

THE MOLLUSCS FROM THE FRENCH SCHOOL ON YEFET STREET, YAFO (JAFFA)

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INTRODUCTION

This report presents an assemblage of 76 malacological remains from a salvage excavation at the French School in Yafo (see Arbel and Talmi, this volume).¹ The shells were retrieved manually and identified to species level. The assemblage includes 11 species of local Mediterranean seashells and land snails ($n = 72$), and also one indo-pacific bivalve—a cross made of a mother of pearl, one bivalve from the Nile River and two fragments of freshwater bivalves, for which the species could not be identified (Table 1).

The specimens were retrieved from loci of the Crusader period ($n = 50$), the late Ottoman period ($n = 24$) and mixed contexts ($n = 2$). The Crusader-period contexts were associated with a few structural remains in Areas B (west) and C, dated to the twelfth century CE, and a pottery-rich fill in Area A, dated to the thirteenth century CE (see Arbel and Talmi, this volume; Stern, this volume). According to the excavators, the fill in Area A may have been deposited after the Mamluk conquest of Yafo to seal the Crusader-period moat. The material from the late Ottoman period was retrieved from building remains that were exposed throughout much of the excavation area, and possibly belong to a well-house complex from the nineteenth century CE that preceded the French School (see Arbel and Talmi, this volume; Vincenz, this volume).

THE FINDS

Local Shells

Land Snails.— Three species of land snails were found in the excavation, two (*Levantina caesareana* and *Theba pisana*) are part of the natural fauna of the Yafo region, while the third (*Rumina decollate*) is an invasive species in the southeastern Mediterranean Sea.

¹ I would like to thank Yoav Arbel and Limor Talmi for the opportunity to study the material from their excavation and for a long and fruitful collaboration over the years.

Table 1. The Origin and Frequencies of Marine, Freshwater and Land Mollusc Species, Organized Chronologically

Origin/Species	Crusader Period	Late Ottoman Period	Mixed Contexts
Mediterranean	38	21	2
<i>Patella caerulea</i>		1	
<i>Naria spurca</i> ⁱ	3	1	
<i>Neverita josephina</i>	1		
<i>Semicassis granulata</i> ⁱⁱ		1	
<i>Bolinus brandaris</i>	9	3	
<i>Hexaplex trunculus</i>	16	13	2
<i>Stramonita haemastoma</i>	6	1	
<i>Nassarius circumcinctus</i>	1		
<i>Nassarius mutabilis</i>	1		
<i>Glycymeris nummaria</i> ⁱⁱⁱ	1		
<i>Spondylus gaederopus</i>		1	
Nile	1		
<i>Chambardia rubens</i>	1		
Land Snail	9	2	
<i>Rumina decollate</i>	8		
<i>Levantina caesareana</i>		1	
<i>Theba pisana</i>	1	1	
<i>Mother of pearl (worked cross)</i>		1	
<i>Fresh water bivalves</i>	2		
Total	50	24	2

ⁱ Formerly known as *Erosaria spurca* (see www.marinespecies.org).

ⁱⁱ Formerly known as *Phalium granulatum undulatum* (see www.marinespecies.org).

ⁱⁱⁱ Formerly known as *Glycymeris insubrica* (see www.marinespecies.org).

The *Rumina decollate* was probably introduced to the region by the Romans; three of its populations have been identified in Roman-period sites: Apollonia, Sidni ‘Ali Beach in modern Herzliyya and Caesarea (Mienis 2003). Today, there are only two living populations of this snail species in Israel, one in the garden of the Terra Sancta Monastery in Jerusalem and another in Ramat Aviv (Mienis 2003). The eight specimens from the present excavation were found in association with floors and soil accumulations of the Crusader period. This finding may indicate the existence of a fourth, previously unknown, ancient population of *Rumina decollate* in Yafo.

Murex Shells.— Fifty shells, comprising two-thirds of the assemblage, belong to the Muricidae family, and include the species *Bolinus brandaris* (n = 12), *Hexaplex trunculus* (n = 31) and *Stramonita haemastoma* (n = 7). The specimens are worn, with no signs of artificial modification, and were apparently collected as empty shells from the seashore.

These shells were found in soil accumulations, floors and beddings of both the Crusader and Ottoman periods. Their presence indicates that they may have been used in construction material, as has been noted at other sites of the Crusader period such as the Qishle in Yafo and Naḥal Siah in Mount Carmel (Inbar Ktalav, personal observation).

Cowrie Shells.— Four complete cowrie shells (*Naria spurca*) were found in association with a floor context (L529) of the Crusader period and in another locus (L326) of the late Ottoman period. The shells were unworked, possibly collected merely for their aesthetic value, or as amulets symbolizing fertility or protection against the evil eye (see Safer and Gill 1982).

Imported Bivalves

Nile-River Bivalve.— The presence of a Nile River species, *Chambardia rubens*, in a Crusader-period context indicates the existence of commercial contacts with the Nile region. This is a large freshwater mussel distributed through North, East, Central and West Africa. The shell of this species is solid and ovate in shape; its interior is of a pink “mother-of-pearl” hue, which changes to white when exposed to sunlight (Pain and Woodward 1962:75; Mandahl-Barth 1988:73). One fragment of this species was found in L522, in the foundation of a Crusader-period pedestal (see Arbel and Talmi, this volume). This specimen displays faint traces of pink paint on the inner part of the valve.

Mother of Pearl Cross.— A cross made of a mother of pearl was found in a soil accumulation (L538) of the late Ottoman period (Fig. 1). The cross is broken and only half of it remains. The upper arm of the cross (11 mm) is slightly longer than the side arm (10 mm), and its center is square-shaped (8 mm). It is suspected that the species from which the cross was made is the Red Sea bivalve *Pinctada margaretfifera*. A very similar Crusader-period cross, made from the same bivalve species, was found at ‘Atlit (Johns 1934:149). Another cross pendant made of shell was found in a small excavation close to Yafo’s harbor, in association with other artifacts dated to the late Ottoman period (Barshad 2000:136).



Fig. 1. A cross made of “mother of pearl” from the Ottoman period (L538).

CONCLUSIONS

The shell assemblages from the Crusader and late Ottoman periods recovered from the French School excavation are very similar, both indicating the use of shells for construction and as objects of aesthetic or symbolic value, possibly amulets. The presence of 11 species of local Mediterranean seashells and land snails is not surprising given the location of the site on the Mediterranean coast. During the Crusader period there is also evidence for contacts with the Nile region. Evidence for contacts in the late Ottoman period with the Red Sea are possibly indicated by the presence of the mother-of-pearl cross.

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