



# Late Roman Red Slip Ware found in Newly Excavated Buildings A and B in Anemurium: A Building Based Evaluation

Zafer Korkmaz<sup>1</sup> , Mehmet Tekocak<sup>1</sup> 



<sup>1</sup>Selçuk University, Faculty of Letters,  
Department of Archeology, Konya, Türkiye

ORCID ID: Z.K. 0000-0002-6018-9533;  
M.T. 0000-0002-6923-4230

**Corresponding author:**

Mehmet Tekocak,  
Selçuk Üniversitesi, Edebiyat Fakültesi, Arkeoloji  
Bölümü, Konya, Türkiye  
E-mail: mtekocak@yahoo.com

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## ABSTRACT

This article discussed the Late Roman Red Slip Ware which was found during the excavations of Buildings A and B in Anemurium (Rough Cilicia). The wares concern three groups: African Red Slip Ware (ARSW), Late Roman C (LRC) and Late Roman D (LRD). ARS forms that were identified are Hayes 50, 67, 73/76, 99, 104, 105 and 106. LRC forms that were identified are Hayes 1, 3 and 10. The last and major group is LRD of which the following forms were recognised: Hayes 1, 2, 6, 8, 9, 10 and 11, Meyza Type H12D and the so-called Well Form. The proportions of these three ware groups are: LRD 83.6 %, LRC 9.7% and ARS 6.6%. The inhabitants of these buildings, and Anemurium as a whole, definitely belonged to the LRD cultural region. Most of this pottery can be dated to the second half of the 6th century and the first half of the 7th century AD. Many of the ceramics evaluated in this article represent the last production phases of these three groups.

**Keywords:** Rough Cilicia, Anemurium, African Red Slip Ware, Late Roman D, Late Roman C



## Introduction

Anemurium was one of the coastal cities located in the western part of the ancient region of Cilicia Tracheia, or Rough Cilicia as called by modern scholars (Fig. 1). The ruins of the city are located in the Ören/Batıkent quarter of the Anamur District, Mersin Province. Numismatic evidence indicates that the first settlement of the city of Anemurium began in the Hellenistic period. The city represents a territory that was culturally associated with the Roman Mediterranean (Tekocak & Aldemir, 2019). In the 2<sup>nd</sup>-3<sup>rd</sup> century AD, Anemurium experienced its first period of growth. The 4<sup>th</sup> century AD, however, was a period of crisis throughout the entire eastern Mediterranean (Lund, 1992, pp. 199-200; Lund, 1993, pp. 140-143). The city witnessed another period of growth during the first half of the 5<sup>th</sup> century AD. Then, from the late 5<sup>th</sup> until the 8<sup>th</sup> century AD, the city followed a course of gradual decline.

The city's topography extends 1.2 km in a north-south direction and covers an area of 6.5 hectares. The centre of this topography is a ridge which offers a stunning view of the Mediterranean. The ceramic material discussed in this article was discovered in Buildings A and B, which are situated at the southern end of this ridge, and excavated between 2018 and 2021 (Korkmaz & Tekocak, 2023). Both are situated north of the Central Bath, which the previous excavation team referred to as III 5 Bath (Alföldi-Rosenbaum, 1989) (Fig. 2).

The buildings cover an area of 298 m<sup>2</sup> in total and measure 28.20 x 10.60 m. Building A contains four rooms and has a narrow alleyway directly in front of it. Building B, which is located to the east of Building A, comprises five rooms, a connecting hallway, and another narrow alleyway in front of it.

A portion of the ceramic artifacts unearthed in these buildings can be classified into three distinct categories. These are as follows: African Red Slip Ware (hereafter ARS), Late Roman C (also known as Phocaeen Red Slip Ware) (LRC hereafter) and Late Roman D (Cypriot Red Slip Ware) (henceforth LRD). Late Roman Red Slip Wares can be considered as successors to Hellenistic, Early, and Middle Roman Imperial fine wares in terms of functionality, technique and appearance. This continuity has been demonstrated by the studies of, among others, John W. Hayes. In order to determine the various groups of the pottery discussed here, the standard work "Late Roman Pottery" by Hayes is used as a basis, while "Nea Paphos V-Cypriot Red Slip Ware" by H. Meyza is the other reference work.

As previously outlined in the initial paper on Buildings A and B, the primary object during the excavation of Building A was to determine the architectural characteristics of structures located north of the Central Bath (Korkmaz & Tekocak, 2023). The presence of a cistern and the northern atrium suggested the potential for the discovery of bath-related architectural features here.

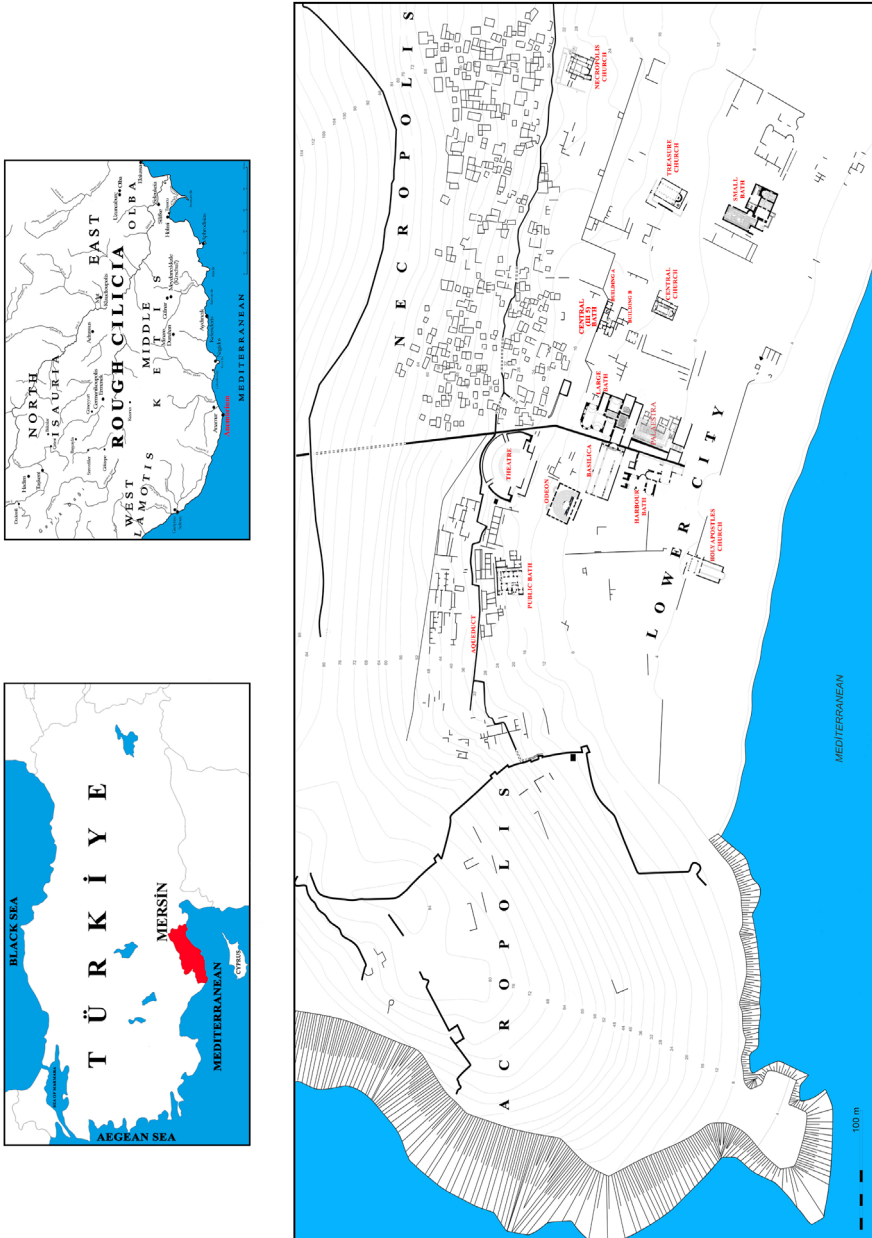


Figure 1. Map of Anemurium and the Location of various buildings.

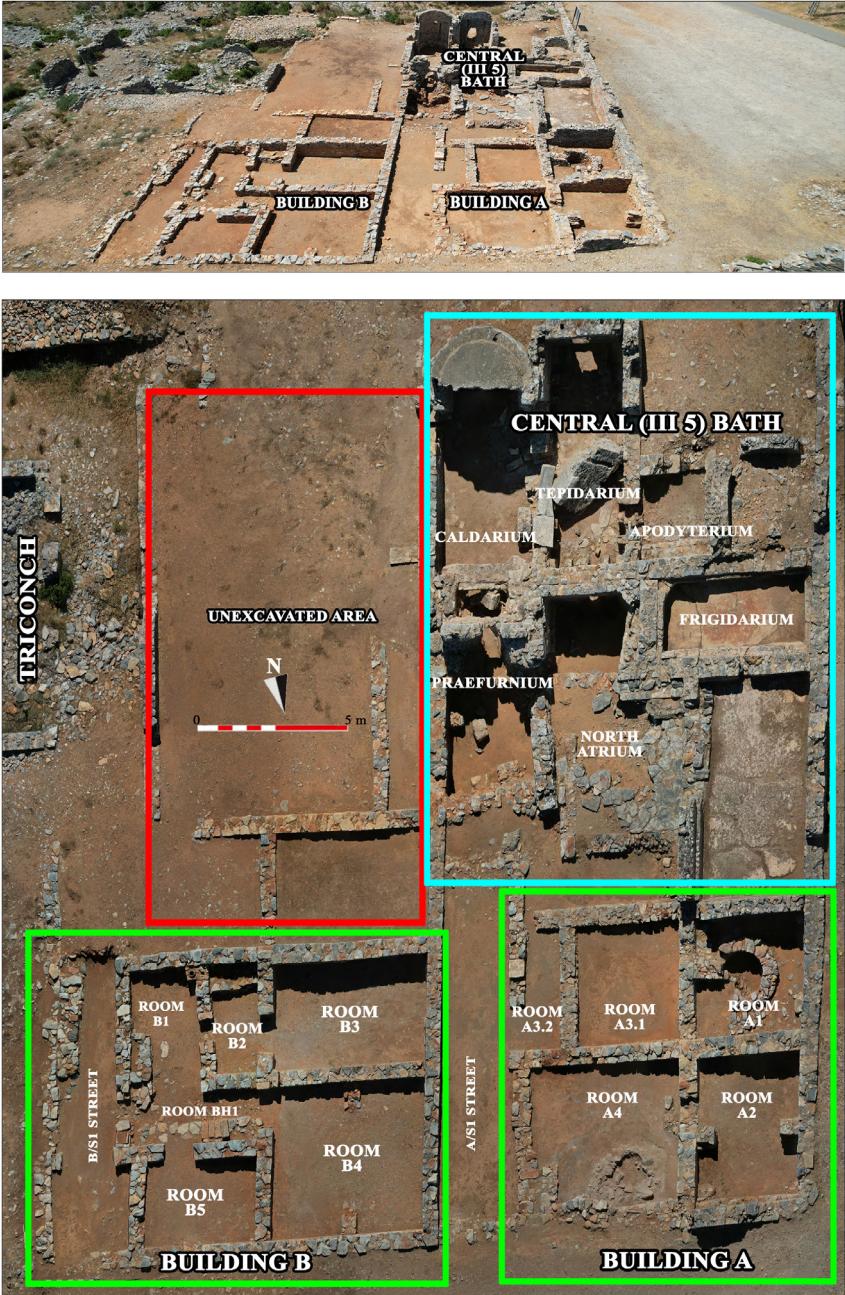


Figure 2. Orthophoto of Buildings A and B.

However, the excavation revealed that Buildings A and B had been used as a single tabernae. Nevertheless, some indications were found that Building A may have had a previous usage (Korkmaz & Tekocak, 2023, p. 32). However, the available evidence is insufficient to permit the phasing of these buildings to be identified. The objective of this article is to discuss the red-slipped, fine ceramic material and determine the period of use of the buildings based on the date ranges of the ceramics and coins discovered on the premises.

Examples of similar ceramics were discovered during J. Russell's excavations, which were subsequently studied and published by C. Williams (Williams, 1989). In this publication, Williams analysed ceramics from a house and predominantly from various public buildings of the ancient city. The study identified five distinct "floors" were identified within the house, which contained ceramics dating from the first half of the 1<sup>st</sup> century BC to the early 6<sup>th</sup> century AD (Williams, 1989, p. 107). The stratigraphic characteristics of these floors were not documented in this book or in any other report of the excavation. In the light of this, we sought to ascertain whether the buildings we uncovered also exhibited subsequent stages of occupation. This paper presents the distribution of fine wares with percentage in the cities of Cilicia and in the major cities of other regions. Furthermore, the wares from Buildings A and B are compared with the data of Williams' study. The aim is to contribute to the expansion of the existing ceramic assemblage and cultural relations of Anemurium. The proportions presented in the publication were derived from calculations.

The article presents the ratios in question, which are based on the number of forms that belonging to three different fine ceramic groups. The ratios indicated in the article are based on the percentage calculation of the number of forms. Since it is not possible to evaluate the forms of amorphous pieces of fine ceramic groups, they have not been included in the percentage calculation. Furthermore, the amorphous pieces are insufficient for answering the question of the proportion of each form present. The provision of ratio information in the article represents an attempt to gain insight into the density of fine ceramic groups in Anamur. The ratios presented in the referenced literature are based on the information provided therein.

## **Ware Groups**

### **African Red Slip Ware (ARSW) (Fig. 3)**

One of the most comprehensive studies of ARSW is that by J.W. Hayes, (1972) who created a typology and provided a detailed account of the terminology, chronology, and form repertoire of ARSW. Moreover, two further works of significant merit are those by M. Mackensen (1993) and M. Bonifay (2004, pp. 155-207). Over the past few decades, chemical analyses have established that this group was manufactured in workshops located in the centre and north of Tunisia. ARSW began to be produced in the second half of the

1<sup>st</sup> century AD and continued throughout the 7<sup>th</sup> century AD (Hayes, 1972, pp. 296-299; Bonifay, 2004, pp. 480-482). Despite the general decline in the market share of ARSW after the 5<sup>th</sup> century AD, this was not due to the influence of large ceramic production centres such as those where LRC and LRD were made. Indeed, the ARSW continued to be important in the western Mediterranean (Bonifay, 2000, pp. 37-39), and surely late forms can be found at many sites in the east (Bonifay, 2004, pp. 446-447).

The examples are characterised by a light red fabric colour (10R 6/6, 10R 6/8, 10R 7/8), red fabric colour (10R 5/6), reddish yellow fabric colour (5YR 7/6) and light red fabric colour (2.5YR 6/8, 2.5YR 7/8). The fabric is composed of fine grained white or greyish-black lime mica and quartz as evidenced by the specimens from Tunisia workshop (Hasenzagl & Capelli 2019). The slip varies from red (2.5YR 5/8), to light red (2.5YR 6/8 and 10R 6/8) to red (10R 5/6, 10R 5/8). The following forms (50, 67, 73/76, 99, 104, 105, 106) were identified according to Hayes' typology.

Form 50B (Fig. 3, no. 1) is a large dish with a plain rim, a sloping wall and a very small, low foot ring. The applied slip is thin, and covers the interior and the outside of the rim. Its fabric is hard, fine-grained, and light orange-red in colour. These characteristics correspond to those described by ARSW C2 (Raynaud, 1993a: 185). The form is dated to the second half of the 4<sup>th</sup> century to beginning of the 5<sup>th</sup> century AD (Hayes, 1972, p. 72, Fig. 12, 60). At the Athenian Agora, the dating of form 50B is placed in the second half of the 4<sup>th</sup> century AD. Moreover, Hayes states that a well-preserved specimen can be dated to the period 375-400 AD (Hayes, 2008, pp. 74-75). This dating is confirmed by findings from Ephesus (Ladstätter, 2008, p. 111, cat. no. K 135). The form has been dated to the second half of the 4<sup>th</sup> century AD on the basis of coins discovered on the stylobate of the Basilica (Building II 12B) of Anemurium (Williams, 1989, p. 39, Fig. 18. 219-220). Examples of Form 50B have been identified at the following locations: Knidos (Sözel, 2023, p. 129, proportion 2%), Ephesus (Gassner, 1997, p. 149, taf. 49, 591; Ladstätter, 2008, p. 113, cat. no. K 135; Waldner & Ladstätter, 2014, Fig. 1, proportion 11%), Kelenderis (Tekocak, 2006, tablo 5, proportion 12%), Diokaisareia (Kramer, 2012, p. 18, Fig. 19, 138), Soli Pompeiopolis (Yıldız, 2022, p. 100, 116, Fig. 5, proportion 0.9%), Tarsus Cumhuriyet Alanı (Adak-Adıbelli, 2006, pp. 86-87, pl. 1. 12-13, proportion 3%; Tarsus Gözlükule Höyük (Jones, 1950, p. 205, Fig. 207, 812), Antioch (Waagé, 1948, p. 49, pl. IX, 836 u, as "the commonest of Late A shape"), Zeugma (Abadie-Reynal, 2005, pp. 526-527; Abadie-Reynal, Martz, Cador, 2005, p. 183, Fig. 1; Kenrick, 2013, p. 2; Erol & Tamer, 2020, p. 61, 66, proportion 22%), Apamea (Vokaer, 2015, p. 572, proportion 31.8%), Hama (Lund, 1995, p. 139, proportion 8%, Paphos (Hayes, 2003, p. 483, 485, Fig. 21, 211, 218; Rowe, 2004, p. 144, 146, very rare proportion and 10% proportion at "area three"), Panayia Ematousa (Lund, 2006, p. 222, Fig. 118, 239).

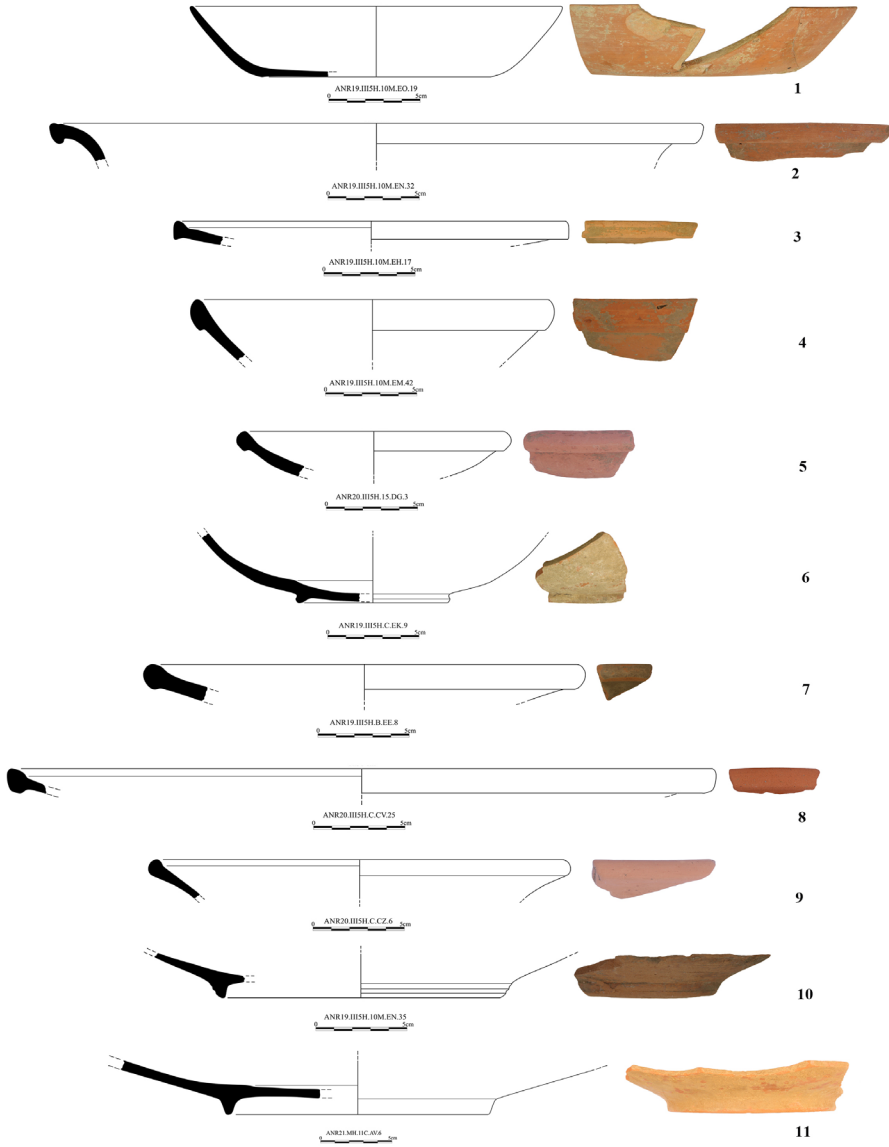


Figure 3. African Red Slip Ware (no.1-11).

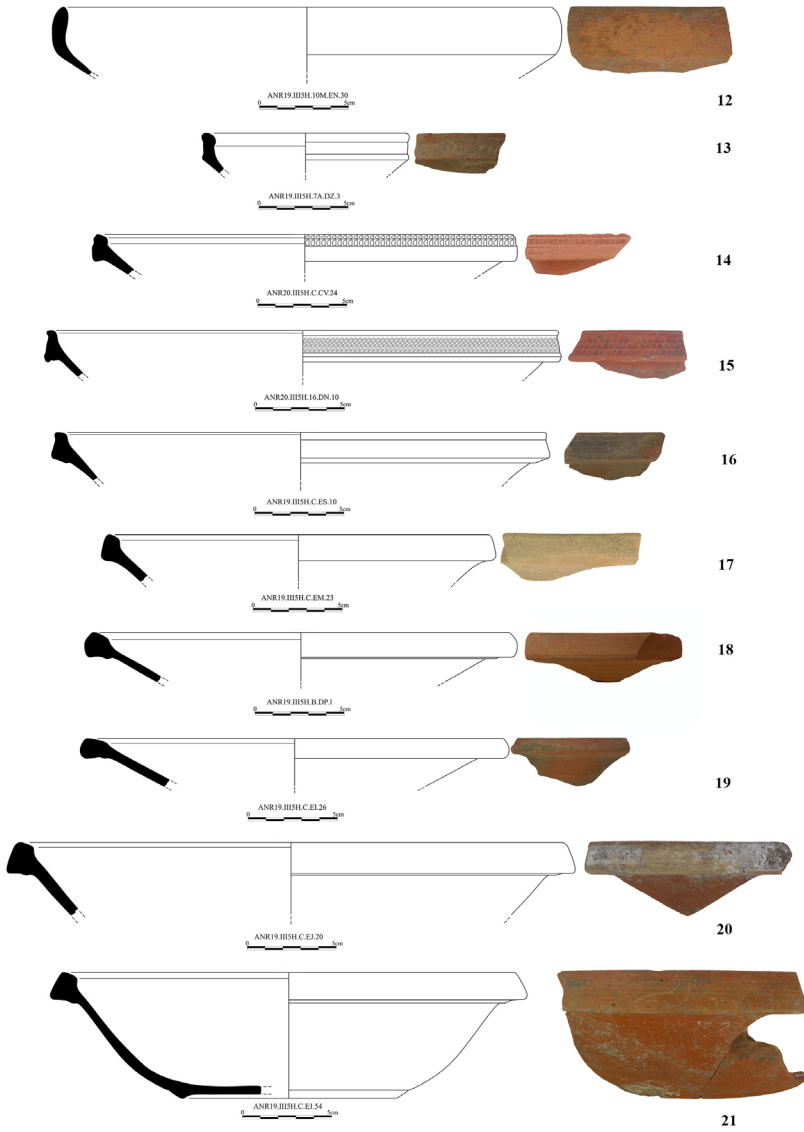


Figure 4. Late Roman C (Phocaean Red Slip) Ware (no. 12-21).



Form 67 (Fig. 3, no. 2) is a large bowl with a curved body in two segments. The rim presents a groove in close proximity to its sharp lip. The rims are predominantly slanted or rounded on the exterior and may exhibit a hook-shaped, hanging lip. The slip is thin, and covers the entire surface. The fabric is medium-hard, fine, and has an orange-red colour. The third group of this form is dated to the middle or third quarter of the 5<sup>th</sup> century AD (Hayes, 1972, p. 116, Fig. 19, 28). However, Mackensen suggests that the dating of both decorated and undecorated specimens of the “form 9.1” should be placed in the middle and late 4th century AD (1993, pp. 403-404, taf. 56, 7). Bonifay places the dating of the “Sigillée Type 41” “variant C” to the middle and the second half of the 5<sup>th</sup> century (2004, p. 173, Fig. 92, no. 7). The form is attributed to D2 ware and assigned to the workshops at Sidi Khalifa (Mackensen & Schneider 2002, p. 128, Fig. 2, 7). Examples of this form are present at Anemurium, albeit rarely in proportion (Williams, 1989, p. Fig. 18, 226; Building A, discussed here). Knidos (Sözel, 2023, p. 131, proportion 2%), Ilion (Heat & Tekkök 2006-2009, no. 11 Greek, Roman and Byzantine Pottery at Ilion (Troia): African Red-Slip (uc.edu)), Miletus (Berndt, 2003, p. 21, abb. 4-5, proportion 5,6%), Phocaea (Firat, 2011, 158, very rare proportion, Anemurium (Williams, 1989, p. 38, 40, Fig. 18, 226), Kelenderis (Tekocak, 2006, p. 53, tab. 5; Tekocak, 2009, p. 133, 140, Fig. 7,7-11, proportion 36%), Diokaisareia (Kramer, 2012, p. 18, taf. 19, 142), Soli Pompeiopolis (Yıldız, 2022, 107, pl. 9, 61, Fig. 5, proportion 10%), Tarsus Cumhuriyet Alanı (Zoroğlu, 2005, Fig. 3; Adak-Adıbelli, 2006: 54, 85, levha 3, 49, proportion 21%), Tarsus Gözlükule Höyük (Jones, 1950, pp. 205-206, Fig. 207, 818), Germanicia (Ok, 2023, pp. 362-364, Fig. 3, 5-6, rare proportion) Antioch (Waagé, 1948, p. 49, pl. IX, 871 p, rare proportion), Doliche (Strothenke-Koch, 2019, p. 141, Abb. 78, 87, tab. 1, rare proportion), Zeugma (Abadie-Reynal, 2005, p. 528, proportion 10%) Erol & Tamer, 2020, pp. 61-62, Fig. 1,4, proportion 17%), Gindaros (Kramer, 2004, p. 206, proportion 1,7%) and Apamea (Vokaer, 2015, p. 574, proportion 15%). The form has gained considerable popularity in Cilicia and in Roman Syria. The proportion exhibits similar properties to those observed in Roman Syria, with the overall assemblage of Beirut dating to the end of the 4<sup>th</sup> to the 5<sup>th</sup> century AD (Reynolds, 2010, p. 94; Reynolds, 2011, p. 227) and Paphos (Lichočka & Meyza, 2001, p. 160; Rowe, 2004, p. 146, Fig. 53, 7).

Form 73/76 (Fig. 3, no. 3) is a small bowl with a wide rim and small hooked lip that extends in both and upward and downward direction. There are no notches on the rim. The slip is relatively thin and dull. The fabric is compact and exhibits a tightly textured surface. This form has not previously been identified in Anemurium before. Hayes assigns a date of the second half of the 5<sup>th</sup> century AD to this form, which he refers to as Form 76 (Hayes, 1972, p. 123). This form bears resemblance to the one classified by Mackensen as 16.2, which he dated to as early as 390 AD (Mackensen, 1993, p. 407, taf. 61, 2-3). This form has been identified in other locations: Knidos (Sözel, 2023, p. 139, proportion 0.6 %), Ephesos (Waldner & Ladstätter, 2014, Fig. 1, proportion 0.7%), Miletus (Berndt, 2003, pp. 21-22,

abb. 5, proportion 1%), Tarsus Cumhuriyet Alanı (Zoroğlu, 2005, Fig. 3; Adak Adıbelli, 2006, p. 60, lev. 6, 83, rare proportion).

Form 99 (Fig. 3, no. 4, 5, 6) pertains to a bowl with a nearly hemispherical shape and a low foot. The rim is slightly everted and rolled from the outside and flattened. The interior is coated in a thick, orange-red to brick-red slip, which extends onto the exterior rim. The fabric is pale red in colour and contains coarse lime particles. The identified fragments can be classified as variants “B” (no. 4) (Hayes, 1972, Fig. 28, 13; Mackensen 1993, p. 345, taf. 67, 9) and “C” (no. 6) (Hayes, 1968, pp. 208-209, no. 44; Hayes, 1972, Fig. 28, 22, 23; Barraud et al., 1998, Fig. 8, 3). The particular characteristics of no. 5., (variation of Hayes form 99) including a sloping wall and thickened lip, it is typologically and chronologically related to Mackensen Form 29.2, which is dated to 530-580 AD (1993, taf. 67) and belongs to D ware (Raynaud, 1993b, p. 190; Mackensen & Schneider, 2002, p. 150, Fig. 4, 5; Mackensen, 2006, p. 222, Fig. 9, 5, 16). Hayes proposed that variants B and C were dated to 530-620 AD (1972, p. 155, Fig. 28, 22-23). Bonifay dates variants B and C to the second quarter of the 5<sup>th</sup> to the middle of the 6<sup>th</sup> century AD, and to the end of the 6<sup>th</sup> to 7<sup>th</sup> century AD, respectively (Bonifay, 2004, p. 181, Fig. 96, 4). In Anemurium, this form constitutes a 6% proportion and was originally dated rather broadly from the mid of the 4<sup>th</sup> to the 7<sup>th</sup> century AD (Williams, 1989, pp. 41-42, Fig. 19, 237). The proportion of new excavations indicates that this form is relatively uncommon at Anemurium. The pieces discovered in Buildings A and B can be to the reign of the emperors Phocas (602-610 AD) and Heraclius (610-640 AD) based on the coins found in the vicinity. The wares found nearby are as follows: with no. 4 LRD form 1 (Fig. 5, 23), with no. 5 LRD 8 (Fig. 6, 35) and with no. 6 LRD 9 (Fig. 7, 41-42). Both wares of LRD dated up to 6<sup>th</sup>-7<sup>th</sup> centuries AD. Examples of the form have been found for variant B; Alabanda (Soslu, 2020, Fig. 8, Fig. 10, 14, overall proportion 46%), Myndos (Mimaroglu, 2017, p. 347), Kelenderis (Tekocak, 2006, tab. 5, lev. 8, 55, 57, proportion 8%), Olba (Aydın, 2019, p. 97, pl. 2, 4, Fig. 3, 4, proportion 30%), Diokaisareia (Kramer, 2012, p. 18, taf. 20, 149-150, rare proportion), Soli Pompeiopolis (Yıldız, 2022, p. 111, pl. 83-84, Fig. 5, proportion 10%), Germanicia (Ok, 2023, p. 367, Fig. 10, rare proportion), Zeugma (Kenrick, 2013, p. 57, pl. 33, 512, proportion 1%) and Ephesos (Ladstätter, 2008, p. 121). Examples of the form have been found for variant C; Tarsus Cumhuriyet Alanı (Zoroğlu, 2005, Fig. 3; Adak-Adıbelli, 2006, p. 69, pl. 10, 127, 130, overall proportion 20%), Paphos (Hayes, 2003, Fig. 22, 241, rare proportion. The archaeological evidence indicates that the theatre of Paphos was constructed between the late 6<sup>th</sup> and early 7<sup>th</sup> century AD (Waddington, 2003, p. 196, 210, Fig. 27, 55, 1201). Beirut (Reynolds, 2011, p. 219, 229, Fig. 10, 145, 10% proportion), Antioch (Waagé, 1948, p. 50, pl. X, 878a, 878f, not common), Ephesos (Waldner & Ladstätter, 2014, Fig. 1, overall proportion 10.5%- for A and C variants) and Miletus (Berndt, 2003, p. 27, taf. 4, TS. 52, proportion 19%).

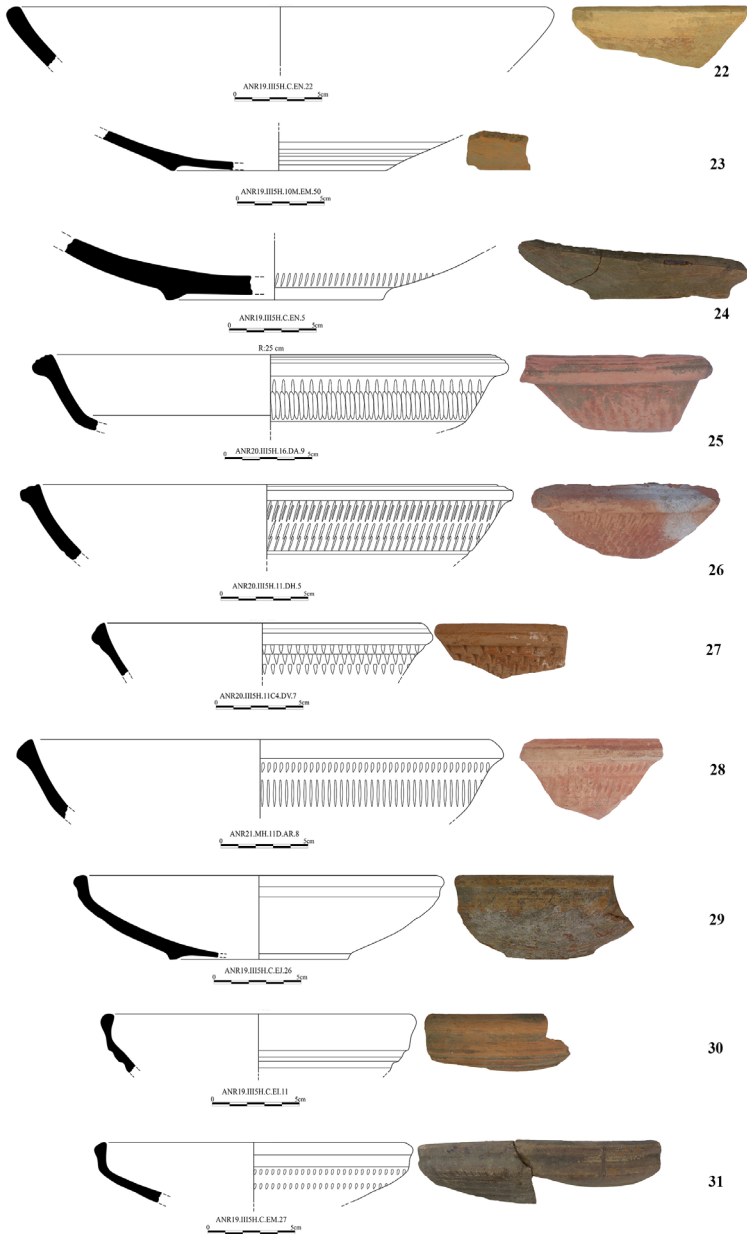


Figure 5. Late Roman D (Cypriot Red Slip) Ware (no. 22-31).

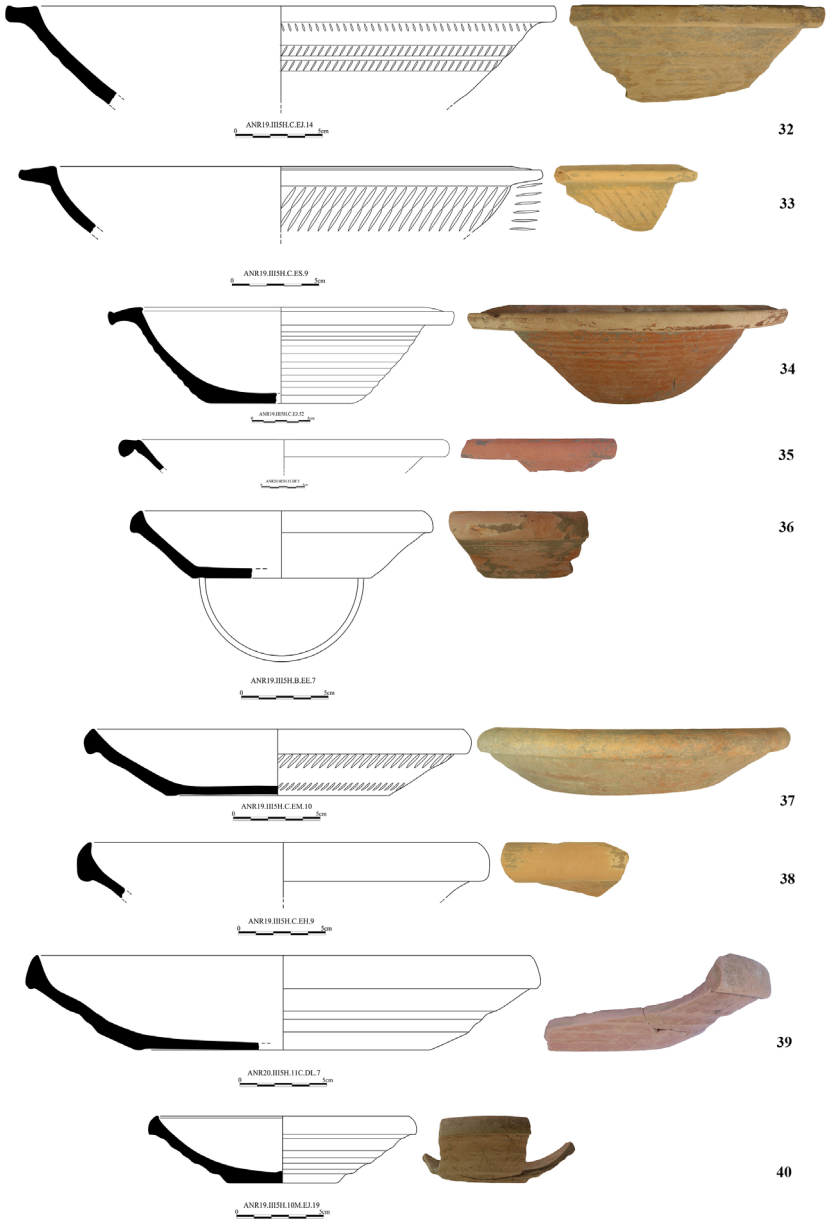


Figure 6. Late Roman D (Cypriot Red Slip) Ware (no. 32-40).

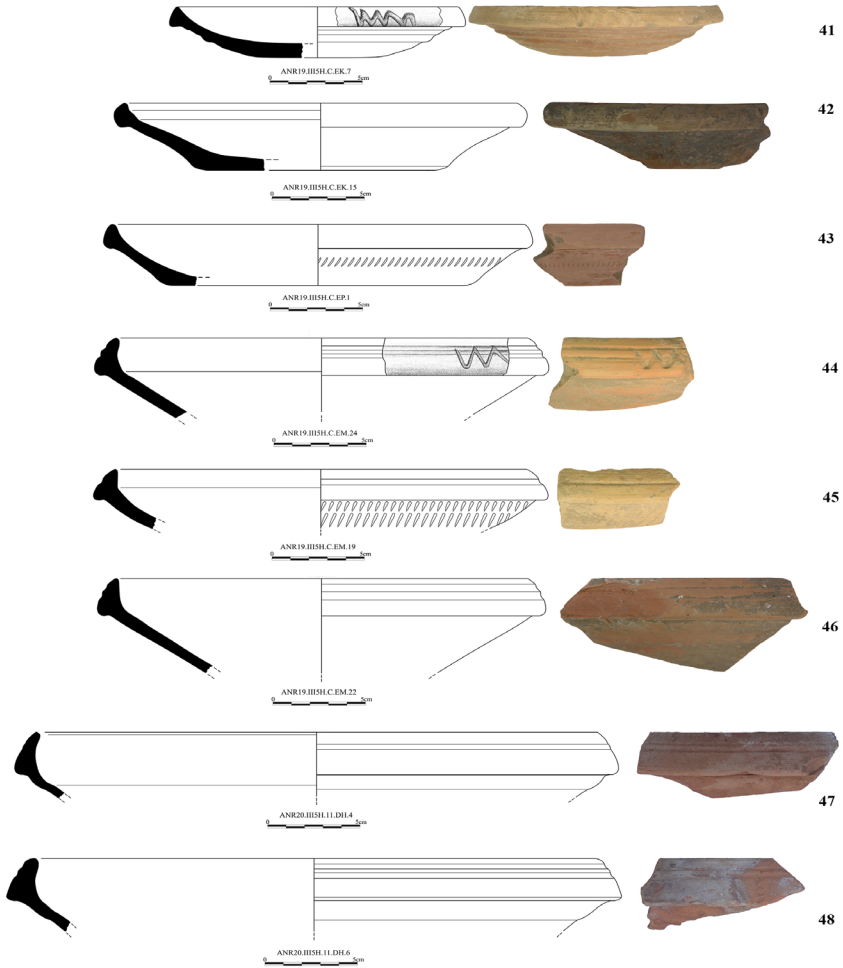
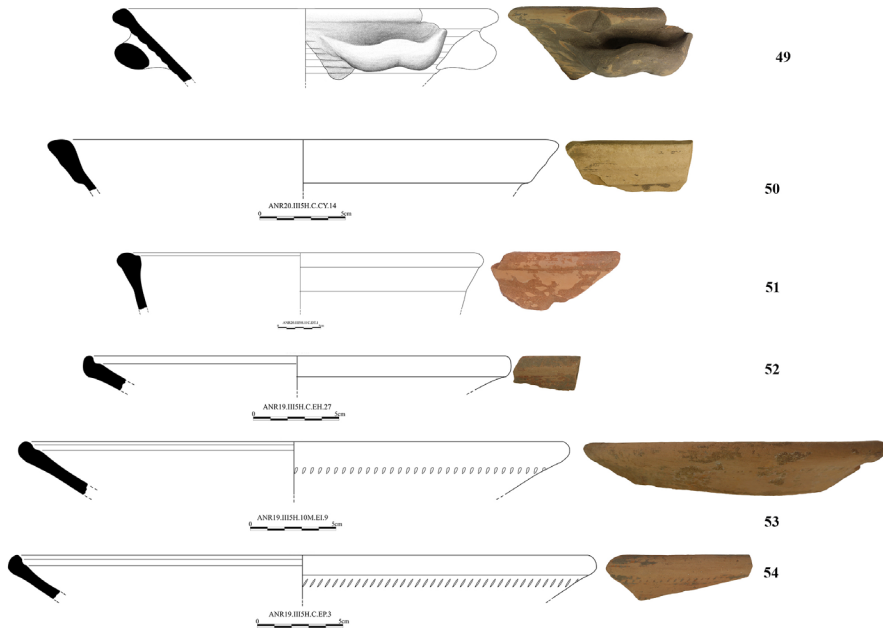


Figure 7. Late Roman D (Cypriot Red Slip) Ware (no. 41-48).



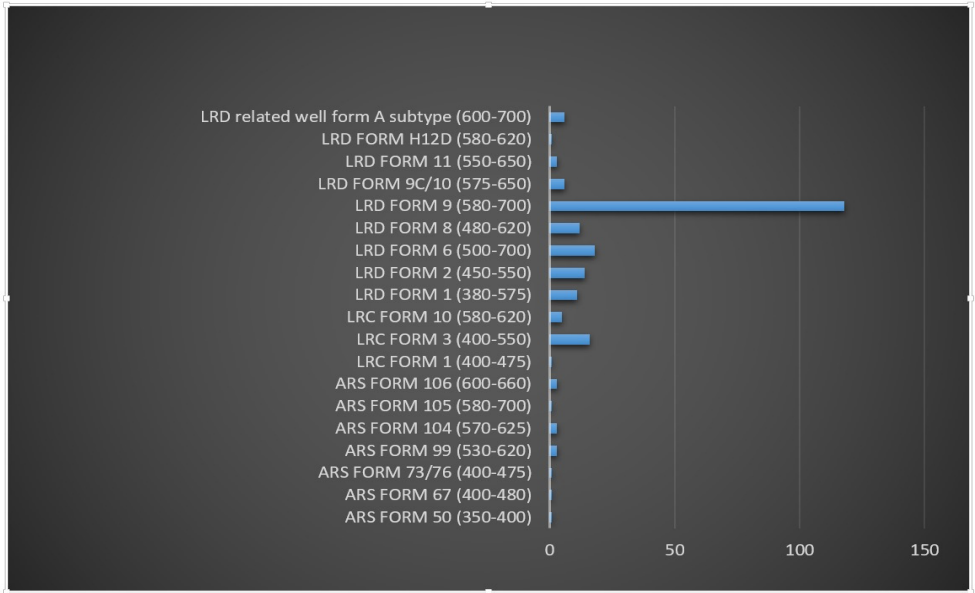
**Figure 8.** Late Roman D (Cypriot Red Slip) Ware (no. 49-54).

Form 104 (Fig. 3, no. 7, 8, 9) pertains to a substantial plate or dish with a knobbed, somewhat hammer-like rim and a shallow body. The slip is thick, burnished on the interior and around the rim, and exhibits a red to orange-red colouration. The fabric contains fine mica, sand and lime.

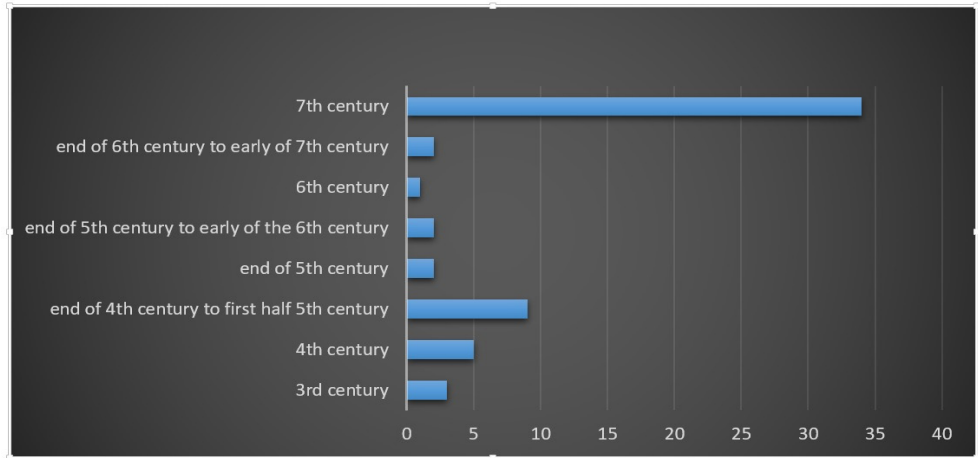
The imitation of forms 104, 105 and 106 of the ARS is a common occurrence in Anemurium (Williams, 1989, pp. 51-52). The colour range of the clay utilised in these ceramics is typically light red to red, while the slip is orange red. The clay is observed to contain white lime stone, red and dark grey to black sand, and mica. The texture of the slip is like “sandpaper” as described by Williams. The clay is coarser and less compact than the clay used in the main workshop’s clay of the ARS D group in Tunisia (Bonifay, 2004, p. 50). These fabrics and slips are comparable to those of no. 9 and no. 10.

Specimens classified as variants “B” (no. 7, 8) and “C” (no. 9) are in accordance with Hayes’ classification (Hayes, 1972, Fig. 30, 16, 23). The form also resembles to that which Mackensen designated as Form 40. Both Hayes and Mackensen suggest a dating of 580/600 AD to the first half of the 7<sup>th</sup> century AD (Hayes, 1972, p. 166; Mackensen, 1993, p. 429,

taf. 71, 4, 7). Bonifay proposed a date range of the mid-6<sup>th</sup> to the mid-7<sup>th</sup> century AD for it (Bonifay, 2004, p. 183, Fig. 97, 15, 18). In the recently discovered Buildings A and B in Anemurium, examples of Form 104 are found in conjunction with LRC Form 10C, which is dated to the latter 6<sup>th</sup> and earlier 7<sup>th</sup> century AD. Other examples of this form have been identified at Knidos (Doksanaltı, 2020, p. 384), Alabanda (Soslu, 2020, Fig. 8, proportion 18%), Myndos (Mimaroglu, 2017, p. 347), Ephesos (Ladstätter, 2008, p. 115, cat. no. 233, 121, taf. 311, cat. no. 429; Waldner & Ladstätter, 2014, Fig. 1, proportion 4%; Gassner, 1997, p. 148, taf. 49, 60), Miletus (Berndt, 2003, p. 29, taf. 6, TS 90, taf. 7, TS 095, proportion 18%; Şahin, 2020, p. 232), Letoon (Mimaroglu, 2020, p. 283, pl. 1, 3-4), Kelenderis (Tekocak, 2006, p. 54, Lev. 9, 58, proportion 8%), Olba (Aydın, 2019, p. 99, pl. 4, 7, Fig. 3. 3, 3. 4, proportion 5%), Diokaiseria (Kramer, 2012, p. 18, 52, taf. 20, 153-155, taf. 21, 156, 10% proportion), Tarsus Cumhuriyet Alanı (Zoroğlu, 2005, Fig. 3; Adak-Adıbelli, 2006, pl. 14, 162-165), Soli Pompeiopolis (Yıldız, 2022, p. 104, pl. 5, 32, proportion 20%) and Zeugma (Kenrick, 2013, p. 57, pl. 33. pt. 513).



**Figure 9a.** Distribution of Late Roman Red Slip Ware of Buildings A and B in Anemurium: According to Ware Groups and Forms.



**Figure 9b.** Chronological Distribution of Coins Found in Buildings A and B in Anemurium.

Form 105 (Fig. 3, no. 10) is a large plate with an elongated triangular foot with a rounded resting surface. Hayes dates this form to the late 6<sup>th</sup> and 7<sup>th</sup> century AD (Hayes, 1972, p. 169, Fig. 31, 3). The form has been discovered at Knidos (Doksanaltı, 2020, p. 384), Myndos (Mimaroğlu, 2017, p. 348), and Ephesos (Waldner & Ladstätter, 2014, Fig. 1, proportion 9%). It is also known from Miletus (Berndt, 2003, p. 29-30, proportion 4.5%), Tarsus Cumhuriyet Alanı (Adak-Adıbelli, 2006, p. 78-79, proportion 2%), previously at Anemurium (Williams, 1989, Fig. 20, 245), Olba (Aydın, 2019, Fig. 3, 3, 3. 4, proportion 45%), and Soli Pompeiopolis (Yıldız, 2022, Fig. 5, proportion 10%).

Form 106 (Fig. 3, no. 11) is a large plate with a high ring foot, which Hayes dated to 600-660 AD (1972, p. 171, Fig. 32). Bonifay examined such wares under the designation “Sigillée Type 89 and 95” (Bonifay, 2004, p. 210). Mackensen did not equate Hayes Form 106 with any forms in his classification. In contrast, Form 31.1 which is thought to date from the period 520/530 and 580/600 AD, was studied as a close resemblance but not as an exact match (Mackensen, 1993, p. 346, 427). Additionally, Hayes evaluated this form in conjunction with 105. In this regard, Mackensen’s methodology aligns with Hayes. Forms 106 with 104 and 105 appear to have been imported and imitated on Anemurium (Williams, 1989, Fig. 20, 246-247, Fig. 25, 296).

### **Late Roman C (Phocaeen Red Slip Ware) (Fig. 4)**

LRC began to appear at the end of the 4th century AD when ARSW experienced a significant growth at the end of the same century. From the mid-5th to the early 6th century AD, there was a remarkable increase in the distribution of LRC. Researchers have noted a decline in the distribution of ARSW during the 5<sup>th</sup> century AD (Reynolds, 2016, p. 131).



LRC and LRD vessels probably filled the gap left by the decreasing distribution of ARSW. Between the end of the 5<sup>th</sup> century AD and the middle of the 6<sup>th</sup> century AD, the distribution of ARSW increased again (Bes, 2015, p. 91, 137, Fig. 58). The production of LRC continued until the middle of the 7<sup>th</sup> century AD (Bes, 2015, p. 90). These ceramics were in demand in many parts of the Mediterranean and even reached as far as England. These wares were mostly manufactured in Phocae and other regional workshops (Bes & Keweloh-Kaletta, 2023).

Ware group	Form	date	Piece number	Percentage rate of the form to the whole group of Tabernae	Percentage rate of the ware group to the whole fine ceramics of Tabernae	Percentage rate of the form to the ARS ware of the whole cite <sup>174</sup>
ARS	50B	350-400	1	6.66%		6.66%
ARS	67	400-480	1	6.66%		14.66%
ARS	73/76	400-475	1	6.66%		
ARS	99	530-620	3	20%		6.66%
ARS	104	570-625	3	20%		5.33%
ARS	105	580-700	1	6.66%		30%
ARS	106	600-660	3	33.33%		6.66%
ARS			15		6.63%	
						Percentage rate of the form to the LRC ware of the whole cite <sup>175</sup>
LRC	1	400-475	1	4.45%		6.61%
LRC	3	400-550	16	72.72%		90.57%
LRC	10	580-620	5	22.72%		1.04%
LRC			22		9.73%	
						Percentage rate of the form to the LRD ware of the whole cite <sup>176</sup>
LRD	1	380-575	11	5.82%		5.34%
LRD	2	450-550	14	7.40%		20.24%
LRD	6	500-700	18	9.52%		
LRD	8	480-620	12	6.34%		7.57%
LRD	9	580-700	118	62.43%		38.98%
LRD	9C/10	575-650	6	3.17%		2.20%
LRD	11	550-650	3	1.58%		13.77%
LRD	H12D	580-620	1	0.52%		
Well form	A subform	600-700	6	3.17%		1.51%
LRD			189		83.62%	
Total			226			

**Figure 10.** Table with the Number of Late Roman Red Slip Ware of Buildings A and B.

The examples are characterised by a light red (10R 6/6, 10R 6/8, 10R 7/8), light reddish brown (2.5YR6/4) and light red (2.5YR6/6, 2.5YR7/8) fabric colour. The fabric is generally fine-grained and contains white or grey lime, silver mica, light grey or white quartz, black, light grey and white sand inclusions. The slip varies from light red (2.5YR 6/6), red (2.5YR 5/6) to brownish light red (10R 6/8) and red (10R 4/6, 10R 5/6, 10R 5/8). The forms (1, 3, 10) are classified according to Hayes' typology.

Form 1 (Fig. 4, no. 12) is a dish with an incurved rim, a curved wall and shallow body. It is dated to the late 4<sup>th</sup> to the early of the 5<sup>th</sup> century AD (Hayes, 1972, Fig. 65. 1, 4). The pieces are characterised by a red (2.5YR 6/4 and 7/8) fabric colour. The fabric is fine-grained with white lime and silver mica inclusions. The slip is commonly red (10R 5/8-4/6). Examples of this form can be found at: Ilion (Heat & Tekkök 2006-2009, no. 4, Greek, Roman and Byzantine Pottery at Ilion (Troia): Phocaeen Red-Slip (uc.edu), Ephesos (Gassner, 1997, p. 138, Taf. 44, 535-536, Taf. 50, 609-610; Ladstätter, 2008, p. 115, cat. no. 234), Anemurium (Williams, 1989, p. 46), Knidos (Sözel, 2023, p. 150, proportion 9%), Myndos (Mimaroglu, 2017, p. 343), Miletus (Berndt, 2003, p. 34, proportion 4%) Phocaea (Firat, 2011, pp. 127-128, proportion 3%), Tarsus Cumhuriyet Alanı (Adak-Adibelli, 2006, p. 120, Fig. 7, proportion 0.2%), Elaiussa Sebaste (Kızırlansanoğlu & Aktaş, 2023, p. 320, cat. no. 1, 2, graphic 1, proportion 14%), and Soli Pompeiopolis (Yıldız, 2022b, Fig. 4, 1, Fig. 2, proportion 0.77%).

Form 3 (Fig. 4, no. 13, 14, 15, 16, 17) is a dish/bowl with a square vertical rim and a slightly concave outer profile. The fabric is fine-grained and contains lime and sand. The fabric colour varies from light reddish brown to dark shades. The subforms of Form 3 identified in Buildings A and B. The “subform A”, dated to the first half of the 5<sup>th</sup> century AD (no. 13) (Hayes, 1972, p. 337; Gassner, 1997, p. 143, f. 46, no. 551–554; Hayes, 2008, p. 237, Fig. 38. 1250). A similar subform was found during previous excavations in Anemurium (Williams, 1989, p. 49, Fig. 23, 277). Some researchers have classified it as early form (Tekkök-Biçken, 1996, p. 138, Fig. 85 G 74) and while others have identified it as belonging to LRC form 10A due to its close resemblance (Kızırlansanoğlu & Aktaş, 2023, p. 325, Fig. 6, 52). Subform B/C has a groove on outward on the rim which carries rouletted decoration (no. 14) (Hayes, 2008, Fig. 38, 1264). This subform is dated to the second half of the 5<sup>th</sup> century AD (Hayes, 1985, Fig. 63, no. 8-10; Gassner, 1997, taf. 46, 555-557). Subform C has a tapering, tall and slightly concave rim (no. 15) (Hayes, 1972, Fig. 67. 7; Hayes, 2008, Fig. 39. 1270; Williams, 1989, Fig. 22, 269; Heat & Tekkök 2006-2009, no. 18, Greek, Roman and Byzantine Pottery at Ilion (Troia): Phocaeen Red-Slip (uc.edu)). Subform E, (No. 16) is characterised by a lower, concave rim that is broad and flat beneath. It is dated to 475-525 AD (Waagé, 1948, p. 53, pl. XI, 946k; Williams, 1989, Fig. 22, 274; Gassner, 1997, p. 139, taf. 46, no. 563; Hayes, 2008, p. 242, Fig. 40, 1285-1286). The LRC ware was similar to no. 16 were discovered in the deposit, dated to the late of the 6<sup>th</sup> century at Ephesos (Ladstätter, 2008, p. 121, taf. 309, K404). The form Subform G (No. 17) is characterized by a squarish knobbed rim that is flattened on its interior and exterior. Its date is similar to that of subform F (Hayes, 1992, Fig. 37, 27/2). LRC Hayes form 3G was discovered in the deposits of Beirut and is dated to pre and post AD 551 earthquake. Upon examination of the deposits, it was determined that they contained two distinct layers. The pre 551 was identified as “containing a coin from the period AD 539-40” while the post 551 “appear to be post-551 deposition of AD 551 material” (Reynolds 2011a, p. 215, 218). The Ephesos specimen was found in the

deposits, dated to the end of the 6<sup>th</sup> century (Ladstätter, 2008, p. 121, taf. 311, K432, 122, taf. 318, K501). The hard-fired fabric is predominantly buff in colour with a dull-red hue (Hayes, 2008, p. 242, Fig. 40, 1292).

The LRC Hayes form 3 is the most dominant ware of Tarsus (Zoroğlu, 2005, p. 247, Fig. 4). The overall proportion is 42% at Cumhuriyet Alanı (Adak-Adıbelli, 2006, p. 106, grafik 5) and the most dominant subform is 3F (Adak-Adıbelli, 2006, p. 108, lev. 24, 240) and the second being 3G (Adak-Adıbelli, 2006, p. 108, lev. 25, 268) and Gözlükule (Jones, 1950, Fig. 208, o, p). Furthermore, subform 3C have been identified at Tarsus (Adak-Adıbelli, 2006, p. 107, lev. 23, 234). The subforms Form 3C and form 3 E/F can be found at Diokaiseria (Kramer, 2012, p. 19, taf. 21, 163, taf. 22, 165). Form 3 is the most dominant (Kızırlarslanoğlu & Aktaş, 2023, graphic 1, proportion 51%) with the subforms; 3A (Kızırlarslanoğlu & Aktaş, 2023, p. 322, Fig. 3, 22), 3C (Kızırlarslanoğlu & Aktaş, 2023, p. 322, Fig. 4, 29) and 3G (Kızırlarslanoğlu & Aktaş, 2023, p. 323, Fig. 5, 34) were identified at Elaiussa Sebaste. Form 3 is the most dominant at Olba (Aydın, 2019, Fig.3, 7, proportion 51%) and is accompanied by 3C and 3F subforms at Olba (Aydın, 2019, lev. 9, 18, lev. 10, 19). The proportion of Forms 3A (Yıldız, 2022b, Fig. 4, 9), 3B/C (Yıldız, 2022b, Fig. 4, 17) and 3C (Yıldız, 2022b, Fig. 5, 20) found at Soli Pompeiopolis is 72.8%. The Form 3B/C at Deli Halil Survey (Tülek, 2015, Fig. 7) and 3C at Misis (Francis, 2015, Fig. 3a,15) are also found. Forms 3A (Sözel, 2023, lev. 65, 205), 3C (Sözel, 2023, lev. 50, 157), 3D (Sözel, 2023, p. 52, 164) and 3F (Sözel, 2023, lev. 62, 195-197) have been identified at Knidos. Subforms; 3A (Ladstätter & Sauer, 2005, 150, taf. 2, 19;), 3B/C (Ladstätter & Sauer, 2005, taf. 3, 29, taf. 9, 120), 3C (Ladstätter & Sauer, 2005, taf. 2, 22, taf. 3, 32), 3F (Ladstätter & Sauer, 2005, p. 150, taf. 4, 48), 3G (Ladstätter & Sauer, 2005, taf. 5, 63, taf. 6, 74) were discovered at Ephesos. Other cities where ceramics have been discovered include Miletus (Berndt, 2003, abb. 6, proportion 54%), Phocaea (Firat, 2011, p. 143, proportion 41%), Cyprus (Rowe, 2006, p. 147-148) and Doliche (Strothenke-Koch, 2019, p. 139, abb. 75, 76).

Form 10 (Fig. 4, no. 18, 19, 20, 21) is a dish/bowl with a rounded rim on the exterior and has an offset underneath, and with a straight, sloping wall (Hayes, 1972, form 10, no. 4). Form 10 can be considered as a successor of Hayes Form 3 wares (Ladstätter & Sauer, 2005, p. 151). Waagé posits that the production of 10A commenced in the mid-6<sup>th</sup> century AD (1948, p. 57, Pl. XI, 949 a-k). Hayes, on the other hand, based on the additional find complexes dated the beginning of Form 10A to around 570 AD until the early 7<sup>th</sup> century AD (Hayes, 1972, p. 345). The dating is valid for the B subtype. The proposed dating for subtype C is the late 6<sup>th</sup> century to the early of 7<sup>th</sup> century AD (Berndt, 2003, p. 38).

The rim of subform A no. 18 and subform C no. 19 has a rounded profile. The thin offset is positioned at a lower elevation relative to the body. The rim gained a slightly longer and stretched shape (Hayes, 1972, p. 346, Fig. 71, 2, 4, 7). Similar specimens of no. 19 were

discovered in the deposits at Ephesos, dated to middle of the 6th century to the end of the 6th/beginning of the 7th century (Ladstätter, 2008, p. 122, Taf. 318 k 503) and 580-600 AD (Gassner, 1997, p. 140, taf. 48, 585; Ladstätter, 2008, p. 120-121, Taf. 308 k 391). The findings at Ilion (Heat & Tekkök 2006-2009, no. 32 Greek, Roman and Byzantine Pottery at Ilion (Troia): Phocaeen Red-Slip (uc.edu)) are dated to 7<sup>th</sup> century AD. The dating of No. 20 and no. 21 to the 580s in the Athenian Agora has led to their classification as an “*immediate predecessor*” of form 10 or “*transitional to form 10*” (Hayes, 2008, p. 88, Fig. 40, pl. 63, 1298, Fig. 42, 1328, 1329). The form regarded as “form 3/10” is dated to the second half of the 6th century AD in Ephesos (Ladstätter & Sauer, 2005, p. 150, taf. 6, 74). The findings from Ilion (Heat & Tekkök 2006-2009, no. 31 Greek, Roman and Byzantine Pottery at Ilion (Troia): Phocaeen Red-Slip (uc.edu)) and Parion (Ergürer, 2018: 106, no. 105) were evaluated as in Ephesos. The rim of no. 21 is unslipped. This subform evaluated in Kelenderis as “Kelenderis Variant 1” (Tekocak, 2006, p. 59, pl. 13, 88). The proportions of Form 10 in Cilicia are as follows: 20% at Tarsus (Zoroğlu, 2005, Fig. 4; Adak-Adıbelli, 2006, Fig. 7), 21% at E. Sebaste, 49% at Olba (Aydın, 2019, Fig. 3, 7) and 18% at Soli Pompeiopolis (Yıldız 2022b, Fig. 2). The specimens of A subform were discovered at Tarsus Cumhuriyet Alanı (Adak-Adıbelli, 2006, lev. 30, 341, lev. 31, 364, 373), Diokaiseria (Kramer, 2012, p. 19, taf. 22, 23 nr. 173-174), Adramytteion (Şahin, 2021, p. 227, abb. 13, no. 48), Elaiussa Sebaste (Kızırlanslanoğlu & Aktaş, 2023, p. 325, cat. no. 51), Soli Pompeiopolis (Yıldız, 2022b, Fig. 6, 47-49), Knidos (Doksanaltı, 2020, pp. 385-386; Sözel, 2023, pp. 162-164, proportion 13%), Myndos (Mimaroglu, 2017, p. 343), Klazomenai (Gürbüz, 2018, Fig. 6), Miletus (Berndt, 2003, taf. 18, TS 564), Phocaea (Firat, 2011, p. 151), and in Cyprus (Rowe, 2006, pp. 148-149).

### Late Roman D (Cypriot Red Slip Ware) (Fig. 5)

Another group of Late Roman pottery is Late Roman D, which is mainly found in the eastern Mediterranean. Waagé introduced the term Late Roman D alongside Late Roman A-B and C (Waagé, 1948, p. 52, 56, pl. X-XI, 916, 926, 930, 931, 932, 960, 970). Subsequently, in his book, Hayes termed this category Cypriot Red Slip Ware due to resemblance to Cypriot Sigillata (ESD) (Hayes, 1972, p. 341). This assumption of a Cypriot origin was made on the basis of these similarities. Recent studies have demonstrated that LRD-style tableware was produced in various centres in Pamphylia, Lycia and Pisidia in southern Anatolia (Poblome & Firat, 2011, pp. 49-54; Jackson et al., 2012). It is generally accepted that LRD was produced from the end of the 4<sup>th</sup> century to the end of the 7<sup>th</sup> century AD.

The examples are characterised by a red fabric (10R 4/6, 10R 5/8, 10R 5/6), light red fabric (2.5YR 6/6, 2.5YR 6/8, 2.5YR 7/6, 2.5YR 7/8, 10R 6/8), pale red (10R 7/4), reddish yellow (5YR 6/6, 5YR 7/6, 5YR 7/8), light brown (7.5YR 6/4) and pink (7.5YR 7/4) fabric and slip colour. The fabric is compatible with fine-grained white or grey lime, silver mica,

light grey, black or white quartz, black, light grey and white sand inclusions. The following forms (1, 2, 6, 8, 9, 10, 11, H12D and Well Form) are classified according to Hayes', Meyza's and Williams' typologies.

Form 1 (Fig. 5, no. 22, 23) is characterised by a thickened and rounded rim, a low ring foot, a flaring curved wall and roulette ornaments (Meyza, 2007, Pl. 2, H1var 1, 2). Hayes and Meyza (as forms H1 and H1var) propose a date range for the form of roughly to the late 4<sup>th</sup> century to the early 6<sup>th</sup> century AD (Hayes, 1972, p. 373; Meyza, 2007, p. 44, 45, 48). The discoloured rim of (Fig. 5, no. 22) is a typical feature of Form 1, as described by Hayes (1972, p. 371). Meyza classified a transitional form H1A/B which he dated to the 4<sup>th</sup>-5<sup>th</sup> centuries AD (2007, p. 46). The dish in (Fig. 5, no. 23) has a flat bottom that is comparable to the Meyza form H1A or H1/3, which he dated to the second half of the 4<sup>th</sup> to 5<sup>th</sup> century AD (Meyza, 2001, p. 172, Fig. 3, 10; 2007: 45. pl. 18, 4). This form was also produced in Well Form wares (Williams, 1977, p. 176, Fig. 1, 2; Meyza, 2007, p. 79, pl. 17, Well Form 2). The proportion of this form at Anemurium is 5% (Williams, 1989, p. 29, Fig. 20, 153), although the form is more common in other centres such as Tarsus Cumhuriyet Alanı (Adak-Adıbelli, 2006, chart 9, proportion 17%), Kelenderis (Zoroğlu, 2005, Fig. 5; Tekocak, 2007, p. 18, cat. no. 2, proportion 27.5%), Soli Pompeiopolis (Yıldız, 2022c, p. 1138), Limyra (Marksteiner & Yener-Marksteiner, 2009, taf. 2, 12, Diagram 2, proportion 20%; Bes, 2020, Fig. 4, c) and Cyprus (Rowe, 2006, pp. 108-110) than western Anatolian centres such as Knidos (Sözel, 2023, p. 168, proportion 1.6) and Miletus (Berndt, 2003, p. 40, proportion 0.2%).

Form 2 (Fig. 5, no. 24, 25, 26, 27, 28) is a dish with a thickened and grooved rim, a flat base and a sloping wall. The form is characterized by grooves on the rim and rouletting on the exterior wall. The diameter of the foot ranges from 14 to 20 cm while that of the rim spans from 22 to 26 cm. The fabric is characterised by its fine, smooth texture and well-fired quality, and has a brown to red-brown colouration. The slip is thinner and darker than the fabric. Hayes proposes a date range for the form between the second half of the 5<sup>th</sup> century and the early 6<sup>th</sup> century AD (Hayes, 1972, p. 375, Fig. 80, 1, 2, 10, Fig. 81, form 2.1). Meyza regarded this form in the context of ARSW forms 83-84, as Hayes originally suggested (Hayes, 1972, p. 373). This motivation prompted Meyza to propose a date for Form 2 in the 5<sup>th</sup> and 6<sup>th</sup> centuries AD (2007, p. 52). The archaeological evidence from Anemurium dates to the late 5<sup>th</sup> century and 6<sup>th</sup> centuries AD (Williams, 1989, pp. 30-31, Fig. 11, 160-162). A very similar form from Pednelisos is regarded as a derivative of Cypriot Red Slip Ware (Kenkel, 2007, p. 136: Fig. 5, 7). The low foot of a dish (Fig. 5, no. 24) in a fine brown fabric and brown to dark brown slip has distinctive features of Dark Brown Ware as described by Williams (1989, p. 58, no. 338, 339). It is possible that Anemurium may have had its own tradition of LRD ware, as did Pednelissos. Other centres where similar pieces were discovered include: Limyra (Marksteiner & Yener-Marksteiner, 2009, taf. 2, 15, Diagram 2, proportion 12%),

Kepez/Sillyon (Bilgin, 2021, p. 190, no. 11), Tarsus Cumhuriyet Alanı (Adak-Adibelli, 2006, chart 9, proportion 24%), Kelenderis (Zoroğlu, 2005, Fig. 5; Tekocak, 2007, p. 18, cat. no. 8, proportion 15%), Syedra (Özden Gerçeker, 2020, Fig. 7, 5-6), Soli Pompeiopolis (Yıldız, 2022c, p. 1141, cat. no. 12), Knidos (Sözel, 2023, p. 169, proportion 3.6%), Ephesos (Ladstätter, 2008, p. 122, very rare), Miletus (Berndt, 2003, p. 41, proportion 0.4%), Zeugma (Kenrick, 2013, pl. 30, 475-477), Beirut (Hayes, 2005, p. 25, Fig. 18a, including examples found in deposits associated with the earthquake of 497 or 502 (Reynolds, 2011b, Fig. 1), and Cyprus (Rowe, 2006, p. 111).

The Hayes Form 6 (Fig. 5, no. 29, 30, 31) is a bowl which is characterised by a sharp turned rim, a sloping wall and a low foot. The rim is may be rounded on the exterior (Fig. 5, no. 29), interior (Fig. 5, no. 30) or on both sides. Another distinctive feature of this form is the sharp, narrow (Fig. 5, no. 30) and shallow grooves (Fig. 5, no. 29, 31) underneath the lip on the outside. Some findings have rouletted and roulette-like decoration (Fig. 5, no. 31). The rim diameter of the bowls varies from 21 to 31 cm while the base diameter is 10 to 12 cm. The fabric is characterised by a loose texture and a coarse weave with lime, silver mica and red to dark red sand temper. The colour of the fabric is brown or dull brown. The slip is thin and varies in colour from buff to dark brown and has a sandpaper-like texture. Hayes assigns a date of the the 6<sup>th</sup> century AD to the form while Meyza dates to the 6<sup>th</sup> and 7<sup>th</sup> centuries AD (Hayes, 1972, p. 377; Meyza, 2007, p. 15). Significant findspots include Kömbeçi Mevkii in the territory of Pednelisos (Jackson et al., 2012, Fig. 11.2), Syedra (Özden -Gerçeker, 2020, Fig. 8, 1) and Perge (Fırat, 1999, lev. 55, 212, lev. 58, 228, lev. 62, 247, 63, 259).

Form 8 (Fig. 6, no. 32, 33, 34, 35) comprises bowls with a horizontal everted and slightly thickened or grooved rim, a flaring wall, and a low or flat base. The only decoration on these bowls is a flat or diagonal roulette (Fig. 6, no. 32, 33). A few of material have ridges on the exterior of the all (no. 34). The diameter of the bowls' rims varies from 17 to 32 cm while the base diameter is 10 to 12 cm. The fabric is well fired, sharp break, and a very fine textured surface which may be either powdery or contain lime, silver mica and sand temper. The colour of the fabric varies from buff, red to reddish brown and dark red or dark greyish brown. The slip is of a thin and fine consistency. Hayes assigns a dating the form to the 6<sup>th</sup> century (1972, p. 379). However, Rowe (2004, pp. 115-117) and Meyza (2007, pp. 60-61) are dated to the end of the 5<sup>th</sup> century to the beginning of 7<sup>th</sup> century under two subforms. The form is identified at Syedra (Özden Gerçeker, 2020, Fig. 8, 5-7), Kelenderis (Zoroğlu, 2005, Fig. 5; Tekocak, 2007, p. 18, kat no. 13, proportion 6%), Olba (Aydm, 2019, şekil 3, 9, proportion 11%), Soli Pompeiopolis (Yıldız, 2022c, p. 1142, kat no. 14) and Anemurium. However, the dating does not rely on clear contexts (Williams, 1989, p. 34, Fig. 14, 187-190), therefore, Williams and Fırat (Fırat, 1999, Lev. 71, 288, Lev. 72, 289, 293) followed the dating of Hayes. Building on the ideas of Hayes for CRSW Form 2, Rowe suggested that

Form 8 may have been influenced by both Cypriot Sigillata and African Red Slip, and that it was developed and used for a long time in the 5<sup>th</sup> century (Rowe, 2004, p. 116). LRD ware of the Kadırgürü is a key reference point in terms of the form (Fig. 6, no. 32, 34) (Jackson et al., 2012, Fig. 13., 1-3). The bowl is characterised by a wide everted rim and a slight upward hook on the upper side (Fig. 6, no. 35). The bowl is coated with a thin, matte light red slip and a fine textured, hard light orange fabric. Hayes described that this shape was uncommon, suggesting a date to the 6<sup>th</sup> century (Hayes, 1972, p. 379). Meyza's form 8B is a shallow and large bowl with wide everted rims with a slight hook on the exterior. He dates form 8 from the late 4<sup>th</sup> century through to the 7<sup>th</sup> century AD (Meyza, 2000, p. 5, Fig. 5, 10). A close form of the rim is identified in the contexts of Limyra (Marksteiner & Yener-Marksteiner, 2009, p. 229, taf. 2, 16) (as a variation of form 8), Nea Paphos (Rowe, 2004, Fig. 36, 1) and Polis on Cyprus which dates to the second half of the 6<sup>th</sup> and first half of the 7<sup>th</sup> century AD (Caraher, Moore, Papalexandrou, 2019, Fig. 14, 2).

Form 9 (Fig. 6, no. 36, 37, 38, 39, 40; Fig. 7, no. 41, 42, 43, 44) comprises bowls with a flat base, a rounded-incurved rim and an everted wall. The most notable feature of this form is the roulette with one or two rows. A few have incised wavy line or zig-zag patterns. The form is dated between 580/600 AD and 7<sup>th</sup> century AD (Hayes, 1972, pp. 379-382). The colour of the fabric varies from buff, red-brown, dark brown with lime and mica temper. Some of the wares have a buff colour band on the exterior of the rim. The colours of the slip vary from light or dark hues of reddish brown (proportion 64%), buff (proportion 17%), dark brown and a nearly maroon shade of dark brown (proportion 19%). Wares with a reddish brown slip, comprising 40% of the total, display a buff-cream band on the exterior of the rim. The incidence of the subforms of the ware according to Hayes' classification is as follows: "A" with 70% proportion, "B" with 14% proportion and "C" with 16% proportion. The surface has a fine sandpaper-like texture, a common feature of this form. Meyza suggests a more detailed classification for this form. Meyza's classification form K2A, defined by a flat base, a shallow, wide body with thickened and slightly incurved rim dates it to the 7<sup>th</sup> century (Fig. 6, no. 36, 37) (Meyza, 2007, pl. 20). Form K1/K3 (Fig. 6, no. 38) which was evaluated as B subform by Hayes is a transitional form (Hayes, 1972, Fig. 82, 11; Meyza 2007, pl. 20). It differs from the other forms in the group in that it has a thickened and triangular shaped rim and deep body. Meyza assigns a date of the 5<sup>th</sup> and 6<sup>th</sup> centuries to the form (Meyza, 2007, p. 65). A similar form for (no. 38) has been identified at Kadırgürü Mevkii (Jackson et al. 2012, Fig. 16, 1-3). The other form K2A/3 is a dish (Fig. 6, no. 39) with thickened and incurved triangular-shaped rim which was dated to the period between 530/540 and 670/680 (Meyza, 2007, p. 64). The basin has a shallower body than the Kadırgürü Mevkii (Jackson et al. 2012, Fig. 17, 4). Form K3 (Fig. 6, no. 40), (Fig. 7, no. 41, 42, 43) with zigzag decoration is another dish of the ware group (Meyza, 2007, pl. 9, 1). Reynolds evaluated the ware as LRD 5 as a rare form with the Form 9 material at Beirut (Reynolds, 2011b, 65, no. 62). A similar piece

was also published in Williams' book (1989, Fig. 13, 175). Another parallel of (Fig. 7, no. 42) can be found in a 7<sup>th</sup> century AD deposit from Saraçhane in Istanbul (Hayes, 1968, p. 212, Fig. 81, p. 378), and occurred in a context dated to the 6<sup>th</sup> century AD at the theatre site of Paphos (Waddington, 2003, p. 225, Fig. 57, form 9 B9). The form was a popular one in Tarsus (Adak-Adibelli, 2006, graph 7, proportion 19%), Syedra (Özden-Gerçek, 2020, Fig. 9, 1, 5-6), Kelenderis (Zoroğlu, 2005, Fig. 5; Tekocak, 2007, p. 19, kat no. 15-17, proportion 26%), Olba (Aydın, 2019, Fig. 3, 9, proportion 89%), Soli Pompeiopolis (Yıldız, 2022c, p. 1144, kat no. 18, p. 1146, kat. no. 22) and Limyra (Marksteiner & Yener-Marksteiner, 2009, taf. 1, 9, diagram 2, proportion 13%; Bes, 2020, Fig. 4, b). The examples of Beirut are dated to the period following 551 earthquake (Hayes, 2005, p. 23, Fig. 17; Reynolds, 2011b, Fig. 5). In Cyprus the form is the most prevalent group of LRD in various cities (Diederichs, 1980, pl. 24, 294-295; Waddington, 2003, p. 214; Rowe, 2006, pp. 117-128). In addition, the form has been identified in the cities of Knidos (Doksanaltı, 2020, p. 387; Sözel, 2023, pp. 170-172, proportion 4.2%) and Milet (Brendt, 2003, p. 41, proportion 0.5%).

Form 9C/10 (Fig. 7, no. 45, 46, 47, 48) is a deep basin with a sharply incurved (as a quarter of a circle) and exterior grooved rim accompanied by a deep and wide groove/arc underneath the rim. The pieces are crafted from an orange-brown fabric with a maroon tinge and a slip. They are relatively heavy and convex in profile, with either an upright or inward sloping orientation. The lower edge of the piece tends to thicken, with a knife-edged and undercut join where it meets the body. The walls are curved inwards with a bevelled running around the inside of the top of the body and thickening slightly underneath. LRD Form 10 shows similarities to the characteristics of Form 7 and Form 9C. Hayes dates the to the middle of the 7<sup>th</sup> century AD (1972, p. 383). Meyza dates the form to the last of the quarter of the 6<sup>th</sup> century to the end of the 7<sup>th</sup> century AD (2007, p. 70). In Kadirgürü (Jackson et al. 2012, Fig. 12, 4-5) and Beirut, the pieces date to the late of 6<sup>th</sup> and the early of 7<sup>th</sup> century AD, and they also provided a reference for this dating (Reynolds, 2011b, Fig. 6, 61).

Form 11 (Fig. 8, no. 49, 50, 51) are deep and large basins. The exterior of the flaring wall is characterised by ridges. The slip is present on the interior and exterior of the rim. These have wide mouths with thickened or folded rims. The shape has a flaring outer profile and is either slightly in-curved or straight-walled interior. The rim is thickened and flat on the upper surface. A cut line is evident on the majority of pieces, situated just below the rim. The body generally was finished with a wet-polished surface and has slightly irregular ridges. They have horizontal handles, yet the frequency cannot be calculated from the samples alone. The slip is coloured in a manner similar to the body clay. Hayes dates the form to the period between 550-650 AD while Meyza suggests a date range of the mid of the 5<sup>th</sup> century to 7<sup>th</sup> century AD (Hayes, 1972, p. 383, Fig. 84, 1-2; Meyza, 2007, p. 72, Pl. 22, 1-2). The form is the second most common of the LRD in Cyprus (Rowe, 2006, pp. 117-128). H 11B of



the Meyza classification (Fig. 8, no. 51) is considered a variant of the aforementioned form and is dated to the 7<sup>th</sup> century AD as observed in other sites in Cyprus (Rowe, 2004, p. 132) and Anemurium which presents a more extensive series of the form (Williams, 1989, pp. 15-16, 35-36; Meyza, 2007, p. 74). The form is popular in Syedra (Özden-Gerçeker, 2020, Fig. 10, 5), Kelenderis (Zoroğlu, 2005, Fig. 5; Tekocak, 2007, p. 19, kat no. 27, proportion 13%) and Limyra (Marksteiner et al. 2007, p. 255, Taf. 18, C 17, C19; Marksteiner & Yener-Marksteiner, 2009, taf. 1, 1-2, Diagram 2, proportion 42%).

The ware Fig. 8, no. 52 (Type H12D) is a deep dish or bowl with a vertical rim. The rim is grooved both on and outside. Meyza evaluated variant H12 D as a small pithos typical of the form with a grooved, flat and heavy rim. The form is a derivative of Form 12 (Hayes 1972, p. 384, Fig. 83, 1; Bilgin, 2021, p. 184). In Paphos, range of diameter is 22-30 cm. Paphos material dates from the third quarter of 4<sup>th</sup> century to the late 6<sup>th</sup>/7<sup>th</sup> century AD, as evidenced by the different contexts of Paphos and Kourion in Cyprus. The suggestion of this late date is related to the presence of H11D by Meyza (2007, p. 77). The diameter of the Building B piece (40 cm) is considerably larger than that of the Cyprus centres, which were found with the LRD form in 8 examples in the same level. The fabric and slip of the Anemurium one are similar to the material that Meyza points out, which suggests that Anemurium finding may be a member of this form with a wider diameter. Additionally, the similar form of LRD (Meyza form H11D) from Limyra which has been evaluated as products of a local workshop with matt brownish slip (Yener-Marksteiner, 2007, p. 255, Taf. 18, C 27) is dated to 6<sup>th</sup> and 7<sup>th</sup> century AD (Marksteiner & Yener-Marksteiner, 2009, taf. 2, 20).

**The term Anemurium “Well Form”** was proposed by Williams in reference to the wares discovered in a well deposit in Anemurium (1977, p. 175). Meyza extends the definition of Well Form depending on the different finding spots (2007, p. 79). The form is dated to the years 600-700 AD. No. 53, 54 are large plates/dishes with rounded and knobbed rims. The plate form is characterised by a low base or flat bottom. The mouth is very slightly incurved and rounded. The body is flat with a slight inclination towards the bottom, and is largely undecorated or with very shallow grooves. The characteristic rim features of these findings also shared by the CRS, ARS and Gold Mica Ware at Anemurium. Ware has yellowish buff and gritty fabric with small fine grained lime particles and silver mica as the whole of this ceramic material of Building A. The slip is very thin, in matte red-brown colour and mostly worn away. The form may be evaluated as a form based on ARS Forms 104 and 105 (Hayes, 1972, Fig. 30, 29, Fig. 31,10). In addition, the form shows similarities to the Gold Mica Ware of Anemurium, as discussed by Williams (1989, pp. 57-58, Fig. 30, 332). However, the distinguishing features of this ware group are not evident in the findings from Buildings A and B. But the ware is quite different in terms of its slip and fabric characteristics, which are more akin to those observed in ARS or the other ware groups previously discussed. The rim

with the groove on the inside and thickened on the outside, along with the roulette decoration, are the defining characteristics of the Well Form A subform which is rooted in LRD (CRS) wares (Meyza, 2007, p. 79). Williams evaluation supports this conclusion (Williams, 1977, p. 176). The dating of this form is the late 6<sup>th</sup> to 7<sup>th</sup> centuries AD (Meyza, 2007, p. 80).

## Discussion

As mentioned in the introduction, an examination of the distribution of dating of the ceramics and coins can be employed in order to determine whether there are building phases of these buildings (A and B) that are similar to those observed at the house uncovered during the previous excavation period.

In Building A of area C (between +16.95 and +16.68 m. code), 19 of the coins found belong to the period of Heraclius (610-641), 2 to the period of Anastasius (491-518), 1 to the period of Arcadius or Honorius (395-401), and 4 to the periods of Constantius II (337-361) and Iulian II (355-363). In Room A.3.1 (between +16.80 and +16.31 m. code), two coins were found that date to the end of the 4<sup>th</sup> century and the first half of the 5<sup>th</sup> century. Additionally, one coin was found that dates to the reign of Volusian (251-253) or Valerian (253-260). The alley A/S1 (code +16.68 to +16.09) yielded nine coins of Heraclius (610-641), 2 coins of Zeno (476-491) and one coin of Constantius II (327-329). Room A4 yielded two coins of Constans II (641-668), six of Heraclius (610-641), one of Phocas (602-610), two of Maurice Tiberius (582-602), one of Justinian I (527-565), two of Valens (364-378) and one of Constantius II (348-351).

In Room B3 of Building B (between +16.40 and +14.48 m.-end of sounding- code), one coin is attributed to the reign of Heraclius (610-641) and one to the 3<sup>rd</sup> century AD. The sounding in this room (between +14.40 and +14.13 m. code) yielded one coin dated to Constans II (641-668), This was accompanied by four coins dated to the second half of the 4<sup>th</sup> century and the first half of the 5<sup>th</sup> century. Additionally a single coin was discovered dated to 395-401. In Room B4 (between +16.40 and +15.76 m. code), one coin is attributed to Constans II (641-668), one to Heraclius (610-641) and one to Arcadius (395-408). One coin of Heraclius (610-641) was found in Room B5 (starting code between +15.68 m. and +15.48 m.). In Alley B/S1, one coin of the Heraclian period (610 - 641) was found. In the other rooms of the building, in B4 (+15.59 m. code), B2 (+15.45 m. code), BH1 (+15.29 m. code), B5 (+15.19 m. code) and B1 (+15.29 m. code), no coins were discovered.

Distribution of the coins (Korkmaz & Tekocak, 2023, pl. III, 6) indicates that the coins of Heraclius, dating from 610-641 AD, represents half of all the coins found here (Fig. 9b). The second highest concentration of coins dates from the late 4<sup>th</sup> century to the first half of the 5<sup>th</sup> century AD, which aligns with the construction and usage date of the Central Bath (Alföldi-Rosenbaum, 1989, pp. 1658-1659). The date ranges in which the coins are concentrated

permit the suggestion that these buildings underwent two distinct phases. The first phase, which occurred during the second half of the 6th to the 7th century, and the second phase, which took place at the end of the 4th century. However, the coins in question were found in the same fill and in a completely mixed state, which does not suggest the presence of a phase or stratification. It is important to note that there is no data to support this hypothesis regarding architectural features with the exception of a few minor indications. These coins can be deduced as evidence of the former use of Building A, which is situated on the same axis as the Central Bath. On the other hand, it cannot be discounted that older coins in fact were still in use in the 7<sup>th</sup> century, given the period of their circulation.

The floor of Room B3 of Building B is paved with floor tiles. The earliest coin found in this room at the level of the foundation of the building dates to the period between 364 and 378 AD. A coin of Constantine II (AD 641-668) was also discovered at the same level and location (Korkmaz & Tekocak, 2023, p. 25). During the course of the excavations in these areas and rooms, no evidence was uncovered that could be interpreted as “floor” comparable to the one described by Williams in her book.

A similar pattern of dates are also observed in the upper layers (B and C areas) of the buildings. Accordingly, the buildings are dated to the period between 580-582 AD and the first half of 7<sup>th</sup> century. The dates of the ceramics are consistent with the chronological distribution of the coins found in these buildings. The majority of the ceramic material presented in this article belongs to the period after the earthquake (580/582 AD), which also caused the destruction of Anemurium (Fig. 9a). Therefore, it can be concluded that the deposit represents as an accumulation or destruction deposit.

## Conclusions

The excavation of debris in the Buildings revealed no architectural remains. The depth of this layer varies between 20 cm and 75 cm depending on the slope of the excavation area (Korkmaz & Tekocak, 2023, p. 25). This upper fill/accumulation or destruction deposit of the buildings is named as “Area B” and “Area C”. In these areas 67.3% of the fine wares were found. The remaining 32.7% was discovered in the fills of the rooms. The quantity of coins decreases as the ceramics in the room fills. This may be indicative of construction activities after the 580/582 AD earthquake. This also explains the increase in the emission volume of Heraclius’ coins (Mitchell, 2020, p. 617; Korkmaz & Tekocak, 2023, p. 32).

The ceramic material of these buildings, including diagnostic and undiagnostic sherds of fine and coarse wares comprises nearly 2200 fragments. The catalogue of the assemblage includes 548 fragments. The fine wares account for 226 of total. ARS is comparable in density to LRC wares from Buildings A and B. In the study, a total of 37 pieces were evaluated representing 10 different forms (Fig. 10) in ARS and LRC. Form 106 is the most common

form of ARS. LRC is the second-most common group among the fine wares of Building A. A total of 22 pieces were evaluated in the study, representing three different forms (Fig. 10) in LRC. Among these, Form 3 and its the subform A are the most dominant group. Subform G (Fig. 3, no. 17) exhibits distinctive characteristics that differentiate it from the imitation and original wares of the LRC at Anemurium, as previously evaluated by Williams. This ware is characterised by an orange fabric and a darker slip (Williams, 1989, p. 52). This fabric is also observed on LRD, specifically in Forms 8 (Fig. 5, no. 34, 39) and 9C/10 (Fig. 6, no. 46). This may be indicative of another imitation product.

LRD is the most common group among both Building A and B fine wares. A total of 189 pieces were evaluated in nine different forms (Fig. 10) in this study. Among these, Form 9 and its the subform C are the most prevalent. Other forms are 1, 2, 6, 8, 10, 11, H12D and the Well Form. Pamphylian and Lycian cities such as Limyra (Yener-Marksteiner, 2007, p. 255; Marksteiner & Yener-Marksteiner, 2009, diagram 2) and Arykanda (Yaman, 2018, graph 1) are among the major consumers of LRD. The group produced at the workshops of Pamphylia (Kenkel, 2007, pp. 131-146; Jackson et al. 2012, pp. 89-114) and Cyprus established close commercial relations. The dominance of LRD in Rough Cilicia and other regions testifies to the existence of close maritime trade routes.

It can be reasonably assumed that the port city of Anemurium derived considerable benefit from the blessings of maritime trade. Maritime transportation constituted a central element of the Roman network. This demonstrates that an analysis of Anemurium's cultural and commercial relations during the Roman period must take into account maritime transport. The ancient sea routes demonstrate a connection commencing at Cape Anamur and extending along the coast to the Lycia (Arnaud, 2005, pp. 250-252). Another sea route was known to have connected eastern Lycia and northwestern Cyprus, and may have been responsible for the spread of the idea of LRD. According to the analysis of the Mediterranean sea routes from Cyprus; Laphetos to Anemurium took almost 0.6-0.7 days, Paphos to Anemurium took almost 1.2-1.4 days and Salamis to Anemurium took almost 3 days. Anemurium to Perge and Anemurium to Myra took almost 3 to 3.4 days in winter and summer (calculation: <https://orbis.stanford.edu/>). This explains the dominance of LRD in Anemurium. Due to the close geography, this may be the result of an economic rationale of production rather than the individual choice.

Research in Cyprus revealed that these ceramics were produced in many workshops (Gomez et al., 1996, pp. 77-78). On the other hand, the cites which are known as LRD production or candidates for production are located inland from the Mediterranean coast in southern Anatolia (Kenkel, 2007; Jackson et al., 2012; Hürmüzlü & Sönmez, 2021, p. 356; Özden Gerçeker, 2021, pp. 305-319). The geographical location of these cities may have paved the way for the start of local production rather than sea and overland transport.

In addition, the unique ceramics of Sagalassos should undoubtedly have had an innovative effect on the local production of LRD.

The decline in the use of table wares, whether locally produced or imported, is a phenomenon that occurs in the 6th and 7th centuries AD in the eastern Mediterranean. Suggestions that have been put forward to explain this phenomenon include a change in dietary habits (Kenrick, 2013, p. 36, 76), a general economic recession that led to the closure of the major fine ware workshops, their replacement by vessels made of other materials such as metal and glass as in Late Roman Syria (Lund, 1995, pp. 145-146) and southern Anatolia (Lund, 1996, pp. 105-125). In Anemurium, the earthquake of 580/582 caused a severe decline of the city, which is a plausible explanation for the end of large and major ware groups here. In the same period, locally produced wares may have appeared as favoured cheap productions such as the Well Form, which belongs to the latest phase of the LRD (Williams, 1989, p. 34). The problems in the economic and political situation of the eastern Mediterranean in the 6<sup>th</sup> and 7<sup>th</sup> centuries may have disrupted the distribution system of producers. Problems in the distribution may have led to a decline in their use over time. The example of “ancient entrepreneurship” in the interior regions of Anatolia, such as at Sagalassos should also not be underestimated.

There is no doubt that the widespread distribution of the common Late Roman fine ware groups throughout the Mediterranean resulted in locally produced ceramics that have contacts with the original productions. Consequently, the Late Roman fine wares retrieved from Western Anatolia, Southern Anatolia, and Syria have mostly provided insights into the preferences and living habits that can be assessed from a wholesale perspective (Bes 2015, 105). The low percentages of the other pottery groups suggest that the inhabitants of these buildings led an introverted lifestyle in terms of fine pottery.

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**Catalogue** (Abbreviations: Fig.: Figure, Dia: Diameter) (All measurements are in centimeters)

Fig.	Cat. No.	Room and row	Group	Form	Fabric	Slip	Dia.	Temper <sup>1</sup>
Fig. 3	1 <sup>2</sup>	A2.EO.19	ARS	50B	2.5YR6/8	2.5YR5/8	40	Lime and mica
Fig. 3	2 <sup>3</sup>	A2.EN.32	ARS	67	10R6/8	2.5YR6/8	35	Lime and mica
Fig. 3	3	A2.EH.17	ARS	73/76	10R7/8	10R6/8	21	Mica and lime
Fig. 3	4 <sup>4</sup>	A2.EM.42	ARS	99	10R7/8	10R6/8	35	Lime and mica
Fig. 3	5	A3.1.DG.3	ARS	99 (29.2)	2.5YR6/8	10R6/8	14	Mica
Fig. 3	6	C.EK.9	ARS	99	10R5/6	10R6/8	8	Mica
Fig. 3	7	B.EE.8	ARS	104	2.5YR6/8	10R6/8	23	Mica, sand, lime
Fig. 3	8	C.CV.25	ARS	104	2.5YR7/8	10R6/8	38	Sand, lime and mica
Fig. 3	9	C.CZ.6	ARS	104	5YR7/6	10R5/6	22	Mica and lime
Fig. 3	10	A2.EN.35	ARS	105	2.5YR6/8	10R5/6	15	Lime
Fig. 3	11	B.AV.6	ARS	106	10R6/6	10R5/8	12	Lime and mica
Fig. 4	12	A2.EN.30	LRC	1	2.5YR6/8	10R5/8	27	Sand and quartz
Fig. 4	13	B.DZ.3	LRC	3	2.5YR6/8	10R5/6	11	Mica
Fig. 4	14	C.CV.24	LRC	3	10R6/8	10R6/8	23	Lime and mica
Fig. 4	15	A/S1.DN.10	LRC	3	2.5YR6/8	10R5/8	28	Mica, lime and sand
Fig. 4	16	C.ES.10	LRC	3	10R6/8	10R4/6	27	Quartz and lime
Fig. 4	17	C.EM.23	LRC	3	2.5YR6/6	10R5/8	21	Quartz and lime
Fig. 4	18	B.DP.1	LRC	10	2.5YR6/4	2.5YR6/6	23	Lime
Fig. 4	19	C.EI.26	LRC	10	2.5YR7/8	2.5YR5/6	23	Sand, mica and lime
Fig. 4	20	C.EJ.20	LRC	10	2.5YR6/6	10R5/6	30	Mica, lime and sand
Fig. 4	21	C.EJ.54	LRC	10	10R6/8	10R5/6	25	Lime and mica
Fig. 5	22	C.EN.22	LRD	1	2.5YR6/6	10R5/6	30	Lime and quartz
Fig. 5	23	A2.EM.50	LRD	1	2.5YR6/6	10R5/6	12	Sand and lime
Fig. 5	24	C.EN.5	LRD	2	2.5YR6/6	10R5/6	12	Mica and lime
Fig. 5	25	A/S1.DA.9	LRD	2	5YR7/8	10R5/8	25	Lime

1 All tempers are fine grained (1-3 mm diameter). Mica is silver. Sand colour is black, gray or white. Lime mostly in white. Quartz is in a very light grey and white.

2 Published in Korkmaz – Tekocak 2023, Lev. V. 9.

3 Published in Korkmaz – Tekocak 2023, Lev. V. 11.

4 Published in Korkmaz – Tekocak 2023, Lev. V. 12.

Fig. 5	26	B.DH.5	LRD	2	2.5YR7/8	10R5/6	26	Mica
Fig. 5	27	B1.DV.7	LRD	2	7.5YR6/4	10R5/8	18	Sand
Fig. 5	28	B/S1.AR.8	LRD	2	2.5YR6/6	10R5/8	26	Lime
Fig. 5	29	C.EJ.26	LRD	6	2.5YR6/6	10R5/6	20	Mica, lime and sand
Fig. 5	30	C.EI.11	LRD	6	2.5YR6/6	10R5/6	17	Lime and sand
Fig. 5	31	C.EM.27	LRD	6	7.5YR7/4	5YR5/4	17	Mica, lime and sand
Fig. 6	32	C.EJ.14	LRD	8	5YR7/6	2.5YR6/8	31	Mica, lime and sand
Fig. 6	33	C.ES.9	LRD	8	5YR6/6	2.5YR4/8	26	Lime and mica
Fig. 6	34	C.EJ.52	LRD	8	2.5YR7/6	10R6/8	24	Lime and mica
Fig. 6	35	A.3.1.DF.5	LRD	8	2.5YR7/6	10R5/4	36	Lime and mica
Fig. 6	36	B.EE.7	LRD	9	2.5YR6/6	2.5YR5/6	16	Lime
Fig. 6	37	C.EM.10	LRD	9	2.5YR7/6	10R5/6	21	Lime
Fig. 6	38	C.EH.9	LRD	9	10R6/8	10R5/6	22	Lime
Fig. 6	39	B.DL.7	LRD	9	10R4/6	10R5/4	28	Sand
Fig. 6	40	A2.EJ.19	LRD	9	5YR7/6	10R5/6	14,2	Mica
Fig. 7	41 <sup>5</sup>	C.EK.7	LRD	9	2.5YR6/6	10R5/6	15	Lime
Fig. 7	42	C.EK.15	LRD	9	2.5YR6/6	10R5/4	21	Lime and mica
Fig. 7	43	C.EP.1	LRD	9	2.5YR6/6	10R4/6	22	Lime and mica
Fig. 7	44	C.EM.24	LRD	9	2.5YR6/6	10R5/8	22	Lime
Fig. 7	45	C.EM.19	LRD	9C/10	5YR6/6	10R5/6	22	Lime
Fig. 7	46	C.EM.22	LRD	9C/10	2.5YR6/6	10R5/6	22	Lime
Fig. 7	47	B.DH.4	LRD	9C/10	2.5YR6/6	10R5/4	30	Mica
Fig. 7	48	B.DH.6	LRD	9C/10	2.5YR6/6	10R5/6	30	Lime and mica
Fig. 8	49	C.EM.9	LRD	11	2.5YR6/8	10R5/6	42	Mica, lime and sand
Fig. 8	50	C.CY.14	LRD	11	10R7/4	10R5/6	28	Mica
Fig. 8	51	B.DT.1	LRD	11(H12D)	2.5YR6/8	10R5/6	40	Sand and mica
Fig. 8	52	C.EH.27	Well Form	A	5YR7/6	10R5/8	24	Mica, lime, sand
Fig. 8	53	A2.EI.9	Well Form	A	5YR7/6	10R5/8	31	Lime
Fig. 8	54	C.EP.3	Well Form	A	2.5YR6/6	10R5/8	33	Lime and sand