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NOTES ON SHELLS FROM EXCAVATIONS AT TEL GEZER, ISRAEL

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Some 40 years ago I received from the late Prof. Eitan Tchernov a small collection of archaeomalacological material, which had been assembled during the Hebrew Union College Excavations at Tel Gezer (1964-1972). The collection consisted only of a selection of characteristic pre-sorted types of shells and was intended to be used for further identification of all the excavated shell material. For some unknown reasons these shells were never returned either to Joe D. Seger or Sy Gitin, at that time associated with the Hebrew Union College Biblical and Archaeological School in Jerusalem. The studied material from the typological collection consisted only of 25 samples. The shells are enumerated below and briefly discussed.

THE STUDIED MATERIAL

The shells were initially identified on the spot or in some cases with the help of the recent mollusc collections of the Hebrew University of Jerusalem (today the National Natural History Collections of the Hebrew University of Jerusalem), but the scientific names given to the samples of marine species in 1972/3 were updated according to WoRMS: the World Register of Marine Species (www.marinespecies.org) (Tables 1 and 2).

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TABLE 2: MOLLUSCA - GASTROPODA

Family	Species (Identification)	Typological Collection	Description
Melanopsiidae	<i>Melanopsis buccinoidea</i> (Olivier, 1801)	Marine snail Type A.	MCS 684: B VII 38.120, Locus 38035: 7-4-72: a shell with a damaged top.
Cypraeidae	<i>Monetaria annulus</i> (Linnaeus, 1758)	<i>Cardium tuberculatum</i> (sic!).	MCS 1368: B IV 2.61: Locus 2003.1: 7.26: a burnt, broken fragment of the columellar area.
Cypraeidae	<i>Monetaria annulus</i> (Linnaeus, 1758)	<i>Cypraea</i> sp.	MCS 1464: B VII 38240: Locus 38065: 7-26-72: a small, but adult shell of which the dorsum had been removed
Naticidae	<i>Neverita josephinia</i> (Risso, 1826)	Marine snail Type D.	MCS 491: B VII 44.140, Locus 44071: 7-2-73: a heavily damaged shell missing a large part of the body whorl.
Muricidae	<i>Bolinus brandaris</i> (Linnaeus, 1758)	<i>Murex</i> Sp.	MCS 592: B IX 2.144: Locus 2013: 7-5-73: a shell.
Muricidae	<i>Hexaplex trunculus</i> (Linnaeus, 1758)	<i>Muricanthus</i> sp.	MCS 214: B VII 37.64: Locus 37012: 6-23: a worn shell.
Nassariidae	<i>Nassarius circumcinctus</i> (Adams, 1851)	<i>Cassis</i> sp.	MCS 1368: B VII 63.19: Locus 63004: 7-25-72: a shell with a man-made hole behind the lip of the aperture.
Family	<i>Conus mediterraneus</i> Hwass, 1792	Marine snail Type C.	MCS 211: B VII 38.99: Locus 38033: 6-29-72: a worn shell with a man-made hole in the top.
Conidae	<i>Conus parvatus sharmiensis</i> Wils, 1986	Marine snail Type B.	MCS 211: B VII 44.106: Locus 44022: 6-21-73: a worn shell with a man-made hole in the top.
Enidae	<i>Euchondrus septemdentatus</i> (Roth, 1839)	Land snail Type H.	MCS 170: B VII 36.1, Locus 36001: 6-20-72: a shell.
Ferussaciidae	<i>Calaxis hierosolymarum</i> (Roth, 1855)	Land snail Type I.	MCS 1518: B IV 11.59: Locus 11006.1: 7-26-72: 24 partly broken shells.
Hygromiidae	<i>Xeropicta vestalis joppensis</i> (Schmidt, 1855)	Land snail Type C.	MCS 442: B VII 36.14: Locus 36003: 6-27: a small shell.
Hygromiidae	<i>Xeropicta vestalis joppensis</i> (Schmidt, 1855)	Land snail Type E.	MCS 1368: B VII 63.19, Locus 63004: 7-25-72: a juvenile shell.
Helicidae	<i>Helix engaddensis</i> Bourguignat, 1852	Land snail Type B,	MCS 491: B VII 44.140: Locus 44071: 7-2-73: one shell.
Helicidae	<i>Helix engaddensis</i> Bourguignat, 1852	Land snail Type J.	A recent juvenile shell with the aperture closed by an epiphragm.
Helicidae	<i>Levantina spiriplana</i> sensu lato	Land snail Type D.	MCS 100: B VII 36.3: Locus 36003: 6-21-72: a shell consisting of the early whorls only.
Helicidae	<i>Levantina spiriplana weneri</i> (Kobelt, 1889)	Land snail Type F.	MCS 384: B VIII 24.15: Locus 24008: 6-27-72: a shell with the lip of the aperture missing.
Helicidae	<i>Levantina spiriplana weneri</i> (Kobelt, 1889)	Land snail Type G.	A complete shell.
Helicidae	<i>Levantina spiriplana</i> hybrid (<i>caesareana</i> x <i>hierosolyma</i>)	Land snail type A.	MCS 377: B VII 38.85: Locus 38031: 6-27-72: a complete shell with an almost closed umbilicus as in hybrids between <i>Levantina spiriplana caesareana</i> (Mousson, 1854) and <i>Levantina spiriplana hierosolyma</i> (Mousson, 1854)

TABLE 1: MOLLUSCA - BIVALVIA

Family	Species (Identification)	Typological Collection	Description
Glycymerididae	<i>Glycymeris nummaria</i> (Linnaeus, 1758) Synonyms: <i>G. cor</i> (Lamarck, 1805), <i>G. insubrica</i> (Brocchi, 1814), <i>G. violascens</i> (Lamarck, 1819) and <i>G. violascens</i> (sic!) of authors.	<i>Glycymeris violascens</i> (sic!).	MCS 490: B VII 44.139: Locus 44022: 7-2-73: two valves, both with a man-made hole in the umbo.
Spondylidae	<i>Spondylus gaederopus</i> Linnaeus, 1758	<i>Spondylus</i> sp.	MCS 1254: B VII 34.78: Locus 34042: 7-25: a large lower valve which is heavily damaged towards the ventral margin.
Mutelidae	<i>Chambardia rubens arcuata</i> (Cailliaud, 1823)	Freshwater clam.	I. 10A 210: Locus 10074, D7 697: a large partly disintegrated fragment; I. 10A 250: Locus 10074, P M29 827: a large completely disintegrated fragment.
Cardiidae	<i>Acanthocardia tuberculata</i> (Linnaeus, 1758)	Type A clam.	MCS 745: B VII 44.14: Locus 44001: 7-7.72: a valve with a man-made hole in the umbo.

SOME REMARKS

According to the origin of the shells they can be divided into four different groups:

1. Local land and freshwater snails: the terrestrial species *Euchondrus septemdentatus*, *Calaxis hierosolymarum*, *Xeropicta vestalis joppensis*, *Helix engaddensis*, *Levantina spiriplana weneri* and *Levantina spiriplana* hybrid (*caesareana* x *hierosolyma*), and the aquatic species *Melanopsis buccinoidea*.
2. Marine species from the Mediterranean Sea: the snails *Neverita josephinia*, *Bolinus brandaris*, *Hexaplex trunculus*, *Nassarius circumcinctus*, *Conus mediterraneus*, and the bivalves *Glycymeris nummaria*, *Spondylus gaederopus* and *Acanthocardia tuberculata*.
3. Marine species from the Red Sea: *Monetaria annulus* and *Conus parvatus sharmiensis*.
4. Freshwater mussels from the Nile River, Egypt: *Chambardia rubens arcuata*.

The land snails *Euchondrus septemdentatus*, *Calaxis hierosolymarum*, *Xeropicta vestalis joppensis* and *Helix engaddensis* are still commonly encountered on Tel Gezer and the specimens found during the excavation might be in part of recent origin since they are either living subterranean (*Calaxis hierosolymarum*) or they aestivate deeply buried in the soil (*Helix engaddensis*).

The presence of *Levantina spiriplana weneri* and hybrid *Levantina spiriplana* (*caesareana* x *hierosolyma*) is however another story. Today *Levantina spiriplana hierosolyma* is living in the surroundings of Tel Gezer, while the most southern localities of *Levantina spiriplana weneri* and the hybrid *Levantina spiriplana* are situated near the Ben Shemen and Nahal Daniyel area at least some 9 km to the north.

This means that either the distribution pattern of the *Levantina spiriplana* subspecies with a closed umbilicus (*caesareana* and *weneri*) and with an open umbilicus (*hierosolyma*) has shifted to the north,

or specimens of *Levantina spiriplana wernerii* and the hybrid *Levantina spiriplana* were intentionally brought to Tel Gezer for culinary purposes.

The presence of *Melanopsis buccinoidea* at Tel Gezer is also interesting. This typical species of running water is not living anymore in the Gezer region. According to the list of the typological shell collection at least one specimen of *Melanopsis* was found in a mud brick. This raises the question whether mud bricks were made locally or brought from elsewhere. They were found in a debris layer later than the Hellenistic period.

Part of the shells from the Mediterranean Sea show signs that they had been used either as shell beads: *Nassarius circumcinctus* with a man-made hole in the last whorl behind the lip of the aperture and *Conus mediterraneus* with a man-made hole in the apex, or shell pendants: *Glycymeris nummaria* and *Acanthocardia tuberculata* all with a man-made hole in the umbo. All other Mediterranean shells do not show any trace of manipulation.

Both species from the Red Sea: *Monetaria annulus* and *Conus parvatus sharmiensis*, show traces that they had been exploited too as shell beads. In the Cowry shell (*Monetaria annulus*) the dorsum had been removed, while the tiny Cone shell (*Conus parvatus sharmiensis*) showed a man-made hole in the apex.

The freshwater mussels from the river Nile *Chambardia rubens arcuata* are well-known for their beautiful rose coloured interior of mother-of-pearl, however the material from Tel Gezer did not show a trace of manipulation, besides that the study specimens were almost completely disintegrated.

CONCLUSION

Tel Gezer was a very important major city in ancient times in the northern Shephelah of Israel. Therefore it is a pity that we could study only a small part of the typological shell collection representing the various excavations. Nevertheless these tiny titbits of archaeomalacological material show that they can supply us with intriguing information which deserves a more intensive look at all the shell material.

SOME SHELLS FROM THE EXCAVATION OF HORBAT RIMMON, ISRAEL

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INTRODUCTION

The ruins of Horbat Rimmon are situated some 10 km NNE of Be'er Sheva in the Judean Shefelah, Israel (New Israel grid 187/586). The site was excavated by Prof. Amos Kloner between 1978 and 1981 (Kloner, 1980, 1981 & 1992). These excavations revealed the presence of remains from the Hellenistic, Roman and Byzantine periods.

The archaeozoological finds at Horbat Rimmon were studied by Liora Kolska Horwitz (1998). Only four samples of shells were present among the 1443 animal bones and bone fragments. They were forwarded to me for further study. They could be identified on the spot.

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