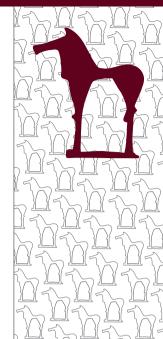
BABESCH

Tenth BABESCH Byvanck Lecture

Guy Sanders Recent Finds from Ancient Corinth: How Little Things Make Big Differences





Tuesday 29 November 2016 at the National Museum of Antiquities at Leiden

The BABESCH Foundation

Recent Finds from Ancient Corinth: How Little Things Make Big Differences

Tenth BABESCH Byvanck Lecture

Recent Finds from Ancient Corinth: How Little Things Make Big Differences

Guy Sanders



The BABESCH Foundation

Leiden

2016

Colophon

© 2016 Guy Sanders and the BABESCH Foundation

BABESCH Email: contact@babesch.org BABESCH on-line: http://www.babesch.org

Editor: Vanessa Boschloos

Lay-out: J. van der Meer Printed by Nevelland, Gent

No part of this book may be translated or reproduced in any form, by print, photo-print, microfilm, or any other means, without written permission from the publisher.

ISBN 9789073626362 Wettelijk depot D/2016/3988/8

NUR 680 – 683

Dear Reader,

With great pleasure we here present you the text of the 10th BABESCH Byvanck Lecture. A jubilee anniversary inviting to fully appreciate how, over the course of a decade, this annual event has become a cherished tradition within the field of Mediterranean Archaeology. Also, it is an excellent occasion to express our continuing gratitude to the National Museum of Antiquities in Leiden, which from the outset has generously offered its majestic Temple Hall as a stage for the Byvanck Lecture. The format has hardly changed over the years. The Byvanck Lecture intends to present to a wider audience intriguing results of archaeological investigation by an internationally renowned specialist.

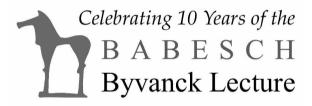
For the 2016 lecture, the BABESCH Foundation is proud to announce dr. Guy Sanders, long-time director (since 1997) of the famed Corinth Excavations, one of those increasingly rare, truly long-term excavation projects in Greece. Started in 1896 by the American School of Classical Studies at Athens, the explorations have continued for over a century with little interruption until this day, allowing to reconstruct the history of Corinth and its surroundings from the Early Neolithic (6500-5750 BCE) through to the near-present. Dr. Sanders is specialized in the study of ceramics from the Late Roman, Byzantine, post-Byzantine and Early Modern periods. His Byvanck Lecture "Recent Finds from Ancient Corinth: How Little Things Make Big Differences" introduces the audience to the intricacies of interpreting finds from the site.

The peer-reviewed periodical BABESCH – Annual Papers on Mediterranean Archaeology (formerly Bulletin Antieke Beschaving) was founded in 1926 by prof. dr. C.W. Lunsingh Scheurleer (1881-1941). The journal publishes scholarly articles, short notes of wider archaeological significance, and academic book reviews. Scholars from all over the world contribute to the journal, which has individual and institutional subscribers in over 30 countries. Since 1975, the journal is complemented with the BABESCH Supplements, a series of specialist monographs, congress proceedings and edited volumes in the same sphere of interest. Both are being published by Peeters International Academic Publishers Leuven, taking special pride in the high quality of lay-out and illustrations for its publications. The BABESCH Journal and the BABESCH Supplements are both administered by the BABESCH Foundation.

The rise of BABESCH to an established forum for international scholarly exchange has been due in no small part to the tireless efforts of the late dr. Lili Byvanck-Quarles van Ufford (1907-2002). Her passionate involvement continues through the substantial endowment she made to Leiden University in the form of the Byvanck Fund, with the BABESCH Foundation explicitly labelled as one of the beneficiaries. This has enabled the BABESCH Foundation to develop, aside its scholarly publishing duties, various other activities geared to a wider community, of which the Byvanck Lecture series is the best known. Another initiative perpetuating Lili's name is the Byvanck Award for the best contribution of a young, debutant scholar in the BABESCH journal. A fairly recent addition is the publication of the annual Byvanck Lecture in a booklet. Enjoy reading!

On behalf of the board of the BABESCH Foundation,

Demetrius J. Waarsenburg, President



November 29th 2016 Guy D. R. Sanders (American School of Classical Studies at Athens) *Recent Finds from Ancient Corinth: How Little Things Make Big Differences*

> December 15th 2015 Olga Palagia (University of Athens) *The Impact of Alexander the Great on the Arts of Greece*

> > November 25th 2014 Lawrence Stager (Harvard University) *Rites of Spring in the Carthaginian Tophet*

November 19th 2013 Susan Alcock (Brown University, Providence) What to do with a Wonder of the World: The Puzzle of Jordan

November 20th 2012 Dyfri Williams (British Museum, London) Up Close and Personal: A New View of the Parthenon's East Pediment

November 1st 2011 Maria Bonghi Jovino (Università degli Studi di Milano) *The Archaic Temples of the Etruscans*

November 16th 2010 Andrew Wallace-Hadrill (University of Cambridge) *Herculaneum: Living with Catastrophe*

November 24th 2009 Cemal Pulak (Texas A&M University) The Uluburun Shipwreck and Late Bronze Age Maritime Trade in the Eastern Mediterranean

> December 15th 2008 Simon Keay (University of Southampton) *Rediscovering Portus: The Port of Imperial Rome*

October 26th 2007 Alexandros Mazarakis Ainian (University of Thessaly) Inside the Adyton of a Greek Temple: Excavations at Kythnos

Recent Finds from Ancient Corinth: How Little Things Make Big Differences

Abstract

The location of Corinth at the Isthmus has ensured that from the Neolithic to the beginnings of the Modern Greek State, the city has had a central role in the commerce of the Eastern Mediterranean. Its location is also responsible for the poverty, in the archaeological record, of the famous wealth of the city with the result that researchers have been forced to concentrate on the mundane. Over the past 20 years we have adopted Northern European methodologies replacing those traditionally used by Classical archaeologists and, as a result, the little things we find have made big differences to the way we think about chronology, material culture and the place of Corinth in the past. Corinth's cultural "reach", both ancient and modern, means that these changes have a local regional and even European-wide impact.

Over the past twenty years Corinth has transformed itself from an old fashioned project looking for ancient monuments and art to something much closer to its western European counterparts. We have been digging houses looking for ordinary things that tell us about the daily lives of ordinary people. To do this we have learned to sieve obsessively and to look at little things that people once tended to overlook. In the process, my students have learned to understand Corinth in a fashion completely different from my generation and the generation that educated me. They are less classicists, art historians and historians and more like cultural geographers who look at political, physical, religious and even economic landscapes.

Our attention to a different kind of detail often means that we stop looking at individual objects and start looking at them in context. By treating pottery as populations we can quantify types and chart how the shape of domestic assemblages changes with time. In the process, we learned that our absolute chronologies were really quite wrong. Corinthian Classical pottery does not end with Alexander the Great but lasts down into the mid-3rd century and Corinthian Hellenistic pottery survives the alleged annihilation of Corinth by Mummius in 146 BCE.

Systematic sieving means we recover many more coins and can also quantify how many. When digging in Late Roman levels, we find twenty times more minimi than when we do not sieve and digging the medieval levels, when coins were larger, six times more. Having more coins means we now date what was mid-5th century to the mid-6th century and have an even bigger re-evaluation of our medieval dates. Such drastic changes are not universally popular with my colleagues, and since I have proved my own work to be very wrong not once but several times, I certainly sympathize.

Like most archaeologists I once assumed that, because ceramics are so ubiquitous in the archaeological record, they were inexpensive and that ordinary people had plenty of pots. If pottery was so cheap and because the very rich used precious metals, Theodore Peña wonders how far up the socioeconomic scale the use of ceramics actually extended.¹ Todd Whitelaw, writing about the Mycenaean period, guessed the average household replaced 75 \pm 25 pots every year.² With an estimate of 12,250 households in the "kingdom" of Pylos, he calculated the annual pottery production of Messenia at about one million vessels. Price graffiti and the ubiquity of Archaic and Classical Attic and Corinthian figured pots led Vladimir Stissi to conclude: "...fine pottery was a commodity within most people's reach".³ For the Roman period, Kevin Greene cautions: "classical archaeologists and historians ... must remember that cooking pots reflect the daily lives of ordinary people, very different from the social élite who wrote most of the surviving literature".⁴ In modern archaeological practice, landscape surveys depend on the assumption that pottery equals people. Thus scatters of potsherds found in the fields are frequently identified as the household remains of an isolated peasant farmstead. The presence of Byzantine glazed pottery in these scatters in Boeotia led Joanita Vroom to conclude that they were mass-produced and "mass-consumed".5

With the greatest deference to these scholars whose scholarship I greatly admire, I now believe that this perception needs to be questioned. Firstly, most pottery is the product of skilled craftsmen. The process of wood firing clay into ceramic was a labour intensive process a large step beyond using the raw materials themselves. Secondly, most scholars have not considered actually what it meant to be poor, let alone what proportion of past populations lived on a very low income. As a consequence, there seems to be a misconception that truly poor people had sufficient income to afford "cheap" pottery. This essay starts by discussing the domestic remains of Byzantine Corinth in the 11th to 15th century asking the

question "to whom did these houses and their contents belong?" My main topics, with examples, are what it meant to be poor in material terms and the cost of pottery in different markets. My conclusion is that a prudent impoverished household had little or no pottery and used wood, stone and wicker and, in periods when the metal was readily available, they used copper pots for cooking.

Excavations at Corinth have uncovered several hectares of the medieval city. The greatest part was revealed in the first decades of the twentieth century by classical archaeologists whose interest in medieval was slight. Although a large portion of the remains were recorded before being demolished in the quest for Roman, Classical and Archaic Corinth below.⁶ In fact, Byzantine domestic structures have received remarkably little attention over the decades and it was possible as recently as 1983 for the eminent architectural historian Charalambos Bouras to state emphatically "there is no such thing as the Byzantine house, only Byzantine houses, of many types and categories, each meriting individual study".⁷ Now that we know a little more about houses of this period, we can see that one of the more common house types of southern Greece house looks rather like Roman and Classical houses.⁸ Southern Greek houses consisted of several rooms arranged around a central courtyard. At first inspection, the plan of medieval Corinth looks like a densely packed slum with narrow alleys leading to open spaces; further consideration reveals these hundreds of rooms actually represent three monasteries and perhaps a dozen or so domestic units (fig. 1).

One of the smallest of these houses was first uncovered in the early 1960's when Henry Robinson was director of the American excavations (*fig. 1*).⁹ His work was completed in 2011 by exposing the 11th century phases of its use. The house consists of ten ground floor rooms arranged around a central courtyard with a footprint of 350 m². The rectangular courtyard alone is about 70 m². It had a well, and besides its function as a light well, the court provided access to the rooms opening on to it. On the south side of the courtyard a stair led to a balcony giving access to at least three rooms on the second storey, which added at least a further 100 m² to the plan to make a total of 450 m² of living and storage space.¹⁰

Its plan is essentially the same as that of the domestic Unit 1 of the so-called Frankish Area south of the museum at Corinth (*fig. 2*). This building was excavated by Charles Williams in the period between 1986 and 1996. Given that so much medieval domestic architecture no longer survives to be enjoyed by the general public, this unit and the church complex to the north are being restored and will be open to the public in 2017. I call it a domestic unit rather than a house because its plan includes shops, storage space, a garden and what may well be a stable. Together these cover an area of 825 m². A stair on the south side of the courtyard led to a second storey over the west rooms and perhaps over the south room. These second storey rooms added between 96 and 172 m² of interior space making the total floor space of the domestic unit the equivalent to about a stremma.

On the east side there was a row of five shops opening onto a plateia surrounded by a covered colonnade. Although there is no direct access, these seem to have belonged to the unit and may have been spaces rented to individuals. Alternately, they may have been used to market items of the household's domestic industry, for instance textiles, and the products of the owner's rural estates. One room may have been a pharmacy because a handful of albarelli (pharmacy pots) were found in and around the room. Shop 2 may have been a kitchen but it was certainly not a restaurant. It perhaps operated as a fast food shop selling bread and ladles of soup to the public. Room 3 may have been a bank because bankers' tokens (jetons) and large quantities of cancelled counterfeit coins were found in the general vicinity. The shops were certainly rather dark and the postholes found between the columns outside may have served to support tables on which to display materials stored in the shops. A corridor between Shops 3 and 4 led to the central paved court of the unit (140 m²). To the north, Rooms 8 and 9 are a large kitchen and a pantry respectively. Rooms 10-14 are stores and room 6 / 7 may have been a stable. A stair on the south side of the court ascends to the private domestic quarters. To the north of the kitchen is a walled garden.

Charles Williams and I both believed that Unit 1 was built in the second half of the 13th century and that it was destroyed early in the 14th century. This has turned out not to be the case. The conservation work required further excavation and in 2015 this has showed us that nearly all the Frankish Area was actually erected, and not destroyed, in the early 14th century. This realization caused us to re-examine the record of the excavations done twenty years ago and discover small things that make big differences.

Several merchant bankers' tokens were found in contexts within and below the destruction horizon. There were tessere mercantile issued by Lombard commercial ventures based in Lucca, Pisa and Naples. One of the tokens, found in a pit sealed by the latest floor under the destruction debris of Room 2 belonged to the Giovanni Sercambi and Nicolao di Bartolomeo Vanni company of Lucca (*fig. 3*).

Giovanni Sercambi has a Wikipedia page devoted to his achievements. He was born in 1343 and the author of a history of Lucca from 1164 to 1423 and a racy book of short stories in the vein of Boccaccio's Decameron. His mercantile ventures began after his service as a soldier and his tessere mercantile can hardly date earlier than about 1380 or 1390. After the structure was abandoned, the roof rotted and collapsed covering the floor with a mass of broken tiles.¹¹ The date suggested by Sercambi and Vanni's tessere mercantile is backed up by an analysis of the glass in the same abandonment horizons and pits. The mould blown glass has close parallels from the Palazzo Vitelleschi excavations at Tarquinia found in contexts with quantities of late 14th and early 15th century coins. This glass assemblage means an even more radical correction to the date of the "Glass Factory" at Corinth (*fig. 4*), which was originally published as early as the 12th century.

By down dating the Frankish Area and the "Glass Factory" by a century and more gives us the archaeology of a period when the Florentine Acciaiuoli family members were Lords of Corinth and Dukes of Athens. Veneto Ware, spirale cercio, RMR, and the maiolicas found in the pits associated with the Frankish area are not circa 1300, as I had published in 1987 to the fury of my Italian and British colleagues who believed they were much earlier, but actually much later extending down well into the 15th century (*fig. 5*).¹² For the first time, we have an archaeology of the Black Death and the Renaissance in Greece, which I believe is extremely exciting. I am embarrassed by my youthful chronological error but I am sobered by the thought that what I assumed was the mass-produced and mass-consumed pottery of ordinary people actually belonged to an establishment that had strong links to the richest echelons of Italian Renaissance society.

Both of the Corinthian houses I have described resemble much smaller houses found in the Athenian Agora excavations, for instance, that published by John Travlos, which was a modest 145 m².¹³ They may not be the "cities within cities" of the richest 1% but clearly these Corinthian houses did not belong to what one could call poor families.¹⁴ The owners will have lived with their retainers and servants in what was essentially a self-contained urban hamlet. Since there were no ground floor windows, when the doors were closed and bolted at night, the urban hamlet was transformed into an urban kastro resembling, on a smaller scale, the kastra on Aegean islands. The kastro of Antiparos in its first phase was three times the size of the Frankish house (ca. 2,800 m²) and consisted of a 22 small houses ranged around the tower of the landowner.¹⁵ The Frankish house at Corinth was more the scale of the 16th century kastro on Antiparos, which consisted of as many as 16 houses built in a square around the central church. Its ground plan covered an area of only 800 m² but it housed perhaps 50 to 80 people.¹⁶

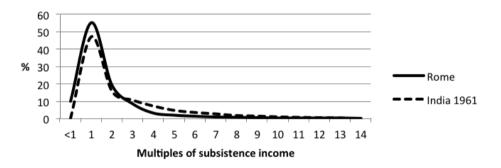
The archaeological evidence for the contents of the Corinth houses comes from rubbish pits dug in and around them. These pits usually contain masses of broken pottery, glass and animal bones but little else. When they were vacated, the owners must have taken the more valuable and enduring objects with them. Anything they may have left behind was recovered or broken by scavengers. Fortunately, there is written evidence for the kinds of movable property families of this economic level had.

In an important article, Nicolas Oikonomides summarized the property of 14 Byzantine individuals and institutions.¹⁷ The lists are not exhaustive and usually document only those items worth at least one gold coin, approximately a month's wages of a domestic servant in the late 13th century.¹⁸ Occasionally less valuable items lumped together, such as ceramic plates and glasses, appear in the inventories of monasteries. In nearly every inventory lists an assortment of kitchen equipment worth 1-2 gold coins apiece. The price obviously precludes that any of this equipment is ceramic and in many cases the metal is stipulated is copper. Some lists contain as many as ten vessels including cauldrons (λέβιτες), kettles (χύτραι) accompanied by tripods or hangers so that they could be suspended over a fire, saucepans (σαλτζερά), frying pans (τηγάνια) and grills (σxάρα). Most of the inventories contain between 2 and 10 metal pitchers (*κ*εραστικά) and fewer carafes (Οινοχεία κουgούπια) of silver or copper but very few copper or silver plates (Σκουτέλλια), cups (βίκοι), or bowls (γαβαθίτζια). Logically, most table wares non-metallic, presumably ceramic.

There is scant mention of furniture, probably because most furniture was worth less than a certain value even when lumped together, as in "six chairs worth a total of 2 gold coins". Only two lists include chairs, two lists record beds and five tables. The beds were probably trestles that could be disassembled for storage. Most of the household likely slept on a rug or a mattress either on the floor or on a wooden bench. The latter ($\mu\alpha\kappa\rho_{I}\sigma\kappa\dot{\alpha}\mu\nu_{I}\alpha$) probably also served for seating or, using stools ($\sigma\kappa\alpha\mu\nu(\alpha)$), as tables. The table tops were set on trestles so that they could be moved, or fixed with four legs. Six of the lists included a chest each was worth between 2 and 10 gold coins. These must have been fairly elaborate and a household doubtless had several plainer chests for storing clothes, bedding, documents and valuables such as books, icons and jewels.

Such items do not appear in the midden pits and dumped fills in the suburb covering the Roman forum at Corinth. Since it is difficult to conceive that a rich householder would allow the urban poor to bury their trash in and around his property, we must conclude that this material culture was generated by the household. If the pottery we have found at Corinth belonged to the rich owners of these urban kastra, then what did poor people have?

At any given time everywhere, except in parts of Europe and North America after the Industrial Revolution, the great majority, over 80% of the population, has lived at or close to subsistence (*graph 1*). Subsistence is a state where a household has sufficient resources to pay tax, to feed itself and, if there was a surplus, occasionally to replace tools and livestock.¹⁹ Oikonomides observed that "there was no point (and no way, for lack of sources) in looking into the huts of the destitute, which were virtually empty. Poor peasants no doubt constituted a large percentage in certain periods, the majority-of the Byzantine emperor's subjects, but their dwellings lack interest because they certainly contained very little".²⁰ Since there are no Byzantine sources, we are forced to consider later sources that give us an idea of the material culture of the very poor in southern Greece.



Graph 1. Income inequality in the Roman Empire and India 1961 (from Sanders, op. cit. Landlords and Tenants).

One of the poorest echelons of pre-modern society was the landless peasant who rented cultivable land to grow food. From Samuel Howe we learn that a Corinthian sharecropper ca. 1800 retained only 25% of his harvest after tax, rent, miscellaneous payments and seed for the following year had been deducted.²¹ From his figures it is simple to calculate the actual amounts. In an "average" year a sharecropper kept about 790 kg of mixed grain, an income of a little over two kg of mixed wheat and barley a day, to feed an entire family.²² At today's bread

prices, that is an annual household income equivalent to only $\in 1,100$. The Corinthian sharecroppers did not live on bread alone. Their diet also consisted of pulses, wild and cultivated vegetables, fruit, some olive oil and wine. With the rare exception of a chicken eaten on special days, they ate little meat - their animals were for traction and milk.

Byzantine and contemporary Ottoman diets were similar to those of rural Greeks in the 19th and early 20th centuries, as can be seen from the records of charitable trusts. The Celaleddin Karatay Khan was built in the 1230's by a Greek convert to Islam. Celeleddin's foundation charter for his hostel provided for a day's rations free to all comers whether female or male, Moslem, Jewish or Christian. The dole consisted of 800 grams of bread (equivalent to 290 kg bread a year), a bowl of cooked foods, probably beans, and 300 grams of meat.²³ In the 12th century the hospital of Christ Pantocrator in Constantinople served 850 grams of bread, two raw onions, 200 grams of beans, 40 grams of cheese, 30 grams of olive oil and a meso kilo of wine a day to each of its patients.²⁴ In both cases, these rations provided the recipients over 2500 calories a day, more than enough for an active man in his prime.

From William Martin Leake and Pierre Peytier, near contemporaries of Howe in Greece, we have descriptions of the sharecroppers' mud brick single-room long houses that they shared with their livestock. Leake described the home of a share-cropper at Molaoi in Lakonia:

"The house is constructed, in the usual manner, of mud, with a coating of plaster; the roof is thatched, which is not a very common mode of covering the cottages of Greece. There is a raised earthen semicircle at one end for the fire, without any chimney; towards the other, a low partition formed of the same material as the walls, separates the part of the building destined for the family from that which is occupied by the oxen and asses used on the farm, one door serving for both apartments. The usual articles of furniture of a Greek cottage are ranged, or hung around, namely, a loom, barrel-shaped wicker baskets, plastered with mud, for holding corn, a sieve, spindles, some copper cooking-vessels, and two lyres. The floor is bare earth covered, like the walls, with a coat of dried mud. An oven attached to the outside of the building, and in the garden some beans, artichokes, and a vine trailed over the roof, indicate a superior degree of affluence or industry ... While I was at dinner five oxen entered, and took up their abode for the night behind the low partition."²⁵ Peytier's description of a house in Corinth is equally objective:

"...in the custom of the country the roof consists of trimmed branches as thick as an arm, spaced from 5 to 6 inches apart which serve as rafters and the tiles are held in place thereon. The houses in general lack chimneys and the smoke from the fires goes out through the cracks between the tiles. Inside the single domestic space of the house is a small oven in which they bake maize bread made like a pancake. As often as not they make it at the time of eating and bake it on the ashes of an ordinary fire. Next to the oven and the hearth are coffers made of wood and of (unbaked) clay resembling terracotta pots leaning against the wall, which are used to store grain. The front door is only 4 feet high and in the room one or two small windows. They do not know the usage of iron work for the closing of doors and windows. The bed of the family and the stranger alike is on either side of the fire. The more comfortably off cover it with a woolen blanket and the poorer with a straw mat."²⁶

In other words, the poor had wicker storage bins, copper pots for cooking and they probably ate with wooden spoons from wooden bowls. We have excavated early 19th century houses of precisely this type - the average size is about 100 m² of which two thirds are for the livestock. The interior spaces of three houses at medieval Panakton, dating to the 14th and 15th centuries, are 30, 55 and 66 m² respectively. The excavations revealed that the occupants possessed a limited ceramic assemblage. A little over 1,000 sherds were found during the excavation of one house, of which only 3% were glazed. Panakton was occupied for perhaps a century so these sherds represent a breakage rate producing 10 sherds per year.²⁷ This is paltry compared with just one of the dumps associated with the Frankish unit at Corinth. This produced over 11,000 sherds of which 8% were imported glazed pottery, mostly from Italy and 8% were locally produced glazed wares. The assemblage is remarkably homogenous and represents perhaps a ten to twenty year span of breakage, a rate equivalent to 550 to 1,100 sherds a year.²⁸

The standard of peasant living in Medieval and early modern Greece is unexceptional. In surveying registers of household goods in 14th to 17th century western Europe, I find that very few had pottery, glass or furniture. A storage trunk or chest also acted as a seat and as a table. They cooked in iron or copper pans and ate off pewter, wood or bread. The general lack of pottery in medieval and postmedieval households suggests that when and where metal goods were readily available, they served for cooking and eating utensils instead.

(Khomatas)	(Mastoras)	(Kladhas)	
Mining Clay:	1 day of wedging: 300 okes of	Procuring wood for pots:	
Pithoi - 6-900 okes	clay for pots.	350-400 bundles	
Pottery - 300 okes	Wedging not necessary for	For pithoi: 1800 bundles	
and collecting temper	pithoi.		
18-35 donkey loads to source	3 days throwing 360 stamnia	Loading and unloading Kiln,	
for 1-2 days	or smaller pots OR	cleaning up debris	
Beating dry clay, sieving and	Adding rings of clay to Pithoi	Supervising firing	
several hours of stirring.	at 1-2 rings per pithos per day	pots: 8-12 hours	
		pithoi: 12-14 hours	
4 days	4 days	4 days	

Effort and output per firing:

Total effort:	12 person days labour
Costs:	Unknown. 300-900 okes of clay, 350-1,800 bundles of wood
Output:	4-6 pithoi, 360 stamnia or 500 mixed pots
Return (Drs)	Pithoi: 40 to 90 drs: Pots: ca 65 drs = 0.15 drs (0.6 σ A σ) each (after 10% breakage)

Table 1. Estimated effort, cost and output per firing of a kiln, based on the Corone workshops.

The evidence for the Byzantine and Ottoman periods tells us the same story but instead of pewter, the poor ate off and out of wood. A display in the Archaeological museum at Istanbul presents several of the thousands of wooden artefacts recovered from the recently excavated Byzantine ships at Yenikapi in Istanbul. These include bowls and spoons and even the sole of a shoe inscribed with birds and an exhortation for the female owner's health and happiness. Wooden platters were also used in 13th century hostels. The kitchens of the Celaleddin Karatay Khan had 22 copper cooking pots, 22 copper serving dishes and a dinner service of 150 wooden plates, bowls and cups off and out of which the guests ate their free food ration.²⁹ No ceramics whatsoever are mentioned. The Christ Pantorkrator hospital kitchens in Constantinople were equipped with copper cauldrons and pots and the Kosmosoteira monastery in the same city supplied each patient with a bowl and plate in an unspecified material and a ceramic cup. Since the material is specified for the cup, I suspect that the bowls and plates were of wood. One reason for the preference of wood and metal over clay vessels in poorer households relates to the price of pottery.

There is no evidence for the price of pottery in the Byzantine period and, therefore, we are again forced to look elsewhere for data. Obviously, it is best to take our material from places geographically and/or chronologically close to the homelands of Byzantine culture. In pricing materials, I frequently convert the monetary value of materials to grams of silver for ease of comparison.³⁰

It takes several processes to convert clay from the ground into a pot. A study of the traditional Aegean pottery workshops in the early 20th century helps us to place an objective value on the process. Traditional potters in the eastern Aegean burnt, depending on kiln size and type of fuel, between 0.4 to 1.3 tonnes for every firing.³¹ In addition to the potter's share, the price of his assistants contributed to the cost of the final product. Table 1 approximates the effort required to produce one kiln's worth of pottery, based on the division of labour in the workshops of Corone in the southern Peloponnese.³² At optimum efficiency, the Corone potters could produce several hundred pots in a week. A 25 litre stamnos, for taking drinking water to the fields, cost 20 lepta at a time when a day labourer was paid one drachma (3.75 g. Ag) a day. This was equivalent to about two hours of labour. A pithos cost between 10 and 15 drachmes. These modern data suggest that pottery is not particularly cheap for people of small means even in the early 20th century. The situation in earlier centuries is no different.

Much of the pottery from middle Byzantine and Frankish contexts at Corinth is lead glazed. Preparation of the glaze mixture was labour intensive and involved the calcination of lead and frit in a special oven followed by several hours of milling. After the application of the glaze, the pots were re-fired with attendant breakage and wastage. In all likelihood, the application of lead glaze and a second firing increased the production cost by at least 100%. The addition of a draftsperson to draw images on the pots also added value. In fifteenth century Italy, for example, the cost of a painter's touch added 15% for a simple design to 33% for a complicated picture.³³ For the Byzantine period, a subjective estimate would be that a skilled painter could draft no more than perhaps six vessels in one of the slip painted or sgraffito styles per hour but the actual quantity depended on the intricacy of the design and the size of the pot. Champlevé and a complicated sgraffito design probably required more time than painting in slip.

Transport also adds to the market price of pottery. When Corone potters worked away from home, for instance in Tripolis, they earned twice what they made at home suggesting that transport and marketing added more than 100% to the original price of the product.³³ Part of the market price included tax. At the royal market at Acre in the second quarter of the thirteenth century, merchants paid 8.3% on the value of pottery arriving and the customers paid a further 25% on leaving effec-

tively adding 33% to the price after transport.³⁵ In practical terms, decoration, glazing, transport, profits and tax could increase the basic price of a pot by over 700%.

Scholars claim that there is little data relating to the actual prices of different articles of pottery. This is true for Byzantine and earlier periods and those prices that we do have are ambiguous to the extent that eminent scholars can draw completely opposite conclusions from the same sets of data. For later periods there is more than enough information to suggest that the labour investment that transformed low-value raw materials, earth, water and fuel, into a relatively expensive finished product. One valuable source is the archives of the commune of Montelupo, a small town on the Arno river between Florence and Pisa, in which the principal industry from the second half of the 13th century was the production of Maiolica pottery. The archives preserve an extraordinary number of documents pertaining to the activities of the potteries and evidence for the wholesale prices of their wares.³⁶ The price of Montelupo pitchers (*table 2*) was proportionate to

	Litres	Price	Shape
Quarti dipinti	4.56	8s	Pitcher
Quarti bianchi	4.56	7s	Pitcher
Mezziquarti dipinti	2.28	4s	Pitcher
Metadelle dipinti	1.14	2s	Pitcher
Mezzette	0.57	1s	Pitcher
Terzeruole	0.45	1s	Pitcher
fiaschi		9s	Bottle
piattelli grandi dipinti		10s	Plate
Piatelli di quarto		4s	Plate
Piatelli picoli		2s	Plate
boccali		2s	Mug
iscodellini		6d	Bowl
iscodelle		1s	Bowl
Catinelle di quarto		7s	Basin
Catinelle di mezzoquarto (catinelluzze)		3s 6d	Basin
Catinelle di metadella (catinelline)		1s 8d	Basin
Catinelle piccolo bianche		1s	Basin
Gubolete		1.8d	
Copechi		1s	
Teghini		1s 8d	

Table 2.Montelupo pottery prices between 1494-1585 where 12 denari = 1 soldi = 0.3 g. Ag.

their volume, thus a decorated *mezzette* with a volume of 0.57 of a litre was one eighth of the price of a decorated *quarti* with a volume of 4.56 litres. The price of a *mezziquarti*, with a volume of 2.28 litres cost a local Florentine unskilled labourer almost half a day's wage in 1498 when he earned 10 *soldi* a day, which was enough to buy him 9 kg of wheat bread.³⁷ If a landless peasant "earned" 2 kg of bread a day, the *mezziquarti* pot cost him almost two day's labour.³⁸

We can directly relate this to our excavations in Greece because we find decorated northern Italian Maiolica Arcaica pitchers in 14th century contexts (fig. 6). The price of a Montelupo *mezziquarti* in the market at Corinth, with transport costs, taxes and merchants' profits, will have been considerably different from the price in Florence or Pisa. Data for transport costs in early 14th century England, gives some idea what was involved in contemporary Mediterranean logistics. The cost of transporting 1 ton of wheat overland varied across the country and ranged between 1 and 2 pennies per mile (0.8 to 1.6 g. Ag / km). By river, the price was between 0.7 and 1.1 pennies per mile (0.56 to 0.87 g. Ag. / km) and by sea only 0.2 pennies per mile (0.14g. Ag / km).³⁹ One ton of wheat has a volume of about 1360 litres and we can estimate how many *mezziquarti* could fit into the same volume. If the 2.28 litre mezziquarti were cubes, then somewhere between 500 and 600 would fit into a container of 1360 litres. Since they were pear-shaped, and had to be packed with filling material to prevent breakage, the actual number was rather more than half that number, perhaps 60%, or between 300 and 360 mezziquarti. If we take the lower number, then the value of this consignment on the Arno at Montelupo was 1,200 soldi (60 Florentine lira, 354 g. Ag.). Using the transport figure we have, the trip down the Arno (about 80 km) and by sea to Corinth (about 1800 km), cost about 310 g. Ag. Transport alone increased the value of the consignment by 88%.

These figures are imaginary. We have customs house figures from 15th century Southampton that tell us the value of imported pottery at the dockside. Five dozen *pots de Malyk* from Malaga were worth five shillings (60d or 54 g. Ag.) or a penny each. The same quantity of *oll' de Janua*, Italian Maiolica, were worth seven and a half shillings (90d or 81g. Ag.) or a penny ha'penny (1¹/₂d) each.⁴⁰ Obviously these were not *mezziquarti* the value of which was well over a penny farthing (1¹/₄ d) each at source; they must have been the smaller litre *metadelle* or half litre *mezette*.

Market taxes and merchants' profits completed the augmentation to the original price of the pot. If market tax was 33%, it seems reasonable to assume that the

merchant would take at least this amount in profit. Without making absurd assumptions, we can get some idea of what a northern Italian imported glazed pot cost a Corinthian urban labourer. If his income was the same as his Florentine counterpart, a *mezzoquarti* that cost the Florentine 4 hours of work represented well over a day's labour to the Corinthian. This was equivalent to six days of a Corinthian rural peasant's income. In answer to the question whether 80% of the population of Corinth possessed an imported Maiolica Arcaica pitcher, the answer is not unless s/he stole it.

These were items used in the homes of the local elite. Even an undecorated, glazed, locally produced pitcher was a luxury for most and an unglazed pitcher was an unjustifiable expense for many. The value of Medieval glazed pottery is further demonstrated by frequent evidence that when even a poorly made and decorated plate was cracked, some effort went into repairs.

	Cost % increase	Price Soldi	Price in silver	Unskilled hours	Rural hours
Unglazed?		1s 9d	0.52 g.	1.75	8
Glazed	100	3s 6d			
Decorated	15	4s	1.18 g.	4	18
Transport	88	7s 6d			
Import tax	8.3	8s 2d			
Middlemen	33	10s 10d			
Market tax	25	13s 6d	3.98 g.	13.5	61

Table 3. Price of a mezziquarti (2.28 *litres*) *in* soldi *and* denarii, *unskilled urban labourer's hours (at 10 soldi per day) and peasant's hours (2 kg bread a day at 1 soldi* 1 denarii *per kg*).

Another reason for the preference of wood and metal over ceramic vessels in poor households was the different use-life of these different materials. Pottery in daily use does not last very long. Ethno-archaeological studies in the 3rd World show that smaller pots in frequent active use, such as food preparation, cooking, serving may break almost immediately or may survive for some years.⁴¹ In the villages of central Mexico the commonest ceramic cooking implement was a plate-like pan used for cooking tortillas and searing meat. On average, each household had two and could expect them to survive less than 3 months of regular use. Each house had a sturdy casserole large enough to cook soups and rice; it generally lasted about a year. Another study revealed that each household possessed about ten pots of which about one third were metal. The authors of this study indicate that the metal pots were a recent introduction and that they were displacing the use of ceramic vessels meaning that the ceramic vessels survived disproportionately longer than in the days before metal pots.⁴²

How much did a cooking pot cost? During the Second World War in the Aegean littoral, Samian and Patmian potters exchanged cooking pots for their volume in pulses.⁴³ To work out how much this was in real terms, in 1993 I bought a 5 litre ceramic casserole for 3,500 drachmes when the daily wage of an agricultural labourer, without benefits, was 5,000 drachmes for a 10 hour day. I filled it with 2,100 drachmes worth of white beans grown in Greece bought from a supermarket. At market prices, by this form of barter, my pot cost about 4 hours of a labourer's work. If we take the Montelupo price analogy (*table 3*), an unglazed *quarti* with a volume of 4.5 l. cost 3 *soldi* and 6 *denari* (1 g. silver) so a ceramic cooking pot with the same volume should be about the same price. A document from 14th century England that tells us that when a kilogram loaf of bread cost a half penny and a day's wage was 1.25 pennies, a ceramic cooking pot cost 5 hours labour.⁴⁴ Given these prices, it is difficult to believe that the 80% of the population purchased earthenware cooking pots, especially if they lasted only a few months in daily use.

The 4 litre copper pot illustrated (*fig.* 7) was in the kitchen of my house, built ca. 1880, when I bought it ten years ago. From the repairs, you can see that it has had a long use-life, and it is likely about 100 years old. A new one today costs €50. We can calculate the approximate cost of a Byzantine copper pot this size from the weight of the pot and the number of Byzantine copper coins required to make up that weight. Obviously a coin is worth much more than its weight in metal but that extra value should more than offset the cost of the coppersmith's work. My four litre copper pot weighs 1 kilogram, equivalent to the weight of 75 Anonymous A2 folles, in other words 3 silver miliaresia of the period (late 10th to early 11th century) with a combined silver content of 9.8 g.45 The cost was therefore ten times that of a ceramic cooking pot of the same volume, or about three days wages. For the prudent housekeeper, the choice between a copper pot that could be used for generations and a ceramic pot, which lasted a few months, was a simple one. Use of a copper pot instead of a 40 odd broken ceramic pots over the course of a decade, represents a saving of about one gold nomisma. This was enough to buy several sheep or a cow.⁴⁶ The logic of this sensible choice becomes still clearer when one considers that a copper pot will heat its contents 400 times faster than a ceramic pot. Ultimately, one is far better off cooking in a copper and decanting the contents into a ceramic pot to keep them warm.

Although we have no Byzantine documents describing the household goods of the poor, we can imagine their material culture was minimal. Given the number of wooden artefacts from the Yenikapi wrecks, it is clear that we have grossly underestimated the use of wood for everyday items in the Mediterranean region (fig. 9). There seems little reason now to think that a Byzantine peasant's household goods were much different from those of an English peasant. A rare surviving document records the resale value of the belongings of Thomas Webster, an English weaver who died in 1416.47 His daily pay was about 5 pennies (d.) without food (4.5 g. Ag.). He rented a cottage but no land and he had no livestock, grain or farming equipment. His craft tools and stock were a pound of wool (worth 2d.), 4 weft slays (3d.), a pair of old combing cards and 3 iron combs (4d.) and a tub (6d.). His kitchen had a wooden kneading-trough (1d.), a wooden butter churn (1d.), a small brass pan (12d.), an iron tripod (3d), an earthenware pot (1d., 0.9 g. Ag.), a gridiron (3d.) 4 platters, 7 dishes and 3 saucers made of wood and an old stew-pan that together were worth less than a penny. His bedding, a blanket and a sheet, were worth 8d. and 4d. respectively. His most valuable possessions were a boat (40d.) and illicit fishing nets. The accumulated wealth of Thomas after a lifetime of work was 7 shillings and 4 pence (79 g. Ag.), equivalent to three weeks' wages.

At the other end of the social scale, an aristocrat's household also used wood. In 1431-2, the Earl of Oxford's housekeeper purchased 234 wooden bowls but only 25 ceramic pots while ceramic cups only replaced ash wood cups at the London Inns of Court during the reign of Henry VIII.⁴⁸ Illustrations of aristocrats at table (*fig. 10*) show them eating off wooden trenchers; even pitchers may be made wooden staves.⁴⁹ Trenchers at four pence (2.36 g. Ag.) a gross (12 dozen) in the 1546 Bristol customs house records were amazingly cheap.⁵⁰ Put in perspective, for the same price as a Montelupo decorated mezziquarti in Naples, one could buy 72 trenchers in Bristol. Another material much used was leather, especially for bottles, drinking vessels and jugs, so much so that some English medieval ceramic jugs imitate the design and stitching of leather prototypes.⁵¹

I think we can safely say that most everyday objects of the Byzantine poor were made of perishable materials. They poor did not have pithoi, they stored in wicker bins and cooked in iron or copper kettles. If the poor had any pottery, it was perhaps a stamnos to keep their drinking water cool. If this hypothesis is replicable, it has obvious implications for the way in which we interpret material culture of other periods and I believe that there is a modicum of corroborating evidence. In 2012 an excavation for the foundations of a new house in a vineyard north of Corinth revealed walls. There had been no pottery or tile visible on the surface but a very thorough, modern, single context, open area excavation of an area of about 500 square metres revealed the remains of what had been a two story farmstead with a tile collapse over the interior floors. An adjoining building contained an oil press and lime cement storage bins. Apart from the roof tile collapse, the only pottery found were a few scraps of lamps, a tiny jug and a very small jar set in the press room floor. It dated to the early Byzantine period, perhaps 6th century. The excavator was bewildered by the almost complete lack of material culture.

This accidental find reminds us that the sites we excavate are biased towards urban sites and sanctuaries. Even when cemeteries are excavated, little attention and ink is wasted on the empty graves. Even the few rural sites that have been excavated in Greece were chosen precisely because the site could be identified and dated by a surface scatter of pottery. One may argue that the pottery was not evidence of a peasant's farmstead having stood there but that it was, more likely, the house of a landowner or his agent. This is certainly the case in Paul Arthur's experience digging early Byzantine rural sites in Apulia, which have no pottery whatsoever. Kim Bowes, asking where Roman peasants lived, has excavated what were apparently the poorest sites found on a survey in Tuscany. She has found that Roman peasants did have pottery, but very little of it. She paints a slightly rosier picture than I have but then I have used grey tones to highlight that we should be cautious. My Greek friends who have parents and grandparents who grew up in rural poverty endorse my assessment of the material possessions of villagers before the mid-20th century (*fig. 11*). They also recognize Peytier's and Tourneforts' descriptions of what were essentially their own childhood homes. I myself have been sat at the only chair and offered water from the only cup in a hospitable rural home. Some archaeologists may be guilty of having created a Potemkin village of plump Hellenistic, Roman or Byzantine Greek peasants smashing pots at weddings and baptisms when the reality may be a bit starker. I certainly believe that Todd Whitelaw is in error to calculate that the average Messenian Mycenaean household broke ca. 75 pots in a year. If they were, then it was a reckless waste of resources. At medieval pottery prices, a gram of silver per pot, the total Messenian breakage of a million vessels a year is the equivalent of a ton of silver, the price of 25,000 Byzantine cows.

References:

¹ J. T. Peña, *Roman Pottery in the Archaeological record*, Cambridge 2007: 30-31.

² T. M. Whitelaw, "Reading Between the Tablets: Assessing Mycenaean Palatial Involvement in Ceramic Production and Consumption", in S. Voutsaki and J.T. Killen (eds.), *Economy and Politics in the Mycenaean Palace States: Proceedings of a Conference held on 1–3 July 1999 in the Faculty of Classics, Cambridge (Cambridge Philological Society Suppl.* 27), Cambridge 2001, 51-79: 64–65.

³ V. V. Stissi, *Pottery to the people. The production, distribution and consumption of decorated pottery in the Greek world in the Archaic period (650-480 BC)* [PhD dissertation Universiteit Amsterdam], Amsterdam 2002: 284.

⁴ K. Greene, *Roman Pottery*, Los Angeles 1992: 16-17.

⁵ J. Vroom, After Antiquity. Ceramics and Society in the Aegean from the 7th to the 20th Century A.C. A Case Study from Boeotia, Central Greece (Archaeological Studies, Leiden University 10), Leiden 2003: 364.

⁶ P. R. Scranton, *Corinth XVI. Medieval Architecture in the Central Area of Corinth*, Princeton 1957.

⁷ CH. Bouras, "Houses in Byzantium", *Deltion tes Christianikes Archaiologikes Etaireias* 11 (1983) 1-26: 1.

⁸ J. Travlos, Πολεοδομική εξέλιξις των Αθηνών, Athens 1960: 159, fig. 104.

- ⁹ Bouras, op. cit.: 10, fig. 4.
- ¹⁰ Travlos, *op. cit.*: 159, fig. 104.

¹¹ A. Soccocci and F. M. Vanni, "Tessere mercantili dei secc. XIII-XV dagli scavi della Missione americana a Corinto", *Rivista Italiana di Numismatica e Scienze Affini* 100 (1999): 201-242. Nos. 8 and 9 are of the family of Niccolo de Benedetto who was active in the mid-14th century. No. 17 in the pit in Room 2 is of the Seracambi family active ca. 1400.

¹² G. D. R. Sanders, "An Assemblage of Frankish Pottery at Corinth", *Hesperia* 56 (1987): 159-195.

¹³ Travlos, *op cit.*: 159, fig. 104.

¹⁴ C. Mango, *Byzantine Architecture*, New York 1976: 235. The house on the estate of Constantine Doukas Porphyrogenitos at Pentigostis near Serres had sufficient rooms to receive Emperor Alexius and his retinue. It had its own bath house and a dining room big enough for a "great banquet (see Anna Comnena, $A\lambda \varepsilon \xi \iota \dot{\alpha} \varsigma$, 9, 5, 4).

¹⁵ G. D. R. Sanders, "Two Kastra on Melos and their Relations in the Archipelago", in P. Lock and G.D.R. Sanders (eds.), *The Archaeology of Medieval Greece (Oxbow Monograph* 59), Oxford 1996, 147-177: 156, fig. 21; A. K. Vionis, *A Crusader, Ottoman and Early Modern Aegean Archaeology. Built Environment and Domestic Material Culture in the Medieval and Post-Medieval Cyclades, Greece (13th – 20th century A.D.) (Archaeological Studies, Leiden University 22), Leiden 2012: 80-81, figs. 5.4.*

¹⁶ It was built before 1592 by Ioannis Raphos, a merchant from Siphnos, to house 12 families from Siphnos see Sanders, *op. cit. Two Kastra*: 155-156, fig. 22; Vionis, *op. cit.*: 81-82, fig. 5.6.

¹⁷ N. Oikonomides, "The Contents of the Byzantine House from the Eleventh to the Fifteenth Century", *Dumbarton Oaks Papers* 44 (1990): 205-214.

¹⁸ C. Morrisson, C. and J. - C. Cheynet, "Prices and Wages in the Byzantine World", in A. E. Laiou (ed.), *The Economic History of Byzantium from the Seventh through Fifteenth Century, II*, Washington 2002, 815- 878: 866, table 18.

¹⁹ G. D. R. Sanders, "Landlords and Tenants: Sharecroppers and Subsistence Farming in Corinthian Historical Context", in S. J. Friesen, S. A. James and D. N. Schowalter (eds.), *Corinth in Contrast. Studies in Inequality*, Leiden 2014, 103-125: 103.

²⁰ Oikonomides, op. cit.: 205.

²¹ L. E. Richards (ed.), *Letters and Journals of Samual Fridley Howe*, Boston 1909: 352–54 cited by Sanders, *op. cit. Landlords and Tenants*: 111-113.

²² Sanders, *idem*: 113.

²³ My thanks to Dr. Scott Redford whose discussion of the Celaleddin Karatay Khan and its foundation document in his paper "Townscapes and rural space in Asia Minor: The Seljuks, their subjects, and their neighbours", given at *Byzantium in Transition, 2nd International Workshop: "The Middle - Late Byzantine/Frankish period, 12th-13th c.", University of Cyprus and Municipality of Paros, Naoussa, Paros, 24-26 May 2013,* from his own unpublished translation.

²⁴ R. Jordan *trans.*, "Pantokrator: Typikon of Emperor John II Komnenos for the Monastery of Christ Pantokrator in Constantinople" in J. Thomas and A. C. Hero (eds.), *Byzantine Monastic Foundation Documents: A Complete Translation of the Surviving Founders' Typika and Testaments*, Washington 2000: 759-760.

²⁵ W. Martin Leake, *Travels in the Morea I*, London 1830: 222-224. Houses fitting this description still exist in Ancient Corinth today. When I purchased my house in the village, all the movable property of the former elderly owners was still in place and with the addition of photographs, beds, glass ware and ceramic plates. There were no lyres, but all the other articles described by Martin Leake were all present. They also had a bread oven, a kitchen shed, an outhouse, a wine press and a well.

²⁶ I thank Dr. Elizabeth French for sending me a photocopy of this unpublished letter.

²⁷ Panakton is a unique and important insight into the life of the medieval rural poor: S. E. J. Gerstel, M. Munn, H. E. Grossmann, E. Barnes, A. H. Rohn and M. Kiel, "A Late Medieval Settlement at Panakton", *Hesperia*, 72 (2003), 147-234: 155-174.

²⁸ G. D. R. Sanders, "An Assemblage of Frankish Pottery at Corinth", *Hesperia* 56 (1987), 159 195: 193-195.

²⁹ My thanks again to Dr. Scott Redford.

³⁰ Care has been taken to be sensitive to devaluation and change in currency values through time.

³¹ In the eastern Aegean the amount of wood used varied between 800 and 1000 okes (1 oke = 1.27kg), see E. Psaropoulou, *Last Potters of the Aegean*, Nauplion s.d.: 63, 123 and 152, but on Limnos, 238, the charge was preheated by smoking then fired using 300 to 350 okes of fuel.

³² See H. Blitzer, "Koroneika: Storage-jar Production and Trade in the Traditional Aegean", *Hesperia* 59 (1990): 675-711.

³³ H. McK. Blake, "Medieval Pottery: technical innovation or economic change?", in H. McK. Blake, T. W. Potter and D. B. Whitehouse (eds), *Papers in Italian Archaeology*, Oxford 1978, 435-473: 435.

³⁴ Blitzer, *op. cit.*: 700.

³⁵ D. Pringle, "Some More Proto-Maiolica from 'Athlit (Pilgrim's Castle) and a Discussion of its Distribution in the Levant", Levant 14 (1982), 104-117: 113 citing R.H.C. Beugnot (ed.), *Livre des Assises de la Cour des Bourgeois*, Paris 1843: CCXLIII.6 - 7.

³⁶ www.museomontelupo.it/old/vasai/indice.asp and F. Berti, *La storia della ceramica di Montelupo, vols I-V*, Montelupo Fiorentino, 1997-2003.

³⁷ In 1498, 10 *soldi* was the equivalent of 2.16 g. of silver: P. Malanima, *Wheat prices in Tuscany* 1350 to 1600 see International Institute of Social history - Global Price and Income History

Group, www.iisg.nl/hpw/data.php#italy (accessed 17 October 2016).

³⁸ Urban labourers earned more because he had rent, heating and other bills that the rural worker provided for themselves.

³⁹ J. Masschaele, "Transport Costs in Medieval England", *The Economic History Review* 46 (1993), 266-279: 270-273. In the early 14th century one English penny = 1.3108 g. of silver, but at the end of the century one penny = 0.7075g.

⁴⁰ D. H. Brown, "Class and Rubbish", in P.P.A. Funari, M. Hall and S. Jones (eds.), *Historical Archaeology: Back from the Edge*, Abingdon 1999, 151-163: 160-61.

⁴¹ P. J. Arnold, *Domestic Ceramic Production and Spatial Organization: A Mexican Case Study*, Cambridge 1991: 62; J. A. Hildebrand and M. B. Hagstrum, "New Approaches to Ceramic Use and Discard: Cooking Pottery from the Peruvian Andes in Ethnoarchaeological Perspective", *American Antiquity* 10 (1999): 25-46.

⁴² In some societies earthenware cooking pots were used only once. Leviticus (6.28) forbade the reuse of an earthenware pot in which a sin offering of meat had been cooked. Cato (*De agricultura* 85, 87) and Apicius (*De re coquinaria* 3.2.5, 5.1.3, 5.2.2, 6.9.13, 7.15.6, 9.8.1) both had recipes that begin "take a new pot" while Ibn Razin al Tugibi, a cookery writer in 14th century Spain, advised that an earthenware pot could only be used once and that a white ware pot could be used five times, see C. A. Nadeau, "Contributions of Medieval Food Manuals to Spain's Culinary Heritage", *Cincinnati Romance Review* 33 (2012), 59-77: 62.

⁴³ G. D. R. Sanders, "New Relative and Absolute Chronologies for 9th to 13th Century Glazed Wares at Corinth: Methodology and Social Conclusions", in Kommission für die Tabula Imperii Byzantini, Österreichische Akademie der Wissenschaften, *Byzanz als Raum. Zu Methoden und Inhalten der historischen Geographie des östlischen Mittelmeerraumes im Mittelalter*, Vienna 2000, 153-173: 170.

⁴⁴ C. Dyer, *Standards of Living in the Later Middle Ages*, Cambridge 1989: 174.

⁴⁵ P. Grierson, *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection III.2, Leo III to Nicephorus III 717-1081* (2 vols.), Washington 1973: vol. 1, 65-67. Average weight of Anonymous A2 folles, 13.36 g., Miliaresia 2.72 g. 95.6% pure silver. At Southampton in 1440, an imported (copper?) kettles of unspecified volume or weight was valued at 16d each (14.5 g. Ag.) and (iron?) frying pans were 6d. each (5.4g. Ag.), see Brown, *op. cit.*: 161.

⁴⁶ Morrisson and Cheynet, *op. cit.*: 839.

 ⁴⁷ C. Briggs, "Manorial Court Roll Inventories as Evidence of English Peasant Consumption and Living Standards, c.1270-c.1420", in A. Furio and F. Garcia-Oliver (eds.), *Pautes de Consum i Nivells de Vida al Món Rural Medieval. Valencia 18-20 de setembre 2008*, Valencia (forthcoming): 23.

⁴⁸ M. R. McCarthy and C. M. Brooks, *Medieval Pottery in Britain A.D. 900-1600*, Leicester 1988: 99.

⁴⁹ *Idem*: 99-100.

⁵⁰ University of Bristol, *Ireland-Bristol Trade in the Sixteenth Century: SN 6275 - Bristol 'particular' accounts and port books of the sixteenth century*, http://doc.ukdataservice.ac.uk/doc/6275/mrdoc/pdf/guide.pdf: 136, 143 (accessed 17 October 2016).

⁵¹ McCarthy and Brooks, *op. cit.*: 100-1.

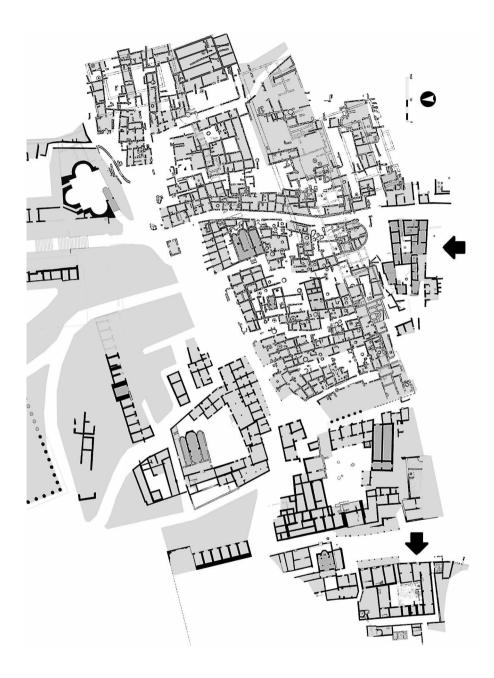


Fig. 1. Composite plan of 13th and 14th century Corinth as currently understood. Arrows indicating the location of a 11th to 13th century house (centre right) and Frankish Unit 1 (bottom right) (by James Herbst and Dimitri Athanassoulis).

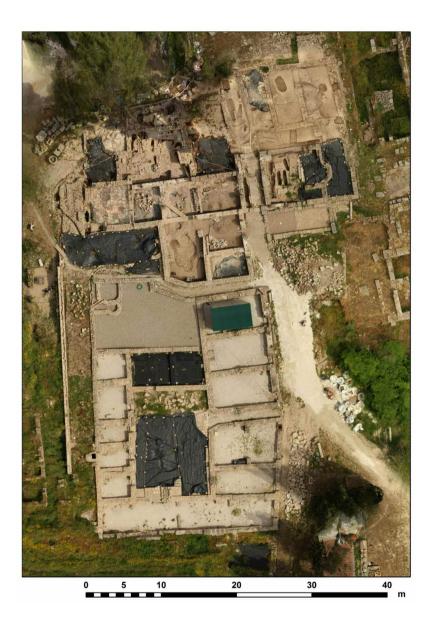


Fig. 2. Frankish Area from above (photograph by James Herbst).



Fig. 3. Jeton of Giovanni Sercambi and Nicolao di Bartolomeo Vanni company of Lucca. Corinth coin 1992-174 (photograph by Petros Dellatolas).



Fig. 4. Glass bottle from the "Glass Factory" at Corinth. Corinth object MF 6772, water colour in Corinth archives.



Fig. 5. Examples of Protomaiolica and RMR pottery from the Frankish Area. Pitcher Corinth pot C 1992-6; Plate C 1994-4; Bowl C 1986-3 (photographs by Pietro Riavez).

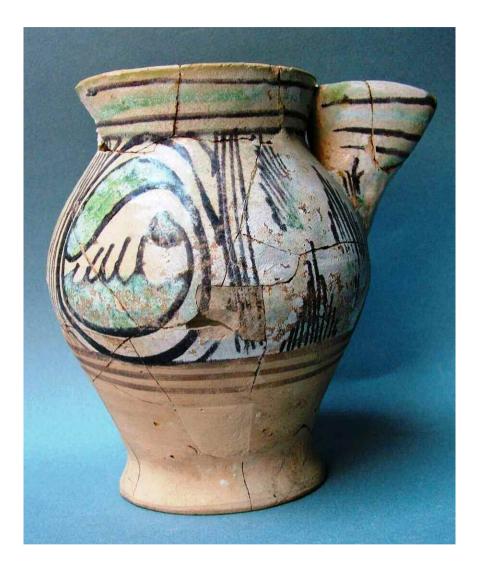


Fig. 6. Archaic Maiolica pitcher from Corinth. Corinth pot C 1934-111 (photograph by Petros Dellatolas).



Fig. 7. 4 litre copper kettle, tinned inside (property and photograph of Guy Sanders).



Fig. 8. Frankish copper cooking pot from Corinth. Not inventoried in Lot 1975-102.



Fig. 9. Modern homemade lime wood bowls and a spoon with the requisite tools to make them (property and photograph of Guy Sanders)



Fig. 10. John of Gaunt, Duke of Lancaster, dining with the King of Portugal. Miniature from the manuscript of Jehan de Wavrin, Anciennes et nouvelles chroniques d'Angleterre III, Bruges, c. 1470-1480: f.244v (© British Library Digitised Manuscripts, Royal MS 14 E IV, www.bl.uk/manuscripts/FullDisplay.aspx?ref=Royal_MS_ 14_E_IV, accessed 17 October 2016)



Fig. 11. Interior of a Greek peasant's house, ca. 1900 (photographer unknown) (Period Paper, 1926 Photogravure, https://www.periodpaper.com/collections/antique-vintage-art/products/1926-interior-greek-peasant-house-greece-hellas-fire-original-photogravure-073078-grc3-063, accessed 17 October 2016).

Guy D. R. Sanders has been director of the American School of Classical Studies at Athens' Excavations at Corinth since 1997. He received his BA from the University of Southampton (1977, Geography and Archaeology) and went on to work as a land surveyor from 1978-1984. He received his MA from the University of Missouri (1986, Art History and Archaeology) and completed most class work for a PhD before taking up the post of Assistant Director of the British School at Athens (1988-94). His PhD was conferred by the University of Birmingham (1996, Ancient History and Archaeology) before being appointed Associate Director of Corinth in the same year.

He has excavated at Ayios Stephanos (1974, 1977) and the Menelaion in Lakonia (1974, 1984), at Phylakopi on Melos (1975, 1976), at Kourion as Field Director (1980-1981) and Saranda Kolonnes, 1983-1984) both on Cyprus, at Mirobriga in Portugal (1981, 1982) and Corinth (1986, 1995-1997). He has participated in archaeological surveys in Lakonia (1983-1988), the Strymon Delta (1983), Kalavasos and Stymphalos (1981-1983) and co-directed a survey in Melos with Richard Catling (1989-1992).

As a medieval and Roman ceramics consultant he has worked on several projects including twelve months as a research assistant in Corinth to Professor Kathleen Slane (1985-1986). His own excavations on Geometric, Hellenistic, Roman, medieval, and early modern levels in the Panayia Field at Corinth were conducted from 1995 to 2007. Excavations at Nezi field began in 2007.

His interests lie in economic, social and historical geography, archaeological science and ceramics especially of the Late Roman, Byzantine, post Byzantine and Early Modern periods. In addition to his administrative and research responsibilities at Corinth, he directs the American School's Peloponnese trip and leads the pedagogy of the excavation training sessions.

