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The Mollusks from eṭ-Ṭuweiri

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The mollusk remains retrieved from eṭ-Ṭuweiri serve as evidence of food consumption, trade and the sources of construction material in Western Galilee in the Byzantine and Umayyad periods.

keywords: mollusks, snails, malacology, food consumption, trade, building material

Introduction

Thirty specimens of mollusks were collected manually at eṭ-Ṭuweiri (see Syon, Getzov and Daniel, this volume).[2] They belong to eight species, six of which originated in the Mediterranean Sea, one land snail and one, from the Nile River.

The Finds

The mollusks are described below according to their prospected use in ancient times (Tables 1, 2).

Food Consumption

The edible species *Patella caerulea, P. ulyssiponensis* and *Phorcus turbinatus* are common in the intertidal zone of Israel's rocky shores and found throughout the Mediterranean Sea and the eastern Atlantic Ocean (Poppe and Goto 1991; Barash and Danin 1992). The species *P. turbinatus* can be easily collected by hand, while *P. caerulea* and *P. ulyssiponensis* need to be pried from the rock with the aid of a sharp object at the precise time that the shell is immersed in water by wave action and the animal releases its hermetic grip of the rock. The prying action may at times cause a small break at the edge of the shell, as identified on a specimen from L146. The three species of mollusks may be eaten alive immediately after

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Table 1. Number of Specimens and Origin of Mollusk Species

Group	Species	N	Origin/habitat
Marine gastropod	*Patella caerulea*	7	Mediterranean Sea
	Patella ulyssiponensis	1	Mediterranean Sea
	Phorcus turbinatus	7	Mediterranean Sea
	Hexaplex trunculus	2	Mediterranean Sea
Marine bivalves	*Glycymeris nummaria*	5	Mediterranean Sea
	Cerastoderma glaucum	1	Mediterranean Sea
Freshwater bivalves	*Chambardia rubens*	5	Nile River
Land snails	*Levantina caesareana*	2	Rocky habitat

Table 2. Mollusk Finds according to Context

Area	Locus	Context	Species	N
A	102	Surface	*Glycymeris nummaria*	1
			Chambardia rubens	1
A	109	Eastern treading floor	*Glycymeris nummaria*	1
			Cerastoderma glaucum	1
			Hexaplex trunculus	1
			Phorcus turbinatus	6
			Patella caerulea	3
A	110	Central collecting vat, upper accumulations	*Glycymeris nummaria*	1
			Hexaplex trunculus	1
A	114	Eastern treading floor, Phase II	*Chambardia rubens*	2
A	115	Same	*Glycymeris nummaria*	1
			Phorcus turbinatus	1
A	117	Accumulations south of the central collecting vat	*Glycymeris nummaria*	1
			Chambardia rubens	1
A	135	Western treading floor	*Patella caerulea*	2
A	139	Western, fixed-screw press base	*Patella caerulea*	1
A	141	Narrow strip of mosaic floor north of eastern treading floor	*Levantina caesareana*	1
B	146	West of W130	*Patella caerulea*	1
			Patella ulyssiponensis	1
B	101	Surface	*Levantina caesareana*	1
B	120	Northern part of paved space	*Chambardia rubens*	1

collection or boiled in water.[3] After cooking, the flesh of the mollusk is easily removed with a small pick. At eṭ-Ṭuweiri, altogether 15 shells of these three species were found, likely brought to the site as a source of sustenance.

[3] It was observed that fishermen near Haifa prepare *P. turbinatus* by cooking with diced onion, salt and pepper (personal observation).

Also of nutritional value is the land snail *Levantina caesareana* that lives in rocky habitats. Evidence of its consumption was obtained from the Upper Paleolithic layer of Qafzeh Cave (Bar-Yosef Mayer, Vandermeersch and Bar-Yosef 2009). A very large number of such shells was found in a Byzantine-period monastery in Jerusalem, dated to the sixth century CE (Bar 1977, and see therein for preparation methods and recipes). This snail is still regularly consumed in Arab-Christian villages in Israel today (*Tareekaa: How To Make Palestinian Wild Snail*). The two specimens of this snail found at eṭ-Ṭuweiri could represent either a natural occurrence or consumption remains.

Five specimens were found of *Chambardia rubens*, a freshwater bivalve distributed over much of Africa, including along the Nile River up to its outlet into the Mediterranean Sea. This mollusk has a solid elliptic shell, with an unpronounced umbo and a pink mother-of-pearl sheen, which turns white on exposure to sunlight (Pain and Woodward 1962; Mandahl-Barth 1988). Evidence of the importation of this species to Israel has been found from as early as the Natufian period (Bar-Yosef Mayer 1989). While the occasional shells found in prehistoric contexts are considered precious items of personal adornment or burial offerings, those found in large numbers in later contexts are generally believed to have been a source of exotic food (Reese, Mienis and Woodward 1986; Sharvit et al. 2002). Although the five broken specimens from eṭ-Ṭuweiri do not offer direct evidence of their manner of use, they undoubtedly represent evidence of exchange with the Nile region, through either direct or indirect contacts.

Personal Adornment and Construction Material

Two specimens of *Hexaplex trunculus* were found, one of them (L109) has a large, square artificial hole at its center to allow a string to be passed through the shell for hanging it as a pendant. Remains of other marine species probably arrived at the site with sand brought as construction material: five broken and worn specimens of *Glycimeris nummaria* and one specimen of *Cerastoderma glaucum*.

Conclusions

The mollusk remains retrieved from eṭ-Ṭuweiri offer a glimpse into aspects of food consumption, trade contacts, personal adornment and the sourcing of construction material in a rural context of Western Galilee in the Byzantine and Umayyad periods.

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