp. 195–206; EADEM, Колективна находка с фолиси на император Константин VII от района на Ришки проход. In: PAVEL GEORGIEV (ed.), *Изследвания по българска средновековна археология: Сборник в чест на проф. д.и.н. Рашо Рашев*. Veliko Tarnovo 2007, pp. 368–374.

and 10th centuries were produced in the metalworking workshops in the hinterland of Preslav, where they were found.

The authors begin with a succinct and clear Introduction. Their stated purpose is to investigate several tenth-century imitations of copper Byzantine coins from metalworking centers excavated in the vicinity of Preslav, the capital city of the First Bulgarian Empire (p. 9). Their primary method of analyzing the coins was X-ray fluorescence (p. 10). The key question is who produced them and for what purpose (p. 10).

This introduction is followed by a Foreword, which is in many ways a condensed version of the whole book. Indeed, for a reader only attempting to grasp the major takeaways and arguments of the book, reading the Foreword and Conclusion chapters is more than enough to acquire a reasonably full understanding of the major arguments and conclusions. The Foreword begins by providing an archaeological context for the coins, i.e. the earliest found medieval metalworking workshops in Bulgaria (p. 11). The archeological research at the sites near the villages of Novosel, Zlatar, and Nadarevo, all located in the hinterland of the medieval Bulgarian capital of Preslav, have yielded more than 2,200 products of metalworking including around 45 cast copper imitations of Byzantine folles (pp. 11–12). Their discovery together suggests a common origin, which was confirmed via analysis of the metal using X-ray fluorescence (p. 12). These coins are cast copies of folles of the Byzantine emperors Leo VI, Constantine VII and Zoe, Constantine VII alone, Romanos I, and Constantine VII with Romanos II, i.e. from the period c. 886–959, including several ‘rejected castings’ (p. 12). In addition to the coins from the sites of Novosel and Zlatar, an examination of a hoard of cast imitations of Constantine VII from the Rish Pass is undertaken. This introduction of the materials is followed by a short resume of the contents of each chapter of the book (pp. 14–17).

The monograph itself falls into two parts: Chapters I–V can be classified as the ‘material culture part’, where the different materials from the archeological excavations and especially the cast imitations are presented and contextualized, while Chapters VI–IX can be defined as the ‘chemical-analytical part’, which presents the results of the XRF and technological analyses of the coins.

Chapter I provides an overview of existing studies on imitative coinages and monetization in the Bulgarian lands. It successfully presents the long history of the debate in a non-partisan way that easily provides the scholarly context behind the creation of the monograph. The chapter also situ-

ates the cast coins from the metalworking complexes within the long-durée history of imitation in the region, beginning with the imitations of Thasos tetradrachms in Classical Antiquity and ending with the imitations of the coins of 14th-century Bulgarian rulers (pp. 19–23). Particular attention is paid to the chronologically most proximate imitations, i.e. the cast copies of anonymous folles, documented in Northeastern Bulgaria and dating to the 10th-11th centuries, and the fourré gold coins found in the same region and originally believed to be ‘false coins’ used by the Byzantines to deceive barbarian rulers during political payments, but recently re-attributed by ZHEKOVA to the First Bulgarian Empire (p. 23). The authors then proceed to present the archeological sites under investigation: Novosel, Zlatar, and Nadarevo (pp. 24–25). While the first two have been the object of systematic excavations, yielding both the coins and other objects of material culture, the last site was still being explored by the publication date, but has produced around 250 metal objects connected in some way to the site from explorations in the 20th century. The introduction of the sites is followed by an important differentiation between terms used for different forms of coins on the imitative spectrum (pp. 26–29). In essence, the primary difference between ‘imitations’ and ‘counterfeits’ is placed in the difference of their purpose and especially the presence or absence of legal sanction on behalf of the authorities for their production. While ‘counterfeits’ are made by private individuals to deceive and pretend to be the ‘originals’, ‘imitations’, which are divided into ‘faithful’ and ‘inferior’ based on the quality of their execution, were sanctioned by the state authorities to supplement original issues.

Chapter II contains a detailed investigation of coin circulation in the First Bulgarian Empire. It begins with an exposition of the previous scholarly consensus regarding the economy of Medieval Bulgaria as a ‘natural’ one, but then proceeds to decisively argue in favor of viewing coin circulation in the Bulgarian lands in a complex fashion, taking into consideration issues like trade, coin production in the Byzantine Empire itself, the use or disuse of coins in the fiscal systems of states, etc. (pp. 29–31). Economic developments in the Bulgarian lands are continuously compared and contrasted with those in the heartlands of the Byzantine Empire, particularly Southern Greece and the Thracian Plain. It is argued that the decrease of coin finds from Bulgaria compared to the previous situation before the arrival of the Bulgars in the 680s can partially be explained through developments in the Empire itself, such as the almost entire cessation of the production of copper coins, depopulation due to barbarian invasions, the ‘naturaliza-

tion' of the fiscal system, and the breakdown in commercial operations (p. 31). Indeed, the almost complete disappearance of hoards and single finds is present in both Bulgaria and the European lands of the Empire in the same period, but, surprisingly, material from the Bulgarian lands seems to exhibit a stronger degree of continuity in comparison with material from Greece or Thrace. This is demonstrated through a detailed investigation of all the hoard material from the 7th-10th centuries (six hoards from 680/681, three from c. 705, two from c. 811, and thirteen from the time of the Byzantine reconquest in 968–971) (pp. 31–36). The large chronological gaps between finds and the clustering of their deposition around important dates such as the creation of the Bulgar state in 681, the campaign of Emperor Nikephoros I in 811, and the fall of Preslav to the Rus' and then the Byzantines ca. 970, are explained by the author through the presence of military personnel, seeing in these soldiers' salaries or savings, deposited or lost around moments of military danger (pp. 37–39). This is reinforced by the hoards' discovery in places, where Byzantine garrisons or fleets were present. Such developments are contrasted with sites such as Sparta, Argos, and Patras in Greece and the region of Thrace, which show an almost complete absence of coins from the 7th and 8th centuries. The hoard situation is also strongly contrasted with the numbers of single finds in the region from the same period, totaling about 600 exemplars in Northeastern Bulgaria (ca. 100 gold, 60 silver, 440 copper) (p. 40). From the same period, only 30 copper coins are known from Thrace for the entire period and 38 coins were found at the aforementioned Greek sites, dating between ca. 685 and 829 (p. 40). Of these 600 coins, 50 belong to the reign of Heraclius (610–641), 10 from the period of the 20-year anarchy (685–717), 9 of Constantine V (741–775), 9 of Leo IV (775–780), 20 of Constantine VI (780–797), 41 of Nicephorus I (802–811), 18 of Theophilus (829–842), and a peak of 230 of Leo VI (886–912), followed by around 200 from the subsequent period until the fall of Preslav in the 970s (p. 40). Most of these coins have been recorded from the triangle between the Bulgarian cities of Shumen, Razgrad, and Dobrich, including the royal capitals at Pliska and Preslav. Most of the copper coins were not punctured or altered, which the authors argue indicates their use as money – and not as pieces of metal or jewelry (p. 41). Fifty of the nearly 100 gold coins from the period have been noted to have been 'fourré' imitations of the gold *nomismata* of Theophilus, Basil I (870–886), Leo VI, Constantine VII (913–959), and Romanos I (920–944) (p. 41). Unlike the copper examples, 15 were punctured, likely indicating their non-monetary use. These gold imitations are

also mostly contemporaneous with the cast copper coins that are the object of the monograph. Most of the material is found in sedentary settlements, in particular the Bulgarian capitals, and it is extremely heavily concentrated in the above-mentioned triangle of settlements in Northeastern Bulgaria. Therefore, the authors conclude that both the gold and copper imitations were produced in the 10th century to meet a demand for coined money within the Bulgarian internal market (since these imitations could not be used for external trade with Byzantium) due to an absence of sufficient circulating medium to produce accumulations to be put into circulation (pp. 42–43). The authors also proceed to provide an overview of sigillographic data from the period. They highlight that of the 43 specimens of seals from the period of the 8th–10th centuries (32 imperial; 11 administration/army), almost all cluster in the important Bulgarian cities of Pliska and Durostorum and therefore likely indicate correspondence between the royal court in Bulgaria and the Byzantine Empire (pp. 43–45). By comparison, south of the Haemus Mountain, seals were only found in places where the Byzantine *kommerkiarioi* were active – settlements like Develtos, Anchialos, and Mesembria – indicating areas where bilateral trade occurred (pp. 45–46). It is precisely in relation to this trade that the authors see the use of the copper coins from the workshops. In particular, they see them as bullion issued to satisfy a demand for payment during annual trade fairs (pp. 46–47).

Chapter III provides a detailed introduction to the Byzantine monetary system of the 9th and 10th centuries. The different coinages of the 9th–10th-century emperors are highlighted chronologically, with a particular focus on typological differences and details related to the iconography and style of various types. The main conclusion of the chapter is the linking of changes and continuities in the Byzantine coin system with political and dynastic changes in the Byzantine state, which, of course, also had an effect on Bulgarian society, as indicated by the parallel increase of quantities of coins in circulation in both states (p. 61).

Chapter IV is in many ways the heart of the numismatic section of the book. It formally presents the cast copper imitations of Byzantine folles from the sites of Novosel and Zlatar, as well as the hoard from the Rish Pass (pp. 62–65). From Novosel came copies of Leo VI, Constantine VII, and Romanos I and an original silver *miliaresion*, Class VI of Constantine VII and Romanos II. (p. 63) Zlatar produced other copies of Leo VI, Constantine VII, and Romanos II, as well as two original folles – one Class III of Leo VI and one Class I of Constantine VII with his mother Zoe (pp. 63–64). The Rish Pass hoard contained 10 cast copies of Constantine VII. The originals all

date from the period 886–950, indicating a likely production of the copies in the mid-10th century. Of the 50 coins described as coming from the sites, 13 copper coins belong to Class III of Leo VI (12 casts, 1 original), 1 is an original silver *miliaresion*, Class VI, of Constantine VII and Romanos II, 5 are ascribed to Class I folles of Constantine VII and Zoe (4 copies, 1 original), 18 are determined to be casts of Class IV folles of Romanos I, 11 were identified as casts of Class V folles of Constantine VII, and 2 are unspecified rejected cast fragments (pp. 65–68). The metal content of these pieces is clearly inferior to that of the originals: while the original issues of Leo VI from Constantinople have a weight of 5–10 grams and diameter of 26–28 mm, the cast imitations have an average weight of 3.63 g and an average diameter of 23–24 mm (p. 65). This is partially explained by the casting technique: when the metal is poured into a mold made from imprints of the obverse and reverse of the original coins, upon solidification the metal contracts. The only coins that show a slightly higher weight standard are the copies of Romanos I, which show an average weight of 4.47 g. Unlike the original issues, the die axis of the imitations is almost invariably a six o'clock. At least two molds were used to produce the imitations of Leo VI and at least three were used for the coins of Romanos I. It is likely these copies were produced after the death of the emperors whose coins they copy, placing their production around the middle of the 10th century (p. 71). Another argument for the lower weight of the Bulgarian imitations in comparison to their Byzantine prototypes is the different weight standard used in Bulgaria, similar to regions within the Empire itself such as the mint of Chersonesus in Crimea, which also produced coins whose metrology is lower in comparison with Constantinople (pp. 71–72). The authors then discuss the reasons for producing these copies. While they present the counterfactual explanation of these being counterfeits produced by the workers in the metalworking workshops, they conclude that these were officially sanctioned produces of *ergasteria* connected with the royal court at Preslav, perhaps even with the Bulgarian monarch himself (pp. 72–73).

This point is further reinforced in Chapter V through the analysis of sigillographic material from the excavated sites. This includes seals and lead imprints. At the sites of Novosel, Zlatar, and Nadarevo, three imperial seals of Tsar Simeon and Tsar Petar with his wife Maria-Irene were found, as well as two 10th-century seals, one of the *vardarios* Pisota and one of the *spatharokandidatos* Andreas, and two lead imprints, one bearing the reverse and one bearing the obverse of a Byzantine solidus (p. 75). The

royal seals were likely carrying correspondence from the rulers themselves or their administration. The *vardarios* Pisota seems to have been a notable figure at Simeon and Peter's court, over 30 of his seals from a single *bullotirion* with a defect on its obverse die having been found in the region of Pliska and Preslav (p. 77). We know he was a *vardarios*, likely a member of the palace guard corps at the court of Preslav. Andreas was a *spatharios* of the Etheria and later *spatharokandidatos*, meaning both figures, whose seals were found in the workshops, were closely linked with the Preslav court. In addition to the seals, 74 weights (*exagia*), several arms from scales, 3 pans from scales, and lead imprints were found at the sites (p. 79). The lead imprints are important and heavily discussed artefacts, seen as imprints from dies or technological trial prints (p. 79). All of this data suggests their use for the production of weighed artefacts containing surfaces imprinted or struck with dies, most likely the aforementioned cast copper coins, and suggests that the primary authority responsible for their production was the court of the Preslav ruler.

Chapter VI introduces the 'chemical-technological analysis' part of the monograph and presents the results of the X-ray fluorescence (XRF) analysis of the coins and belt-set ornaments discovered at the sites of Novosel and Zlatar. The chapter begins with a useful introduction to the methodology of XRF (pp. 80–83). The main conclusion is that the coins, without exception, were made using similar technology to the rest of the products (e.g. belt buckles, appliques) from the workshops, with differences in elemental composition being explicable by the different purposes of the various artefacts (p. 85). For example, the alloy used for belt decorations at Novosel shows higher contents of tin compared to the coins, since tin lowered the melting temperature of bronze and made it harder, which was especially important in the case of belts which have to withstand strong mechanical pressures (p. 104). At Novosel, twenty cast coins and one rejected casting, still with part of the funnel system attached to it, were found, with most (fourteen) being coins of Romanos I (p. 86). Eight, the largest part of them, are made of lead bronze (p. 86), while the rest are made of pewter, multi-component alloys, tin-lead, and lead-tin bronzes (pp. 87–89). These different alloys attest to the wide variety of raw material used for the production of the products, including scrap metal (p. 96). These coins were compared to 15 artefacts from Novosel, which were made of multi-component alloys with less copper, more iron, and less lead compared to the coins, all explicable in terms of the desired characteristics of the metal, depending on its purpose (pp. 96–100). Except for multi-component alloys, pewter, tin-lead

bronze, lead-tin bronze, and lead bronze are also documented. In comparison, the site at Zlatar produced 20 coins, twelve of which casts of Leo VI, four of Constantine VII and Zoe, and three of Romanos I (p. 105). Nine of these are made of copper alloys with very high copper content and silicon from ore sources, likely indicating the use of similar raw material, such as metal ingots (pp. 105–106). Seven are made of lead bronze, and 3 of pewter with tin artificially added through the use of scrap sources of metal (p. 107). The chemical composition of the cast imitations from both sites differs substantially from that of the original folles found at Zlatar, which were made from brass with added zinc and no added lead or tin, likely indicating they were struck from a uniform starting metal source and not from recycled materials (pp. 108–109). Moreover, the different composition of the originals vis-à-vis their imitations is also undergirded by their different production methods, with the originals being struck, whereas the imitations were cast in molds (p. 114). The coins from Zlatar were also compared with objects from the same site, which exhibited four main alloys: lead bronze, lead-tin bronze, pewter, and tin-lead bronze (p. 115). Once again, they were produced with a similar technology to the coins, but show slightly different elemental compositions, which is explained by their purpose and function. For example, zinc and lead were added to appliques to make them easier to work but also enhance their hardness upon solidification, while tin was added to give the products a silvery look to make them appear as silverware (pp. 117–118). However, what is curious is that at Zlatar there is a clear differentiation between quality products, such as the coins, which exhibit high values of copper from pure or refined ore sources, whereas the rest of the products make heavier use of recycled sources of metal (p. 126). They differ from the Novosel finds, where for both coins and other products a mix of fresh and recycled metal sources was used (p. 126). This shows that each workshop seems to have had its own ‘recipe’, which was partially dictated by the availability of different sources of metal, but perhaps was also actively influenced by the preferences, expectations, and ultimately choices of artisans working on the sites, who seem to have understood well the different alloys and their technical characteristics.

Chapter VII adds to this discussion the results of the analysis of the coin finds from the Rish Pass hoard, composed of ten cast imitations of Constantine VII, made from lead brass, brass, and pewter (p. 130). Not only are the brass alloys different from the alloys used at Novosel and Zlatar, but the pewter alloy exhibits a higher content of zinc than the coins in those two workshops (p. 138). Moreover, these coins seem to have been made of rel-

actively pure material, which is evidenced by the presence of rare chemical elements like antimony, molybdenum, niobium, bismuth, selenium, tungsten, titanium (p. 138). Thus, it is likely they were not made at Zlatar and Novosel. However, artefacts from a third metalworking site, which has only recently started to be formally explored, at Nadarevo, were investigated and show not only the use of the same alloys at the site (lead brass, brass, and pewter), but also a relatively close elemental composition (p. 139). Thus, alongside the two sites at Novosel and Zlatar, Nadarevo should also be considered a center for the production of cast imitative copper coins (p. 146).

Chapter VIII proceeds to investigate the chemical composition of fifteen original Byzantine coins kept at the Shumen Regional History Museum (three of Leo VI, one of Leo VI and Alexander, three of Constantine VII and Zoe, two of Constantine VII alone, and six of Romanos I) (p. 147). Eleven of these are from the Shumen fortress, two from Pliska, one from North-eastern Bulgaria, and one from an uncertain find-spot, likely also local (p. 147). In terms of chemical composition, the original coins are dominated by brass alloys: six are made of brass and four of lead brass (p. 147). These brass alloys were not used for the coins at Novosel and Zlatar, but were the primary method of production of the coins from the Rish Pass hoard. However, they contain several rare chemical elements, different from the ones used for the production of the imitative coins in the hoard: gallium, iridium, germanium, chromium, platinum, manganese, etc., all of which suggest a likely origin of the metal in cassiterite ores (pp. 148–149). The remaining original coins were made of copper (3) with a very high copper content and lead bronze (2), with both alloys also exhibiting a non-insignificant quantity of the rare metal iridium and the first one showing a small quantity of gallium, likely also suggesting a fresh-metal source from copper ores (pp. 151–152). All of this confirms that not only was the production technique of the originals different from that of the imitations (struck vs cast), but that the metal sources for their production were completely different, precluding their production in the same location (pp. 160–161).

Chapter IX concludes the ‘chemical-technological analysis’ part of the monograph by discussing the production technique of the cast imitative coins in further detail. The coins were produced by using the technique of ‘sand-casting’ (p. 164). Traces of the production technique are visible in the ‘dividing line of the two halves of the sand molds, printed on the outer outline of the casts,’ which is characteristically smaller than that of stone molds (p. 164). Another clue is the presence of sand on the floors of the workshops

at Novosel and Zlatar, likely used in the production process (p. 169). The molds are composed of metal frames, filled with sand, into which the metal is then poured and solidified. It is an efficient and reliable method, used for mass production of objects (p. 164). When the metal solidifies in the mold, it shrinks, explaining the smaller diameters of the imitations vis-à-vis their originals (p. 165). However, since this defect can be mitigated through persistent heating of the mold, it is likely that the coins discovered at the sites were actually waste product, failed castings that fell short of the expected weight and diameter of the originals, and it is possible that other issues were also produced, which more closely resembled their originals and so were more easily put into circulation (p. 165). That these coins were rejected castings is reinforced by the presence of clearly visible defects on the specimens: some contain too little metal and have become exceedingly thin, others show cracks and hollows, and one specimen shows ‘a preserved part of the funnel/pour lip system, in which the metal did not completely fill the mold and flowed into the network of channels connecting the individual negative images’ (p. 173). All of this likely means that the coins found at the site were likely meant to be used as recycled metal for the creation of other coins or products (p. 173). Crucibles seem to have been made from locally sourced sedimentary clay (pp. 169–171). The negative images used for the casting process seem to have been made by using original Byzantine coins, which were placed in ‘double molds, between which the casting channels were subsequently carved, ensuring the supply of all the negative images with molten metal’ (p. 173). This in turn explains the absence of lead or metal models of original folles.

The Conclusion (pp. 178–182) of the monograph brings together the main takeaways of the different chapters into a clear and structured concluding section that enables the reader to understand all of the wealth of information provided throughout the book. The main conclusions of the book can be summed up as: 1) The discovery of cast imitations of late ninth- and tenth-century Byzantine coins in stratified contexts at the production centers of Novosel, Zlatar, and Nadarevo (represented by the Rish Pass hoard), the earliest preserved metalworking workshops found in Bulgaria from the hinterland of Preslav, suggests a local origin for their production and circulation; 2) The XRF analysis of these cast imitative coins alongside original issues of Byzantine coins from the Shumen Museum’s collection and alongside other metal objects from the same workshops suggests that these coins have a different chemical composition than original issues, meaning they were produced from different sources of metal, and a similar tech-

nology to that of other cast appliques and belt decorations from the same locations, reinforcing the idea of their local production in accordance with the ‘recipes’ characteristic of the different workshops; 3) The discovery of sigillographic material connected with royalty and with palace officials, as well as the workshops’ proximity to the capital city of Preslav, suggest that the coins were produced if not by direct order of the Bulgarian monarchs, then at least with their permission and supervision; and 4) The scale of the coins’ production and the choice of casting as their production technique, as well as the lack of any traces of secondary use, likely suggest that these coins were meant to be used as a circulating medium of exchange, indeed, as money, perhaps to meet demand for methods of payment at local fairs and markets and definitively to be used within the domestic economy of Bulgaria, since their imitative character would preclude their use within international trade. A further and final conclusion is that the existence of these coins and their attribution to the First Bulgarian Empire should lead scholars to reevaluate the traditional consensus concerning the Bulgarian economy as based purely on “natural” exchange and barter.

The conclusion is followed up by a Catalogue of the 50 coins found at the production centers near Novosel and Zlatar (pp. 183ff.). Every coin is described according to its type, with archeological contextualization, die axis, metrological data, and a short commentary on preservation and any defects from the casting process. Original coins are also included for a comparative perspective. The only thing that conceivably could have been added to the catalogue is a closer commentary on legends and typological variations, which are understandably omitted due to the fact the majority of these coins were made in standardized molds, and it would have been helpful to have each coin’s chemical composition from the XRF analysis added to the catalog itself (although one can also find the information in the Appendices).

The Bibliography of the monograph is vast and relatively exhaustive. The only major gap in terms of relatively recent scholarship is IGOR LAZARENKO’S article on supposed imitations of the Byzantine emperor Justinian II from Northeastern Bulgaria, which could have fit in well with the long-durée tradition of ‘fourré’ gold imitations suggested by the author, and the discussion of ‘Bulgarian’ imitations/’Faithful Copies’ from JULIAN BAKER’S important monograph *Coinage and Money in Medieval Greece*.¹⁰ While

10. IGOR LAZARENKO, Имитации на златни монети на император Юстиниан II (685–695, 705–711) от североизточна България. Нумизматика, сфрагистика и

some of the older literature from the field concerning different proposed traditions of Bulgarian imitatives is not discussed in detail, its addition into the bibliography could have been a useful launching point for Western scholars attempting to investigate the rich historiographical debate described in the authors' Chapter I.¹¹ However, their omission is similarly understandable in the interest of progressing the book forward without becoming entrenched in discussing individual positions that have been variously refuted or expanded over the last fifty years.

The Bibliography is followed by a summary of the book in Bulgarian before concluding with a rich Appendix of almost 100 pages, which is expertly prepared, consistently signposted and containing high-quality images and visualizations. All of the material discussed in the book, including the individual coins, their metrological values, their chemical analysis, the belt appliques from the archeological sites, as well as pie charts and bar graphs visualizing the data, is presented in a clear and easily referenced manner.

Overall, DONCHEVA and ZHEKOVA's monograph is a stunning product of the best that Bulgarian numismatics has to offer. It has been expertly researched, carefully prepared, and clearly written. The biggest virtue of the monograph is its self-referential interdisciplinarity. It includes methods from disciplines as varied as spectrometry, numismatics, sigillography, archeology, art history, and more. This creates a risk, as in many interdisciplinary projects, of an overly complicated or confusing exposition or use of the data in question. However, DONCHEVA and ZHEKOVA make masterful use of the material and show expert understanding of the uses and

епиграфика 13 (2017) pp. 191–202; JULIAN BAKER, *Coinage and Money in Medieval Greece 1200–1430*. Boston – Leiden 2020, pp. 1213–1221.

11. E.g. NIKOLA GAIDAROV, „Законъ соудний людьмъ” и проблемът за монетите на Първата българска държава. *Нумизматика* 15.2 (1981) pp. 42–45; TODOR GERASIMOV, Сekli ли са монети владетелите на Първата българска държава? *Известия на Българското историческо дружество* 26 (1968) pp. 407–411; IVAN YORDANOV, За началото на монетосеченето в Средновековна България. *Нумизматика* 12.3 (1977) pp. 3–23; DAVID MICHAEL METCALF, Echoes of the Name of Lorenzo Tiepolo: Imitations of Venetian Grossi in the Balkans. *Numismatic Chronicle* VII.12 (1972) pp. 183–191; VLADIMIR PENCHEV, Ранни български имитации на византийски монети, намерени при археологическите разкопки в Силистра. *Нумизматика и сфрагистика* 2 (2000) pp. 40–48; STEFAN A. TSONEV, Стоковото производство във феодална България в светлината на колективните монетни находки. *Трудове на държавия университет в гр. Сталин: Стопански факултет* 2 (1952–1953) pp. 541–560; VASIL ZLATARSKI, Към въпроса за най-старите български монети. *Известия на Българското археологическо дружество* 1 (1910) pp. 29–53.

limitations of the different disciplines, highlighting these to the user and being able to entertain counterfactuals and alternative explanations. For example, the authors have clearly and consistently used the same devices to measure the chemical composition of the coins and appliques from the different sites, and have iterated their analysis across three different institutions, which reinforces the credibility of the results. In that sense, the book is clearly the product of much careful preparation, and the result is an easy-to-read and carefully laid out exposition that even a novice to any of the different fields could grasp. It has a clear and focused argument – proving that the cast copper imitation of Byzantine coins were made under the supervision of the royal court in Preslav in the metalworking centers at Novosel, Zlatar, and Nadarevo – and it brings evidence from many different approaches to make a very strong and robust case in favor of this proposed attribution that borders certainty. The clarity of the exposition is also visible in the inclusion of mini-conclusions within the chemical analysis chapter, the detailed introduction and conclusion chapters that successfully bring together all of the main conclusions from the book in a manner that is digestible for the casual reader, and the rich Catalogue and Appendices, which enable the reader to visualize and engage with the discussed material.

Nonetheless, the monograph has its limitations, which could be addressed in a second edition that such an excellent piece of academic research deserves. (The first edition is already out of print.) A major and glaring issue is the presence of mistakes and typos across the monograph. For example, the name of the city of Constantinople is misspelled thrice (pp. 65, 108, 114), there is a common conflation of the verb ‘analyzes’ with the plural of the noun ‘analysis’ (e.g. p. 16, 115), there are some instances of conflation of the dates of rulers’ reigns (e.g. Justinian II reigned in 685—695 and 705–711, not 527–565, e.g. p. 54), and numismatic terms like ‘die axis’ and ‘struck’ should be used instead of ‘direction of the seals’ (p. 17) and ‘cut’ (p. 114) respectively, which are direct translations from the terms as they exist in Bulgarian. Another major shortcoming is that, while an introduction to the Byzantine monetary system and generally the history of Byzantium exists in Chapter III, there is little to no contextualization of the production of these coins within the confines of Bulgarian history itself. A reader unfamiliar with the history of Bulgaria would have welcomed at least one or two pages discussing the most important events for the historical context of these coins’ production, such as the Christianization of Bulgaria in 864 and its subsequent integration within the Byzantine *oik-*

oumene, the trade war between Bulgaria and Byzantium in 893, the wars of Tsar Simeon, the Long Peace under Peter I, and the destruction of the Bulgarian administration in the region of Pliska and Preslav by the Rus' and Byzantines in the 970s. An additional issue in Chapter II on coin circulation in the Bulgarian lands and its development vis-à-vis the situation in Byzantium is the complete absence of Anatolia from the numismatic picture of the Empire, especially of continuously inhabited sites such as Sardis, Pergamon, or Priene, whose materials are readily available online and which could have offered in many ways a more useful parallel for developments in Bulgaria than Southern Greece and Thrace.

Finally, there are some questions that the monograph raises, which would be interesting to explore either in a second edition or as part of a new project. While the authors certainly make the point that the production of these imitative coins was meant to satisfy an existing demand for bullion, possibly at annual fairs, there is limited discussion of what this means for our view of the Bulgarian monetary economy as a whole. How widely were these imitations meant to circulate? How often were they produced? Were they just emergency issues for when no 'original' issues were available? If so, how could the Byzantine Empire have tolerated the production of, from its perspective, counterfeit coinage, a serious crime in Byzantine legislation? Crucially, how can we explain the absence of such cast coins from the excavations of major economic centers like Preslav, Durostorum, and Pliska, despite the continuous excavations of the sites over the past century? What does the production of these coins tell us about monetization in other regions of the medieval Bulgarian state, such as Macedonia or Serdica? Could there conceivably have been other 'mints' and 'workshops' there, were they better supplied with Byzantine originals due to their proximity to the major trade city of Thessaloniki, or was exchange there almost completely based on barter? While it is now clear that the economy of the First Bulgarian Empire was a mix of 'natural' and 'coin-based' monetary exchanges, how did they coexist and to what degree and for what purposes were they used? And, finally, how can we explain the existence of this practice of imitation in terms of Gresham's Law, which would expect these imitations to drive out original Byzantine coins from circulation over time? Answers to these and many other questions would turn this monograph not only into an excellent scholarly contribution but also into a work that can potentially revolutionize the study of the economy of the First Bulgarian Empire.

In conclusion, DONCHEVA and ZHEKOVA have produced an essential tool

for researchers interested in the economy of the First Bulgarian Empire, and more generally, in the economic relations between barbarian kingdoms and the Byzantine Empire, in changes and transformations of the Byzantine monetary system, trade and networks of exchange in the Early Middle Ages, and production techniques and use of raw materials in the Early Medieval Balkans. Despite its minor shortcomings, this is a *magnum opus* that deserves to be on the shelf of every numismatist and every economic historian of the Byzantine and First Bulgarian Empires.

Keywords

Byzantine numismatics; medieval Bulgarian coinage; imitations of Byzantine coins