

Piroska Magyar-Hárshegyi

SUPPLYING THE ROMAN ARMY ON THE PANNONIAN LIMES

Amphorae on the territory of Budapest, Hungary (*Aquincum* and *Albertfalva*)¹

The aim of this paper, is to give a basic view on the Roman military supply of the capital of *Pannonia Inferior*, *Aquincum* and a closely related auxilliary camp at *Albertfalva* on the basis of nearly 1000 amphorae fragments collected so far. We have mostly indirect data in *Pannonia* on the regular Roman military supply, the participants involved, and how it was organized.² Amphorae findings and their find places therefore have great importance to outline the goods that arrived in masses for the military units, to evaluate their quality and quantity. The amphorae used to transport wine, oil and fish-based products could be considered as proof of the regular military supply.³ These were part of the Roman military diet (*mensa militaris*).⁴ Amphorae types used to transport olive-, or fruit-based products should be excluded from this category and be studied as complementary supply.⁵ It is also important to consider shipments of these goods for the troops not only in relation to times of war *versus* times of peace or of their regularity, but in relation to the prominent events that needed special provisioning, such as military feasts (e. g. *saturnalicium kastrense*), anniversaries (e. g. the day of the province, celebrated on the 11th of June), promotions and retirements.⁶

Fruit-based products, particular kinds of wines, oysters and *alum* could also arrive in amphorae for the military units as complementary, medical supply.⁷

Comparing the amphorae finds from two nearby military sites (*Aquincum* and *Albertfalva*), both part of modern Budapest (**fig. 1a–b**), made it possible to separate types and goods imported as regular military supply and complementary goods.

I. *Albertfalva* (Budapest, District XI)

The auxiliary camp and its *vicus* at *Albertfalva* are located north of the wash of the Hosszúrét stream near to the territory of *Aquincum*. We do not have any information about the name or the units in this camp, which supervised the c. 7 km long section of the Danubian *limes*.⁸ Only one military unit, the *cohors milliaria Numidarum* is known for sure to have manned the camp in a period after the Marcomannic wars.⁹ The building phases of the camp and its *vicus* in the period between the reign of Vespasian and the seventh decade of the 3rd century AD are well determined.¹⁰ The land of the *vicus* was aligned parallel to the first (palisade) period of the camp.

¹ The work was supported by OTKA 100956 and NKA A1008N7353 projects.

² Very scarce data is available directly on amphora supply in Pannonia, see: T. BEZECZKY, Amphora Inscriptions – Legionary Supply? *Britannia* 27, 1996, 329–336; P. HÁRSHEGYI/P. VAMOS, Új eredmények egy régi anyag kapcsán. Módszertani és csapattörténeti megjegyzések az aquincumi Selmeci utcai fazekasműhely leletanyagának vizsgálatára. (New results from old material. Methodological and military historical observations based on the study of the pottery finds of Selmeci utca in Aquincum). In: Sz. Bíró (ed.), *Fiatal Római Koros Régészek I. Konferenciakötete*, Xántus János Múzeum, Győr, 2006, március 8–10 (Győr 2007) 159–161 Fig. 5.

³ One of the most important sources for the Roman military supply is VEGETIUS 3,3; 4,7. On regular Roman military diet: APPIAN, *Iberica* 54. Multiple sources are available on the supply of military units with low quality wine (*acetum* or *posca*) as part of the *ciba castrensia*: SHA Hadrianus 10,2; SHA Severus Alexander 51,5; 61,2; SHA Avidius 5,3; SHA Pescennius 10,3–4. On the modest meals and beverages allocated to the Roman soldiers: HERODIAN 2,11,2; 4,12,2.

⁴ Fish-based products as part of the military diet: SHA Elagabalus 29,5; DAVIES 1971, 131.

⁵ A good example for this can be read on one of the Vindolanda tablets (Tab. Vindol. 2.302): a shopping list for a servant of a certain *praefectus Verecundus* to buy "(...) 8 sextarii muria and 1 modius olives (...)" on a good price. C. CARRERAS MONFORT, The Roman Military Supply during the Principate. Transportation and Staples. In: P. Erdkamp (ed.), *The Roman Army and the Economy* (Amsterdam 2002) 85.

⁶ DAVIES 1971, 125; M. CARROLL, The preparation and consumption of food as a contributing factor towards communal identity in the Roman Army. In: Zs. Visy (ed.), *Limes XIX. Proceedings of the XIXth*

International Congress of Roman Frontier Studies (Pécs 2005) 368. – The increasing amount of terra sigillata on the *limes* of *Germania* and *Raetia* was associated with the rise of payments: K. STROBEL, Einige Bemerkungen zu den historisch-archäologischen Grundlagen einer Neuformulierung der Sigillatenchronologie für Germanien und Rätien und zu wirtschaftsgeschichtlichen Aspekten der römischen Keramikindustrie. *Münster. Beitr. Ant. Handelsgesch.* 6, 1987, 83.

⁷ Figs and the oysters were proved to be the part of the military medical treatments as exemplified by the finds in the *valetudinarium* at *Novae (Moesia)*: DAVIES 1971, 134.

⁸ B. LÖRINCZ, *Albertfalva*. Budapest, XI. kerület. In: P. Kovács/Á. Szabó (eds.), *Studia Epigraphica Pannonica I.I. Észak-Kelet Pannonia* (Budapest, 2008) 102–103.

⁹ LÖRINCZ 2000, 47.

¹⁰ About the building phases: VISY 2003a, 62–63; id. 2003b, 104–105 (K. Szirmai); J. BESZÉDES, Az albertfalvi katonai tábor és település kutatásának eredményei Nagy Tibor tevékenysége után. (Ausgrabungsergebnisse von dem römischen Lager und der Siedlung in Albertfalva nach der Tätigkeit von Tibor Nagy). *Budapest Régiségei* 44, 2011, 58–74. – The previous dating of the first phase of the camp was changed after re-examination of the finds from the time of Claudius to the reign of Vespasian: D. GABLER, Early Roman Occupation in the Pannonian Danube Bend. In: W. Groenman-van Waateringe et al. (eds.), *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies*. Oxbow Monogr. 91 (Oxford 1997) 88.

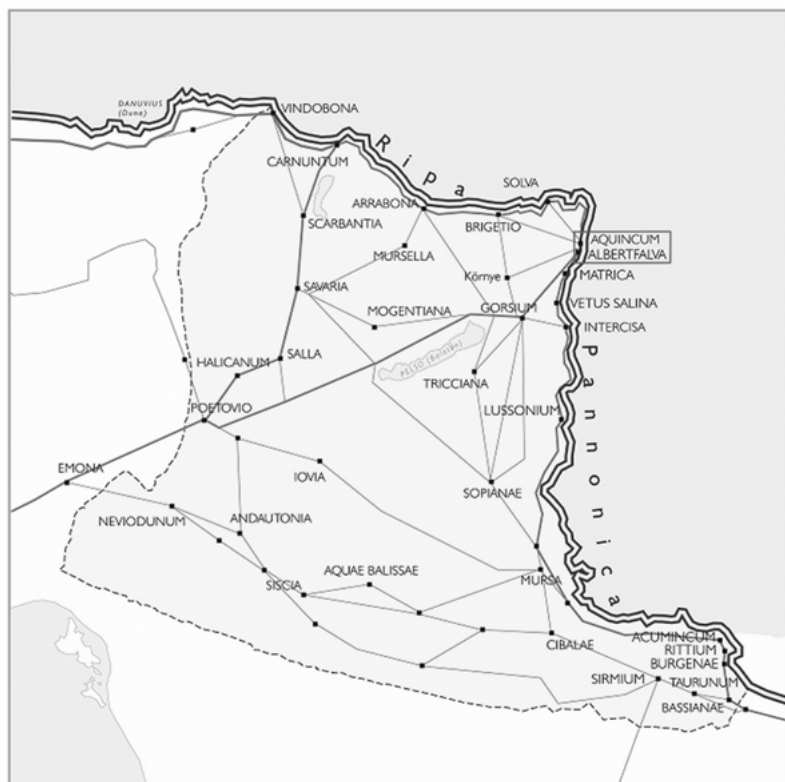


Fig. 1.a.

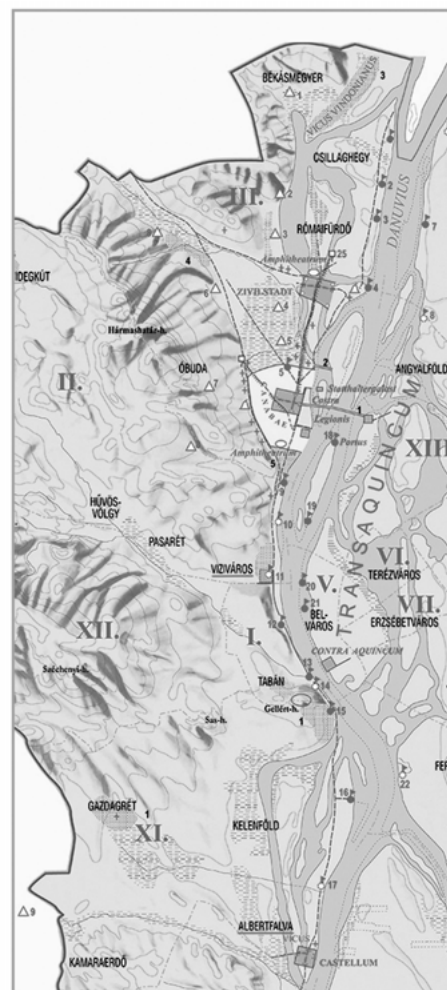


Fig. 1.b.

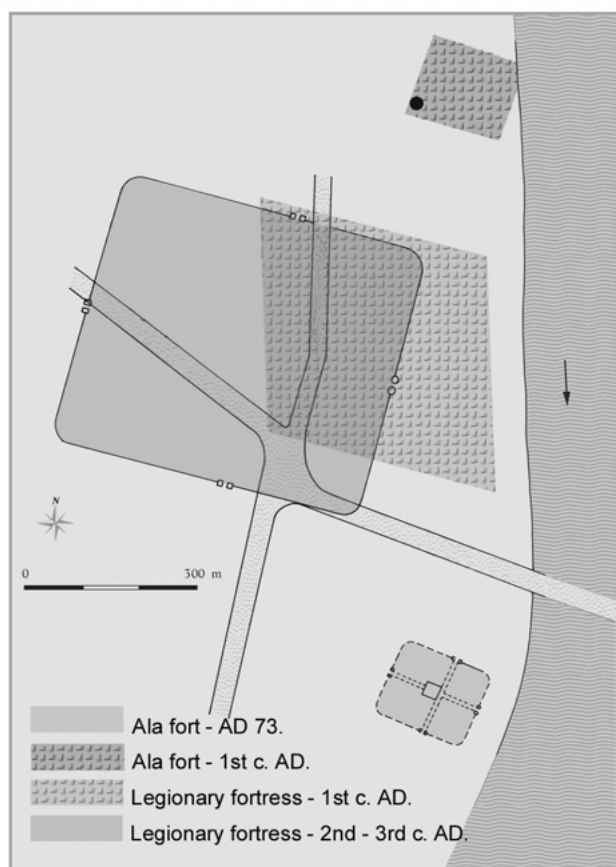


Fig. 1.c.

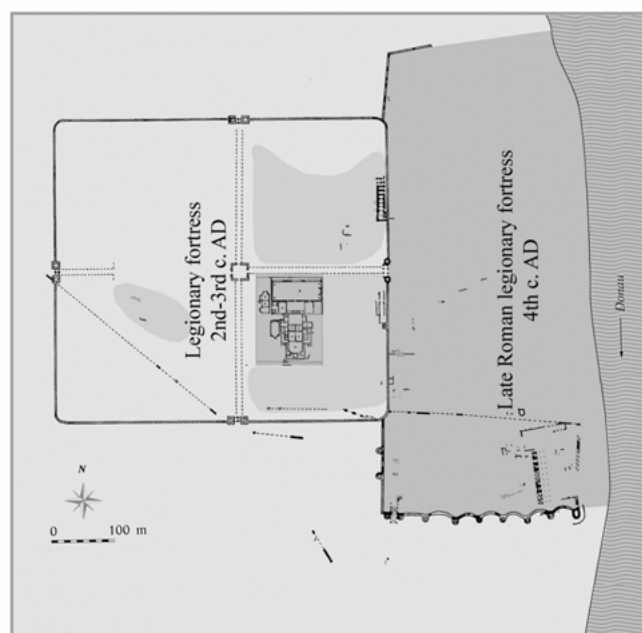


Fig. 1.d.

Fig. 1. a. Map of Pannonia. – **b.** Topography of *Aquincum* within the modern-day Budapest (after: Topographische Skizze von *Aquincum*. In: P. Zsidi (ed.), *Forschungen in Aquincum 1969–2002. Clarae Póczy Octogenariae. Aquincum Nostrum 2,2* (Budapest 2003). – **c.** The fortress and the forts of *Aquincum* (Budapest) (after: M. NÉMETH, *Die Militäranlagen von Óbuda*. In: P. Zsidi (ed.), *Forschungen in Aquincum 1969–2002. Clarae Póczy Octogenariae. Aquincum Nostrum 2,2* (Budapest 2003) Abb.1.).

Chronology/ periods	Type	Fragments	Contents	Place of origin
I. middle of the 1 st c. AD – Hadrian/Antoninus Pius	Dressel 2–4	9	wine	Mediterraneum
	Rhodian	4	wine	Asia Minor/Aegean
	Pompeii 38	1	wine	Asia Minor/Aegean
	Gauloise 5	1	wine	Gaul
	Forlìmpopoli	1	wine	Adriatic coast
	Bojović 549/554	15	wine?	not id.
	Dressel 6B	18	olive oil	Istrian peninsula/N-Italy
	Beltrán IIA	7	fish-based products	Iberian peninsula
	Aquincum 78	8	fish-based products	N-Italy
	Augst 21?	1	olives?	Gaul
	Haltern 70?	3	olives?	Iberian peninsula
	Schörgendorfer 558	6	olives	N-Italy
	Camulodunum 189	6	fruits (dates?)	Levant
	Bónis XXXI/5	7	not id.	not id.
II. Traian/ Marcomannic wars – c. 270 AD	Kapitán II	1	wine	Asia Minor
	Kapitán II <i>similis</i>	1	wine?	not id.
	Šelov C	4	wine	Black sea coast
	Kelemen 20	11	fish-based products	Black sea coast
	Dressel 20	2	olive oil	Iberian peninsula
	Dressel 24	2	olive oil?	Aegean
	N-African	1	not id.	N-Africa
	Bailey A?	1	wine	Egypt
	Not id.	3	not id.	not id.

Table 1. Amphorae types from Albertfalva (Hungary).

113 amphora fragments from this site were assigned into 22 types, which is a rather vast spectrum of forms and a wide range of imported goods in this Pannonian context (table 1). Most of the products delivered to the camp in amphorae arrived in masses before the Marcomannic wars (14 types, 88 fragments). In the period between AD 70 and the middle of the 2nd century AD wine amphorae seem to appear in the highest percentage (Dressel 2–4; Rhodian; Pompeii 38; Forlìmpopoli; Gauloise 5 and Bojović 549/554[?]), which is followed by the olive oil containers from the Istrian peninsula and North Italy (Dressel 6 B). Fish-based products imported from the Iberian Peninsula (Beltrán IIA) and from North Italy (?) (Aquincum 78). In the period between the second half of the 2nd century AD and the third quarter of the 3rd century AD wine and fish-based products from the Black Sea coast (Šelov C; Kelemen 20) appear as result of the opening of a new commercial route. But there are a lot less amphora fragments than in the previous period (8 types, 23 fragments). The lack of olive and exotic fruit amphorae in this period clearly shows the financial depression. Worthy of note is a unique handle fragment, which is likely to belong to a wine amphora of Egyptian origin (Bailey A?), produced somewhere around the Lake Mariout in the period between the 1st and 4th century AD. (fig. 2,1).¹¹ Unfortunately it is not datable on the Albertfalva site.

II. Aquincum (Budapest, District I–III)

We can distinguish at least 49 amphorae types among the finds from Aquincum preliminarily. Aquincum was one of the most important military posts, river crossing points and provincial capitals on the Danubian limes (fig. 1b). The earliest Roman military camp of Aquincum was erected in the area today called Víziváros, which was built probably by the *ala Hispanorum* around AD 50.¹² The *vicus* emerging around this camp remained in use also in the time of the construction of the legionary fortress, most probably till the reign of Hadrian, and was probably the center of the *civitas Eraviscorum*.¹³ Another auxiliary camp south of the legionary fort was erected, based on its building inscription, in AD 73 by the *ala Tungrorum Frontoniana*, at the intersection of Lajos street and Árpád fejedelem boulevard.¹⁴ This camp was destroyed in the Sarmatian wars in AD 92–93. It was rebuilt in stone in the 2nd century AD. This fort was in use also in the 4th century AD, but the name of the unit which manned it is not yet known.¹⁵ Around AD 89 the first (palisade) legionary fort in Aquincum was built by the *legio II adiutrix Pia fidelis*, and was rebuilt in stone in the time of Trajan and

¹¹ BEZECZKY 2013, 182–183.

¹² LÖRINCZ 2000, 46. On the history of Aquincum, see: KOVÁCS ET AL. 2008, 30–36; 41.

¹³ Ibid. 31–32.

¹⁴ VISY 2003b, 102–104 (M. Németh); KOVÁCS ET AL. 2008, 41.

¹⁵ VISY 2003a, 60.

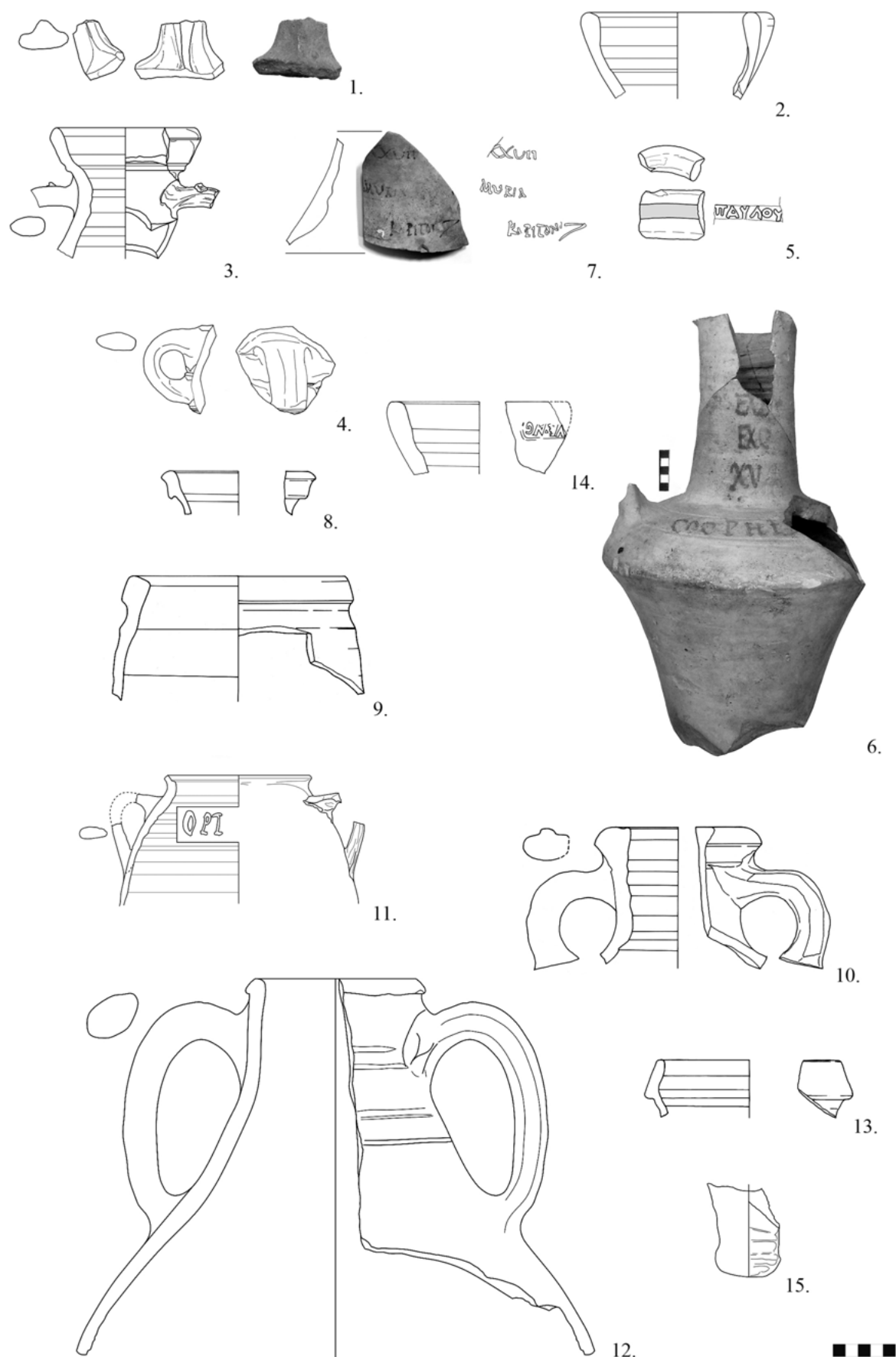


Fig. 2. Selected finds from Albertfalva and Aquincum.

Hadrian (**fig. 1c**).¹⁶ In this period the construction of the governor's palace of *Pannonia Inferior* was also finished on the Hajógyári sziget (Shipyard island) situated opposite the legionary fortress. Around AD 330, a new legionary fortress was built, encircled with walls with horseshoe-shaped towers, on the riverside of the Danube (**fig. 1d**). The northern part of this fortress was abandoned in the end of the 4th century AD, and only the smaller southern part remained in use in the 5th century AD.¹⁷ In the area of the later Civil Town at the same time as the first (palisade) phase of the legionary fort, a *vicus* formed, which received the rank of *municipium* under the reign of Hadrian (*municipium Aelium Aquincensium*).¹⁸ The inhabitants of this settlement had mainly western origins (*veterani*, traders, craftsmen) according to the epigraphic evidence.¹⁹ The *insula*-structure of the Civil Town developed in the 2nd century AD and had a separated territory together with the *canabae*.²⁰ The *municipium* of Aquincum was elevated to the rank of *colonia* in AD 194 (*colonia Aelia Septimia Aquincum*) and at this time the *canabae* also became the part of it.²¹ The territories of Brigetio and Mogetiana, and one more *legio* were added to *Pannonia Inferior* in AD 214. *Aquincum* probably remained a provincial seat after the reorganisation of the Pannonian provinces in AD 296, when it became the home of the *dux* of Valeria. Graves started to appear in the area of the former *canabae* in the 4th century AD, which indicates that the inhabitants had moved into the area where the 2nd–3rd century legionary fort was situated. The surviving population of the Civil Town chose also to move into the fortress in the beginning of the 5th century AD. In AD 375 Valentinian I launched his campaign against the *Quadi* from *Aquincum* and it is possible that after his death his successor, Valentinian II was proclaimed emperor here.²² The importance of *Aquincum* diminished after this time, the province was given up during the 5th century AD., and its Romanised population left the settlement.

A certain preference could be observed within the different goods delivered in amphorae, which can be interpreted by the needs and the financial opportunities of the consumers. Wines of the eastern half of the Mediterranean could be much in demand. In the case of olive oil the products from the Istrian peninsula and North Italy were the most extensively imported goods. From the time of Hadrian/Antoninus Pius the oil supply for the soldiers was shipped mainly from Hispania, and the Aegean products also should be mentioned here. Fish-based products from the Cádiz-region were mainly ordered, but North Italian and then Pontic goods also appeared on the Pannonian market. Preserved fruits from the Levantine coast and olives from Italy were part of the sophisticated life and should be treated as luxury foods. It is necessary, of course, to modulate these statements both in chronological and topographical terms, if we would like to separate the amphorae imported as military supply.

¹⁶ Ibid. 59; VISY 2003b, 99–101 (M. Németh); KOVÁCS ET AL. 2008, 42.

¹⁷ VISY 2003a, 60.

¹⁸ Id. 2003b, 153–156 (P. Zsidi).

¹⁹ KOVÁCS ET AL. 2008, 30–31.

²⁰ Ibid. 32.; O. LÁNG, Urban problems in the civil town of Aquincum: the so-called "northern band". Diss. Arch. 3,1 (Budapest, 2013) 231–250.

²¹ KOVÁCS ET AL. 2008, 33.

²² Ibid. 35.



Fig. 3. Bojović 549/554 type amphora from the the *canabae* legionis of Aquincum (Budapest).

II.1. Early ala fort in the Víziváros

In the area of the modern Ganz street, Horvát street, Fazekas street, Csalogány street and Fő street, excavations brought to light the earliest ala fort of this section of the limes dated from the middle of the 1st century AD (**fig. 1b**).²³ Amphorae finds from this zone (86 items) (**table 2**) support this early date:²⁴ most of the fragments could be dated between the middle of the 1st century AD and the time of Hadrian/Antoninus Pius (79 items). Wine and olive oil shall be mentioned among the imported goods in the first place, which is (virtually) followed by fish-based products. In fact, next to the capacity of these vessels, it is more likely that all of the above mentioned goods arrived nearly in the same quantity for the soldiers serving in the fort. The luxury – which only the *praepositus* could have afforded or received as gifts – is tangible by the presence of the Camulodunum 189 and Haltern 70 amphorae types which contained olives and fruits. It is demonstrated that both of these types can be regarded as part of the early Roman military supply.²⁵ It should be noted that Haltern 70 type amphora

²³ K. H. KÉRDŐ, Das Alenlager und Vicus der Víziváros. In: P. Zsidi (ed.), *Forschungen in Aquincum 1969–2002. Clarae Póczy Octogenariae. Aquincum Nostrum 2,2* (Budapest 2003) 81–84; id., Die Anfänge von Aquincum und die Änderungen in der Siedlungsstruktur in Víziváros in den Jahrhunderten der Römerzeit. In: L. Borhy/P. Zsidi (eds.), *Die norisch-pannonischen Städte und das römische Heer im Lichte der neue archäologischen Forschungen. 2. Internationale Konferenz über norisch-pannonische Städte, Budapest-Aquincum, 11.–14. September 2002. Aquincum Nostrum 2,3* (Budapest 2005) 83–99.

²⁴ Previously 57 fragments were classified into 8 amphora types: HÁRSHEGYI 2010.

²⁵ HOWELLS 2009; C. CARRERAS MONFORT, Haltern 70: a review. In: J. Plouviez (ed.), *Amphorae from Britain and the western Empire. Journal Roman Pottery Stud.* 10, 2003, 89.

Chronology/ periods	Type	Fragments	Contents	Place of origin
I. middle of the 1 st c. AD – Hadrian/Antoninus Pius	Dressel 2–4	9	wine	Mediterraneum
	Rhodian	12	wine	Asia Minor/Aegean
	Pompeii 38	2	wine	Asia Minor/Aegean
	Forlimpopoli	1	wine	Adriatic coast
	Gauloise 4	1	wine	Gaul
	Dressel 6B	27	olive oil	Istrian peninsula/N-Italy
	Haltern 70	1	olives?	Iberian peninsula
	Schörgendorfer 558	8	olives	N-Italy
	Beltrán IIA	4	fish-based products	Iberian peninsula
	Dressel 7-11	1	fish-based products	Iberian peninsula
	Dressel 21-22	1	fish-based products	Sicily
	Aquincum 78	6	fish-based products	N-Italy
	Camulodunum 189	2	fruits (dates?)	Levant
	Augst 46	1	fruits?	Levant
	Bojovic 549/554	1	wine?	not id.
	Bónis XXXI/5	2	not id.	not id.
II. Traian/ Marcomannic wars – 3 rd c. AD	Selov C	1	wine	Black sea coast
	Dressel 24	1	olive oil?	Aegean
	Not id.	5	not id.	not id.

Table 2. Amphorae types from the Víziváros *ala* fort (Budapest).

fragments are known only from *Salla* (modern Zalalövő) and Albertfalva beside *Aquincum*. Some of the vessels (mainly Dressel 2–4 wine amphorae) could have arrived in the period between the reign of Trajan and the Marcomannic wars, after which the fort was evacuated/abandoned by the military units.²⁶ Very few amphora fragments could be dated after this time: only a Šelov C type of Pontic and a Dressel 24 type vessel of Aegean origin (fig. 2,2) could be mentioned here. This can be explained by the change of function of this area: it was no longer a military, but a civil area in the 2nd–3rd century AD. Five stamped amphora fragments are known from the fort and its surroundings, which all belong to the Dressel 6B olive-oil amphora type. Next to the stamps, these vessels can be dated to the first half or middle of the 1st century AD.²⁷ An interesting, but badly preserved dipinto on an Aquincum 78 type body fragment also should be mentioned here, which can be read as M(ur)IA/FL(avi?) (fig. 2,3).

II.2. Legionary fortress

It has to be anticipated that the material inheritance of the Roman military presence dated from the time of Vespasian cannot always be completely isolated from the material of the later units which manned the stone period legionary fortress. Therefore, as the finds support it as well, the amphora finds of the 1st century AD legionary fortress and from the zone of the auxiliary camps once located to the south and north of it (that later was occupied by the *canabae legionis*), should be

studied in parallel. Although the dimensions of these camps in the modern city is fairly well defined, the find material couldn't be selected more precisely because of the recycling of rubbish and the levelling in Roman times, and the continuous usage of this area also in later periods (see fig. 1c–d).

97 diagnostic amphora fragments could be studied so far from the area of the 2nd–3rd century AD legionary fortress, which amount consisted at least 24 types. This represents a wide spectrum of forms (table 3). It is obvious that this much material is not enough to create valuable statistics, however, the high status of *Aquincum* can be well represented through these finds. The most of the amphorae (and the imported goods in them) arrived in the period between AD 89 (the first legionary fortress) and the time of Trajan-Hadrian (second, stone-built legionary fortress), when at least 17 types (78 items) could be detected in the material of the fortress and its surroundings. Wine amphorae can be found in great majority among these forms, produced particularly in the Aegean. These are followed by vessels made for olive oil and fish-based products originated from the Istrian peninsula, North Italy and Hispania. North Italian olives and fruits from the Levant seems to arrive also regularly for the high-ranking military officials. In the second period, between the time of Antoninus Pius and the middle of the 3rd century AD. (around AD 260), 6 types were detected, which shows a drastic fall compared to the previous period (18 items). However, this phenomenon is noticeable everywhere in *Pannonia*. Only the import of olive oil seems to be significant; this was complemented by small quantities of Pontic and North African fish sauces and wine from *Asia Minor*. Dressel 20 type Baetican amphorae thus can be regarded as regular military supply in this period. It is also noticeable that the economic prosperity of *Pannonia* in the time of the Severan dynasty is not

²⁶ Similarly to the terra sigillata: D. GABLER, Terra sigillata from Aquincum-Víziváros (Water Town). RCRF Acta 42, 2012, 66.

²⁷ HÁRSHEGYI 2010, 53–54 fig. 4.

Chronology/ periods	Type	Fragments	Contents	Place of origin
I. middle of the 1 st c. AD – Hadrian/Antoninus Pius	Dressel 2–4	11	wine	Mediterraneum
	Dressel 25	1	wine?	Aegean
	Rhodian	14	wine	Asia Minor/Aegean
	Pompeii 38	3	wine	Asia Minor/Aegean
	Forlimpopoli	1	wine	Adriatic coast
	Gauloise 5	1	wine	Gaul
	Gauloise 4	4	wine	Gaul
	Dressel 28	1	wine	Ibeian peninsula/Gaul
	Dressel 6B	13	olive oil	Istrian peninsula/N-Italy
	Portorecanati	1	olive oil?	N-Italy?
	Schörgendorfer 558	5	olives	N-Italy
	Camulodunum 189	6	fruits (dates?)	Levant
	Aquincum 78	6	fish-based products	N-Italy
	Dressel 7–11	1	fish-based products	Iberian peninsula
	Beltrán IIA	6	fish-based products	Iberian peninsula
	Richborough 527	1	alum	Lipari
	Bónis XXXI/5	3	not id.	not id.
II. Traian/ Marcomannic wars – third quarter of the 3 rd c. AD	Kapitän II	4	wine	Asia Minor
	Dressel 24	4	olive oil?	Aegean
	Agora P8164	1	wine	Asia Minor
	Dressel 20	7	olive oil	Iberian peninsula
	North African?	1	not id.	N-Africa
	Kelemen 20	1	fish-based products	Black sea coast
III. middle of the 4 th –5 th c. AD	LR 4	1	wine?	Levant

Table 3. Amphorae types from the legionary fortress of *Aquincum* (Budapest).

detectable through the amphorae. Previously we had sporadic data on amphora import from South Pannonian sites and sites along the Amber Route in the third period, which is datable from the middle of the 4th century AD to the 5th century AD. A fragment of an LR 4 type wine amphora from Ashkelon²⁸ came to light from the *Aquincum* late Roman fortress (fig. 2,4).²⁹

Only three stamped amphora finds are known so far from the area of the legionary fortress: a Dressel 6B type Istrian amphora produced for olive oil transport is datable to the age of Nerva (IMP NERVAE AVG).³⁰ Another olive oil container, a Dressel 20 type amphora bears a SA+LS stamping, datable between 110 and 170 AD.³¹ The third stamp occurs on a Dressel 24 type amphora handle (IIAYAOY), produced probably in the Aegean and dated between the third quarter of the 2nd century AD and the 3rd century AD (fig. 2,5).³²

Some painted inscriptions also occur on amphorae from this area of *Aquincum*, mentioning sometimes the producers, the content or the consumers of the goods delivered in these vessels. On a neck fragment of a Schörgendorfer 558 type amphora, dated to the 2nd century AD one of the most well preserved *dipinti* of the Pannonian material can be seen, which reports its content, *oliva nigra ex dulci*, and probably the name of the producer (proprietor of the orchard), Cocceius Phil-(?) (G/EXD/EXC/XV/COC PHIL) (fig. 2,6).³³ This fragment came from the excavation of the house of the *tribunus laticlavus*, which supports the theory that these kinds of goods (olives) were ordered and consumed principally by the military and administrative élite. Another important *dipinto* can be read on an Aquincum 78-type body fragment, which proves that *muria* was transported in it (XXVII / MVRIA / KAPITONIS XXVII[?]) (fig. 2,7).³⁴

²⁸ J. A. RILEY, Coarse Pottery. In: J. A. Lloyd (ed.), Sidi Khrebish Excavations, Benghazi (Berenice) 2 (Tripoli 1979) 220–221.

²⁹ NÉMETH 1994, 147–149.

³⁰ KELEMEN 1987 fig. 1,36. For the Loron origin of the Dressel 6B amphorae with this stamp, see: Y. MARION/A. STARAC, Les amphores. In: F. Tassaux/R. Matijašić/V. Kovačić, Loron (Croatie). Une grand centre de production d'amphores à huile istriennes (Ier–IVe s. p.C.) (Bordeaux 2001) 109–110.

³¹ KELEMEN 1990 fig. 4,8. Similar stamp from Arva: A. CHAUSA, Epigrafía anfórica sobre Dressel 20 hallada en Arva. Campaña de 1986. Mál. Casa Velázquez 32, 1996 fig. 1,14.

³² For similar stamps, see: D. TUDOR, Importul de vin și untdelemn în provincia Dacia. Apulum 7, 1968, 393; A. ARDEȚ, Amforele din Dacia

romana (Timișoara 2006) 219–220.

³³ T. BEZECZKY, Roman Amphorae from the Amber Route in Western Pannonia. BAR Internat. Ser. 386 (Oxford 1987) fig.11.

³⁴ G. RIZZO, Instrumenta Urbis I. Ceramiche fini da mensa, lucerne ed anfore a Roma nei primi due secoli dell'Impero. Collect. École Française Rome 307, 2003, 152; G. M. FABRINI/S. M. MARENGO, L'uso della salsa da pesce nella testimonianza di un'anforetta ubisalviense. Picus 22, 2002, 129.

Chronology/ periods	Type	Fragments	Contents	Place of origin
I. middle of the 1 st c. AD – Hadrian/Antoninus Pius	Dressel 2–4	39	wine	Mediterraneum
	Forlimpopoli	2	wine	Adriatic coast
	Gauloise 4	5	wine	Gaul
	Gauloise 5	2	wine	Gaul
	Dressel 28	1	wine	Gaul
	Rhodian	31	wine	Asia Minor/Aegean
	Pompeii 38	7	wine	Asia Minor/Aegean
	Bojovic 549/554	41	wine?	not id.
	Dressel 6B	32	olive oil	Istrian peninsula/N-Italy
	Portorecanati	2	olive oil?	N-Italy?
	Beltrán I	1	fish-based products	Iberian peninsula
	Beltrán IIA	10	fish-based products	Iberian peninsula
	Beltrán IIB	1	fish-based products	Iberian peninsula
	Dressel 7–11	7	fish-based products	Iberian peninsula
	Aquincum 78	13	fish-based products	N-Italy
	Dressel 21–22	2	fish-based products	Sicily
	Augst 34	1	fish-based products	Gaul
	Camulodunum 176	1	olives	N-Italy?
	Schörgendorfer 558	17	olives	N-Italy
	Camulodunum 189	5	fruits (dates?)	Levant
II. Traian/ Marcomannic wars – third quarter of the 3 rd c. AD	Bónis XXXI/5	9	not id.	not id.
	Kelemen 10	1	not id.	not id.
	Anfore monoansate	16	wine	Asia Minor/Aegean
	Kapitän II	69	wine	Asia Minor
	Kapitän II <i>similis</i>	11	wine?	not id.
	Selov C	4	wine	Black sea coast
	Kingsholm 117	2	wine?	Levant?
	Dressel 20	11	olive oil	Iberian peninsula
	Dressel 24	27	olive oil?	Aegean
	Agora P8164	1	wine	Asia Minor
	Zeest 80	1	fish-based products	Black Sea coast
	Kelemen 20	5	fish-based products	Black sea coast
	Leptiminus II	1	fish-based products	N-Africa
	Augst 47	1	wine?/fruits?	Levant?
III. middle of the 4 th –5 th c. AD	North African?	2	not id.	N-Africa
	Not id.	18	not id.	not id.
	Spatheion 1?	1	wine?/fish-based products?	N-Africa

Table 4. Amphorae types from the *canabae legionis* of Aquincum (Budapest).

II.3. *Canabae legionis*

Almost the half of the amphorae fragments collected in Aquincum came to light from sites situated in the area of the *canabae legionis* (400 fragments) (table 4). The *canabae* was an autonomous area until AD 194, when the Civil Town was promoted to the rank of *colonia* and these two settlements were administratively united. In the period before the end of the 2nd century AD, although it existed as a separated unit, the legionary fortress and the administrative – representative block of the governor's palace established on the Hajógyári

sziget (Shipyard island), determined also the economic situation of this area.

It is hard to separate the finds belonging to the first period of this area as in this very variegated material (22 amphorae types; 230 items) there is surely a mixture of the vessels delivered to the military units of the first and the second legionary fortress and to the early auxiliary camps with the amphorae delivered to the civil inhabitants of the later *canabae legionis*.³⁵ On the basis of typology, the earliest amphorae

³⁵ NÉMETH 1994, 140–147.

Chronology/ periods	Type	Fragments	Contents	Place of origin
I. middle of the 1 st c. AD – Hadrian/Antoninus Pius	Forlimpopoli?	1	wine	Adriatic coast
	Dressel 2–4	1	wine	Mediterraneum
II. Traian/ Marcomannic wars – third quarter of the 3 rd c. AD	Anfore monoansate	2	wine	Asia Minor/Aegean
	Kapitän II	5	wine	Asia Minor
	Dressel 20	2	olive oil	Iberian peninsula
Not id.	Not id.	2	not id.	not id.

Table 5. Amphorae types from the governor's palace at *Aquincum* (Budapest).

arrived in this zone in the middle of the 1st century AD, like Forlimpopoli wine amphorae from North Italy; Gauloise 4 and Gauloise 5 vessels from Gallia; Dressel 28 type amphorae from the Iberian peninsula (fig. 2,8), and pan-provincial Dressel 2–4 containers. Amphorae produced in the Aegean (Rhodian, Pompei 38) were also imported during the 2nd century AD, just like the Bojović 549/554 type of a yet unknown origin. Olive oil containers from the Istrian peninsula and North Italy (Dressel 6B; Portorecanati) appear from the earliest time among the finds. It seems that fish-based products in the 1st century AD were imported not only from Hispania (Beltrán I; Beltrán IIA; Beltrán IIB), but occasionally from Gaul (Augst 34), Sicily and South Italy (Dressel 21–22) (fig. 2,9). Fish sauce from North Italy (?) in *Aquincum* 78 type amphorae appears only from the time of Domitian, or more likely under the rule of Hadrian on this and other Pannonian sites. In the material from the *canabae legionis* of *Aquincum* the delicacies like olives from North Italy (Schörgendorfer 558) and fruits from the Levant (Camulodunum 189) can be dated from the beginning of the 2nd century AD.

Wine from *Asia Minor* in small one-handled vessels ('Anfore monoansate') and olive oil from the Iberian peninsula (Dressel 20) could arrive already just before the Marcomannic wars to the area of the *canabae*, but the latter occurs in considerable quantities only in the time of the Severan dynasty. Some other amphorae types containing wine from the end of the 2nd century AD from *Asia Minor* (Kapitän II; Kapitän II *similis*; Agora P8164³⁶) (fig. 2,10) and products from the Aegean (Dressel 24) also arrived. Wine containers from the Black Sea coast and the Levant could be identified also in this area of *Aquincum* (Šelov C, Kingsholm 117, Augst 47?). Among the fish-based products Pontic (Zeest 80; Kelemen 20) and perhaps North African imports could be detected (Leptiminus II).³⁷ In this second phase, datable between the second half of the 2nd century and the middle of the 3rd century AD, less diversity was found among the amphorae types in a smaller scale (13 types; 151 items). It has to be mentioned that in this period, the northern part of the *canabae legionis* was built up with high-status residences (Meggyfa str.; Búvár str.-Folyamör

str.) with private bath buildings.³⁸ These urban *villae* perished around AD 270. A small amphora fragment, which perhaps belongs to a Spatheion 1 type, could be dated to the end of the 4th/beginning of the 5th century AD and arrived here as part of the late Roman supply for high rank military officials.³⁹

Eleven stamped amphora fragments are known so far from the *canabae*, of which five belong to the Dressel 6B olive oil amphora-type,⁴⁰ three of them to the Dressel 20 type⁴¹ and two fragments of Dressel 24 type.⁴² One very badly preserved stamp occurs on a small, Kapitän II type vessel.⁴³

II.4. The governor's palace and its surroundings

The governor's palace situated on the modern-day Óbuda Island (Shipyard Island) was built in the first quarter of the 2nd century AD and abandoned because of the rising water level of the Danube and the conflicts along the *limes* in the last third of the 3rd century AD.⁴⁴ Only 13 amphorae fragments have been collected from the material of the palace excavations (table 5), of which eight items are known from the 19th century and five came to light in the 1950s. Therefore it is hard to date them by stratigraphic observations and they do not represent well the significance of this building. Types occurring here are mainly wine amphorae, which often could be found in *Aquincum* and also overall in the whole province. A Forlimpopoli type fragment⁴⁵ and a Dressel 2–4 sherd⁴⁶ could be dated to the construction period of the palace at the beginning of the 2nd century AD. A small, one-handled wine amphora ('Anfore monoansate'/Agora M126) was probably

³⁸ Further literature: Ibid. 236–240.

³⁹ KELEMEN 1993 fig.4.4.

⁴⁰ EVTYC(h)VS (?); IM(...): KELEMEN 1987 fig. 1,8.; IMP AVGGER: ibid. fig. 2,7; IMP(...): TOPÁL 1993 Pl. 41,2; MCLAEBASI/DAT: ibid. Pl. 41,3.

⁴¹ FGRVMESEA GGGNNNCE (retrograde): KELEMEN 1990 fig. 4,16.; MCA(...): ID. 1987 fig. 2,5; (...)JD(...).

⁴² EΦHBOY: ID. 1993 fig. 1,5; E(...).

⁴³ CAEM LONGI: KELEMEN 1993, fig.2.2., originally published as Bónis XXXI/5-type

⁴⁴ K. H. KÉRDÓ, Der Statthalterpalast von Aquincum. In: P. Zsidi (ed.), Forschungen in Aquincum 1969–2002. Clarae Póczy Octogenariae. Aquincum Nostrum 2,2 (Budapest 2003) 112–119; MENCHELLI ET AL. 2008, 240.

⁴⁵ KELEMEN 1990 fig. 6,5.

⁴⁶ ID., Roman Amphorae in Pannonia II. Italian Amphorae II. Acta Arch. Acad. Scien. Hungaricae 40, 1988 fig. 2,22.

³⁶ For this type, see: A. OΠΑΙΤ, Defining more Roman Amphora Types from the Athenian Agora: too much History, too little Typology (I). RCRF Acta 43, 2014, 52.

³⁷ MENCHELLI ET AL. 2008, 253–254.

produced in a workshop around Ephesos.⁴⁷ It was proved that this group of amphorae appeared in the AD 140–150s in Pannonia, just like the Baetican Dressel 20-type olive oil amphorae. One of the Dressel 20 type fragments from the palace bears a stamp but its reading is in question: it could be LCM or DOM.⁴⁸ The Kapitän II type also occurs among the finds from the palace. Most probably it contained wine produced (at least in part) in *Asia Minor* from the end of the 2nd century AD.⁴⁹ Two Kapitän II-fragments came to light from the fill of the *prae-furnium* of Room no. 41, which was built in the period between AD 211–222, so the amphorae could be dated after this date.⁵⁰

II.5. The Civil Town (*municipium*) and its surroundings

It is necessary to summarize the collected amphorae finds from the *Aquincum municipium*⁵¹ as well, because we can get a more accurate picture of its connections with the legionary fortress and the *canabae* and about the needs and economic strength of its inhabitants (table 6). Wine amphorae from Gaul (Gauloise 3; Gauloise 4; Gauloise 5), the Aegean (Dressel 5/Knossos 22) and other Mediterranean areas (Dressel 2–4) reached the settlement in the period between the last quarter of the 1st century AD and the beginning of the 2nd century AD. Containers for olive oil from the Istrian peninsula (Dressel 6 B), and fish-based products from Gaul (Augst 34) and Hispania (Beltrán IIA; Dressel 7–11) are also present in the material. These shipments arrived most probably together with the military supply for the units stationed to the south of the Civil Town. A slight increase can be detected in the quantity of some amphora types (Dressel 2–4) and the appearance of some new ones (Rhodian, AC 3) in the first third of the 2nd century AD among the finds. The so-called Bojović 549/554 type is already present in this period; this was probably produced for wine transport. The Civil Town also received fish-based products in Aquincum 78 amphorae and olives (Camulodunum 176; Schörgendorfer 558) (fig. 2,11) from North Italy and preserved fruits from the Levant (Camulodunum 189). To sum up, 17 amphorae types could be detected among the finds (159 items). It is obvious, according to the composition of the ‘amphora package’, that the *municipium* of *Aquincum* was tied both economically and culturally to the legionary fortress and its military units. Dressel 20 type amphorae appeared in the fourth decade of the 2nd century AD also in the Civil Town of *Aquincum*. Mostly the same types are present in the period between the Marcomannic wars and the middle of the 3rd century AD in this area as were discussed earlier among the finds of the legionary fortress and the *canabae* (c. 10 types, 77 items). The decline compared with the previous period both in the number of the finds and the variety of the types could also

be observed in this case. The new supplying connection with the Black Sea could also be demonstrated in the wine (Šelov C) and fish-based product import (Knossos 26/27; Kelemen 20) (fig. 2,12). The amphorae types connected with the import of the luxury preserved fruits seem to disappear almost completely in this period. It is worth drawing attention to an Augst 15 type amphora fragment (fig. 2,13), which type was produced in North Africa, but we do not know what kind of goods (*garum*?) were transported in it.⁵² This is the only amphora fragment so far from the area of the *Aquincum* Civil Town, which can be dated to the period between the second half/third quarter of the 3rd century AD and the beginning of the 4th century AD.

Eight stamped amphora fragments are known from the Civil Town so far: two of these are Dressel 6B rims (fig. 2,14),⁵³ five of them belong to Baetican Dressel 20 type vessels,⁵⁴ and one other, very badly preserved, stamp is on a Dressel 24 type handle.⁵⁵

III. Summary

Wine, olive oil, and fish-based products had arrived in amphorae as regular military supply⁵⁶ from the time of Tiberius and Claudius into *Pannonia* (at that time *Illyricum Inferius*).⁵⁷ On the basis of their amount it is probable that they were not for the persistent supply of the whole army, but they were demanded by officers, who arrived from the Mediterranean, in a region, where there was no wine production and no olive plantations. This region had no sea, so it was not possible to make classic fish sauces *in situ*.⁵⁸ It is important to emphasize

⁵² M. BONIFAY, *Études sur la céramique romaine tardive d'Afrique*. BAR Internat. Ser. 1301 (Oxford 2004) 151.

⁵³ C (... ?); (imp.ner)VAE.AVG.

⁵⁴ ST PL (...); KELEMEN 1990 fig. 4,15; LCM: ibid. fig. 4,11; MNS (other reading: PNN): ibid. fig. 4,12; D... (//A...?): ibid. fig. 4,13; FSCIM//NIANO: ibid. fig. 3,9.

⁵⁵ (...) CL (?).

⁵⁶ Amphorae occurred as gifts in (pre-)Roman native contexts. Among the sites of the Scordisci, in Ilok grave no. 5 contained a Dressel 6B type amphora: M. DIZDAR, *The Archaeological Background to the Formation of Ethnic Identities*. In: B. Migotti (ed.), *The Archaeology of Roman Southern Pannonia. The state of research and selected problems in the Croatian part of the Roman province of Pannonia*. BAR Internat. Ser. 2393 (Oxford 2012) 128 fig.13. – Staré Hradiste: J. MEDUNA, *Římské importy z keltského oppida Starého Hradiska* (Praha 1974) 114. – From the territory of the Boii, from the oppidum at Velem-Szentvid, two Dressel 2–4 amphorae fragments were mentioned, originating from South Italy and Kos or Rhodos: J.-P. GUILLAUMET/M. SZABÓ/Z. CZAJLIK, *Bilan des recherches franco-hongroises à Velem-Szentvid, 1988–1994*. Savaria 24/3, 1997, 387; M. SZABÓ/J.-P. GUILLAUMET/V. CSERMÉNYI, *Fouilles franco-hongroises à Velem-Szentvid. Recherches sur la fortification laténienne*. Acta Arch. Acad. Scien. Hungaricae 46, 1994, 122–123. – From the territory of the Eravisci, from the excavations held on the Gellérthegey (Budapest), one amphora shard was mentioned, identified as Dressel 1B type: K. PÓCZY/P. ZSIDI, *Lokales Gewerbe und Handel*. In: P. Zsidi (ed.), *Forschungen in Aquincum 1969–2002*. Clariae Póczy Octogenariae. Aquincum Nostrum 2,2 (Budapest 2003) 186.

⁵⁷ About the use of name *Illyricum Inferius* and *Pannonia*, see: M. ŠAŠEL, *Kos, Pannonia or Lower Illyricum?* Tyche 25, 2010, 123–130.

⁵⁸ About the appearing of the luxury foodstuffs in Central Europe, see: C. BAKELS/S. JACOMET, *Access to luxury foods in Central Europe during the Roman Period: the archaeobotanical evidence*. In: M. van der Veen (ed.), *Luxury Foods*. World Archaeology 34., 2003, 552–555. – For grape seeds and their interpretation in La Tène sites, see: O. DÁLNOKI, *Collected or cultivated? Exotic and indigenous fruit remains from Celtic*

⁴⁷ Id. 1990 fig. 8,31. – Ephesos: BEZECZKY 2013, 70–71.

⁴⁸ KELEMEN 1990 fig. 3,6

⁴⁹ BEZECZKY 2013, 149–150. Regarded as a product made on the Black Sea coast: REYNOLDS 2010, 141.

⁵⁰ I owe my thanks for this information to my colleague, Zoltán Havas (BHM). These two fragments are published: KELEMEN 1990 fig. 8,12.13.

⁵¹ The analysis of the amphorae of the so-called “northern lane”: O. LÁNG, *Urbanisztikai problémák az aquincumi polgárvárosban: az ún. „É-i sáv”* (PhD thesis Budapest 2012) 154–170.

Chronology/ periods	Type	Fragments	Contents	Place of origin
I. middle of the 1 st c. AD – Hadrian/Antoninus Pius	Dressel 2–4	26	wine	Mediterraneum
	AC 3	4	wine	Crete
	Dressel 5	3	wine	Aegean
	Rhodian	26	wine	Asia Minor/Aegean
	Gauloise 3	3	wine	Gaul
	Gauloise 4	2	wine	Gaul
	Gauloise 5	2	wine	Gaul
	Bojovic 549/554	36	not id.	not id.
	Dressel 6B	23	olive oil	Istrian peninsula/N-Italy
	Beltrán IIA	4	fish-based products	Iberian peninsula
	Dressel 7-11	2	fish-based products	Iberian peninsula
	August 34	1	fish-based products	Gaul
	Aquincum 78	3	fish-based products	N-Italy
	Camulodunum 176	1	olives	N-Italy?
	Schörgendorfer 558	14	olives	N-Italy
	Camulodunum 189	8	fruits (dates?)	Levant
	Bónis XXXI/5	1	not id.	not id.
II. Traian/ Marcomannic wars – third quarter of the 3 rd c. AD	Anfore monoansate	1	wine	Asia Minor/Aegean
	Dressel 20	21	olive oil	Iberian peninsula
	Kapitán II	24	wine	Asia Minor
	Kapitán II <i>similis</i>	3	wine?	not id.
	Šelov C	2	wine	Black sea coast
	Dressel 24	16	olive oil?	Aegean
	Knossos 26/27	1	fish-based products	Black sea coast
	Kelemen 20	3	fish-based products	Black sea coast
	North African?	3	not id.	N-Africa?
	August 47	2	wine?/fruits?	Levant?
III. beginning of the 4 th c. AD	August 15	1	fish-based products?	N-Africa
Not id.	Agora G199	1	wine?	Rough Cilicia
	Agora M177	1	not id.	not id.
	Not id.	7	not id.	not id.

Table 6. Amphorae types from the Civil Town of *Aquincum* (Budapest).

that the amphorae are foreign objects, foreign goods and by this they carry foreign culinary habits into the area of the future *Pannonia* in the age of the conquest.⁵⁹ Culinary and drinking habits and needs are proved to be part of non-verbal communication and the choice of these represents cultural, ethnic or other group identity, social status or a different lifestyle.⁶⁰ The consumption of the goods transported into *Pannonia* in amphorae, in many cases from huge distances and at high cost, was therefore a luxury which demonstrated the especially high social status and cultural foreignness of the consumers.

to Roman times in Pest County, Hungary. In: J.-P. Morel/A. M. Mercuri (eds.), *Plants and Culture: seeds of the cultural heritage of Europe* (Bari 2009) 149.

⁵⁹ The cultural impact of the newcomer Roman military units is well detected e.g. in the case of the *legio XV Apollinaris*: E. Tóth, *Savaria az ókorban*. In: G. Kiss/E. Tóth/B. Zágórhidi Czigány (eds.), *Savaria-Szombathely története a város alapításától 1526-ig*. (Szombathely 1998) 16; E. Tóth, *Savaria római topográfiájáról*. *Vasi Szemle* 62/6, 2008, 668.

⁶⁰ Howells 2009, 71.

It was also important to consume these products in the proper manner. Therefore the appearance of these goods in such a market as *Pannonia* cannot be accidental, nor tentative, but were imported deliberately to satisfy the needs of well defined consumers.⁶¹ For this reason, the composition and the origin of the products delivered in amphorae in the different periods could provide information about the origin and the cultural identity of the military officials and the provincial upper-class.

By studying the amphorae from the sites of Albertfalva auxiliary fort and *Aquincum* it was possible to outline the types which could have arrived as regular military supply. In the period between the first third of the 1st century AD century and the reign of Hadrian/Antoninus Pius, wine arrived in Dressel 2–4 (Italic, Gaulish, Istrian), Rhodian and probably Bojović 549/554 forms. Olive oil in Dressel 6B amphorae; fish sauces in Betrán I, Beltrán, IIA, and in Aquincum 78

⁶¹ Howells 2009, 77.

types were shipped to these sites as military supply. In the period between the middle of the 2nd century and the third quarter of the 3rd century AD wine arrived mainly in Aegean Kapitän II, olive oil in Baetican Dressel 20 and Aegean (?) Dressel 24 types for the troops.

It is important to discuss the Bojović 549/554 (XXXI Bjelajac, Dyczek 30) type in detail (fig. 3).⁶² According to the characteristics of this vessel form, which can be derived most probably from the Gauloise 4 type, it is believed that this was a wine amphora evolved for river transport.⁶³ At this time, its place of origin is unknown, though *Viminacium* has been suggested as a possible workshop due to the large quantity of finds of this type.⁶⁴ It is highly likely that this type was manufactured and distributed to supply the region of *Pannonia*, *Moesia* and *Dacia*.⁶⁵

The vessels usually have an orange-red surface. At least three different pastes could be distinguished among the Pannonian examples, which indicates more than one manufacturing centre:⁶⁶

- (a.) some white (limestone?) particles can be seen in a homogeneous, light yellowish-brown matrix;
- (b.) small colourless quartz and mica and bigger reddish-black particles (iron-oxide?) can be detected in a homogeneous pinkish – light brown matrix;
- (c.) bigger reddish-black particles and white limestone can be observed in a mixed paste with light brown and reddish brown layers.

This amphora type occurs in contexts dated mainly to the period between the middle of the 1st century AD and the Marcomannic wars/beginning of the 3rd century AD.⁶⁷ This type is present in large quantities among the finds from *Aquincum* and Albertfalva as well. The Pannonian troops most probably received wine in this amphora type as a part of the regular military supply (for the distribution see fig. 4). Other types of amphorae arrived in lesser quantities to complement these above-mentioned types in the period between Claudius and Hadrian, such as Pompeii 38, Gauloise 3, Gauloise 4,

Gauloise 5, and Porto Recanati wine amphorae; Augst 34 and Dressel 21–22 fish sauce amphorae; and Haltern 70, Camulodunum 176, Schöngendorfer 558 and Camulodunum 189 type amphorae with olives and fruits. A unique fragment from the legionary fortress of *Aquincum* is likely to belong to a Richborough 527 vessel, which once carried alum (fig. 2, 15). In the period between the middle of the 2nd century AD and AD 260/270, vessels with a complementary character also appear on these sites, like the 'Anfore monoansate' vessels, Šelov C, Bailey A (?) and Kingsholm 117 forms. Kelemen 20 amphorae containing fish-based products, and fruits (?) in Augst 46–47 types could also be mentioned here. The last period dated between the end of the 3rd century and the beginning of the 5th century AD is marked only by three fragments so far: shards of an Augst 15, an LR 4 and a Spatheion 1 vessel, which types occur typically on the sites of the Adriatic, the Balkans and on the Lower Danube area with a late Roman military character.⁶⁸ In the light of the drastic reduction of the imported goods in amphorae in the second half of the 4th century AD, this cannot be interpreted only by the insecurity in *Pannonia* or a change of culinary culture. This was also part of a greater process, which characterised the whole Roman Empire and behind which there was the economic fragmentation of the Empire, which was caused by both the external and internal insecurity.⁶⁹

Catalogue of the selected finds from Albertfalva and *Aquincum* illustrated in figs. 2 and 3

(M.: measurements; s.h.: section of the handle; d.r.: diameter of the rim)

Fig. 2,1. Bailey A (?) body- and handle-fragment (7.5 YR 4/6) Albertfalva, 1950, III., 4-4A-4B layers.
M.: 6,9×4,2×1, s.h.: 3,7×2,3.
BTM 55.14.17a.

Fig. 2,2. Dressel 24 rim-fragment (2.5 YR 6/6, slip: 5 Y 8/2) Víziváros ala fort, Gyorskocsi u. 26, 1991, 1–5. ditch, destruction period of the lower floor.
M.: 3,6×7,1×0,7, d.r.: 15,8.
BTM 92.9.477.

Fig. 2,3. Aquincum 78 rim-, handle- and body-fragment (10 YR 7/4, slip: 2.5 Y 8/2) Víziváros ala fort, Gyorskocsi u. 26, 1991, 12. ditch, -160–190 cm.
M.: 9,1×9,6×1,4, d.r.: 11,6, s.h.: 2,7×1,6.
Dipinto: M(ur)IA/FL(?)
BTM 92.9.489.-508.

Fig. 2,4. LR 4 handle- and body-fragment (7.5 YR 5/6) Late Roman legionary fortress, Flórán square roundabout, 1981.
M.: 6,7, s.h.: 3,1×1,3.
BTM 82.2.7.

⁶² B. FEHÉR/P. MAGYAR-HÁRSHEGYI, Fesztett feliratos amphora töredéke Aquincumból. Stud. Epigr. Pannonica 6 (Budapest 2014) 39–41.

⁶³ The origin of the flat based amphorae types could be in Central Italy where this form was adapted for the river transportation, and slightly later was produced also in the workshops of Gaul and Hispania: P. ARTHUR/D. WILLIAMS, Campanian wine, Roman Britain, and the third century A.D. Journal Roman Arch. 5, 1992, 255. – Similar opinion: P. DYCZEK, Wine in Lower Moesia. Histria Antiqua 15, 2007, 243.

⁶⁴ BOJOVIĆ 1977, 58; BJELAJAC 1996, 100; JEREMIĆ 2009, 107.

⁶⁵ O. BRUKNER, Rimska keramika u Jugoslovenskom delu provincije donje Panonije (Beograd 1981) T. 165, 91–166, 107. – *Moesia*: S. FIDANOVSKI, Rimska Keramika Ulpijane (Beograd 1990) T. 35, 2; BJELAJAC 1996 Fig. 4, 31.33 (erroneously as Forlimpopoli) and 99–101. – *Singidunum*: NIKOLIĆ-ĐORĐEVIĆ 2000, 120–121. – *Saldum*: JEREMIĆ 2009 Cat.no. 308. – *Pannonia*: P. HÁRSHEGYI, Roman Amphorae from the Civil Town of Brigetio/Szőny-Vásártér 1992–2001. Commun. Arch. Hungaricae 2004 Fig. 1, 28.; EAD., Roman Amphorae from the East along the *Ripa Pannonica*. RCRF Acta 40, 2008, 174.

⁶⁶ It is not probable that this type was manufactured somewhere in *Pannonia*. Its secondary use e.g. in households, of course, cannot be excluded.

⁶⁷ BOJOVIĆ 1977, 58. Finds from *Singidunum* were dated to the 2nd c. or the beginning of the 3rd c. AD. – Dated to the beginning of the 3rd c. AD: NIKOLIĆ-ĐORĐEVIĆ 2000, 121. – The earliest known group of finds came to light in *Novae*, from a context dated to the Flavian period: T. SARNOWSKI (ed.), *Novae. An Archaeological Guide* (Warsaw 2012) fig. 8, 3. I owe my thanks for this information to Prof. Tadeus Sarnowski.

⁶⁸ P. HÁRSHEGYI/K. OTTOMÁNYI, Imported and Local Pottery in Late Roman Pannonia. In: L. Lavan (ed.), *Local Economies? Production and Exchange of Inland Regions in Late Antiquity*. Late Antique Arch. Journal 10, 2013, 484–486.

⁶⁹ REYNOLDS 2010, 73–74; 142; M. CORBIER, Coinage, Society and Economy. In: A. K. Bowman/P. Garnsey/A. Cameron (eds.), *The Crises of Empire, A.D. 193–337*. Cambridge Ancient Hist. 12² (Cambridge 2009) 393.

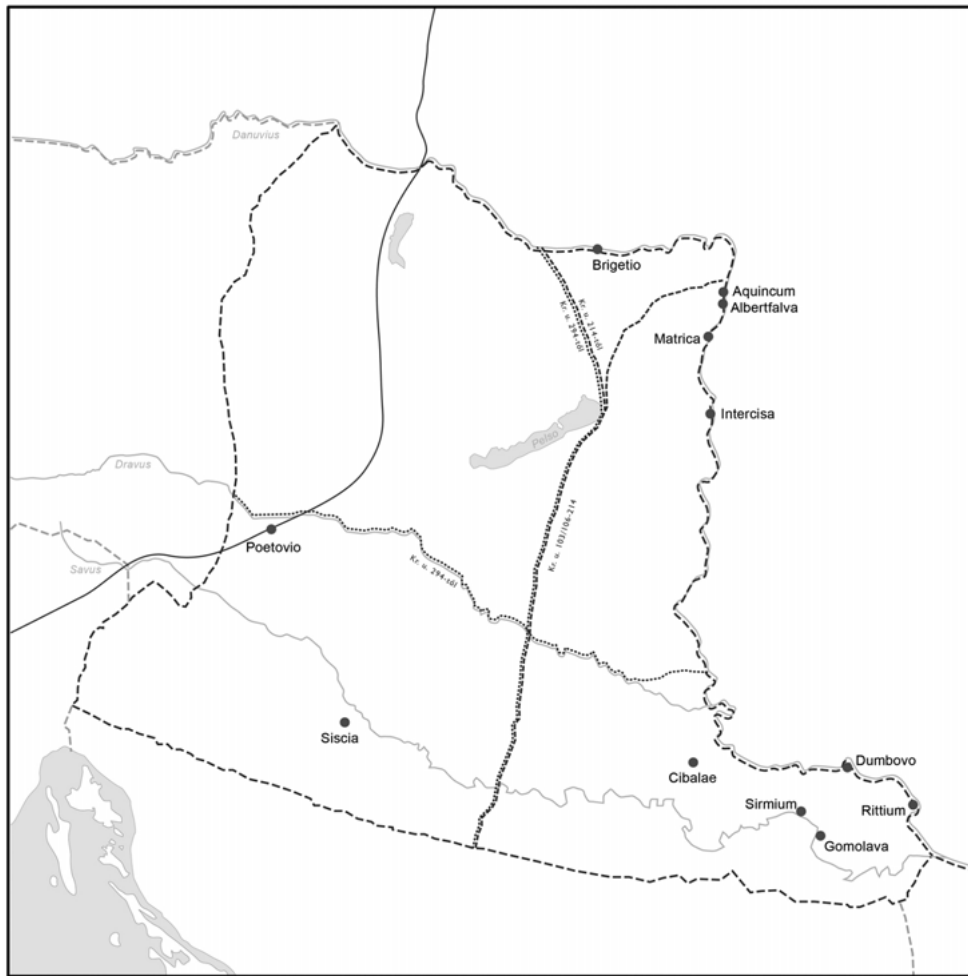


Fig. 4. Distribution of the Bojović 549/554 type amphora in Pannonia

Fig. 2,5. Dressel 24 handle-fragment (5 YR 5/6, slip: 10 YR 8/3)
Legionary fortress, North of the southern gate, 1983, VII. trench,
B sector, layer with fragments of bricks.
M.: 5, s.h.: 3,7×2.
Stamp: ΠΑΥΛΟΥ
PR 1293

Fig. 2,6. Schörgendorfer 558 neck- and body-fragment (2.5 Y 8/3,
slip: 2.5 Y 7/4-6/4)
Legionary fortress, house of the *tribunus laticlavus*.
M.: 43×30.
Dipinto: G/EXD/EXC/XV/COC PHIL
Published: T. BEZECZKY, Roman Amphorae from the Amber Route
in Western Pannonia. BAR Internat. Ser. 386 (Oxford 1987) fig. 11.
BTM 89.7.35.

Fig. 2,7. Aquincum 78 body-fragment (10 YR 6/4, slip: 10 YR 7/4)
Legionary fortress, 1950, Kerék str. 15.
M.: 9×1.
Dipinto: XXVII / MVRIA / KAPITONIS(?)
BTM 56770

Fig. 2,8. Dressel 28 rim- and body-fragment (10 YR 6/6, slip: 10
YR 7/4)
Canabae legionis, Folyamőr str. 14–16, 1978–1981, large pit.
M.: 4,5×3,4×0,5, d.r.: 12.
BTM 98.36.2256.

Fig. 2,9. Dressel 21-22 rim- and body-fragment (Botte 1b) (7.5 YR
6/8, slip: 5 Y 8/3)
Canabae legionis, Kiscelli str. 10–12, 1950.
M.: 9,7×0,8, d.r.: 16,6.
BTM 49318

Fig. 2,10. Agora P8164 rim-, handle- and body-fragment (10 YR 8/6)
Canabae legionis, Szentendrei str. 22–24, 1976, 6.trench,
-120–140 cm.
M.: 10,8, d.r.: 12,6, s.h.: 3,5×2,5.
BTM 78.5.934./954./956./957.

Fig. 2,11. Camulodunum 176 rim-, handle and body-fragment (10
YR 7/4, slip: 2.5 Y 8/2)
Civil Town of *Aquincum*, 1993, Northern lane, XIX. trench, rubbish
pit.
M.: 10×0,6, d.r.: 11,2, s.h.: 2,1×1.
Dipinto: OPT(...)
Published: P. KOVÁCS/Á. SZABÓ (eds.), Titvli Aqvincenses 3. Tituli
Instrumenti domestici (Budapest 2011) no.1230.
BTM 93.12.868.-869.

Fig. 2,12. Knossos 26/27 rim-, handle and body-fragment (7.5 YR
7/4, slip: 5 Y 7/2)
Civil Town of *Aquincum*.
M.: 32×21×1,4, d.r.: 12, s.h.: 3,8×2,7.
BTM 70.8.158.

Fig. 2,13. Augst 15 rim- and body-fragment (7.5 YR N4, slip: 10 YR 7/3)
Vicinity of the Civil Town of *Aquincum*, Pók str.-Nánási str.-Városház str., 2003, A, US 386.
M.: 4,5×1,4, d.r.: 14,4.
BTM 2003.8.198.

Fig. 2,14. Dressel 6B rim- and body-fragment (10 YR 6/8)
Civil Town of *Aquincum*, 1941., 'Small Forum', III. ditch, -40 cm.
M.: 5,5, d.r.: 14.
Stamp: (imp.ner)VAE.AVG
BTM 63.12.99.

Fig. 2,15. Richborough 527 spike-fragment (2.5 Y 7/3)
Legionary fortress, Föld str. 15–17, 1974, from the channel beside the road.
M.: 7,1.
BTM 82.8.97.

Fig. 3. Bojović 549/554
Canabae legionis, Kiscelli str. 10, 1953.
Published: K. Póczy, Római épületek Óbudán a Kiscelli u. 10. sz. alatt. Budapest Régiségei 16, 1955 fig. 31.
BTM –

harshegyi@mail.iif.hu

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