

Trade and the Acquisition of Wealth in Rural Late Antique North Jordan

Abstract

Research at small rural Roman/Byzantine sites in north Jordan refutes the traditional view of rural life in Late Antiquity that includes high taxation, lack of socio-economic mobility, low agricultural productivity, and the inability to accumulate wealth. To be sure, this traditional view has been challenged by historians and archaeologists who are showing that Palestinian wines were produced in great quantities and shipped throughout the Mediterranean area (Kingsley 2003; Kingsley and Decker 2001). It is our contention that this wine industry extended into the highlands of present-day north Jordan and that the prosperity it brought extended beyond the cities into the small villages. In support of this contention: 1) Churches in these small communities have professionally laid mosaic floors, requiring wealth to obtain. 2) Jewelry from individual horizontal shaft tombs (that have been defined as tombs of the poor) is of good quality silver or gold, suggesting aspiration to greater wealth. 3) According to stable carbon and nitrogen isotope analysis, the diet of the inhabitants of the small and large tombs does not differ, and has not declined in quality since the Late Bronze Age. 4) And finally, the size and complexity of winepresses testify that these villagers of north Jordan took part in the lucrative wine trade in the Mediterranean. All of these indicators combine to show that not all the wealth was drawn off in taxes and in profits to the few. In sum, the north Jordan rural sites were populated by a comfortable class of inhabitants who lived rather well, contradicting the traditionally held role of impoverished peasants.

Introduction

The Late Roman/Byzantine period saw the peak of population and settlement intensity in north Jordan, owing to several factors. There was a sense of

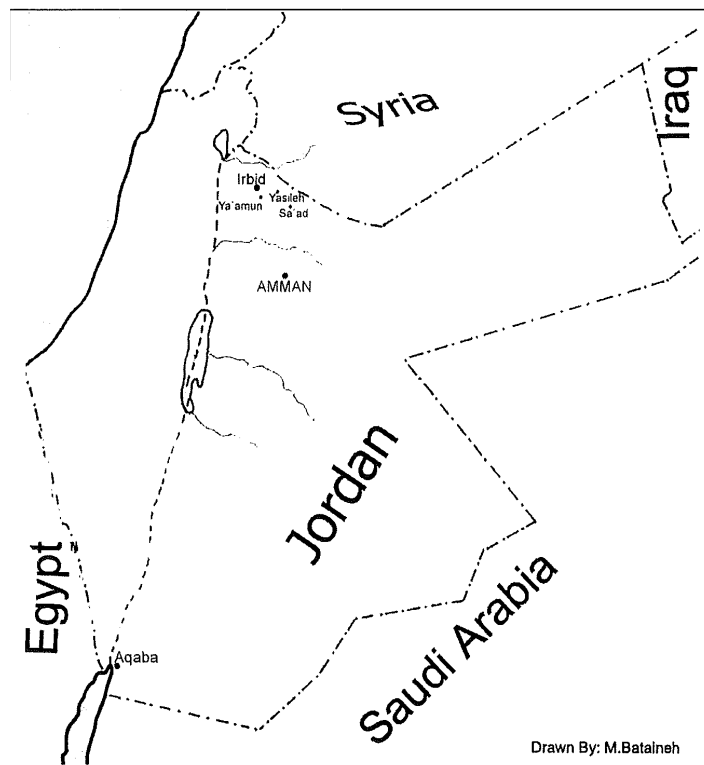
general security that allowed settlement and food production to exist in safety. Trade and economic networks encouraged an overall prosperity. An expanding religious community was given the highest political support and attracted pilgrims as part of the Holy Land itinerary (Watson 2001; Piccirillo 1985; MacAdam 1994). Dating from the foundation of Constantinople in 324AD to the Muslim Conquest in 636/640, north Jordan enjoyed the fruits of a peaceful and productive agricultural economy.

It has been argued (e.g. Jones 1964) that the Jordan population in the Late Roman/ Byzantine period suffered from severe economic stagnation. Our work in north Jordan suggests otherwise. In excavating the sites of Şa'ad (1995-97), al-Yaşıla (1998), and Ya'amün (1999-2004 and ongoing), we found significant evidence of an opposing view in Byzantine villages of comparable size and scope and sharing many features, such as well-constructed churches with mosaic floors, group and individual tombs ranging in quality but exhibiting fine craftsmanship, and large wine presses capable of supporting export.

This paper describes each site, arranged in order of size from al-Yaşıla, the largest, to Şa'ad, the smallest, in terms of water systems, churches, wine presses, tombs, and health and disease. The resulting picture is that of a much less stressed population than had been portrayed.

Al-Yaşıla

Al-Yaşıla is located 9km east of Irbid City along the western edge of the ar-Ramthā district (FIG. 1). Major excavations of the settlement, churches and tombs were undertaken between 1988 and 1991 by the Institute of Archaeology and Anthropology of Yarmouk University under the direction of Prof. Zeidoun Al-Muheisen in cooperation with the De-



1. Map of Jordan, showing al-Yaşıla, Şa'ad and Ya'amūn.

partment of Antiquities. Additional tombs were identified and a portion of them excavated by the joint University of Arkansas and Yarmouk University bioarchaeological field school in 1998 under the direction of Profs. Jerome Rose and Mahmoud El-Najjar.

Al-Yaşıla is in an important geographic location at the crossroads between southern Syria, Jordan and Palestine. It is a large town situated just to the east of the city of Arbela (modern Irbid) and the Decapolis cities of Capitolias, Abila, and Gadara ranging off in that order toward the Jordan Valley. The land in the surrounding area is fertile and well suited for agriculture. The portion of Wādī ash-Shallāla that includes the site of al-Yaşıla is a large depression that collects rain water from the surrounding area and with an annual rainfall estimated to range between 400-500mm there would have been sufficient water for both habitation and agriculture (Al-Muheisen 1989a, 1989b). Availability of water was also ensured by 24 cisterns, a spring located 1km to the north of the site, and a complex water distribution system (Al-Muheisen and El-Najjar 1994). The people of al-Yaşıla cultivated grains, vegetables, and, in particular, grapes for wine as evidenced by the wine presses discovered at the site. Brief descriptions of those features of the site pertinent to our arguments for rural prosperity are presented below.

Water System

Ash-Shuqayrāt (2000) examined the Roman/Byzantine water systems and storage facilities of al-Yaşıla, which consisted of 20 reservoirs (some of which were roofed), 24 cisterns (some plastered on the inside), one dam, distribution canals and numerous natural springs. The dam was built across Wādī al-Warrān and it is estimated that the reservoir might have stored as much as 5,211 cubic meters of water. Ash-Shuqayrāt (2000) contends that the extensive water storage and distribution system contributed to agricultural prosperity as indicated by the large wine presses and basalt cereal grinding facilities. The administrative, ecclesiastical and habitation areas extend about 1.5km along the wadi, where the water channel of Wādī al-Warrān joins the Wādī ash-Shallāla in the middle of the site.

Churches

Finely constructed mosaic floors are one of the most common decorative elements of the ancient churches of northern Jordan. The mosaics of the first church discovered at al-Yaşıla were compared to others in north Jordan such as Jarash, Riḥāb, and Khirbat as-Samrā and were shown to have similar designs that could have been executed by the same artists (Khoury 1990). Various characteristics of the church suggest that it dates to the middle of the fifth or the beginning of the sixth century AD. The second church found during the last season has a dedication in the mosaic pavement that dates it to the year 528AD (Al-Muheisen 1992). The quality of the workmanship argues convincingly for the expenditure of considerable wealth for constructing these two churches.

Wine Presses

A large wine press was found built into the eastern bank in area B across from the church and civic buildings (Melhem 1992; Al-Kousheh 2000). This two-story complex includes several rooms with treading floors and a carved socket for a screw press, as well as huge settling vats for the juice, water cisterns and storage caves. The complex is associated with a large civic building located just below it. Melhem (1992) argues convincingly that this huge wine press was intended for commercial production in contrast to the small presses found at other nearby contemporary sites. The wine press dates from at least the fifth century AD and shows evidence for all methods of grape juice extrac-

tion including the first juice derived from just the weight of the grapes alone, to treading with feet and ultimately using water and a screw press to acquire the last residues of grape (Melhem 1992). All indications are that wine production was a major enterprise at al-Yaşıla.

Tombs

During the excavations of Prof. Al-Muheisen 30 tombs were identified, 20 of which were excavated (Khrais 1997). These were large horizontal chamber tombs of three types: first those with arcasolia and loculi; second with just loculi; and third with loculi and stone-cut graves in the floor. The bioarchaeology field school completed the excavation of the remaining tombs in 1998 (Anderson 2000). These included horizontal chamber tombs without any cut features and seven horizontal shaft tombs ending in a loculus. All of these tombs date to the Late Roman and Byzantine periods (Al-Muheisen and El-Najjar 1994). These tombs are arranged in rows along the almost vertical wadi wall and face the churches and civic buildings located on gently sloping ground directly across the wadi. All of these tombs are finely carved, exhibiting textured walls and symmetrical arcasolia, loculi, and stone-cut graves. The workmanship is clearly professional.

Six horizontal chamber tombs were excavated by the bioarchaeology field school in the north cemetery at the far northern extent of the site; however, the total number of possible tombs in this area was not determined before the end of the final season. The west cemetery is located on the gently sloping surface just back from and at the top of the steep wadi margin. Here 225 horizontal shaft tombs ending in loculi were recorded. All had been robbed in modern times and only 20 yielded any objects or human bones (Anderson 2000). The tombs in the north and west cemeteries are not constructed with the same quality of workmanship and clearly indicate differences in expenditures on tomb construction and hence social class. There is evidence of variation in burial customs due to differing social status and religious beliefs once Christianity became the normative religion. Both single and group tombs constructed during the Roman period were reused in the Byzantine. The presence of animal bones alongside the human remains indicates the practice of funerary feasts and, possibly, subsequent anniversary meals (Al-Muheisen and El-Najjar 1994).

Health and Disease

Examination of the skeletal remains from al-Yaşıla produced very few cases of pathological lesions (Al-Muheisen and El-Najjar 1994; Khalil 2003). These included osteoarthritic lipping on the cervical (neck) vertebrae, possibly due to carrying heavy loads on the head along the very rough terrain adjacent to the site. Osteoarthritic lipping found on other joints such as the elbows and knees is most likely due to advanced age and none of the cases was extensive. Since the skeletal remains were free of infectious lesions, there was no evidence of the major diseases or conditions common at the time that include tuberculosis, leprosy, the anemias (iron deficiencies), treponematosi (syphilis), and ricketts (Al-Muheisen and El-Najjar 1994). Even severe bone fractures were lacking. The incidence of dental enamel hypoplasia indicates moderate childhood stress. These grooves on the teeth formed during childhood are the result of low protein intake and infectious disease (Khwaileh 1999). However, the death rate among infants and young children, when compared to other contemporary skeletal samples, was found to be at the low end of the range, indicating that many children recovered from the stress of childhood as indicated by the hypoplasias (Al-Muheisen and El-Najjar 1994). We suggest that some sort of disease, epidemic or general childhood diseases such as small pox, chicken pox, measles, diarrhea, gastrointestinal infections, seasonal variations in nutrition, and probably deficiencies of iron and protein, may have led to childhood stress seen in the hypoplasias and to death for some of the children.

Antimortem tooth loss was common among both the young and old and can be ascribed to periodontal disease due to caries. Tooth wear was also extensive and is attributed to the extensive use of basalt grinders in preparing the grains for bread making (Khwaileh 1999). The incidence of dental caries was not only higher than those reported for Neolithic sites, but also higher than small Byzantine village sites like Şa'ad (Khwaileh 1999). This strongly suggests that, in addition to the carbohydrates from various grains typical of an agricultural diet, these people were sufficiently wealthy to acquire sugars and other sweets.

Ya'amūn

The site of Ya'amūn is located 25km southeast of Irbid among the most northern set of hills border-

ing the Ḥawrān, which is the fertile agricultural plain that extends northward into Syria (FIG. 1). Like al-Yaṣīla, the site is located just to the east of the ancient city of Arbela and the Decapolis cities, but it was smaller in population and civic importance than al-Yaṣīla. Excavation of the site began in the summer of 1999 and is still ongoing as a bio-archaeological field school operated jointly by the Anthropology Department of the University of Arkansas directed by Prof. Jerome Rose and the Department of Anthropology of Yarmouk University directed by Prof. Mahmoud El-Najjar. The site has produced evidence of continuous occupation from the Early Bronze Age through the Islamic periods, but the discussion here focuses only upon the Late Roman through Byzantine occupations. To date the site has produced a church, four wine presses, 189 tombs, and 54 cisterns for water storage. The features most relevant to our discussion are briefly described below.

Church

The Ya‘amūn church is a basilical style church that measures 15 by 25 meters. The floor consists of colored mosaics with representations of people, animals, plants, various religious symbols, and geometric designs. Two of the imported marble pillars of the altar railing were discovered hidden away and two circular baptismal facilities are still extant. The mosaic pavement is also found in the four rooms excavated to date adjacent to the church and presumably forming part of the religious complex. The quality of the mosaic workmanship is high and comparable to al-Yaṣīla and churches within the adjacent Decapolis cities. The date in the Greek dedication inscription has not yet been completely deciphered but is clearly mid-sixth century and credits local people with funding the mosaic floor. The church was ultimately abandoned and then modified for secular use during Islamic times.

Wine Presses

Four wine presses have been located and excavated to date. The wine presses range in size from a single treading room to as many as seven. The single room press is located on a hill to the north of the tall and is nicely carved into the bedrock with a carved socket for a screw press. The next largest press has four rooms and is located on a hill slope to the west of the tall. Again the press floors are carved into bedrock and each has a collecting fil-

ter for the juice. The next largest is carved into the bedrock on the slope of the tall. There are six small floors arranged around a very large floor carved into the rock at a lower level. One pressing floor has a carved socket for a screw press. Each room has collecting filters for the juice and the storage cistern for the large central pressing floor is at least 5,000 litres. The most recently discovered press also has seven pressing floors carved into the bedrock. Each of the pressing floors has a filter for the grape juice, and there is one carved socket for a screw press. The major storage cistern has not been completely cleared, but it is much larger than the storage cistern of the previously described press. Most interesting about this press is that we found the lowest room to have preserved a portion of its original mosaic floor. Based on their size, complexity, and structural sophistication, we think that these presses indicate the commercial production of wine. Overall suitability for habitation and agriculture is indicated by a good water system of 54 carved water cisterns identified to date (El-Najjar and Rose 2003).

Tombs

The vast majority of the 189 excavated tombs are of Late Roman and Byzantine date; only 9 are Bronze Age. The large tombs range in style from horizontal chamber tombs with arcasolia, loculi, and carved sarcophagi to horizontal chamber tombs with either stone-cut graves or sarcophagi. There are also vertical shaft tombs with arcasolia and stone-cut graves. As at all other sites in north Jordan that we have visited, more than two-thirds are horizontal shaft tombs ending in a loculus. As seen also at al-Yaṣīla, the tombs vary in the quality of workmanship from beautifully crafted tombs cut into the hardest of rock to elaborate, but more crudely carved tombs using softer rock layers. These tombs show the entire range of skill levels in tomb carving from professionals hired at some expense to local/amateur carvers completing the tombs only as needed for more dead. This variation suggests differences in access to financial resources within the community. The number of finely carved tombs is smaller than that at al-Yaṣīla and the large number of crudely carved tombs are far below the lowest quality seen at al-Yaṣīla. Grave goods also vary in quality from very fine glassware to only ceramics and lamps. Items of jewelry are made of silver, copper alloys, and iron.

Health and Disease

Studies of the human skeletal remains recovered to date have found no evidence of extensive chronic infectious diseases (e.g. Obeidat 2001). This indicates that diet was sufficient to maintain competent immune systems. The frequency of enamel hypoplasia is similar to al-Yaşıla, indicating low to moderate childhood stress and thus good childhood nutrition. There is evidence of osteoarthritis on the joints of limbs and spines, but not more than would be expected with advancing age. There is no evidence of abnormally heavy work loads. The teeth exhibit typical wear of the period, but carious (decayed) teeth are less frequent than at al-Yaşıla, indicating less access to refined carbohydrates and sugar.

Şa'ad

The first archaeological exploration of Şa'ad began in 1994 by the Institute of Archaeology and Anthropology at Yarmouk University in cooperation with the Department of Antiquities of Jordan and was directed by Prof. Salih Sari. The next three seasons were conducted jointly by the Institute of Archaeology and Anthropology at Yarmouk University and the Department of Anthropology of the University of Arkansas USA and were codirected by Jerome Rose and Salih Sari (first year) and Mahmoud El-Najjar for 1996 and 1997 (Rose and Burke 2004). Şa'ad was occupied from the Early Roman through the Ottoman periods and is located 27km west of the city of al-Mafraq at an altitude of 850 to 950m above sea level (FIG. 1). The site is located directly on a Roman road forming part of a trade system linking Syria, Jordan, and Palestine. More importantly, Şa'ad is only 17km from the ancient Decapolis city of Gerasa (Jarash), where it could have marketed its agricultural products. The soil at the site is a reddish brown color, rich in minerals and highly amenable to agriculture. Today the land produces various crops, such as wheat, grapes, olives and figs, as well as grazing for a large number of sheep and goats. The average annual rainfall varies between 200 to 300ml (200ml is considered the minimum level for reliable agricultural), and the temperature ranges from 40C in July to 7C in November, with humidity of 30% to 90%. Rainfall for agriculture is supplemented by a major spring located in the broad wadi just below the site. The excavations have documented many features including a wine press, cisterns, 81 tombs, and a church

that are pertinent to our discussions here (Rose and Burke 2004). Şa'ad is the smallest of the three sites discussed here and is clearly a small village when compared to the other two.

Wine Press

The wine press is both large and sophisticated and its excellent state of preservation makes it one of the finest presses in northern Jordan (Sari 2004). The wine press consists of seven rock-cut chambers surrounding a large basin with a socket for a screw press, along with small juice collecting vats, that fulfilled the functions of receiving and processing the grapes. A cistern and main reservoir are linked with the wine press. Six of the rooms would have been for gravity pressing or treading before the grapes were thrown into the central chamber for additional treading and adding water and final extraction with a screw press. One side chamber had a socket for either a central post for the treaders to hold on to or for fixing an additional screw press. The dimension of the installation at 13 x 11.5m exceeds that of the elaborate wine press at the "View Point Park" near Aijalon which measures about 9.1 x 7.4m. (Hirschfeld 1983). Another comparison may be made to Khirbat Yājūz (Khalil and Al-Nammari 2000) where the two large wine presses have a combined measurement of 12.5 x 10.5 meters. A survey of 899 fourth to seventh century wine presses in Israel provides an average size of 3.4 x 3.6 meters (Kingsley 2001). The Şa'ad wine press is far larger than this average. The average collecting vat capacity for these presses is 2,400 liters, with 42% of the presses having a storage capacity greater than 4,000 liters (Kingsley 2001). The combined capacity of 4,204 liters places Şa'ad comfortably into this upper group (Rose and Burke 2004). These figures make it clear that this small village was engaged in commercial wine production.

Church

The church of Saint Thomas is located east of the wine press and opposite the major area of tombs (Sari 2004). The church consists of a nave, presbytery, two aisles, and a narthex. The interior measures 24x11m. The floor of the church was paved with a colored mosaic and traces of restoration were observed that indicated continued use or modification of the church during the early Islamic period. The decoration inside the vine scrolls in the main area of the nave consists of palm trees, dates,

grapes, leaves, and geometric designs in addition to a high footed amphora and a partially damaged basket. The colors used to decorate the scrolls and their contents are red, brown, pink, blue, black, and cream. There were image motifs in the floor that had been removed and replaced by tesserae of a different size and color. It is probable that some of the medallions originally contained birds and animals that were later replaced by plants. The main panel is inscribed with white tessera on a reddish brown background and most of the inscription is preserved except at the northeastern edge. The English translation is provided here:

“By the grace of God and of the Lord Jesus Christ this church of Saint Thomas was founded (and paved with mosaics) and furnished for the life of Gerontions [] and of his son Elia and the salvation of Porfuria the former wife of his son and of the people who have paid the money. O Lord Jesus accept the offering. It was paved (by care of ?) on the fifth indiction of the year 467. Remember O God the vows of [] the illustrious master of weights of the people of Bostra and of John” (Sari 2004).

Here once again the church is well paved by professionals and the inscription indicates the payment of funds by either local people or those with interests in the local community.

Tombs

The total of 81 tombs consists of 71 individual tombs and 10 group tombs. The individual tombs are 69 horizontal shaft tombs ending in loculi and two vertical shaft tombs ending in graves. These tombs are arranged in rows along the side of a wadi situated across from the hill with its church and wine press. The tomb loculi were closed with large rocks. Tombs for multiple individuals consist of 5 horizontal chamber tombs, 4 vertical shaft tombs with stone-cut graves, and one cyst tomb with one cut grave and two graves built of massive blocks of stone for multiple individuals (Rose and Burke 2004). Some of the tombs were carved in Late Roman times, but were subsequently emptied and re-used during the Christian Byzantine, while others contained their original inhabitants. Other tombs were newly built during the Early Byzantine. The quality of tomb construction was, with one exception, far lower than that seen at al-Yaşıla and Ya'amūn; this one exception was the cyst tomb located adjacent to the church main entrance. In fact,

even the best tombs are only the same quality of workmanship as the poorer tombs at Ya'amūn, and thus the quality of construction ranges from moderate to low.

Grave Goods and Jewelry

The majority of grave goods were jewelry items, while frequent ceramic lamps provided evidence for dates of use. Using the contents of unrobbed tombs, we know that the better dressed women wore earrings, a necklace, one or more bracelets and one or more finger rings (Rose and Burke 2004). The least wealthy women wore at least one bracelet and one other item of jewelry. Some bracelets are silver and indicate access to wealth. The earrings were made of gold foil molded over a carved stone core that made them look and swing like gold earrings. Most of the bracelets are copper alloy, and chemical analysis shows that the copper alloys were composed to make the bracelets look like either silver or gold (Cooper and Al-Sa'ad 2001). These results in conjunction with the foil earrings indicate that we have costume jewelry, of which the purposeful manufacture and use reflects both the desire and possibility of acquiring wealth and the real jewelry that it could buy.

Skeletal Remains

Osteological analysis shows that the people who lived at Şa'ad were not very different from any other studied Roman or Byzantine skeletons from the Levant (Rose and Burke 2004). The high frequency of arthritis among the cervical vertebrae suggests that heavy loads were carried on the head. Arthritis rates for the major joints such as the elbow and knee are higher than some studied skeletal collections and lower than others, in particular the prisoners who worked in the copper mines of Faynān. These data suggest that the people of Şa'ad worked moderately hard and this conclusion is corroborated by the rugged development of the muscle attachments (Rose and Burke 2004). Comparison to data from al-Yaşıla indicates a more rugged life style at Şa'ad, including a higher frequency of healed broken bones at Şa'ad. As with the other sites, evidence of infectious disease was minimal, indicating robust immune systems.

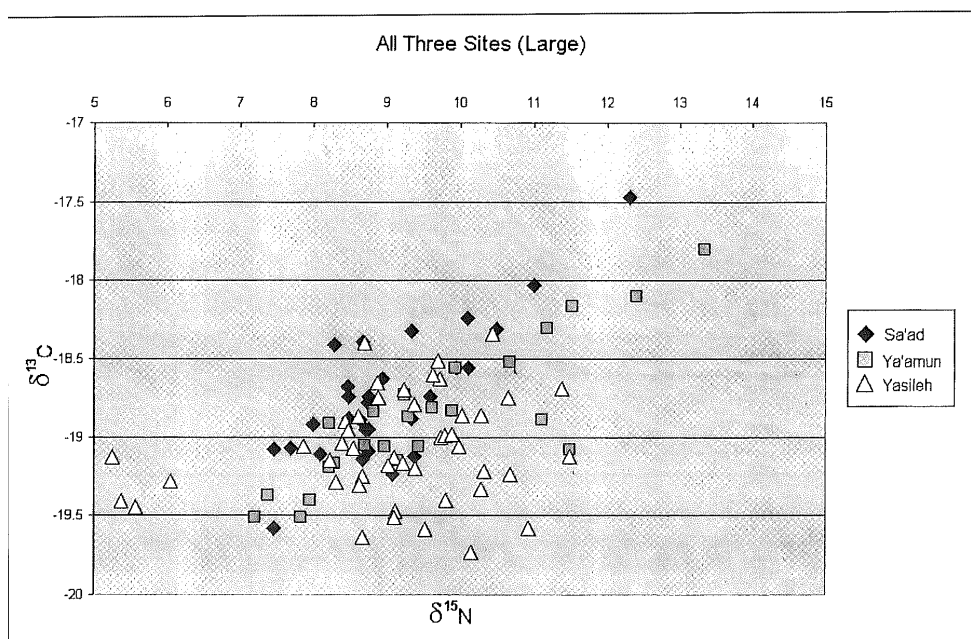
The enamel hypoplasia rates for the canine range between 50 and 61 percent (Al-Awad 1998). When the rates from Şa'ad were compared to other Roman and Byzantine sites in the Levant it was

found that childhood stress was at the high end of the range and was probably related to lower protein consumption (Rose and Burke 2004). The overall dental decay rate is 12.5%, but the people buried in two of the best constructed tombs had lower decay rates than the average, suggesting a relationship between status and carbohydrate consumption (Al-Awad 1998; Rose and Burke 2004).

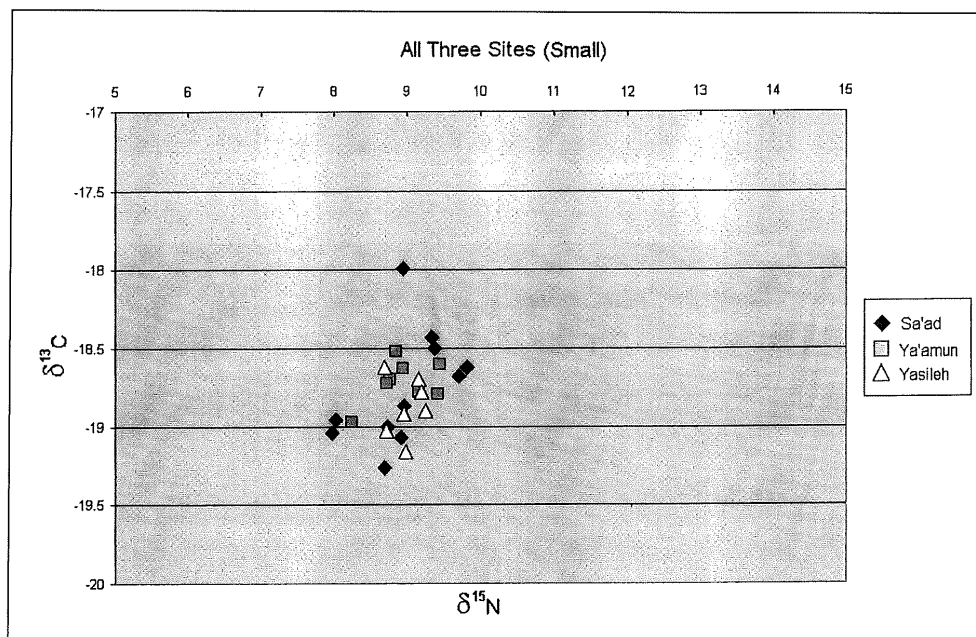
King (2001) analyzed the stable carbon and nitrogen ratios of teeth from the three sites of Şa'ad, Ya'amūn, and al-Yaşıla to test for differences in diet. She first compared the combined samples from these three sites to the isotope ratios of the Late Bronze Age people from Ya'amūn and found no differences. These results indicate that the diet had not changed significantly between the Late Bronze Age and the Late Roman/Byzantine in north Jordan (Rose and Burke 2004). If the condition of the rural Byzantine peasants was as poor as the traditional economic reconstruction suggests, then we would have expected to find a significant difference from the Bronze Age. The people were eating mostly plant foods, primarily wheat (as bread), and very little meat. This conclusion is further supported by a recent study by Al-Shorman (2003) who showed that the stable carbon isotope ratios in the enamel of the teeth from the Şa'ad and al-Yaşıla samples indicate the same contribution of C³ and C⁴ plants to their diet. These studies both conclude that the people of all three sites used the same food resources and based on the values of the stable carbon isotopes, the probable food staple in their diet

was wheat (Al-Shorman, 2003).

Figures 2 and 3 show the distribution of the ¹³C and ¹⁵N values for the large group tombs and single person horizontal shaft tombs from all sites. The average values of the stable carbon and nitrogen isotopes from all three sites are not significantly different; what is different are the ranges of the values (Rose and Burke 2004). The distributions of the plots for the large and small tombs is both interesting and informative. The large tombs have the greatest spread of values, with the distribution of Şa'ad and Ya'amūn being identical. The al-Yaşıla values have a slightly different distribution with many of the carbon values being more negative and many of the nitrogen values being lower than the other two sites, suggesting some differences in diet at this site, probably with greater access to animal protein. The spread of values in the large tombs at all three sites indicates that there was variation in the diets of the people who were buried in the large multi-person tombs. This might have resulted from the long time span over which these tombs were used (Late Roman to Late Byzantine) and a change in diet over time or most likely differential access to animal foods based upon wealth. These large tombs where all who died were buried together would reflect the full dietary range found in the community. The data for the small tombs, though meager in number, are most informative. All the values from the three sites fit tightly into the middle of the large tomb distributions. The diets are clearly average in comparison to the large tombs. Further, the diets



2. Scatter plot of all samples from the large elaborate tombs at all three sites.



3. Scatter plot of all samples from the small individual tombs from all three sites.

are identical between the small tombs at the three sites, and this tight pattern contributes to the importance of these data. This small range of the data from the small tombs from all three sites indicates a great dietary uniformity between the people of these tombs, both within and between sites. If we continue to attribute these tombs to the Late Roman period (see Rose and Burke 2004) then in the subsequent period represented by the people in the large tombs, some of the diets improved in animal product consumption while others declined. Thus we have differential access to resources.

Conclusion

The traditional view of the Late Antique Levant as presented by Jones (1964), and widely accepted until recently, is one of economic stagnation, with the rural population restrained by excessive taxation and bureaucratic restrictions. From this we must assume that the life of the rural person was at best grim and the potential for economic improvement limited. Flaws in these economic and social interpretations have been identified and published over the past two decades by historians and archaeologists such as Kingsley and Decker (2001), Mango (1980), Parker (1999), Ward-Perkins (2000a, 2000b), and Watson (2001). In particular Kingsley (2001) makes a case for the Palestinian wine trade to be a source of wealth and that the rural peasants had access to some of its benefits. During this time the vast majority of the population was rural, and the historical sources are silent as to how they lived, how hard they worked, and how they were

tied to the greater socio-economic structure. Kingsley (2001) among others has made a case for access to wealth by the rural peoples west of the Jordan River, while Parker (1999) has dealt with those in the south of Jordan. In this paper we have marshaled our evidence to demonstrate that this potential for prosperity brought on by the wine trade also existed in Late Antique rural north Jordan. This prosperity is supported by quality of rural church construction, the quality of tomb construction, the jewelry showing some access to wealth and aspiration to more, the skeletons which show evidence of healthy populations, and fine large wine presses that were a source of wealth among the local inhabitants.

Each rural Late Antique town and village had one or more churches similar to the three sites described here. The mosaic workmanship on these floors is first rate and reflects the considerable expense of importing highly skilled craftsmen. Dedication inscriptions tell us who paid for the mosaic floors and indicate that there are individuals with significant wealth willing to expend that wealth within the rural villages. These wealthy people may have lived in the local community, but even if they lived elsewhere they spent resources locally. Our three sites range in size from big town to small village, but the quality of the churches did not vary.

The high quality of some of the tombs supports the proposition that the ability to acquire wealth extended to at least some members of the social hierarchy at each of the three sites because some had the wealth to hire highly skilled craftsmen. The

number of high quality tombs decreased as we move from the largest to the smallest, with Şa'ad having only one fine group tomb located just outside the church door. Using the quality of workmanship, and not just size, demonstrates that access to wealth varied greatly within these rural communities. Differential access to wealth within each community clearly shows that there was indeed wealth to be acquired in the rural communities. The rural communities were not uniformly poor. The presence of gold foil earrings and bracelets made to look like gold or silver strengthen the case made by variation in tomb quality. This costume jewelry, and its purposeful manufacture and use, reflects both the desire and the possibility of acquiring wealth and the real jewelry that it could purchase.

We have shown access to the necessities of life and similar variation in wealth using analysis of the skeletons themselves. The absence of chronic infections indicates a robust immune system associated with good diets and living conditions. Childhood stress is moderate to high, but these small villages do not differ from their contemporaries that have been studied in modern day Israel and Palestine. The frequencies of arthritis and broken bones are higher than some of the comparative sites and show that these people worked hard and, in fact, harder at the smallest site. However, the work loads were not excessive and well below that of workers in the copper mines. The stable carbon and nitrogen isotope values speak directly to the kind of diet and differential access to protein. The lack of difference from the Bronze Age diet indicates no major change in protein access, that would have resulted if the traditional economic model of the rural Byzantine countryside was valid. The stable isotope data from the individual tombs show that the Late Roman villagers had a good diet with little variation between sites. The data from the group tombs show a great increase in variation among the Late Byzantine inhabitants of the same three rural sites. If increased access to animal proteins from meat, milk and cheese indicates increased prosperity, then we can see that many people improved their condition from Late Roman times, while only a few declined, and most remained unchanged in their diets. Further, the values from al-Yaşıla, the largest site, indicate they were better off than those living at the two small sites. These results are the best single indicator that there was differential access to resources and wealth in these rural villages.

Finally, we have identified wine production as at least one source of wealth. Each site had one or more large elaborate wine presses that were in the upper range of size in the Late Antique Levant. The large number of rooms indicates that large quantities of grapes could be processed at the same time. Further, the construction of the wine presses indicated efficiency in extracting all quality of juices at the same time: finest quality from gravity and weight extraction; second quality from treading; and third and fourth quality from large treading floor and screw presses. We conclude that the small rural Late Antique sites in north Jordan shared in the access to wealth already established for the wine and agricultural industries west of the Jordan River.

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