

# Late Byzantine Period

The social structure and the administrative organisation of Late Byzantine Thessaloniki is revealed through numerous extant historical sources<sup>344</sup>. Next to the local aristocracy and high-ranking officials who possessed large landed estates in the wider area, a strong middle class – partly comprised of foreigners – mainly occupied in trade, commerce, artisanal activities and agriculture, emerges in these texts<sup>345</sup>. Due to great losses of their landed possessions around the middle of the fourteenth century, much of the local aristocracy was forced to engage in commercial activity<sup>346</sup>. Workers, small artisans, craftsmen and small-scale cultivators constituted the great mass of the population<sup>347</sup>. During the second half of the thirteenth century and into the early fourteenth century, Thessaloniki prospered, thanks largely to the export trade in textiles, agricultural products, like cereals, but also wax, leather and timber from its hinterland to Italian cities, producing social changes that benefited large sections of the population<sup>348</sup>.

By 1423, when the city came under Venetian administration, Thessaloniki's population was around 40,000 inhabitants, which was approximately half the population of Constantinople in the early Palaeologan period and almost equal to the 50,000 inhabitants of Constantinople in 1453<sup>349</sup>. Merchants from Thessaloniki extended their commercial activities into the Peloponnese and Crete, Constantinople, western Asia Minor, the Black Sea region, as well as Dubrovnik and Novo Brdo<sup>350</sup>. It appears that partnerships and the exploitation of shops and workshops were usually short-term. Profits were shared when the partnership was ended, new partners could also enter at a later time and each partner could simultaneously participate in other partnerships<sup>351</sup>. Fairs

were very important for trade and commerce in the city and continued to be held up until the Ottoman occupation<sup>352</sup>. Several churches also organised festivals and trade fairs over several days, presenting another important element of the commercial life of the city<sup>353</sup>.

The once politically and economically united Balkan area was by now long fragmented, and by the middle of the fourteenth century the productive and commercial hinterland of Thessaloniki had shrunk to the area circumscribed by the castles of Gynaikokastron, Sidërokastron and Chrysoupolis built in 1341 under Andronikos III<sup>354</sup>. Ottoman aggression during the late fourteenth and early fifteenth centuries cut off Thessaloniki from its hinterland, at least by land. Consequently, the countryside was inadequately cultivated and commercial connections with the hinterland were disrupted. This economic decline was only interrupted during the first decade-and-a-half of the fifteenth century, a problematic period for the Ottomans, when exports of cotton to Venice were mentioned and a renewed attempt at agriculture outside the city walls was documented<sup>355</sup>. Otherwise, it was often the case that the only provisions for Thessalonians were those brought in by sea. Apart from the few engaged in long-distance commerce and banking, the vast majority of the population was affected negatively by the Ottoman attacks that ruined the agricultural production of the city's hinterland and the local and regional trade and its consequent income<sup>356</sup>.

## Fortifications and Port

During the Late Byzantine period, the walls of Thessaloniki retained their original size and shape, but underwent several

- 344 Necipoğlu, *The Aristocracy in Late Byzantine Thessalonike* passim and esp. 147-151. – Eadem, *Byzantium between the Ottomans and the Latins* 39-115, where political history and social and economic organisation of Thessaloniki during the late fourteenth and early fifteenth centuries is thoroughly examined. – On Thessaloniki's history between 1280 and 1330, see Malamut, *Cinquante ans à Thessalonique* passim, and esp. 280-289 on socioeconomic conditions. – For a thorough presentation of written sources on Palaeologan Thessaloniki and an overview of the city's history, see Stavridou-Zaphraka, *Physiognómia* 75-84.
- 345 Jacoby, *Foreigners and the Urban Economy* passim.
- 346 Oikonomidès, *Hommes d'affaires* 120-122.
- 347 Necipoğlu, *The Aristocracy in Late Byzantine Thessalonike* passim and esp. 147-151 on local officeholders, *archontes* and their involvement in trade and crafts. – Also, Necipoğlu, *Byzantium between the Ottomans and the Latins* 39-115.
- 348 On exports from Thessaloniki to Venice, Pisa and Florence of grains, cotton, silk, wax and kermes, see Jacoby, *Foreigners and the Urban Economy* 101, 105, 111, 114. – Laiou, *The Agrarian Economy* 326-328. – Kōnstantakopoulou, *Vyzantinè Thessalonikè* 218. – Necipoğlu, *The Aristocracy in Late Byzantine Thessalonike* passim and esp. 147-151. – Eadem, *Byzantium between the*

- Ottomans and the Latins* 39-115. – Malamut, *Cinquante ans à Thessalonique* passim and esp. 280-289 on socioeconomic conditions. – On different types of sellers in Thessaloniki, see Matschke, *Commerce* 800-801. – On the size and the characteristics of the city and its population, see Bakirtzis, *Urban Continuity* 35-64.
- 349 Matschke, *The Late Byzantine Urban Economy* 465. – Laiou/Morrisson, *The Byzantine Economy* 196.
- 350 For an overview, see Matschke, *Commerce* 795-796.
- 351 Oikonomidès, *Hommes d'affaires* 78-83.
- 352 On fairs generally, see Vryonis, Jr., *The Panegyris* 196-227. – On Late Byzantine Fairs, see Matschke, *Commerce* 779-782.
- 353 Records written in a notebook of the period inform us that fifteenth-century trade fairs, other than that of Hagios Dēmētrios, were organised by the churches of Hagia Sophia, the Acheiropoiētōs, the Asōmatōn and the Angelōn. Some of these lasted eight days while the Asōmatōi church organised a second, six-day long fair. See Kugeas, *Notizbuch* 146-148, 154. – Also see, Papagiannē, *Panēgyreis* 144, 145, 147.
- 354 Bakirtzis, *Urban Continuity* 36.
- 355 Necipoğlu, *Byzantium between the Ottomans and the Latins* 61-63.
- 356 Necipoğlu, *Byzantium between the Ottomans and the Latins* 73-76, 83.

repairs and additions. These were mainly in the acropolis and some of the towers, with the addition of new gates, just as in the Ottoman period when corner fortifications were added along the coastal stretch, and to the north of the city where the *Heptapyrgion* (*Yedi Kule*) was added as the acropolis' refuge<sup>357</sup>. Unlike other medieval cities, Thessaloniki was not transformed into a citadel. On the contrary, it retained the character of a city, although it remains unanswered whether it was inhabited over the entire area within the walls<sup>358</sup>. The acropolis at the northern end of the city is a Byzantine addition, probably built after 904, and is separated from the lower city by a curtain wall with gates<sup>359</sup>. It is possible that it was built on the site of an Early Christian fortification<sup>360</sup>. During the Late Byzantine period it was a populated part of the city with permanent residents, houses and churches. It also contained water reservoirs, military stables, an arsenal and a prison, all of which gave the area the additional character of a military camp<sup>361</sup>. Furthermore, it is known that military commanders and members of the royal family lived in the acropolis, at least during periods of crisis<sup>362</sup>.

The steep and rocky north-eastern part of the city, which was probably Thessaloniki's Roman citadel known as the *Trigōnion* (Τριγώνιον), was still in use during the Late Byzantine period. However, it was sparsely populated. In one tower we find an Early Christian chapel and a small eleventh-century church with wall paintings<sup>363</sup>.

The port continued to operate. It was defended by a wall and towers, and a breakwater protected it against bad weather and silt from nearby rivers. The main sewer might have emptied here, the so-called *Tzerempoulon* (Τζερέμπουλον)<sup>364</sup>. The area around the port was mainly inhabited by sailors, unsurprisingly, and it is described in the sources as an area of ill-repute, whose insubordinate and armed inhabitants participated in the Zealot insurrection<sup>365</sup>.

## Urban Planning

The Hippodameian system and the ancient setting of the city's main streets remained, at least in the lower city, more or less undisturbed and easily discernable until the twentieth century, specifically until the implementation of the fundamentally different urban plan that was conceived and gradually applied after the fire of 1917<sup>366</sup>. Important changes, though, had occurred earlier as well, namely, unifications of *insulae* and total negations or changes in the path of several streets, especially in the upper town and in the acropolis, where the streets were not intersected at a right angle. Generally, an organic urban fabric developed with narrow streets diverted or even sometimes cut-off completely by private buildings being built upon them<sup>367</sup>. Street paving in marble and stone had already been abandoned in the Middle Byzantine period and streets were surfaced with gravel or simply comprised beaten earth. Their original width was reduced significantly as buildings encroached upon pavements and even parts of the street itself<sup>368</sup>. Remains of ancient Roman monuments were still standing, such as the triumphal arch of Galerius to the east, the triumphal arch at the west end of the *Via Regia* inside the Chrysē Gate, and the portico with relief pillars, known as *Eidōla* (Εἰδῶλα) or *Las Incantadas*, stretching south of the Agora, a few metres away from the *Via Regia*<sup>369</sup>.

## Houses and Neighbourhoods

The lower part of the city was densely populated in the Late Byzantine period, in contrast to the upper town, which no longer seems to have been used as a residential district. Members of the city's political elite, as well as members of the royal family, resided in large residences in the lower town. The exact size and characteristics of these residences have not been determined archaeologically, however, it seems probable that they were two-storied and quite similar to the houses with an inner courtyard preserved in

357 City walls delimited, protected and confined the size and shape of the city until the middle of the nineteenth century when the southern part was demolished in 1866, allowing the city to expand without constrictions at its coastal part, both to the east and the west of its historical nucleus. On the walls of Thessaloniki, see Tafrafi, *Topographie de Thessalonique* 30-114 esp. 44-51 regarding the Late Byzantine period. – Spieser, *Thessalonique* 2, 5-80. – Velenēs, *Ta teichē*. – For a recent and full overview on this topic see Bakirtzis, *Urban Continuity* 39-42.

358 On this topic, see Bakirtzis, *Urban Continuity* 39-42, with further bibliography. 359 Velenēs, *Ta teichē* 133.

360 Bakirtzis, *Urban Continuity* 43 nt. 66.

361 Bakirtzis, *Urban Continuity* 43. – Kōnstantinidou, *Neotera stoicheia* 239-248. – Kantakouzenos III 94 (GB II, 576-580). – Choumnos, *Thessalonikeusi symvouleitikes* 139.

362 Bakirtzis, *Urban Continuity* 46-47, with further bibliography.

363 Velenēs, *Ta teichē* 62-63. – Bakirtzis, *Urban Continuity* 47, with all new archaeological finds from the area.

364 For the preservation of the *Tzerempoulon* in the fifteenth century, see Anagnostes, *De extremo* p. 508 (4) §347.13 and Anagnostes, *Diēgēs* 38, §13.30: »Τούτο και κατά τὸν πύργον τὸν καλούμενον Σαμαρείαν [...] εἰς τοῦτον συνέφυγον μόνον καὶ τοὺς ἄλλους εὐθὺς κεκωλύκεσαν τῆς εἰσόδου. Οἱ καὶ διὰ τοῦ κατὰ θάλατταν προβεβλημένου διατειγίσματος (Τζερέμπουλον τοῦτο καλεῖν πάντες εἰώθαμεν) εἰς τὰς τριῆρεις εἰσίσαι« (And these things (happened) at the so-called tower of Samareia (...) they had taken refuge only there, and immediately barred entrance to anyone else. They (the Latin rulers and some from

Zeta), passing through the breakwater on the seaward side that we used to call the *Tzerempoulon*, boarded triremes].

365 Kantakouzenos III 94 (CB II, 575.7-13): »τὴν πρὸς θάλασσαν πύλιν [...] περὶ ἣν οἰκοῦσι πᾶν τὸ ναυτικόν, οἱ πλείστοι τε ὄντες καὶ πρὸς φόνους εὐχερεῖς, ἄλλως τε καὶ ὤπλισμένοι πάντες, ὥσπερ τὸ κράτιστόν εἰσι τοῦ δήμου, καὶ σχεδὸν ἐν ταῖς στάσεσι πάσαις αὐτοῦ τοῦ παντὸς πλήθους ἐξηγούνται προθύμως ἐπομένου, ἢ ἂν ἀγῶσιν αὐτοὶ ἔχουσι δὲ καὶ ἰδιάζουσιν ἀρχὴν αὐτοὶ παρὰ τὴν τῆς ἄλλης πόλεως« [the sea gate (...) around it live all the sailors, most of them capable of murder and all of them armed, since they are the most powerful part of the city. If they walk first, they lead the entire crowd which follows them readily in almost all riots. They have a peculiar authority over the rest of the city].

366 Vickers, *Hellenistic Thessaloniki* 156 and fig. 3. – Vitti, *Poleodomikē exelixē* 67-86, and Karydas, *Topographikes paratērēseis* 447-450.

367 Bakirtzis, *Urban Continuity* 42, 55.

368 Bakirtzis, *Urban Continuity* 42-43, with references to the changes that the *decumanus* coinciding with the modern Agiou Dēmētriou Street underwent and on several *cardines* that intersected it, remaining practically unchanged from Antiquity into modern times. Also, the same phenomenon appears with great clarity in the salvage excavations at the metro stations of Venizelou and Agias Sophias Streets, revealing the *Decumanus Maximus* (modern Egnatia Street), see Makropoulou/Kōnstantinidou, *METRO Thessalonikēs – Stathmos Venizelou*.

369 Spieser, *Thessalonique* 55-56, 62, 86-87. – Vitti, *Poleodomikē exelixē* 57, 198-199 and 224-226.

the lower eastern part of the city until the early twentieth century<sup>370</sup>. The bishop's palace stood to the north of the Metropolis (Hagia Sophia), comprising a two-story complex of buildings with a large *triclinium* and an open gallery, smaller churches and gardens<sup>371</sup>. Ruins of large residences and other late-antique buildings were used and incorporated into smaller houses of the tenth to fourteenth centuries. These houses were often of only a single room and usually shared a common courtyard<sup>372</sup>. The rectangular *insulae* of the ancient city's grid were replaced by neighbourhoods of such courtyards surrounded by houses, which could also incorporate small churches and markets, with narrow, curved and occasionally maze-like passages, shaping the character of medieval Thessaloniki<sup>373</sup>.

At this stage, the Ancient Agora appears to have still been an open area. Possibly the public square (δημόσια αγορά) mentioned in the sources was partly occupied by tombs and workshops, but not houses<sup>374</sup>. In contrast, the Hippodrome was occupied by housing developments and a cemetery<sup>375</sup>. On the site of the Palace of Galerius, the octagonal throne room was transformed into a water cistern. Also on the site of the palace or close to it, there appears to have been a pottery, judging from the large quantities of glazed pottery found here during excavations<sup>376</sup>. Of the baths formerly operating in the city, only one in the lower part of the upper town was preserved<sup>377</sup>.

## Churches

Four important ancient churches, surrounded by cemeteries, were still functioning in Late Byzantine Thessaloniki. Found mainly in the lower part of the city, these were: the

Rotonda, which had, in all likelihood, acquired its final form in the Middle Byzantine period<sup>378</sup>; and the Hagios Dēmētrios Basilica, which was then newly wall-painted and was supplemented by the Middle Byzantine chapel of Hagios Euthymios, the crypt, and the ninth-century north chapel of Hagios Iōannēs Prodromos<sup>379</sup>. In addition, the Acheiropoiētos Basilica had its walls painted in the early thirteenth century<sup>380</sup> and the metropolitan church of Hagia Sophia was still in use<sup>381</sup>. The single other Early Christian building that remained in use was the Katholicon of the Latomou Monastery in the upper city, which had its walls painted in the twelfth century and again around 1300. Finally, Middle Byzantine churches were still operating in the lower town which were renovated in the Late Byzantine era, such as the Panagia Chalkeōn and the Katholikon of the Monastery of Hagia Theodōra<sup>382</sup>.

## Monasteries

Some fifty-six new churches, of which at least twenty-two were *katholika* of monasteries, were constructed during the Palaeologan period in Thessaloniki<sup>383</sup>. Among the examples surviving today, only two, Hagios Panteleēmōn and the sepulchral chapel of Sōtēras, were built in the densely populated eastern lower city. All the others were dispersed throughout the upper city and around the fringes of the lower city where apparently more open areas were found<sup>384</sup>. Neighbourhoods formed around each monastery or small parochial church, often taking the name of the monastery of the church. These neighbourhoods comprised the monastery's property which usually had several auxiliary buildings and houses that were rented out or occupied by monastery servants<sup>385</sup>. In legal

- 370 Rautman, *Observations on the Byzantine Palaces of Thessaloniki* 300-306, on the palaces from the time of Galerius to the Ottoman period, which are known mainly from the written sources. – In general clues about the buildings of Thessaloniki are found in the legal documents of the monasteries of Mount Athos, where one and two-storey houses are mentioned, having saddle roofs, or lean-to roofs with porches or porticoes. For instance, see the description of the property of Theodōros Karabas in *Actes de Chilandar I* no. 59.
- 371 Rautman, *Observations on the Byzantine Palaces of Thessaloniki* 299. – Marke, *Agia Sophia kai prosktismata* 54-61. – Bakirtzis, *Urban Continuity* 52, with thorough bibliography.
- 372 Bakirtzis, *Urban Continuity* 55, presents two cases of *insulae* where Roman and Early Christian ruins were incorporated into small Late Byzantine houses which were built on the same site, at the *insula* east of the Agora on the *Via Regia/Leōphoros*, and further to the NW, at the *insula* on nowadays Diokētēriou Square. Small private houses in Late Byzantine Thessaloniki are described in Athonite deeds of transfer: Papachryssanthou, *Maisons modestes* 254-267, and Živojinović, *The Houses* 464-474. See also Giros, *Présence athonite à Thessalonique* 265-278. – For the Byzantine houses, see Ćurčić, *Houses in the Byzantine World* 234-248.
- 373 Theocharidēs, *Istoria Makedonias* 14. – Bakirtzis, *Urban Continuity* 56. – On the same phenomenon in later Ottoman periods see Dēmētriadēs, *Topographia Thessalonikēs* 23-46.
- 374 Kantakouzenos III 64 (CB II, 393), III 93 (CB II, 571). – Bakirtzis, *Urban Continuity* 57.
- 375 Vitti, *Poleodomikē exelixē* 216-218. – Bakirtzis, *Imports, Exports and Autarchy* 111. – On this type of market, see also Laiou/Morrison, *The Byzantine Economy* 37. – Hattersley-Smith, *Byzantine Public Architecture* 188-189. – Theodoros Studita, *Epistulae* §15.106-118 (epistula 3): «προσέμενεν ἐν τῇ ἀνατολικῇ πύρρῃ [...] καὶ μετὰ τὸ εἰσελθεῖν κλείσαντες τὰς πύλας ἤγον διὰ τῆς ἀγορᾶς» [waited at the eastern gate and after entering they closed the gates and passed through the marketplace]. – See Kaltsogiannē/Kotzampassē/Paraskeuopoulou, *Ἡ Thessalonikē stē Vyzantinē logotechnia* 6-7. – On the fact that in Constantinople there existed peripheral animal or food markets as opposed to central luxury markets in the Forum of Constantine and in *stoai*, see Mundell Mango, *The Commercial Map of Constantinople* 204-205.

- 376 Personal observation of the unpublished finds once kept in the Archaeological Museum of Thessaloniki. – Also mentioned in Bakirtzis, *Urban Continuity* 58.
- 377 Trypsianē-Omērou, *Vyzantino Ioutro* 587-599. – Trypsiani-Omiro, *Byzantine Bath, Thessaloniki* 314-317. – On an Early Christian bath connected to the Acheiropoiētos Basilica, see *cat. no. 86*.
- 378 Bakirtzis, *Urban Continuity* 48. – Moutsopoulos, *Palaiochristianikē phasē Rotondas* 366 and 369. – Theocharidou, *Rotonta Thessalonikēs* 67 and 75. – Also, movable finds from the Late Byzantine and Post-Byzantine cemetery (pottery, glass vessels and jewelry) are kept in the Museum of Byzantine Culture.
- 379 Gouma-Peterson, *The Parecclesion* 168-182. – Gouma-Peterson, *The Frescoes* 111-129. – Tsigaridas, *Toichographies Agiou Euthymiou passim*. – Moutsopoulos, *To pareklēsi* 303-330.
- 380 Xyngopoulos, *Toichographiai* 6-30. – Kissas, *Umetnost u Solunu* 39.
- 381 Tampakē, *Thessaloniki* 114-133 esp. 127-128, with exhaustive bibliography. – Bakirtzis, *Urban Continuity* 51-52, with more recent bibliography.
- 382 On Panagia Chalkeōn see, Tsitouridou, *La peinture monumentale* 18. – Bakirtzis, *Urban Continuity* 53, with older bibliography. – On Hagia Theodōra, see Bakirtzēs, *Monē Agias Theodōras* 587-588. – *Cat. Thessaloniki* 2001, 8. – Bakirtzis, *Urban Continuity* 53-54.
- 383 Vokotopoulos, *Church Architecture* 107-116. – Rautman, *Ignatius of Smolensk* 143-169 esp. 162-169. – Rautman, *Aspects of Monastic Patronage in Macedonia* 62-69, especially on the fact that the patrons of the Palaeologan monasteries of Thessaloniki are mainly members of the city's clergy and that they were not endowments of the province's landed aristocracy, and on p. 72-73 on the role that this fact played in their ground plan, which affected the basic form of the city's metropolitan church, Hagia Sophia. – For some interesting results derived from the quantitative study of R. Janin's *La Géographie Ecclésiastique de l'Empire Byzantin*, see Varinlioglu, *Urban Monasteries passim* and esp. 190-192, 197 on Thessaloniki.
- 384 Those preserved today are Hagios Nikolaos Orphanos, Taxiarches, Hagia Aikaterinē, Hagioi Apostoloi, Vlatadōn, and Prophētēs Elias. On the matter see nt. 206-215.
- 385 Theocharides, *Istoria Makedonias* 14. – Bakirtzis, *Urban Continuity* 55-56, with further bibliography.

documents of the monasteries of Mount Athos the names of nine neighbourhoods are known: Hagios Mēnas, Kataphygē, Acheiropoiētos, Hagia Pelagia, Hagios Paramonos, Asōmatoī, Omphalos, Chrysē and Hippodromos<sup>386</sup>.

The fact that the monasteries were built in the upper town, close to the city walls, indicates that, while the outer edges of the city following the city walls remained the same from Antiquity, the populated area within the walls had diminished. This was already apparent in the Middle Byzantine period and persisted or even intensified into the Late Byzantine period. Activities that had previously taken place outside the city walls, such as the operation of monasteries, artisanal activities and even small-scale agriculture and husbandry were now brought within the city<sup>387</sup>.

### Cemeteries

From the seventh century onwards and throughout the Byzantine and Ottoman periods, the ancient necropolises outside the city walls ceased to be used and burials started to take place within the city itself. Small Late Byzantine cemeteries connected with chapels and small monasteries dispersed throughout the city are often found in the excavations. Due to the fragmentary character of the excavations, small groups of graves are also found without archaeological evidence of a chapel<sup>388</sup>.

### Workshops

A considerable number of sites where artisanal activities have been identified have been discovered in excavations both inside and outside of the city walls. Outside the city walls, artisanal activities have been found following the streams to the north-west and north-east of the city. Here we find clusters of water mills for grinding cereals and at least one oil press, which may have been operating since Early Christian and Middle Byzantine times. Similar activities also took place within the city: to the north, where the steep gradient of the land and the presence of monasteries (which

were economic units as well) were favourable to such activities; and also, according to the written sources, close to the port. A lime kiln using the shells of edible shellfish as raw material has been identified in a densely populated part of the city, near the Metropolis and next to the large Monastery of Hagia Theodōra. Potteries have been discovered in a number of locations: in the centre of the city, at the plaza in the area of the Agora; further to the south on the *Via Regia/Leōphoros*; next to the Monastery of Hagia Theodōra; in the port area; close to and along the eastern and western city walls; as well as in the sparsely populated mountainous area of the city. Many workshops operated outside the western walls, stretching far from them, roughly along the path of the road that led to the central western city gate. Potteries have also been discovered outside the eastern city walls, at least at the coastal part of the plateau. Finally, tanneries and dyeworks, apparently in disregard of the acute annoyance caused to their neighbours, operated in densely populated parts of the city, such as in the eastern part close to the *Leōphoros* and near the western city walls.

More specifically and in detail, the artisanal activity in the Palaeologan period that has been identified in excavations or through the written sources can be presented as follows:

### Water Mills: Flour, Oil and Wine

Water mills for grinding cereals, or more rarely for oil-pressing<sup>389</sup>, represented an important economic activity (fig. 38), and apart from those mentioned in the written sources<sup>390</sup>, more than twenty of them have been physically located, mainly outside the city walls. These are twelve mills, dating from the Byzantine or even Early Christian periods, which were rebuilt in the fourteenth century, located in north-east in the vicinity of the Panorama. In addition, eight mills and a wine press have been located to the north-west, along a stream in the vicinity of Retziki, of which at least four can

386 The names of the neighbourhoods are noted, among others, in the following legal deeds of athonite monasteries: Hagios Mēnas: Actes de Chilandar I no. 30:17. – Kataphygē: Actes de Lavra I no. 59:6. – Actes de Docheiariou no. 3:57 no. 4:78, 79. – Acheiropoiētos: Actes d'Iviron III no. 73:14, no. 78:4. – Hagia Pelagia: Actes de Vatopaidi I p. 33 nt. 305. – Actes de Zographou no. 8:7. – Hagios Paramonos: Actes d'Iviron III no. 60:9, 76:58. – Actes de Chilandar I no. 25:3. – Asōmatōn: Actes de Lavra I no. 59:4. – Actes d'Iviron IV no. 91:26, 92:20. – Omphalos: Actes de Docheiariou no. 4:80, no. 49:261. – Chrysē: Actes de Docheiariou no. 4:80. – Hippodromion: Actes d'Iviron II no. 52:370. – Actes d'Iviron III no. 78. – On the neighbourhoods of Thessaloniki during the fifteenth century and throughout the Ottoman period, see Dēmētriadēs, *Topographia Thessalonikēs* 23-46.

387 Bakirtzis, *Urban Continuity* 62-63.

388 Markē, *Christianika koimētēria stēn Ellada 172-175*. – Makropoulou/Tzitzimpasi, *Sōstikē anaskaphē* 364-366. – Kanonidēs, *Neōtera stoicheia apo tis anaskaphes tou 1998*, 183-194 esp. 184 fig. 1 and 185 fig. 2. – Makropoulou, *Byzantino koimētērio 235-244*. – Bakirtzis, *Urban Continuity* 63. – Kanonidēs, *Vyzantino koimētērio plateias Dioikētēriou 523-530*. – Kanonidēs, *Taphes entos tōn teichōn tēs Thessalonikēs* 207-218.

389 For a general overview of oil and wine production in the Mediterranean, see Amouretti/Brun, *La production passim*. For a note on mills in Middle and Late Byzantine era see Laiou/Morrisson, *The Byzantine Economy* 99-100, with bibliography. – Also see Laiou, *Economic History*, vol. 1, 110-112, 235-236, 280, 359-360, 381-382. – For a water-driven olive oil mill from 1324/5 excavated on the north shore of Volvē lake in Thessaloniki's hinterland, see Papangelos, *Elaia kai Elaion* 187 figs 7-9. – Siaxambani, *Watermills from Polichni* 340 figs 2-5. – For the fact that it belonged to the Thessalonian Monastery of Vlatadōn until 1575, see Vasdravelēs, *Istorika archeia* 17-18 no. 20. – For a short overview of all prior publications on the subject, see Sampanopoulou, *Katalogos* 54-55. – For an overview of Late Roman and Byzantine oil presses in Greece, see Raptēs, *Ergastēria* 122-132, 285-301.

390 e.g. Emperor Ioannes Komnenos (1118-1143) donated the rights on the water coming from Chortiatēs with its water pipe and the mills operating in Thessaloniki to the monastery of Christos Saviour Pantokratōr, which he had founded in Constantinople, in 1136, see Gautier, *Le typikon du Christ Sauveur Pantocrator* 120-121, ln. 1534-1535: »τὸ δίκαιον τοῦ ἀπὸ τοῦ Χορταίτου καταρρέοντος ὕδατος σὺν τῷ ἀγωγῷ καὶ τοῖς ἐν Θεσσαλονικῇ ἐνεργούσι μύλῳσι« [the rights to the water flowing down from Chortaites, (together) with its water pipe and the mills operating in Thessaloniki].

be dated to the Late Byzantine period<sup>391</sup>. All of them were built on steep sites with vertical slopes and took water from two different sources. Furthermore, a water tower has been excavated in the upper part of Thessaloniki, indicating that workshops using water power, possibly water mills, were active within the city walls as well<sup>392</sup>. It should also be noted that relatively few hand-mills have been unearthed within the city, implying that the flour used by its inhabitants was mainly ground by bakers in their own mills, or in other large professional mills<sup>393</sup>. Bakers were protected by the state and there was a provision that exempted them and their animals from public service in order to be able to grind grain for their produce and prevent any hindrance to the baking of bread<sup>394</sup>. Theoretically, bakeries should be easily identifiable due to their kilns and mills, as was the case with the architectural remains of Roman bakeries<sup>395</sup>, yet for the time being it has not been possible to locate such structures in the city, although it is known from legal texts that such businesses operated in Late Byzantine Thessaloniki<sup>396</sup>. An active bakery, *mangipeion* (μαγκιπέιον), is mentioned among the buildings owned by Chortaitou Monastery around 1320 in the quarter of Hagios Paramonos<sup>397</sup>. It is also known that they should not have been located under or close to dwellings for fear of fire<sup>398</sup>. The law had a provision especially for Thessaloniki where, due to the reverse winds, i. e. the summer wind blows from the south and the winter wind blows from the north, arrangements for the firebreak between neighbours were also reversed<sup>399</sup>.

A linseed oil mill, a *tzymilareion* (λινελαιοτριβικὸν ἐργαστήριον or τζυμιλαρεῖον), is mentioned in 1432 as being in the centre of the city in the Hagios Mēnas' neighbourhood<sup>400</sup>. This was in a document outlining the rental agreement between Kōnstantinos Manklavitēs and the owners, the Nea Monē, replacing that made with an earlier and anonymous Turk, but under the same terms of eight golden coins and a jar, *laginion* (λαγίνιον), of linseed oil per year.



Fig. 38 Water mill, Polichnē, Thessaloniki, Late Byzantine period.

The existence of linseed oil presses in the city can be assumed from a comment made by Archbishop Symeon that during the famine caused by the last siege of the city the inhabitants mixed »bran made from crushed linseed [...] with a little barley or sometimes wheat flour«<sup>401</sup>. Although written sources do not offer direct references on the production of olive oil in the city, at least two oil presses (marble closure slabs, *thorakion*, in second use) are preserved in the Vlatadōn Monastery, which must have been used in the on-site crushing of olive kernels, or some other kind of seeds for the production of oil. Two huge marble jars of unknown date preserved

391 On water mills in general, see Forbes, *Power* 589-628. – On mills in Byzantium, see Bryer, *The Means of Agricultural Production* 110-112, and Bouras, *Aspects of the Byzantine City* 519, both with further bibliography. – For an overview of Late Roman and Byzantine water mills excavated in Greece, see Raptēs, *Ergastēria* 94-103, 235-260, where the technology that their operation involves is also given. – Also Raptis, *Water as Power* 109-118. – For a water mill in the village Hagioi Apostoloi, Chalkidiki, possession of the metropolis of Thessaloniki leased in late thirteenth century to the priest and miller Dēmētrios Kontos, see Katsaros, *Engrapha schetika me mētopolē Thessalonikēs*. – On mills in Thessaloniki's region, see Siaxampanē, *Vyzantina ichnē* 86. – Siaxampanē, *Neromyloi* 112-122. – Siaxambani, *Watermills from Polichni* 338-341 (*cat. nos* 69, 70, 74).

392 8 Vlachava Street: Markē, *Anaskaphōn eranismata* 248-250 (*cat. no.* 71).

393 Parts of at least two large grinding mills are housed in the Archaeological Museum of Ancient (Roman) Forum, Thessaloniki, apparently found during the excavation of the site. The number of fragments of grinding stones found in the excavations should not exceed a few dozens, although one should keep in mind that due to their material and condition probably they had not always been collected and registered. – On references to mills and millers in Byzantine texts, see Koukoules, *Vios kai politismos*, B1, 204-205, where apart from wind and water mills references to animal-driven mills are also given.

394 Book of Eparch 53-55 chap. 18 is devoted to bakers and esp. §2. – Book of Eparch, Koder 128-130.

395 Adam, *Roman Building* 322-324.

396 On bakers in Byzantium, see Koukoules, *Vios kai politismos*, B1, 182-184, and Laiou, *Baker* 246, with references to the sources. – A useful collection of papers on wheat and bread in Antiquity and Byzantium have been published in the proceedings of the conference 'Ο ἄρτος ἡμῶν' από το σιτάρι στο ψωμί, organised by the Politistiko Technologiko Idryma of ETBA in 1994 in Athens.

397 Actes d'Iviron III 236-240, no. 76.

398 Book of Eparch 18.3 §.3. – Armenopoulos, *Procheiron Nomōn* 2.4.14. – Book of Eparch, Koder 130.

399 Armenopoulos, *Procheiron Nomōn* 2.4.14: »ἐν δὲ τῇ Θεσσαλονίκῃ ἐπειδὴ τάναντία συμβαίνει, τὸν μὲν νότον θερινὸν ἄνεμον εἶναι, τὸν δὲ βορρᾶν χειμερινόν, εἰ καὶ τάναντία τούτοις ἐν ταύτῃ δοίημεν, ἦγουν τῷ μὲν νοτιωτέρῳ περισσοτέραν ἀπὸ τοῦ γείτονος τὴν ἀπόστασιν, τῷ δὲ βορειοτέρῳ ὀλιγωτέραν, τάχ' ἂν οὐκ ἀπεκότως ποιοίμεν« [And in Thessaloniki, because the opposite (phenomena) occur, i. e. the south wind blows in the summer, and the north wind in the winter, and if we assigned it the opposite of these, namely a greater distance from one's neighbour to the south, and a lesser one to the north, we would not be in error].

400 Papangelos, *Elaiia kai Elaion* 174-201 esp. 187 nt. 83. – Actes de Lavra III 183-185 no. 168.

401 Balfour, *Politico-Historical Works of Symeon* 64 (Λόγος εἰς τὸν ἐν ἁγίοις μέγιστον ἀθλητὴν καὶ μυροβλύτην Δημήτριον ἐν ἱστορίας τύπῳ τὰ νεωστί αὐτοῦ γεγονότα διηγουόμενος θαύματα, f. 290v, 3-5), 180. – Jacoby, *Foreigners and the Urban Economy* 123.

in front of the monastery's refectory were presumably connected with the same activity<sup>402</sup>.

In 1419, Hodēgētrianos and Dēmētrios, sons of Dadas, rented (and had done so since sometime before 1415) from the Monastery of Xenophontos five adjacent grocery stores and three large houses in the Asōmatoī quarter at the eastern part of the city that their deceased father had previously turned into a large and thriving wine shop, οἶνοπωλεῖον<sup>403</sup>. Furthermore, several small-sized reservoirs mentioned in excavation reports can be connected with the presses (wine vats) and their reservoirs (ληνοί, ὑπολήνια ληνοῦπολήνια and πατητήρια) used apparently for the production of wine that are known to have existed in small and apparently humble properties from several legal documents of this period. A Byzantine wine press has also been discovered within a tower of the eastern city walls at Kastrōn Street north of Olympiados Street<sup>404</sup>. It is quite evident that the owners of large parcels of land in the countryside possessed mills and presses for both olive oil and wine<sup>405</sup>. There is an early note, dated to 1104, of a roofed press (ληνὸς κτιστὸς καταχυτὸς μονόρρυτος ὑποκέραμος) in Thessaloniki, belonging to the Ivērōn Monastery. It was situated in a court with gates near the dependency of Leontia and it is also noted that an oblong house near the press was used as a mill<sup>406</sup>. Two more presses and accompanying vats (ληνοὶ μετὰ τῶν πατητηρίων) in the Monastery of Hagia Varvara, in the quarter of the Hippodromion at the eastern end of Thessaloniki, are stated to exist in the same document<sup>407</sup>.

Several presses are mentioned in the deeds of sale for houses in Thessaloniki. They appear in small, urban plots, e. g. six presses – πατητήρι, ληνὸς (press) and ληνοῦπολήνιον (a term expressing both the press and its deposit or vat) – are described in three different properties or plots<sup>408</sup>. In June 1314, three houses with three presses (πατητήρια) situated in the quarter of Acheiropoiētōs were bought by the Ivērōn Monastery from Kōnstantinos Marmaras<sup>409</sup>. Around 1320, the monks of Chortaitou Monastery exchanged a court with its buildings for three other courts with their buildings in the quarter of Hagios Paramonos, which included an active bakery (μαγκιπεῖον) and two presses (ληνοῦς)<sup>410</sup>. In March

1326, the Monastery of Ivērōn bought four houses in the quarter of the Hippodromion, having one press and its reservoir (ληνοῦπολήνιον), a garden and a plot where a house could be built, sharing with other houses of the same court the entrance to the court, a well, and a water channel<sup>411</sup>. One of the witnesses to the transaction was Geōrgios Marmaras *Prōtomaistōr tōn Oikodomōn* (Πρωτομαῖστωρ τῶν Οἰκοδόμων), master of the builders, known also from other documents between 1322 and 1327, offering evidence for the marbleworking profession and the existence of a corporation or possibly a guild of builders in the city<sup>412</sup>.

## Lime Production

Production of lime within the city walls was forbidden from at least the Early Byzantine period and it was clearly stated in a Late Byzantine legal text, the *Exavivlos* written by Konstantinos Armenopoulos in Thessaloniki. It is stated there that a lime kiln should be a hundred cubits away from housing and fifty cubits from threshing floors<sup>413</sup>.

In spite of this, an interesting and still not thoroughly studied archaeological discovery from 2010 may possibly indicate lime production in the centre of Late Byzantine Thessaloniki<sup>414</sup>. The find consists of a circular and strongly built well (c. 1 m wide) in which fragments of glazed pottery bowls and pottery stilts were found, as well as detritus from nearby activities, which had been dumped there after the well ceased to function. These finds date the period of the filling of the well to the Late Byzantine period. Lower in the well, a thick layer of different species of shells has been found. Mainly oysters, some cockles and a few pectens, these had been subjected to intensive firing that resulted in their calcination<sup>415</sup>. According to the excavator, the wider area was found covered with a layer of shells, while two rectangular lime tanks, built with bricks and retaining a thick layer of lime on their walls, were discovered nearby.

Shell exploitation for lime production was known in the Mediterranean region in the Bronze Age and Late Roman period, and this technique still survives in traditional workshops

402 Bakirtzēs, Tsoukalolagēna 114-115.

403 Actes de Xenophon 217-221 no. 32. – Necipoğlu, Byzantium between the Ottomans and the Latins 62-63. – On references to wine shops and taverns in Byzantine texts, see Koukoules, Vios kai politismos B1, 193-195, and also Kazhdan, Wine Merchant 2199-2200.

404 Cat. Thessaloniki 2003a, 5 (cat. no. 75).

405 Laiou, The Agrarian Economy 350-352.

406 Actes d'Iviron II no. 52 ln. 343-344.

407 Actes d'Iviron II no. 52 ln. 380.

408 Actes d'Iviron III 18-19 nos 73, 76, 84.

409 Actes d'Iviron III 187-189 no. 73 ln. 16.

410 Actes d'Iviron III 236-240 no. 76 ln. 62.

411 Actes d'Iviron III 297-301 no. 84 ln. 20-30.

412 Actes de Chilandar nos 84, 85. – Actes de Zographou no. 25. – On different types of »modest« houses in Thessaloniki appearing in fourteenth-century legal texts and similar to the ones noted in the aforementioned contracts, see Papachrysanthou, Maisons modestes 254-267. – And Živojinović, The Houses 464-474.

413 Armenopoulos, Procheiron Nomōn 2.4.17: »Περὶ φούρνου τῆς ἀσβέστου. Τὸν ἐθέλοντα φούρνον τῆς ἀσβέστου κατασκευάζειν χρὴ ἀφίστασθαι πάσης οἰκίσεως δευτέρας ἢ τρίτης θέσεως ἢ καὶ τῶν ἐφεξῆς περαιτέρω καὶ λοιπῶν, πήχεις ἑκατὸν ἀπὸ παντὸς κλίματος ἀνέμου. Δριμυτέρα γὰρ καὶ λοιμώδης σφόδρα ἢ ἀπὸ αὐτῆς ἀτμῆς. ἄλυνος δὲ ἀφίστασθαι ταύτην τὴν κάμινον πήχεις v« [Whoever wishes to construct a lime kiln must be situated far from every residence in the second and third zone, or sites even further out than these, a hundred cubits (c. 75 m) from every downwind, because the vapour from the kiln is acrid and highly noxious. Also, the kiln must be situated at a distance of 50 cubits from any threshing floor].

414 Vasileōs Erakleiou 45 (cat. no. 4). I thank the excavator of the site, Dr S. Akrivopoulou, for giving me the chance to see and examine this still unpublished find.

415 I wish to thank Dr R. Veropoulidou, archaeologist-archaeomalacologist, for her help in understanding this procedure. – On the consumption of shells in Byzantine society mentioned in Byzantine sources, see Koukoules, Vios kai politismos, E, 88, and on fishing techniques, *ibid.*, E, 338-339.



Fig. 39 Wasters of sgraffito clay wares, Thessaloniki, Palaeologan period.

in sub-Saharan Africa and until recently in India as well<sup>416</sup>. Furthermore, although no information on the matter is found in Byzantine written sources, a relevant Middle Byzantine archaeological find from Butrint, Albania, indicates the continuation of this production process in Byzantium<sup>417</sup>. This procedure involves the recycling of refuse, food remains, or – in other cases like that of murex shells – the residue from other artisanal production. Thus the huge concentrations of shells that were necessary for the production of purple dye and the voluminous quantities of shells consumed as food were conveniently exploited and converted into the ever-needed lime.

## Ceramic Production

Pottery production flourished during the Late Byzantine period. At the same time, the use of ceramic amphorae diminished and gradually disappeared as wooden barrels replaced their role in the transportation and storage of oil and wine<sup>418</sup>.

Glazed vessels are characteristic of this period and thanks to unfinished, deformed vessels found in the city, local products can be easily discerned<sup>419</sup> (fig. 39). Almost all the find-

ings are open bowls with only a few jugs. The hitherto known products are distinguished according to their decoration in two categories:

1) Engraved. (figs 40. 42) These are the majority of objects, usually decorated with birds, often pecking a lanceolate leaf<sup>420</sup>, spirals, concentric circles delimited with wavy lines, rosettes and checkerboards, occasionally with a spiral in each field, medallions, net-like bands, and monograms of Saint Dēmētrios.

2) Painted. The local production of painted objects seems to be proven by bowls showing an impressed monogram of Saint Dēmētrios on the bottom, which were sometimes painted with exterior motifs. Such vessels were used to collect the watery Palaeologan myrrh from the church of Hagios Dēmētrios (fig. 41).

The products of the workshops of Thessaloniki must have been appreciated sufficiently, and/or the trade in goods taking place in its port have been such, that gave rise to such a utilitarian product, like pottery bowls being found in the excavations of foreign ports, such as those of Constantinople, Varna and Venice<sup>421</sup>. Yet, the small number of these finds makes it more probable that they were the personal belong-

416 Brysbaert, Murex Uses in Plaster Features 2, on murex-shell lime plaster production and use in the Aegean and eastern Mediterranean Bronze Age, with further bibliography. – Ballester et al., Use of Limestone 559, 564, where the improved quality of limestone obtained from mussels is discussed. – Caranante, Purple-dye Industry Shell Waste Recycling 8, 16, where the possibility of purple dye industry shell waste recycling in Minoan Crete is discussed. – Finally for an overview of the use of murex shells and their different types of use, one of which might have been the production of lime, since these finds from mid to late third-century Berenike were associated with ovens and kilns, see Reese, Industrial Exploitation of Murex Shells passim esp. 89-92.

417 Unpublished find, Veropoulidou, Food Consumption. I thank Dr R. Veropoulidou for letting me know about this find before the final publication of her paper on the subject.

418 On Byzantine amphorae, see Bakirtzēs, Tsoukalolagēna 70-88, especially on the timing and reasons for their redundancy, 84-87.

419 For an overview of Late Byzantine glazed pottery and issues of their trade and market see Papanikola-Bakirtzi, Ceramics on the Market 205-216.

420 Papanikola-Bakirtzē, Ergastērio 377-388.

421 Papanikola-Bakirtzīs, Palaeologan Glazed Pottery 203-204.



**Fig. 41** Glazed clay bowl with painted and impressed decoration, Palaeologan period.

**Fig. 40** Glazed clay bowl with incised decoration, Palaeologan period.



**Fig. 42** Pottery wasters and stilts, Palaeologan period.

ings of travellers and merchants, and not part of the normal commercial cargo that they were trading. This production flourished from the second half of the thirteenth century into the fourteenth century<sup>422</sup>.

Another form of pottery product that was also possibly produced locally is the glazed tile. We find examples preserved on the façade of Hagia Aikaterinē in the form

of glazed plaques bearing inscribed rosettes, occasionally inscribing a cross, and/or being flanked by crosses, trees and birds<sup>423</sup>.

According to the archaeological evidence, potteries, ranging from entire installations with kilns preserved on site to a few pottery stilts found in a pit<sup>424</sup> (fig. 42), have been located in open spaces at the centre of the city and close to

422 For a detailed overview of the Thessalonian Palaeologan glazed pottery, see Papanikola-Bakirtzē, *Ergastērio* 377-388. – Papanikola-Bakirtzi, *Palaeologan Glazed Pottery* 203 fig. 2. – *Cat. Athens* 1999, 188-221 esp. 188-189. – Papanikola-Bakirtzē, «Polytima» 451-467.

423 Cheimōnopoulou, *Pēlines Ephyalōmenes* plates 24-29. – Fourteen plaques/tiles, all of them with identical dimensions (30 cm × 40 cm × 4 cm) are decorating the façade of the late thirteenth to mid-fourteenth-century church. The rosettes that appear on them are also known from Thessalonian glazed bowls and also appear on Palaeologan coins mint in Thessaloniki, indicating so a local origin for the plaques/tiles as well. – For the history of the church and its connections with thirteenth-century architecture of Epirus where similar

ceramic decoration occurs (otherwise unknown in Thessaloniki), see Čurčić, *Architecture in the Balkans* 550-552.

424 Pottery stilts are little tripods, free-hand shaped, with a pointed foot at the end of each leg on one of the flat sides. They were used as spacers for firing glazed bowls, i.e. they were placed between the bowls, while they were piled in order to be fired in the kiln. It appears that they were invented in the Far East at least at the beginning of our era. They appeared in the Near East in the ninth century and were introduced to the Byzantine world at the end of the twelfth century. – See Papanikola-Bakirtzē, *Tripodiskoi* 641-648. – Stern, *Evidence of Early Islamic Pottery* 23-25.





Fig. 43 Pottery wasters and stilts, Post-Byzantine period.

the western and eastern city walls<sup>425</sup>. According to the law, pottery kilns had to be built either twenty or twelve cubits from the nearest house or threshing floor, depending on the orientation and the winds blowing from that side, or seven and four cubits if the neighbouring house did not have an opening towards the site of the kiln, although from the archaeological record it is doubtful if anyone fully complied

with these rules<sup>426</sup>. It appears that in the Ottoman period the same sites continued to be used by potters, and scarce movable finds dated to this period, such as unfinished vessels and pottery stilts, have been found in the courtyard of the Rotonda at 2 Kamvouniōn Street, at the northern end of the Roman Hippodrome and around the Acheiropoiētōs Basilica (fig. 43)<sup>427</sup>.

425 Ancient Agora: personal observation and research of unpublished glazed ceramic material from the excavation. Three unfinished bowls found in the Agora were presented in the exhibition *Pracht und Alltag*: see *Cat. Bonn* 2010, 344, nos 488-489 (D. Papanikola-Bakrtzi). – A general note is also given in Adam-Velenē, *Archaia Agora 517-521 esp.* 519 (cat. no. 26). – On the site of Galerius' Palace: personal observation and research of ceramic material, e.g. stilts, from unpublished excavation campaigns from the 1960s and 1970s kept in the depots of the 16<sup>th</sup> Ephorate of Prehistoric and Classical Antiquities (cat. no. 27). – Finds from the plot of the former Third Male Gymnasium: *Cat. Thessaloniki* 2002, 10 (cat. no. 34). – On the site of an Early Christian pottery at 30A K. Melenikou Street a Late Byzantine pottery was established, where two small, two-storied kilns and unfinished bowls with inscribed bird pecking a tree have been found: *Cat. Thessaloniki* 2005, 6 (cat. no. 33). – D. Gounarē and Vasou Streets, currently 47 D. Gounarē Street: Souereph, Gounarē-Vasou, 350-351 (cat. no. 35). – 1 Ippodromiou and Manousogiannakē Street: Alexandrē, Ippodromiou 1 kai Manousogiannakē, 656-658 (cat. no. 37). – 28 Phrangōn Street: Markē/Chatzēiōannidēs, Phrangōn 28, 273-280 (cat. no. 30). – Many stilts have been found in a workshop at 3 Eurymedontos Street: *Cat. Thessaloniki* 2006, 5 (cat. no. 31). – Also at 19-21 Aristotelous Street: Makropoulou, Aristotelous 19-21, 501-503 (cat. no. 29), at Egnatia and G. Bakatselou Street (cat. no. 32) at 7 Zephyrōn Street (cat. no. 36) and at 45 Vasileōs Ērakleiou Street (cat. no. 28), due to be published by Prof. M. Paisidou.

426 Armenopoulos, *Procheiron Nomōn*, 2.4.15: »Τὸν κατασκευάζοντα ἐν κώμῃ φούρνον κεραμικὸν χρῆ ἀφιστᾶν τοῦτον τοῦ γείτονος, εἴτε θέσις εἴη δευτέρα καὶ γ'. ἢ περαιτέρω, καὶ εἰ μὲν βορειότερος εἴη ἢ ἀνατολικότερος ὁ φούρνος, τῆς οἰκίσεως θύρας ἢ θυρίδας αὐτῆς ἐχούσης, ἀποβλεπούσας πρὸς αὐτὸν τὸν φούρνον, πῆχεις

εἴκοσι· ἢ γὰρ τῆς κεραμικῆς χρεῖα καὶ ἐργασία ἐν τῷ καιρῷ τῆς τῶν εἰρημένων ἀνέμων προσβολῆς γίνεται· εἰ δὲ νοτιώτερος ἢ δυσικώτερος εἴη ὁ φούρνος τῆς τοῦ γείτονος οἰκίσεως καὶ αὐτῆς ἐχούσης θύρας ἢ θυρίδας, ἀφιστᾶν αὐτὸν πῆχεις δεκαδύο, χειμερινῶν ὄντων τῶν ἀνέμων καὶ τῆς ἐργασίας τὸ τηλικαῦτα μὴ οὔσης· εἰ δὲ φρακτοὶ ἢ ἐπίπεδοι εἴησαν οἱ οἴκοι, τότε ἀφιστᾶν αὐτὸν τῶν εἰρημένων πῆχων τὸ τρίτον· προτέρας δὲ κεραμικῆς οὔσης καὶ ἐτέρου γείτονος ἄλλην βουλουμένου πρὸς αὐτὴν κατασκευάσαι, τῆς τοῦ γείτονος παλαιᾶς καλυβώσεως χρῆ αὐτὸν τὸν κατασκευάζοντα, εἰ μὲν ἀνατολικότερα ἢ βορειότερα εἴη ἢ καλύβωσις, ἀφιστᾶν τοὺς φούρνους πῆχεις ἑ'. εἰ δὲ δυτικότερα ἢ νοτιώτερα εἴη τῶν μελλόντων φούρνων γίνεσθαι ἢ καλύβωσις, πῆχεις λ'. Τὰ αὐτὰ δὲ φυλαχθήτωσαν μέτρα τοῖς ἀνέμοις, καὶ ἐπὶ τῶν ἄλωνίων« [Whoever wishes to construct a ceramic kiln in a town must situate it away from every residence, either in the second and third zone, or in sites even farther out than these. And if the kiln is to the north or to the east and the house has a door or a window on the side of the kiln, (it should be constructed) twenty cubits away; because the need for pottery and the relevant works occur at the period of time when the aforementioned winds blow. If the kiln is to the south or to the west of the neighbour's house and the house has a door or a window let it be distanced twelve cubits, because the winds are those of the Winter and then no relevant works are carried out. If the houses are fenced or on the ground floor, then it (the kiln) should be distanced at the one third of the aforementioned cubits. If an older pottery existed and some other neighbour wants to build another one nearby it, if it is to the east or to the north, then the one who builds it must put the kilns fifteen cubits away. If it is to the west or to the south then the future kilns should be built twenty cubits away. The same (measures) regarding the winds should be respected for threshing floors as well].

427 Finds exhibited in the Museum of Byzantine Culture, Thessaloniki.



Fig. 44 Hagioi Apostoloi, 1310-1314.

Finally, workshops for bricks and roof tiles, equipped with long, rectangular kilns, have been located at the field east and west of the city and have been dated to the Late Byzantine period<sup>428</sup>. The type of products of these workshops can be seen in the numerous surviving monuments of the city<sup>429</sup> (fig. 44).

## Glassworking

After a long period of almost total absence since the seventh century, glass vessels re-appear in the Late Byzantine period, almost exclusively in the form of *unguentaria* and

flasks (fig. 45). An indirect reference to the distribution of glass vials in early-thirteenth-century Thessaloniki is given in the *Life of Saint Sava* where it is mentioned that he used such a glass vessel to send myrrh from his father's grave to his brother Stephen in Serbia<sup>430</sup>. Among the Late Byzantine glass vessels found in excavations in Thessaloniki, several lentoid and ring-shaped *omoms*, imports from the Arab world, are identified<sup>431</sup>. Most of them are made of brightly coloured glass and on some of them their painted, geometrical decoration is still visible. Those retaining their decoration bear a cold-painted one, unlike their numerous counterparts from Arab territories which bear fired enameling, which is a possible indication of the decoration having been added at a later

428 134 Tsimiskē Street: Cat. Thessaloniki 2003a, 11 (cat. no. 7). – 58 Promētheōs Street (cat. no. 14). – 91 Monastēriou Street: Makropoulou, Monastēriou 91, 503-504 (cat. no. 10). – 93 Monastēriou Street: Makropoulou, Monastēriou 93, 379-380, and Eleutheriadou et al., *Sōstikes anaskaphes Thessalonikēs* 274-275 fig. 10 (cat. no. 11). – 48 Giannitsōn Street: Makropoulou, Giannitsōn 48, 618 and Cat. Thessaloniki 2006, 8 (cat. no. 9). – For their new dating, see Makropoulou, *Taphoi kai taphes* 371 nt. 238, and 373 nt. 240. – Markē, *Sōstikes anaskaphes* 217-218. – For six new, rectangular kilns, and six water reservoirs, some of them dated to the Roman period and others vaguely dated to the medieval period, excavated at the metro station by the Railway Station, see Acheilara, *METRO Thessalonikis* 2008, 265-272 and Acheilara, *METRO Thessalonikis* 2009 (cat. no. 12). – For a short overview of the potteries excavated in Thessaloniki see Markē, *Sōstikes anaskaphes* 217-218.

429 Among others, parts of the city walls and nine churches survive from the Palaeologan building activity, see Vokotopoulos, *Mesaionikoi naoi* 97-110. – Vokotopoulos, *Church Architecture* 107-116. – Čurčić, *The Role of Late Byzantine Thessalonike* 65-84.

430 Teodosije, *Žitije Svetog Save* 78-79.

431 Cat. Athens 2002, 575-576 nos 811 (A. Tsakalos), 812-813 (D. Makropoulou). – These vessels, most probably perfume sprinklers (their name probably derives from the Arab word for sprinkler, *qumqum*) were produced in large quantities by Ayyubid and Mamluk glass makers, the majority dated to the second half of the thirteenth century, Cat. New York 2001, 246-247 no. 122 (S. Carboni). – Carboni, *Glass from Islamic Lands* 150-151.

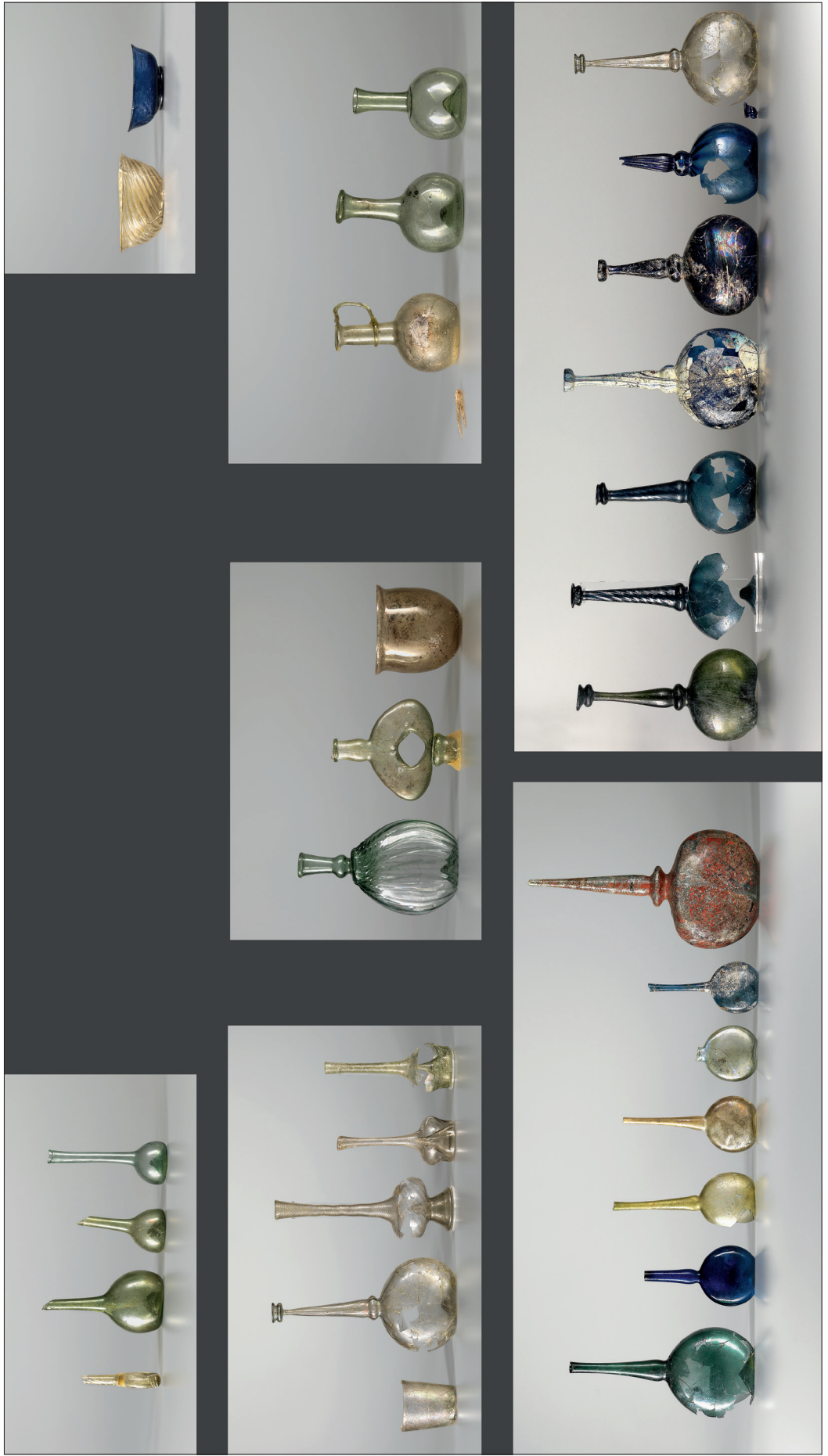


Fig. 45 Glass vessels, Late Byzantine period, Thessaloniki.



**Fig. 46** Glass vials, Thessaloniki, Hagios Dēmētrios, fifteenth to sixteenth centuries.

date. Venetian products, mainly ribbed *inghistere/angastaria* flasks, and plain beakers made with high quality, decolourised and slightly pink, Venetian glass, present a second group of imports in the city<sup>432</sup>. No archaeological remains of Palaeologan glass workshops have been unearthed in Thessaloniki; however, among the numerous vessels found in the city some might be local products<sup>433</sup> (fig. 46). They cannot be connected with the traditions or the style of any major glass centre. Several examples of them are found in the city, some of them in the complex of Hagios Dēmētrios, and they are minor lentoid receptacles, ill-executed, made of bubbly, bluish glass, and probably could be the ones that, as it is known from fifteenth-century sources, were used, apart from holding fragrances and medicaments, as containers of Saint Dēmētrios' myrrh. The Flemish traveller Joss van Ghistelle described how holy oil trickled from a monumental tomb in the Church of Saint Dēmētrios and Christians collected it in beautiful glass vessels, »proper slasschelins van glase«<sup>434</sup>.

## Metalworking

During this period, it seems that the gold and silver deposits of Macedonia continued to be exploited, particularly alluvial deposits from river beds, by *chrysōryktai* (χρυσωρύκται), *chrysolektai* (χρυσολέκται) and especially the *ammpolytai* (ἀμμοπλύται), i. e. sand washers, which seems to be the best for the type of mining undertaken in Ropalaia<sup>435</sup>, as indicated by micro-toponyms in the region and explicit references in legal deeds, e. g. the *acta* of Mount Athos monasteries<sup>436</sup>. Furthermore, there are some groups of metal objects and jewels that can be considered to be local products with a high degree of confidence<sup>437</sup>.

It appears that in the Late Byzantine period the production of Saint Dēmētrios' reliquaries continued, now showing the altered form of the Saint's sarcophagus<sup>438</sup>, as well as the production of lead *koutrouvia*<sup>439</sup>. Also, some of the thirteenth-century glass gems, possibly the ones with Saint Dēmētrios' bust on them, or their prototypes, could have been locally produced, although it appears that they were mainly made in Venice<sup>440</sup>.

During the Latin Kingdom of Thessalonica (1204-1224), refined metal objects were still produced there. According to Theodosius, the early-fourteenth-century biographer of the Serbian Archbishop Saint Sava, while residing in Thessaloniki, he commissioned two large icons in 1219, which he asked to be embellished with golden crowns, precious stones and pearls and donated them to his own foundation in the city, the Philokallou Monastery<sup>441</sup>.

Silver or gold-plated silver revetments for icons and crosses were made in Thessaloniki throughout the Palaeologan era (fig. 47), during the second half of the thirteenth century and up until the first quarter of the fifteenth century<sup>442</sup>. Three groups of revetments can be identified. The first group is dated to the end of the thirteenth to early fourteenth century. They all have in common high-relief haloes, occasionally rendered in open-work, and their background is covered with

432 Antonaras, Two Venetian Vessels 37-40. – Cat. Athens 2002, 579-580 nos 819, 821 (A. Antonaras).

433 On Venetian imports of *angastaria* flasks in the city, see Antonaras, Two Venetian Vessels 37-40. – On a special form of lentoid flask, see Antonaras, Venetian Glass Pilgrim Vessels, which were dated loosely by the author to between the fourteenth and sixteenth centuries, but in fact their dating can be narrowed down to the sixteenth century. – For a general overview of glass vessels, see Antonaras, Forms and Uses passim and especially on Palaeologan vessels 408-422.

434 Papazōtos, Merikes plērophories 51-56. – Mentzos, Proskynēma 156, mentions these vessels and links them with a ring-shaped glass *omom* found in the excavations of the church, which is clearly an import from the Chaliphates. – Bakirtzis, Le culte de saint Dēmētrios à Thessalonique 177, where the continuation of Saint Dēmētrios' veneration during the fifteenth century by both Christians and Muslims is discussed. The vessel presented in fig. 5 is a lenticular *omom*, obviously imported from the Arab world, probably from Syria or Palestine.

435 On these terms used in Byzantine texts referring to gold mining and gold miners, see Koukoules, Vios kai politismos, B1, 203-204.

436 Theocharidou, Enkatasasē 27-28. – Theocharidou, Orycheio Peristeras 408 (cat. no. 76). – Theodoridēs, To ktēmatologio 417. – Papangelos, Agramades 65-66. On the economy of the area of Peristera and the importance of the mine, see Sampanopoulou, Katalogos 91-92 with all prior bibliography. – Actes de Lavra II no. 90 ln. 1-69, no. 108 ln. 167, 179. – Actes de Lavra III no. 130 ln. 13-16, no. 128 ln. 27-30. – Actes de Xēropotamou no. 25 ln. 29. – On

mining and quarrying in Antiquity, see Forbes, Studies in Ancient Technology, vol. 7, passim, and on ancient metallurgy and the techniques of refining and smelting, see Forbes, Studies in Ancient Technology, vol. 8, passim. – For a general overview of mining in Byzantium, see Matschke, Mining 114-120; on metallurgy and metalworking techniques in Byzantium, see Papathanassiou, Metallurgy 121-127.

437 For a short overview of Middle and Late Byzantine jewellery (earrings, bracelets, rings, buckles and buttons) from Thessaloniki and its region, see Antonaras, Middle and Late Byzantine Jewellery passim.

438 Mentzos, Proskynēma 129-140. – Loverdou-Tsigarida, Thessalonique, centre de production 241-254 esp. 244-245.

439 Bakirtzēs, Koutrouvia myrou 523-528. – Byzantine Ampoulae 140-149. – Cat. Athens 2002, 184-185. – Totev, Ampuli kutruvii 205-216, 411-416. – Bitrakova-Grozdanova, Golem Grad Prespa 95-100, with further bibliography.

440 On the medallions, see: Wentzel, Zu dem Enkolpion 11-24. – Loverdou-Tsigarida, Thessalonique, centre de production 245-246. – Foskolou, Glass Medallions 51-73.

441 Radojičić, Ikonen aus Jugoslawien LXI. – Teodosije, Žitije Svetog Save 131. – Živojinović, O boravcima Svetog Save u Solunu 63-71. – Miljković, Žitija 112.

442 Loverdou-Tsigarida, Ependyseis eikonōn 275-391, especially on Thessalonian workshops 280, 286-289, with all prior bibliography. – On two of them bearing epigrams of Manuel Philes see Talbot, Epigrams in Context 82-83 (Virgin of Freising and Virgin Hodegetria from Vatopaidi, donation of the sisters Papadopoulina and Arianitissa).



Fig. 47 Icon of Mother of God Hodēgētria with metal revetment, Vatopaidi Monastery, Mount Athos, last quarter of the fourteenth century.



Fig. 48 Bronze earring, Rentina, fourteenth to fifteenth centuries.

a continuous »carpet« of decorative motifs supplemented with enameling. They bear dedicatory inscriptions placed on the border of the icon, written in capital letters, executed in *champlevé* supplemented with enameling, mentioning donors connected with Thessaloniki<sup>443</sup>.

The second group can be dated to the late fourteenth and early fifteenth centuries. Their decoration is executed in low-relief *repoussé* supplemented with enameling and in some parts (e. g. haloes and inscriptions on the background) executed in *champlevé* and enameling in red, dark blue and green hues<sup>444</sup>.

The third group of revetments is dated to late fourteenth and early fifteenth centuries and they are executed in *filigranes en ruban*. Their surface is covered with a smooth foil on which are attached fine, smooth strips that form a web of cells which creates mainly geometrical motives<sup>445</sup>. Finds from the region of Thessaloniki witness to the use of this

decorative technique in jewellery as well, as for instance in the production of earrings<sup>446</sup> (fig. 48).

Several examples of small bronze Greek crosses with round, gem-imitation arm-endings found in three different parts of the city are also considered to be local products<sup>447</sup> (fig. 49). Written sources also shed light on both the type of jewellery worn by Thessalonians, or at least of the most precious ones, as well as on their distribution and price. In 1384, when Maria Doblytžēnē (Δοβλυτζηνή) tried to ensure her dowry and the marital gifts she received from her late husband Manuel – an armed horseman of the Regiment of Thessaloniki who was killed that year by the Turks at Chortiatēs – a detailed inventory of the household was conducted by the ecclesiastical tribunal and is enlightening on what such a family could possess in Thessaloniki<sup>448</sup>. In terms of jewellery, seven rings (one with glass inset), earrings, one medallion, one brooch, and a pair of what are though to

443 Loverdou-Tsigarida, *Ependyseis eikonōn* 287 and nt. 155.

444 Loverdou-Tsigarida, *Mikrotechnia Vatopaidiou* 481-482, 488 fig. 29. – Tavlakēs/Liakos, *Stavros* 64-75. – Loverdou-Tsigarida, *Ependyseis eikonōn* 287 and nt. 158-159.

445 Tsigaridas, *Phorētes eikones* 392-393. – Loverdou-Tsigarida, *Ependyseis eikonōn* 287 and nt. 160-162.

446 Unpublished earrings found in Late Byzantine graves at the castle of Rentina, to the east of Thessaloniki, exhibited in the Museum of Byzantine Culture, Thessaloniki (inv. no. BKo 271/51).

447 At least six identical examples have been found in three different Late Byzantine cemeteries of the city. For a short overview of Middle and Late Byzantine jewellery from Thessaloniki and its region, see Antonaras, *Middle and Late Byzantine Jewelry* 117-126. – For an overview of *enkolpia* excavated from Late Byzantine cemeteries in Thessaloniki, see Kanonidis, *Enkolpia* esp. nos 8-10 (five examples which were found in two different cemeteries) are local

products. – A few more examples along with their stone mould have been recently discovered at the Venizelou Street Metro Station excavation and are dated to the end of the Middle Byzantine period, see 2000-2010 *Apo to anaskaphiko ergo* 234 fig. 11. – Several more examples of these crosses have been found in central Balkan demonstrating the extended circulation of Thessalonian finds in this region, namely, one similar example was found in the excavations of the tenth to twelfth-century cemetery at Trpčeva Crkva, FYROM: Kepeska, *Nekolku krstovi* 284 pl. I/2. – Eadem, *Trpčeva Crkva* 59-60. – Furthermore, an example was found in Serbia in medieval Gradac, as part of a thirteenth-century necklace comprising pearls and amulets mostly dated to the eleventh century, see Petrović, *Srednjovekovna nekropola na Doničkom brdu* 286 fig. 37:2, and Djurović, *Srednjovekovni nakit* 45-47 for a detailed presentation with colour photograph.

448 On the property of the family, see Oikonomidēs, *Properties* 176-198. – Oikonomidēs, *The Contents* 206-207.



**Fig. 49** Three identical bronze crosses, 1 Ippodromiou Street, Late Byzantine period.

be temple pendants are mentioned; and other household objects are listed, such as fabrics and textiles, furnishing, tableware, icons; all priced in *hyperpyra*<sup>449</sup>. The will of another Thessalonian, the landowner Theodōros Karabas (d. 1314) also mentions, among other things, two silver amulets, two gold rings, two silver rings and a gilded-silver belt as being in his possession<sup>450</sup>.

The aforementioned techniques used for the revetments of wooden icons must have been used for the embellishment of book-bindings as well, although not a single example has survived. The metal parts of the decoration of a fourteenth-century book-binding are preserved, which form some type of *cloisonné* with metal stripes bent to form the monogram of Thessaloniki and probably of the writer and possibly owner of the book, Isidōros Glavas<sup>451</sup>. In addition, several censers<sup>452</sup> as well as parts of a *polykandelon*<sup>453</sup> have been ascribed to Thessalonian workshops<sup>454</sup>.

The ring of Kōnstantinos Mastounēs in the Hermitage<sup>455</sup>, along with the rings from the Stathatos Collection<sup>456</sup>, represent an interesting and rare group of signet rings, probably made in Thessaloniki. It seems probable that they were made

under a Western influence and could be dated to the period of the Latin Kingdom of Thessalonica, or after, a period in which it has already been assumed that an enamel workshop was active in Thessaloniki<sup>457</sup>.

Written sources shed some light on other facets of the activities of the city's metalworkers. In 1225 Iōannēs Apokaukos, Bishop of Naupaktos, in a letter to the Archbishop of Thessaloniki, probably Constantine Mesopotamites (1225-1227), wrote that he had commissioned a silver seal from a seal maker in Thessaloniki, who was inexperienced and had engraved Mother of God, the *Panhymnetos*, turning her face away from the bishop's titles instead of towards them<sup>458</sup>. This passage offers important information on the continuation of the local production of *voulōtēria* (βουλωτήρια) in the city in a period when the use of seals had diminished considerably<sup>459</sup>. From paleographical clues, a seal of Eirene Komnene Doukaina Palaeologina, dated to the period between 1303 and 1317, is also ascribed to Thessalonian workshops<sup>460</sup> (fig. 50).

A small rectangular and inscribed lead reliquary of the mid-fourteenth-century (fig. 51) found in the excavation of

449 Actes de Docheiariou 258-265 no. 49. – Oikonomidēs, The Contents 206-207. – For an exemplary work on the type of information Late Byzantine texts can offer concerning the types, prices, distribution and functions of jewelry in this period, where among the others Doblitzene's act is included, see Parani, *Byzantine Jewellery: The Evidence from Byzantine Legal Documents* 186-192.

450 Actes de Chilandar I 208-219 no. 30. – Also, Laiou, *Thessalonikē, ē endochōra kai o oikonomikos chōros* 88.

451 Astruc, *Isidore de Thessalonique* 272. – Loverdou-Tsigarida, *Thessalonique, centre de production*. – Cat. Paris 1992, 471 no. 363 (P. Hoffmann). The matrices used to stamp on the leather surface of the book-binding geometrical and floral motives can be ascribed to local artisans as well, since they do not occur in Constantinopolitan and Cretan contemporary extant bindings.

452 Loverdou-Tsigarida, *Thessalonique, centre de production* 254. – Loverdou-Tsigarida, *Mikrotechnia Agiou Orou* 353-354 no. 9.27.

453 Todorović, *Nalazi iz stare solunske livnice* 91-124 esp. 114-115 and 120, loosely connecting modern products with Byzantine prototypes.

454 Kissas, *Mesaiōnikē Thessalonikē* 32-33. – For a workshop for smelting metal, dated to the Ottoman period, see Markē, *Phōtakou* 3, 520-521 (cat. no. 60).

455 Kissas, *Zlatni pečatni prsten* 113-114. – Cat. New York 2004, 44-45 (V. N. Zalesskaya).

456 Bosselmann-Ruickbie, *A 13th-century Jewellery Hoard from Thessalonica* 219-232, where a group of gold rings and bracelets, assumed to be found in the area of Thessaloniki, are discussed, with some examples among them probably presenting local products.

457 Wessel, *Byzantine Enamels* 185. – Cat. New York 1997, 498-499 no. 335 (H. C. Evans).

458 Bees, *Unedierte Schriftstücke aus der Kanzlei des Johannes Apokaukos* 124:87-92: »Ο Δημήτριος ἀπεικόμισέ μοι τὴν ἀργυρέαν σφραγίδα· οὐκ ἐγλύφη δὲ καλῶς ἢ ἡμετέρα πανύμνητος· ὄρα; κατενωτίζεται μοι τὰ γράμματα καὶ τὸ πρόσωπον αὐτῆς ἀποστρέφει τοῦ μὴ βλέπειν ἐπὶ τοὺς τῶν πιττακίων μου τίτλους· δέον ὄν ἐπιστροφὴν πρὸς τὰ γραφόμενα ἔχειν, ἐκ τῆς ἐναντίας διαγλυφῆς τε καὶ ἐπινεύσεως« [Dēmētrios brought me the silver seal. Our All-Hymned (the Virgin Mary) was not carved correctly. You see? She has her back turned to my letters and her face is turned away so she does not see my titles on my inscriptions. She should be turned towards the inscriptions, the reverse of the (present) engraving and inclination of her head]. – For additional comments on the text see Lampropoulos, Iōannēs Apokaukos 234-236, where the messenger Dēmētrios is erroneously interpreted as the saint, depicted on the seal.

459 Leontiadēs, *Molyvdovuilla* intro 33-42.

460 Leontiadēs, *Molyvdovuilla* 59-61 no. 8. Letters »Α« and »Δ« are identical to the peculiar forms that were used by the mint of Thessaloniki.



Fig. 50 Lead seal of Eirēnē Komnēnē Doukaina Palaeologina (1303-1317).

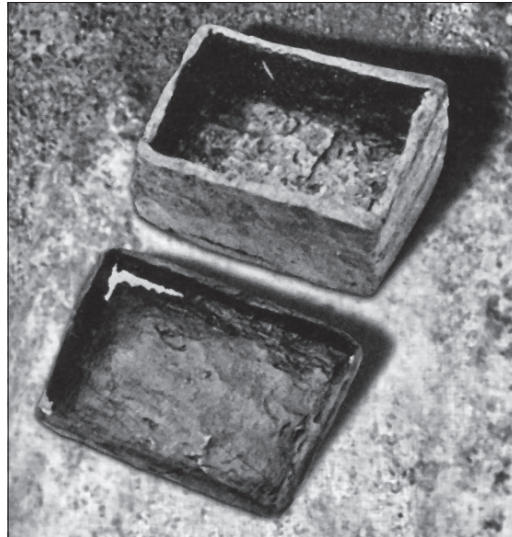


Fig. 51 Sôtēras' Chapel, *enkainion* and its reliquary, fourteenth century.



the *enkainion* (*confessio*) of the Sôtēras chapel, but possibly originally used in another nearby church, can also be considered a local product<sup>461</sup>. In addition, locally produced gold embroidery work can also be assumed to represent the work of local metalworkers in producing the hundreds of metres of wire, lamellae and gold and gold-plated silver threads used in these works of art<sup>462</sup>.

Finally, among the other metalworking activities of the Palaeologan period, the metal alloy and copper coins minted in Thessaloniki should also be included<sup>463</sup>. Silver ingots, called »of Thessaloniki« (*peciae Salonichi*), weighing eleven *litrae* (pounds) and one ounce, were probably also minted there, used for uncoined trade, or even for distribution of verified purity metal to artisans/jewelers<sup>464</sup>. Apart from the evident influence of Thessalonian minting in the iconography and produc-

tion techniques of the Balkan states' coinage, it has been also suggested that the moulds for the coins of the Serbian King Stefan Radovan (1227-1234) were made in Thessaloniki<sup>465</sup>.

## Stoneworking

An unfinished icon of Christ and another with Hosios David from the early fourteenth century give testament to the activity of a workshop specialising in marble icons in the city, continuing the city's Middle Byzantine tradition<sup>466</sup> (figs 52-53).

A workshop specialising in champlévé decoration was probably established in Thessaloniki in the late thirteenth or early fourteenth century. Its works – ambos, templa and sarcophagi – are found throughout Western Greece, Mace-

461 Kourkoutidou-Nikolaïdou, To *enkainio* Sôtēras 205-217. – Kourkoutidou-Nikolaïdou, Saviour 42-47. – Velenēs, Leipsanothēkē-*enkainion* 257-272.

462 Palaeologan gold embroideries are discussed below.

463 Touratsoglou/Protonotarios, Les émissions de couronnement 68-76. – Bendall, Thessalonian Coinage 105-115. – Bendall/Donald, The Later Palaeologan Coinage *passim*. – Bendall, Palaeologan Gold Coins. – Touratsoglou, L'atelier monétaire de Thessalonique. – Protonotarios, John V and Anna of Savoy in Thessalonica. – Touratsoglou, Ta nomismatika pragmata. – Morisson, The Emperor, the Saint, and the City 173-203, with all prior bibliography.

464 According to a document of 1408 (Archivio di Stato di Venezia, Giudici di Petizion, Sentenza a giustizia, reg. 12, f. 34r), referring to a deal of 1384 where »two pieces«, i. e. silver ingots of Thessaloniki (*pecias duas Salonichi*), are mentioned. See Morisson/Ganchou, Lingots de Thessalonique 164-168. – On the procedure of making and verifying silver and gold ingots in the mint of Venice at the same period, see Stahl, Zecca 334-336.

465 Touratsoglou, L'atelier monétaire de Thessalonique 185-186.

466 Mentzos, Émiteles anaglypho 262-269. – Tsilipakou, Vyzantines marmarines eikones 340-344, especially on Hosios David 317-328, and on Christ 340-344. – Pazaras, Glyptikē stē Makedonia 475-476.



Fig. 52 Marble icon, Hosios David, thirteenth to fourteenth centuries.



Fig. 53 Unfinished Marble icon, Christ, thirteenth to fourteenth centuries.

donia and Thessaly, indicating that we should consider it to have been an artistic centre with a wide-ranging influence<sup>467</sup>. The style is characterised by a mainly geometrical and floral decoration supplemented with birds and imaginary animals, representing an Islamic influence on its overall carpet-like effect<sup>468</sup>.

Apart from the prevailing *champlévé* technique, decorative sculptures made with mixed techniques and decorative themes using earlier motives and ways of rendering them also appear in Thessaloniki, as in Macedonia in general. Examples of such sculptures include the fourteenth-century pseudosarcophagus of a certain Michaël from Chortiatēs<sup>469</sup>; the pseudosarcophagus of Manuël Tarchaneïōtēs Kourtikēs made at the end of the fourteenth century which was found

in Thessaloniki<sup>470</sup>; and the early-fourteenth-century templon of Hagios Nikolaos Orphanos<sup>471</sup> (fig. 54).

A capital with the Palaeologos monogram from Hagios Dēmētrios' complex and an epistyle probably associated with it, which is now in the Museum of Byzantine Culture, originally from a templon or a funeral monument in all probability, should also be considered to be the work of a fourteenth century workshop operating in Thessaloniki<sup>472</sup>. Another type of what is probably local work is the marble reliquary of Saint Dēmētrios preserved in the Great Lavra Monastery, which renders the altered, Late Byzantine form of the Saint's sarcophagus<sup>473</sup>. Furthermore, several Late Byzantine inscriptions, mainly funerary ones, are preserved, shedding light on other, simpler types of works executed by

467 Pazaras, *Reliefs of a Sculpture Workshop 159-182* esp. 162. – Pazaras, *Anaglyphes sarkophagoi 165-167*. – Pazaras, *Glyptikē stē Makedonia 476-477*.

468 Pazaras, *Reliefs of a Sculpture Workshop* esp. 160. – Pazaras *Glyptikē stē Makedonia 476-479*.

469 Pazaras, *Glyptikē stē Makedonia 479*, with earlier bibliography.

470 Kampourē-Vamvoukou, *Anaglyphe plaka sarkophagou 90-108*.

471 Xyngopoulos, *Tessares mikroi naoi 39-40* fig. 21. – Pazaras, *Glyptikē stē Makedonia 479*.

472 Tzitzibassi, *Palaeologan Monograms 81-97*. – Discussed also in Ousterhout, *Byzantium between East and West 153-156*.

473 Mentzos, *Proskynēma 140-150*. – Loverdou-Tsigarida, *Thessalonique, centre de production 241-254* esp. 244-245.

474 Tsigaridas/Loverdou-Tsigarida, *Katalogos 79-85, 91-93, 97-99, 103-107*. – Unpublished pieces are on display in the permanent exhibition of the Museum of Byzantine Culture.





Fig. 54 Marble templon of Hagios Nikolaos Orphanos, Late Byzantine period.

local sculptors<sup>474</sup>. In addition, it has been suggested that a small icon carved in steatite is also a Thessalonian work<sup>475</sup>. Finally, indirect evidence of the presence of marbleworkers or masons in the city is offered by the legal texts and contracts of the period. Here, the word *Marmaras* is found as a surname, in addition to evidence of a hierarchical organisation found in references to the chief of the builders (πρωτομαῖστορα τῶν οἰκοδόμων)<sup>476</sup>.

## Mosaics

The presence of a workshop of mosaicists in Thessaloniki, even if only temporary, can be deduced from the wall mo-

saics of the Hagioi Apostoloi, fragments from an anonymous church in the upper town, and two mosaic icons<sup>477</sup> (fig. 55). The two mosaic icons that are stylistically connected to the art of Thessaloniki further corroborate this hypothesis: the mosaic icon of Saint John Evangelist at Great Lavra in Mount Athos, connected with the fourteenth-century painting of Thessaloniki, on which a silver revetment has been added later<sup>478</sup>; and the mosaic icon of Saint Dēmētrios with a *koutrouvion* (lead ampoula) on it, now in Sassoferrato, that has a silver revetment of the Thessalonian type and is considered to be from Thessaloniki and possibly meant for a wealthy pilgrim<sup>479</sup>.

475 Varalēs, Eikonidio apo steatitē 17.

476 A Kōnstantinos Marmaras is mentioned in a contract of June 1314 (Actes d'Iviron III 187-189 no. 73 ln. 8) selling houses to Ivērōn Monastery in the quarter of Acheiropoiētōs. – A Geōrgios Marmaras, chief of the builders (πρωτομαῖστορα τῶν οἰκοδόμων), known from other acts as well between 1322 and 1327 (Actes de Chilandar nos 84, 85. – Actes de Zographou no. 25), appears as a witness in a contract of March 1326 (Actes d'Iviron III 297-301 no. 84 ln. 33), offering an indication for the profession of marbleworkers and the existence of a corporation or guild of builders in the city. – For an opposite opinion against the assumption that builders were organised in guilds, see Maniatis, *The Domain of Private Guilds in the Byzantine Economy* 343 nt. 13.

477 On Hagioi Apostoloi: Xyngopoulos, *Psēphidōtē diakosmēsē passim*. – Mauropoulou-Tsioumē, *Byzantine Thessaloniki* 130-136. – Kyriakoudēs, *Klassikis-*

*tiko pneuma* 237-238. – Kourkoutidou-Nikolaïdou/Mauropoulou-Tsioumē/Bakirtzēs, *Psēphidōta Thessalonikēs* 296-353. – The detached fragments were found in a rescue excavation at 14-16 Armatolōn Street: *Cat. Thessaloniki* 2005, 5. – On both aforementioned monuments and the phenomenon of gold glass tesserae spoliation from Hagioi Apostoloi, Rotonda and Hagios Dēmētrios, see Bakirtzīs/Mastora, *Ou sont-elles passées, les tesselles* 55-66.

478 Loverdou-Tsigarida, *Thessalonique, centre de production* 251 fig. 17. – Chatzidakis, *Une icône en mosaïque de Lavra* 71-83.

479 Loverdou-Tsigarida, *Thessalonique, centre de production* 247-248 fig. 7. It is dated to the second half of the fourteenth century and belonged to Cardinal Bessarion's secretary Niccolò Perotti, later archbishop of Siponto (1458-1480). – Cutler, *From Loot to Scholarship* 253-254, redates it to the middle of the fifteenth century on the basis of the representation of Perotti's blazon on the saint's shield.



Fig. 55 Hagioi Apostoloi, wall mosaic, Entrance into Jerusalem, the Jews, c. 1310-1314.

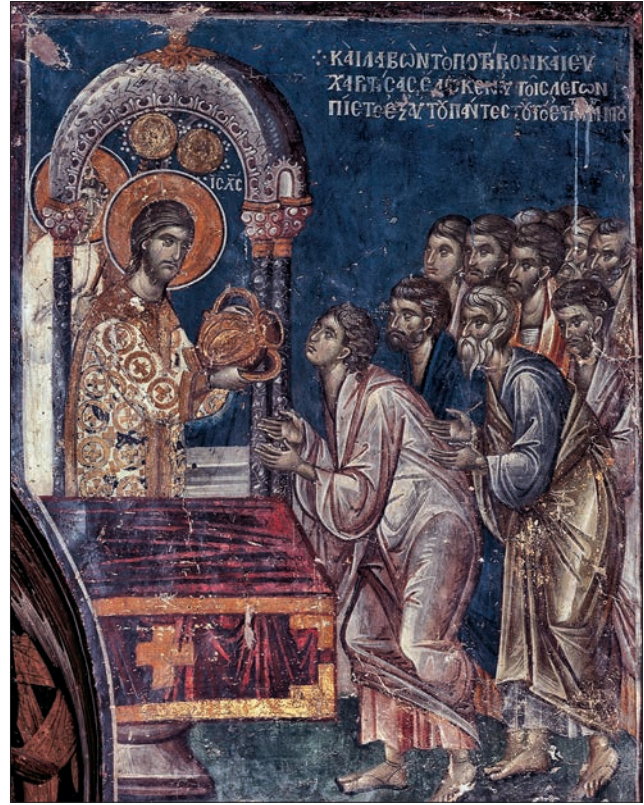


Fig. 56 Hagios Nikolaos Orphanos, wall painting, Communion of the Apostles, 1310-1320.

## Painting

Artistic workshops were active in Thessaloniki during the Latin Kingdom of Thessalonica. In the hagiography of Saint Sava, one reads that in 1219 he invited local artists to paint large icons of Christ and the Virgin at Philokalou Monastery in Thessaloniki<sup>480</sup>. During the Palaeologan period, painters from Thessaloniki, apart from their works in the monuments of the city itself<sup>481</sup> (fig. 56), were also active throughout the Balkans and especially during the late thirteenth century and into the first half of the fourteenth century when Thessalonian painting culminated. For the first time we see some artists signing

their works. A number of examples survive, attesting to the work of Eutybios and Michaël Astrapas, Geōrgios Kalliergēs, Manouēl Panselēnos, and Michaël Proeleusis<sup>482</sup>. Apart from wall paintings, Thessalonian painters also produced wooden icons of all sizes and purposes: icons for iconostasis, adoration ones, processional, usually bilateral ones, and smaller ones for private worship (fig. 47). Notable examples of the icons attributed to Thessalonian painters are the Hodēgētria and the Hospitality of Abraham kept at the Vatopaidi Monastery, but originally from Hagia Sophia in Thessaloniki<sup>483</sup>, two examples with Christos Pantokrator<sup>484</sup>, as well as one of the Annunciation<sup>485</sup>. Another icon, that of Saint Dēmētrios

480 Radojčić, *Ikonen aus Jugoslawien* LXI. – Teodosije, *Žitije Svetog Save* 131. – Miljković, *Žitija* 112. – Saint Sava invited the best painters and asked them to swiftly paint two »standing« icons, i. e. full-figured ones, of Christ and Virgin Mary in the vision of the Prophet Daniel; additionally, Saint Sava had both icons decorated with golden wreaths, precious stones and pearls. – Kissas, *A Sepulchral Monument in Hagia Sophia* 39. – Živojinović, *O boravcima Svetog Save u Solunu* 63-71.

481 See Maupoulou-Tsioumē, *Mnēmeiakē zōgraphikē* 656-668. – Maupoulou-Tsioumē, *Vyzantinē Thessalonikē* 119-169. – Kampourē-Vamvoukou/Papazōtos, *Palaiologeia zōgraphikē stē Thessalonikē* passim. – Kyriakoudēs, *Klassikistiko pneuma* passim. – Gerstel, *Civic and Monastic Influences* 225-239.

482 Eutybios and Michaël Astrapas: Miljković-Peppek, *Deloto* passim. – Kissas, *Solunska umetnička porodica* 35-37. – Miljković-Peppek, *L'atelier artistique* 491-494. – Todić, *Signatures des peintres* 643-662. – On the presence of Geōrgios Kalliergēs in Thessaloniki in 1322, see Theocharidēs, *Vyzantinos zōgraphos Kalliergēs* 542-544. – On his work in general, see Pelekanidēs, *Kalliergēs* passim. – Manouēl Panselēnos: Xyngopoulos, *Manouēl Panselēnos* passim. – Vasilakē, *Ypērxe Manouēl Panselēnos* 39-54, where the historical accuracy of the name of the artist is questioned. – Tsigaridas, *O kyr Manouēl*

Panselēnos 2-11. – Tsigaridas, *Phorētes eikones stē Makedonia* 123-55. – Tsigaridas, *Toichographies Agiou Euthymiou* passim. – Papangelos, *O Thessalonikeus* 64-65, where the presence of a painter »kyr Manouēl« is noted as well as that of a »kyr Michail tōn proeleusōn« and of a »kyr Geōrgion Kalliergēn« in fourteenth-century Thessaloniki, according to the act of the Mount Athos monasteries. – Michaël Proeleusis: referred to as »ἐπιτόματος ζωγράφος«, i. e. most worthy (*Actes de Chilandar* 46-49), and apparently successful enough to be able to become the founder of a monastery near Thessaloniki, Magdalino/Darrouzès, *Some Additions and Corrections* 280-281. – Babić, *Mihajlo Proeleusis* 59-61. – Generally on the social status of the painter in Late Byzantine society see Kalopisi-Verti, *Painters* 139-158. – Kalopisi-Verti, *Oi zōgraphoi* 121-159 esp. 146-159.

483 Tsigaridas, *Phorētes eikones* 392-393.

484 N. Chatzēdakē, in *Cat. Athens 2000*, 192-197 nos. 54-55, both icons originally from Thessaloniki, from Hagios Mēnas and from Hagia Sophia, respectively.

485 Tsigaridas, *Phorētes eikones* 392-393. – On the revetment, see Loverdou-Tsigarida, *Mikrotechnia Vatopaidiou* 497 fig. 331. – For the revetments of all of them, see Loverdou-Tsigarida, *Thessalonique, centre de production* 250-251.

dated to the thirteenth or fourteenth century, has also been ascribed a Thessalonian origin. It has also been noted that the stucco decoration of its background imitates the then apparently fashionable and more expensive technique of silver revetment<sup>486</sup>.

Next to the aforementioned, highly valued artistic works, a totally different type of depiction should be added that gives important realistic information about this period. These are the late fourteenth century graffiti preserved on the mural painting of Prophētēs Elias church, where several types of vessels – small boats, oared ships or galleys, and sailing ships – are rendered, sometimes in detail and quite naturalistically, offering an insight into the sorts of ships that could be seen in the harbour of Thessaloniki<sup>487</sup>.

## Woodworking

It is only natural to assume that apart from ordinary carpenters, there were also wood carvers, covering both secular and religious needs active in Thessaloniki<sup>488</sup> (fig. 57). No examples of their work have survived in the city, but it appears that in the ark of Mount Athos at least two of them are preserved, namely, a pair of lecterns donated by the Despot Andronikos Palaeologos preserved in Vatopaidi. They illustrate the high level of Thessalonian craftsmanship<sup>489</sup>. They are carved with floral decoration surrounding small plaques bearing, in some cases on a red or blue background, geometrical patterns, depictions of the life and hymnography of the Virgin, *The Akathist Hymn*, as well as other religious figures and scenes from the Old Testament.

Indirect evidence of the work of Thessalonian carpenters is found in the ship graffiti of the Prophētēs Elias, dated to the last quarter of the fourteenth century. Thessaloniki was an important centre for inter-regional trade with western Greece and the western Balkans, and a part of the Venetian trading system. Its port apparently harboured Venetian vessels during the sailing months of the year<sup>490</sup>. Among larger boats, a few single-masted vessels are depicted in contemporary graffiti. These have been identified as small fishing boats, which, in all probability, were made by local shipbuilders<sup>491</sup>.



Fig. 57 Wooden lecterns from Vatopaidi Monastery, first half of the fifteenth century.

## Textile Production and Tanning

Although it has long been considered that there was no important local production of fabrics in the city and that what was found were mainly Italian imports<sup>492</sup> – Italian cloths that were cut there, then sold retail and/or distributed to western Greece and the Balkans – it appears that the local manufacture of silks, woollens and mixed fabrics indeed existed, even if it was restricted to medium and low-grade products and was carried out on a fairly limited scale<sup>493</sup>. It is also known that in the mid-twelfth century many Jewish families in Thessaloniki were engaged in sericulture<sup>494</sup>. Local manufacture of silks, woollens and mixed fabrics did exist, providing threads and fabrics for the famous gold-embroidered silk fabrics that are ascribed to the workshops of the city. An example of a Thessalonian product is mentioned in a letter from the Constantinopolitan Patriarch Gregory of Cyprus (1283-1289) to his old friend Iōannēs Stavrakios, metropolitan Chartophylax of Thessaloniki, that he had been waiting two years for a hat to be woven for him in Thessaloniki – «σκιαδοψείδιον ἱστουργεῖσθαί» – and that even if he had a head the size of

486 Tsigaridas, *Phorētēs eikones* 375-377 fig. 318. – Loverdou-Tsigarida, *Thessalonique, centre de production* 251 fig. 18.

487 Babuin/Nakas, *Byzantine Ship Graffiti* 8-17. – On the extensive use of wooden vessels in Byzantium and their names see Sarantē, *Ta vyzantina epitrapezia skeuē* 536-541.

488 On references to wood carvers and their tools in Byzantine texts, see Koukoules, *Vios kai politismos*, B1, 208-209.

489 Nikonanos, *Xyloglypta Agiou Orous* 296-297. – Nikonanos, *Xyloglypta Vatopaidiou* 536-546.

490 Laiou/Morrisson, *The Byzantine Economy* 198, with further bibliography.

491 Babuin/Nakas, *Byzantine Ship Graffiti* 11 fig. 8.

492 Laiou, *Thessalonikē, ē endochōra kai o oikonomikos chōros* 188-189, 191.

493 Jacoby, *Foreigners and the Urban Economy* 85-132 esp. 107. – Matschke, *Tuchproduktion* 47-88 esp. 66-67, 69-76. – For gold-waft and gold-embroidered silk garments (probably Palaeologan) from a grave in Hagia Sophia, see Xyngopoulos, *Tychaia eurēmata* 65-66 fig. 5. – On the hypothesis that the narthex and the southern ambulatory of the Hagia Sophia were used from the early tenth century for the burials of Thessaloniki's metropolitans, see Kissas, *A Sepulchral Monument in Hagia Sophia* 36.

494 Benjamin of Tudela 64.

a Cyclops' or a mountain it should have been finished in that time<sup>495</sup>.

Moreover, it is known that substantial transactions took place in the mid-fourteenth century concerning exports of Thessalonian linen cloths and fustian, such as when Paolo Osbergerio from Chios and the Genoese Domenico di Saziglia started an enterprise in July of 1349 by buying eighteen balls of linen cloth and fustian produced in Thessaloniki – »telas et vellexi de Salonichi« – which were bought for 2,000 hyperpera and were to be shipped to Peran<sup>496</sup>. Also, in mid-fifteenth century sources, a special Thessalonian type of hat, σκούφια θεσσαλονικαία, is mentioned. After his imprisonment at Patras in 1429, Geōrgios Sphrantzēs received from the then Despot and later Emperor Constantine XI, several beautiful textiles and a decorated sword, along with a »σκούφιαν θεσσαλονικαίαν μετὰ χρυσοκοκκίνου χασδίου ἐνδεδυμένην«, a hat from Thessaloniki lined with golden-red cotton<sup>497</sup>. A form of subtle fabric was known to the Ragusians, even after the sack of the city by the Ottomans, as *Solunschi*, i. e. Thessalonian. A Ragusian priest mentioned a »tovallia de Salonich« in 1348, which was worth 30 *grossi*; probably referring to an ecclesiastical-liturgical textile or an altar cloth<sup>498</sup>. In addition, Solunschi is mentioned in the story of Jakov Radovanović, a cloth shearer (*cimator pannorum*), who was going to Kastoria (»ad civitatem dicitur Costur«) to visit his brother-in-law in July of 1463. He received from a Ragusian chancellor »ducatum unum eu uncias decem auri fillati in canellis XXIII«, a gold ducat and ten ounces of gold thread in twenty-three *canellis* (possibly »reels«), which he was supposed to sell in Kastoria and then invest the proceeds »in pellibus rubeis turcheschis et in tella subtili que dicitur Solunschi«, i. e. »in red Turkish leathers and in subtle textiles which are called Thessalonians«, and bring them to

Dubrovnik<sup>499</sup>. Furthermore, it is known that Venetians imported cloth from Thessaloniki to Melenikon<sup>500</sup>.

The archaeological evidence could be helpful, as workshops with small cisterns have been located in the city that could be connected with fabric dyeing processes, unfortunately no firm dating for the findings is possible. Besides, it should be considered as unlikely that a city of the size and the historical continuity of Thessaloniki would have no workshops for producing or dyeing fabrics, even of lower quality, throughout the Palaeologan period. One workshop of this kind, has been excavated at the east part of the centre, almost on the *Via Regia*<sup>501</sup>, while a second one, also dated to the Palaeologan period, which has been identified as a tannery, was excavated very close to the western city walls<sup>502</sup>.

The name of only one saddler from Thessaloniki, Nikolaos Kamoudēs, is preserved in a legal document of 1264, without any further details about his workshop or his products<sup>503</sup>. Tannery products are almost never preserved due to the humid climate of the region, with the rare exception of a pair of leather shoes, badly preserved, discovered in one of the graves under the pavement of the Chapel of Sōtēras<sup>504</sup>. The leather binding of a fourteenth-century book with impressed and applied decoration is the second preserved example of this craft in Palaeologan Thessaloniki<sup>505</sup>.

## Gold-Embroidering

As gold-embroidering activity leaves no other real evidence than the embroidered fabrics, the *aer-epitaphios*<sup>506</sup> (dated c. 1300) that was found in the early twentieth century in Panagouda's Church presents a magnificent witness to the activity of a local gold-embroidery workshop in Thessaloniki<sup>507</sup>

495 Eustratiades, Grēgoriou tou Kypriou epistolai 19-20 letter 82: »Τὸ δὲ σκιασομειδιον ἰστουργεῖσθαι φής, καὶ ὁ λόγος ἐμοὶ πιστός· ὁμως μέχρι τίνος πιστός προβήσεται, διετίαν ἄλην ἰστουργούμενον; Εἰ γὰρ Κύκλωπος, τί λέγω Κύκλωπος, εἰ γὰρ ὄρους εἶχομεν κεφαλὴν, καὶ ὑπερπεριτεῦσον ἂν ἐφάνη τὸ διὰ τοσοῦτου γινόμενον« [The hat, you say, has been woven, and I believe you. But up to what point will I continue believing you, since for two whole years it has been in the weaving? Because, if we had the head of Cyclops – why do I say Cyclops? – if we had the head of a mountain, there would have been time enough and more for it to be completed]. – Kountoura-Galanakē, Iōannēs Staurakios 387.

496 Matschke, Tuchproduktion 70-72. – Jacoby, Foreigners and the Urban Economy 116. – Laiou, the Agrarian Economy 348. – I thank Dr N. Bonovas for his help with the translation of the German texts.

497 Matschke, Tuchproduktion 69-70. – Sphrantzes, Memorii 38, 19.4-3. »ἔφερόν με εὐεργεσίαν αὐτοῦ ταμπάριον διπλὸν χαμουχᾶν πράσινον ἀπὸ τὴν Λουκκᾶν ἀξιόλογον, μετὰ καὶ πρασίνης τζόχας καὶ καλῆς ἐνδεδυμένην [...] καβὰδι χρεμετὴν χαμουχᾶν μετὰ βαρέου καταράχου ἐνδεδυμένην, κουρτζουβάκιν χαμουχᾶν χρυσοῦν προῦσινον καὶ φωτᾶν προῦσινον καὶ σπαθὴν ἐγκεκοσμημένον [...] σκούφιαν θεσσαλονικαίαν μετὰ χρυσοκοκκίνου χασδίου ἐνδεδυμένην« [they brought me gifts from him, a notable green *double tabarion* (cloak) of *chamoucha* (silk brocade) from Lucca, lined with a fine green felt (...) a *kavadi* (a luxurious garment with sleeves) of red *chamoucha* (silk brocade) with a *katarachon* (heavy lining), *kourtzovvaki* (short trousers) of gold *chamoucha* from Prousa (Bursa), and a waistband (or apron?) from Prousa (Bursa), a decorated sword, and a hat from Thessaloniki lined with red-gold *chasdio* (sturdy cotton)]. The text has been recently published in Italian with partly different translation, see Sphrantzae, Chronicon esp. 56-59.

498 Matschke, Tuchproduktion 69-70.

499 Historical Archives in Dubrovnik-HAD, *Diversa notariae* vol. 47 f. 40. – Krekić, Notes on Dubrovnik's Relations with the Levant 275.

500 Matschke, Commerce 772.

501 Markē/Kommatas, Iasonidou 6, 333 (cat. no. 81).

502 A rescue excavation at 12 Zephyrōn Street: Cat. Thessaloniki 2006, 7 (cat. no. 87).

503 With this document the Ivērōn Monastery gave the *seloraios* (σελοραιοῖς), saddler Nikolaos Kamoudēs and three generations of his inheritors, use of their dependency of Hagios Klēmēs in the quarter of Hagios Paramonos in Thessaloniki for four *hyperyra* per year provided that he improved substantially the church and the other premises of the dependency. Actes d'Iviron III 103-108 no. 60. – The same Kamoudēs is also mentioned at 1295 in Actes d'Iviron III no. 68.

504 Kourkoutidou-Nikolaïdou, Saviour 34, 39. – On the work, the tools and products of Byzantine shoemakers, see Koukoules, Vios kai politismos, B1, 214-215, and more thoroughly Koukoules, Peri tēs ypodeseōs 106-127.

505 Astruc, Isidore de Thessalonique 261-272 esp. 267-272.

506 *Aer* (ἀήρ) is a chalice veil which was used during the Great Entrance and the preparation of the gifts for the Eucharist on which Holy Communion is depicted. *Epitaphios* (ἐπιτάφιος), a larger veil, on which is depicted the Lamentation, was and still is used during Holy Week as part of the ceremonies marking the death and resurrection of Christ. For few weeks after Easter it is placed on the Holy Table. For a detailed explanation of the use of epitaphios veil and their use in monumental painting, see Gerstel, Beholding 76-77.

507 The basic study on the techniques applied by gold-embroideries is Chatzēmichalē, Crhysoklavarika 447-498. – For references in Byzantine texts, see Koukoules, Vios kai politismos, B1, 209-210, B2, 41-47. – For an overview on the subject, see Johnstone, The Byzantine Tradition in Church Embroidery passim, and especially on Late Byzantine clerical vestments and the evolution and changes that their decoration underwent, see Woodfin, The Embodied Icon passim.

(fig. 58a-i). Designs of a great artist of the Volume style, comparable to the art of Michaël Astrapas and Eutybios, are meticulously executed on it by skilful embroiders – the *chryso-clavarii* or *chrysostiktēs* mentioned in the sources – using silver and gold thread, as well as red, blue and green thread on red silk fabric backed with linen cloth<sup>508</sup>. There are few more extant ecclesiastical embroideries that can be connected with Thessaloniki, either due to their direct similarity with Thessaloniki's *epitaphios*<sup>509</sup>, or due to the fact that their donors were from Thessaloniki<sup>510</sup>. Furthermore, finds from a Palaeologan grave in Hagia Sophia where remains of at least three fabrics were preserved, offer a glimpse of the precious garments of the city's aristocracy<sup>511</sup>. Finally, an independent gold-embroidery workshop owned by the *chrysostiktēs* (χρυσοστίκτης) Palatēs, who worked alongside his fellow-craftsmen, is attested to in written sources in Thessaloniki in the late 1350s. Among other things, we find mention of his work embellishing the sacerdotal vestment of the local archbishop, the later canonised (Saint) Grēgorios Palamas, with gold<sup>512</sup>.

## Perfumery and Apothecaries

*Myrepsoi* (μυρεψοί), literally craftsmen who made and sold spices, fragrances and dyes, also acted as apothecaries and are known to have had their own market in Constantinople selling imported aromatic goods<sup>513</sup>. They are also mentioned in Late Byzantine Thessaloniki as having *myrepsika ergastēria* (μυρεψικά ἐργαστήρια), perfumeries or apothecaries, and as being organised in a guild in which even *archontes*, local offi-

cials, were involved. A contract of 1320, recording the sale of houses in the Acheiropoiētōs quarter from Anna Paximadō to the Monastery of Ivērōn, is witnessed by the *exarch* (ἐξάρχος) of the guild of the *myrepsoi* of Thessaloniki, Theodōros Vrachnos. The signature of another Thessalonian *myrepsos*, Theodōros Chalazas, is also found in the same document<sup>514</sup>.

A perfumery near Hagios Mēnas, with two display benches on the pavement, is known from a document issued in July 1400. Sometime before 1396, it was rented by Kōnstantinos Samaminthēs from the Church (Hypomimnēskontos Monastery). He also rented two nearby money-changing tables and was granted the right to unite them with his workshop and transform them into a single *myrepsikē provolē* (μυρεψική προβολή), i. e. display bench, apparently widening the façade of his shop into the street and so improving its status<sup>515</sup>.

Thanks to a preserved early-fifteenth-century notebook, it is also known that the metropolis of Thessaloniki owned several *myrepsika ergastēria* in Thessaloniki in 1422, which it rented out to a certain Mouzalōn. A Constantinopolitan *archōn*, Sevastos Myrepsos, is mentioned in the same document, but in connection with a banking transaction dated 1426<sup>516</sup>.

## Scribal Activity

An aspect of classicism that was predominant in Palaeologan Thessaloniki gave rise to the expansion of scriptoria, which contributed to the rejuvenescent spirit of the times. Classical, religious and law texts, and occasionally books in Hebrew,

- 508 Kondakov, Pamjatniki 206. – Le Tourneau/Millet, Un chef-d'oeuvre 259-68. – Boura, The Epitaphios of Thessaloniki 211-214 figs on p. 215-231. – For a thorough technical examination of the epitaphios and its contemporary embroidered silks, see Muthesius, The Thessaloniki Epitaphios 175-206. – For a detailed description of this object and a colour illustration of it, see Cat. Athens 2013, 155-157 no. 74 (A. Antonaras).
- 509 For a *podea* (ποδέα), i. e. apron, an embroidered cloth hung under an icon, from Chilandar that bears identical motives with the epitaphios, see Bogdanović/Djurić/Medaković, Hilandar 124.
- 510 For an *aer-epitaphios* from Vatopaidi, donation of the emperor John VI Kantakouzenos see, Theocharē, Amphia 420-424 figs 356-357. – For examples from Virgin Perivleptos (Saint Clement), Ochrid see: 1. For an *epitaphios*, donation of Andronikos II Palaeologos: Millet, Broderies religieuses 90. – Rousseva, National Museum of History 139 no. 140. 2. – For a *podea* with Crucifixion: Bojtscheva, Ein Kunstwerk 8-15. – For a general overview on that matter, see Loverdou-Tsigarida, Thessalonique, centre de production 252-253.
- 511 Xyngopoulos, Tychaia eurēmata 65-66 fig. 5. In a grave in the floor of the rectangular room south of the church's apse. The first fabric was a very fine purple one with interwoven golden motives, the second was thicker fabric also gold-weft with cross-shaped motives, and the third, probably an external one, purple with embroidered golden lamellae creating rows of composite cross-shaped motives and medallions.
- 512 Matschke, Tuchproduktion 76-79. – Tsamēs, Philotheou erga 556 §108:1-5: «Ἀνὴρ τις, Παλάτης τὴν κλήσιν, τὸν τρόπον ἐπιεικῆς, χρυσοστίκτης τὴν τέχνην, χρυσῶ τὴν καινουρηθεῖσαν ἱερατικὴν στολὴν ἐπεκαλλώπιζε τῷ μεγάλῳ, ὃ δὲ καὶ πρόφασιν ὤσανε τῆς πρὸς ἐκεῖνον ἐπιδημίας καὶ τῆς μελλούσης εὐεργεσίας ὃ μέγας πεποιθμένος, αὐτόκλητος ἐφίσταται τῷ οἴκῳ ἐκεῖνου σὺν γε τοῖς ὁμοτέχνῳι ἐργαζομένου.» [A good man, Palatēs by name and a gold-embroiderer by profession, was decorating the renovated prelatial vestment of the saint with gold, which was like a pretext for the saint's visit and future benefaction, as he (the saint) went self-invited to Palatēs' house, where he was working with his fellow-craftsmen]. The Saint went to the house of gold-embroider Palatēs where he was working with his co-workers renewing saint's prelatial vestment with gold, and there he miraculously cured Palatēs' young son. The

supposed miracle can be placed sometime between the summer of 1355 and November of 1359, Tsamēs, Philotheou erga 553. – For a thorough overview of the prelatial vestments represented in monumental paintings, see Gerstel, Beholding 25-29.

513 Book of Eparch 41-43 chap. 10. – Book of Eparch, Koder 110-112.

514 Matschke, Commerce 777. – Dölger, Aus den Schatzkammern no. 111, published also in Actes d'Iviron III no. 78 ln. 30-31. – For a contrary opinion on the existence of guilds in the Palaeologan period and in other than Constantinople cities, see Maniatis, The Domain of Private Guilds in the Byzantine Economy passim and esp. 359, where it is assumed that *exarchos* (ἐξάρχος) «was probably the prolocutor of a group of trades who had formed an informal association or was a local government inspector». On *myrepsoi*, see Koukoules, Eustathiou laographika 400, with reference to the prohibition to Christians to hand over to *myrepsoi* parchments of the Holy Bible for destruction, according to the 68<sup>th</sup> canon of the Council in Troullos, and more generally on their profession in 417-418. – On cosmetics and perfumes in Antiquity, see Forbes, Studies in Ancient Technology, vol. 3, 1-50. – Also, Koukoules, Vios kai politismos, B1, 205-207, where all ancient and medieval Greek references on this profession are gathered. – For an overview in English, see Kazdahn, Perfumes and Unguents 1627-1628. – For an overview in the context of professionals in Late Byzantine Constantinople where *myrepsoi* are mentioned to be scattered in different parts of the city, see Oikonomidēs, Hommes d'affaires 102, 111, 114-122. – For Thessalonian *archontes* and their involvement in trade and crafts see Necipoğlu, The Aristocracy in Late Byzantine Thessalonike passim and esp. 147-151, and Necipoğlu, Byzantium between the Ottomans and the Latins 80-82.

515 Miklosich/Müller, Acta et diplomata, vol. 2, 526-527 no. 664, a patriarchal confirmation of the pact of *emphyteusis*. The agreement can be dated before 1396, the year of Archbishop Isidoros Glavas' death, who had signed the original contract, according to the noted patriarchal confirmation. – Also, Matschke, The Late Byzantine Urban Economy 482 nt. 75, where it is referred as Miklosich/Müller, Acta et diplomata, vol. 2, 516, no. 666.

516 Kugéas, Notizbuch 148-149. – Laiou, The Agrarian Economy 352. The *archōn* was situated in Constantinople.

were copied and illuminated in the city by several copyists working in different scriptoria<sup>517</sup>. Scholars involved in writing and copying books were Dēmētrios Triklinios (Thessaloniki 1280-c. 1340)<sup>518</sup>, Iōannēs Pediasimos Pothos<sup>519</sup>, Thōmas Magistros (early fourteenth century)<sup>520</sup>, Iōannēs Katrarēs and Iōannēs Asrtapas of the well-known family of painters<sup>521</sup>. It has been also suggested that in the middle of the fourteenth century there existed a scriptorium for legal texts in the city, which was possibly established by Armenopoulos himself<sup>522</sup>. In addition, charts or maps were drawn in the city, presumably requiring the skills of experienced cartographers<sup>523</sup>.

Generally speaking, there was a considerable growth in the copying of religious manuscripts intended for the libraries of major Macedonian monasteries; as well as for smaller monasteries in Thessaloniki, to which manuscripts were donated by rich, pious patrons<sup>524</sup>. Thessaloniki in the late thirteenth century was an important centre of book reproduction, producing copies of religious and secular works to order for Constantinopolitan scholars, such as Nikēphoros Choumnos, Nikēphoros Grēgoras and Geōrgios Kyprios. Kyprios even ordered a copy of the works of Plato from Iōannēs Kavasilas, a well-known manuscript copyist in Thessaloniki<sup>525</sup>. Theodōros Hagiopetritēs is perhaps the most well-known scribe and miniaturist of religious manuscripts, with signed works from 1277 to 1308<sup>526</sup>. His daughter Eirēnē<sup>527</sup>, the monk Theodosius and Leo also worked in his studio<sup>528</sup>. Theodosios, as it appears, was also a miniaturist, and so we should also include him among the painters of Thessaloniki<sup>529</sup>. Hagiopetritēs co-operated with two other, anonymous artists who executed miniature portraits of the evangelists in the gospels

of Göttingen (1290)<sup>530</sup> and the Pantokratōr Monastery Cod. 47 (1301-1302)<sup>531</sup>.

In addition to Thessaloniki's Christian scribes, a Jewish scribe called Adoniyah, son of Abba Kalomiti, was active in 1329. Another Jew, from Toledo, called »The Spaniard«, was in the city between 1401 and 1404, and is known to have copied a manuscript in 1403<sup>532</sup>.

A different and otherwise more difficult to detect use of parchments is found in sorcery. Here the evidence is indirectly preserved in the late-thirteenth-century speech of Iōannēs Stavrakios on the miracles of Saint Dēmētrios. On the miraculous healing of the Eparch Mari(ni)anos, a *derma* (δέρμα), »parchment«, is mentioned on which the names and forms of gods, circles and semicircles were inscribed, which was considered to have the power to heal the Eparch by placing it on his neck<sup>533</sup>.

Where scriptoria were present, one can assume that bookbinding was not far away in Late Byzantine Thessaloniki. However, original bindings are seldom preserved. One notable example is the late-fourteenth-century cover of a fourteenth-century manuscript of the Homilies of Isidoros Glavas (Par. gr. 1192). It is decorated with impressed designs and bronze central monograms formed with some form of champlévé and rosette-like corner bolts. The motifs used for its impressed decoration – mainly geometrical and floral, but also including figures of real and mythical animals – are not found among the surviving Constantinopolitan and Cretan examples and might, therefore, indicate the originality of this Thessalonian workshop and point to its own traditions and style<sup>534</sup>.

517 For an overview on cultural life and intellectuals in Palaeologan Thessaloniki, see Kyriakoudēs, *Klassikistiko pneuma passim*. – Malamut, *Cinquante ans à Thessalonique* 289-294.

518 Kōnstantakopoulou, *Vyzantinē Thessalonikē* 140. – Katsaros, *Grammata kai pneumatikē zōē* 327. – One of his books, written by the »best copyist of Thessaloniki«, Iōannēs Astrapas, according to Triklinios himself, is preserved bearing the title, probably not original, »Περὶ τοῦ ἐντὸς τῆς σελήνης ὀρμωμένου μελανοῦ«, and it appears that he conducted systematic experiments with a large mirror. The same treatise was supplemented with drawings of the surface of the moon on which light-coloured was the reflection of the land areas and black the reflection of the seas, executed by Astrapas, offering another indication of the maps and other illustrative elements a Thessalonian codex could include. For the treatise, see Wasserstein, *An Unpublished Treatise* 153-174. – On Astrapas, see Kissas, *Solunska umetnička porodica Astrapa* 37-39.

519 Kōnstantakopoulou, *Vyzantinē Thessalonikē* 141 nt. 2.

520 Katsaros, *Grammata kai pneumatikē zōē* 326.

521 Kyriakoudēs, *Klassikistiko pneuma* 233, with thorough bibliography.

522 Medvedev, *Υπέρθε στὴ Thessalonikē ena ergastērio* 215, 219.

523 As it can be suggested by the case of Maximos Planoudēs (1260-1310) who was known to possess a *geōgraphicon pinakion* (γεωγραφικὸν πινάκιον), a map of the city, the most hospitable among the cities of the Roman Empire, which he consulted in order to understand the favourable site where the city was founded, in respect to the winds, the ground and the sea, and the direction of the north winds. Planudis, *Epistulae*, 110, ep. 136:60-66. »πολλοὶ μὲν οὖν φασι μὴ τὴν Θεσσαλίας μητρόπολιν ἀμείνω πάσης τῆς Ῥωμαίων ἀρχῆς ἐπιπλυν ἄνδραν δέξασθαι καὶ πρὸς ὑγιάν μετακοσμήσαι καὶ μηκέτ' αὐτῶ συγχωρεῖν εἶναι τὸν βίον ἀβίωτον. καὶ γὰρ καὶ ἀέρων εὐ ἔχειν καὶ γῆς καὶ θαλάττης ἐν ἀρίστῳ ἰδρῦσθαι: καὶ μέντοι καὶ βορρᾶν καὶ ἀρκτους ἀσπάξασθαι πόρρωθεν, ὡς ποῦ μοι καὶ τὸ γεωγραφικὸν ὕφηγεται πινάκιον« [many people tell me that the metropolis of Thessaly is the finest city in the entire Roman state as regards receiving a man coming from abroad, to restore his health and not allow his life to become unlivable. For it has good air, and was founded on the best of land and sea. And indeed, (they say) that it embraces the north from afar, as

my geographical table informs me]. – Kōnstantakopoulou, *Vyzantinē Thessalonikē* 175, 208.

524 Katsaros, *Grammata kai pneumatikē zōē* 328.

525 Kōnstantinidēs, *Aparches pneumatikēs akmēs* 141, 147-148. – Kyriakoudēs, *Klassikistiko pneuma* 225. – Eustratiades, *Grēgoriou tou Kypriou epistolai* 5-48. – Kountoura-Galanakē, Iōannēs Staurakios 383-384, on several letters of Patriarch Gregory of Cyprus (1283-1989) to his old friend Iōannēs Staurakios, Metropolitan Chartophylax of Thessaloniki, which are preserved. Staurakios intermediated for the copying of the Constantinopolitan manuscript with Plato's works that Gregory shipped to him, and whose copying was much delayed and badly executed, probably by Kavasilas.

526 Lamberz, *Nea Stoicheia* 85-106.

527 Nelson, *Theodore Hagiopetrites* 79, 122-123.

528 Nelson, *Theodore Hagiopetrites* 86-94, 114-115, 117, 124.

529 Illuminations of the Evangelists Mark, Luke and John of the Gospel gr. I,20 (Biblioteca Marciana, dated to 1302) rendered in the voluminous style are ascribed to him, see Nelson, *Theodore Hagiopetrites* 112-115.

530 Nelson, *Theodore Hagiopetrites* 101-105 pl. 56-59.

531 Pelekanidēs et al., *Thésauroi Agiou Orous* 128-133, 263-265.

532 Jacoby, *Foreigners and the Urban Economy* 124.

533 Iōakeim Ivēritou, Iōannou Staurakiou logos 340:32-35: »μεμβράνη δὲ ἦν [...] ὀνόματα θεῶν καὶ κύκλων περιγραφὰ καὶ ἡμικύκλια καὶ σχημάτων χαρακτήρες παντοδαπῶν καὶ εἰδῶλων τύποι ὑπερφυεῖς τῇ μεμβρᾶνῃ κεχάρακται.« [and there was a parchment (...) names of gods and shapes of circles and semicircles and shapes of all kinds and forms of very large idols were inscribed on the parchment]. On Staurakios see, Kountoura-Galanakē, Iōannēs Staurakios passim. – Kaltsogiannē/Kotzampassē/Paraskeuopoulou, *Ἐ Thessalonikē στὴ Vyzantinē logotechnia* 144-146.

534 Astruc, *Isidore de Thessalonique* 261-272 esp. 267-272. – On bookbinding in northern Greece and Mount Athos in Palaeologan period, see Irigoin, *Un groupe de reliure* 273-285. I wish to thank Dr D. Keller of the Altertumswissenschaften Bibliothek, Basel University, for providing me with copies of these two articles. – Also, see *Cat. Paris* 1992, 471 no. 363 (P. Hoffmann).



a



b

Fig. 58 Gold-embroidered aer-epitaphios, c. 1300: a complete. – b detail with the Communion.



c



d

Fig. 58 (continued) Gold-embroidered *aer-epitaphios*, c. 1300: c detail with the Christ-annos. – d underside of the detail with the Christ-annos.





e



f

**Fig. 58** (continued) Gold-embroidered *aër-epitaphios*, c. 1300: **e** detail from the Communion of the Bread. – **f** underside of the detail from the Communion of the Bread.



g



h

Fig. 58 (continued) Gold-embroidered *aer-epitaphios*, c. 1300: **g** underside of the detail with Mathew and a Cherub. – **h** detail with Mathew and a Cherub.



Fig. 58 (continued) Gold-embroidered *aer-epitaphios*, c. 1300: i detail of an inscription.