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**CHAPTER 5: FOOD RESOURCES EXPLOITED AT GUA SIREH****Ipoi Datan**

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## CHAPTER 5

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#### SHELLFISH REMAINS AT GUA SIREH

Tables 28 and 29 show the frequencies of different species of edible freshwater molluscs which probably formed a considerable proportion of the diet of the cave inhabitants. In trench EFG 8 concentrations occur between 15 and 30 cms (Table 28, Figure 7). In trench 89A the distribution of shells is fairly even with the greatest numbers occurring between 20 and 65 cms (Table 29, Figure 7).

The three main genera of freshwater shellfish recovered at Gua Sireh, all gastropods, are in order of frequency *Melania*, *Neritina* and *Clea* (Plate 37). Another very rare freshwater shell found in recent levels is a bivalve mussel. The presence of all these shellfish species in the cave can only be attributed to human agency.

*Melania episcopalis* was the dominant freshwater shellfish collected as a food source at Gua Sireh. It accounts for more than 85 % (Tables 28 & 29) of freshwater shells in both trenches and was found down to the base of the archaeological deposit in EFG 8 and 89A. The ideal habitat for *Melania* is in fast flowing clear water, as provided by numerous streams in the Serian and Bau districts (Medway 1966:204). The species is less common in northeast Sarawak, for instance in the Sarang and Niah caves (Harrison and Reavis 1966:265). In Sabah, Bellwood (1988:135) remarked that though *Melania* was the third most numerous freshwater species recovered in the Madai and Baturong caves it is relatively scarce in the region at present. A casual investigation of the Bantang Kiri stream which flows below Gua Sireh reveals that some *Melania*, mostly immature specimens, can be found, while *Neritina* are scarce. The present sparsity of both species is probably a result of a combination of overharvesting and changes in the environment caused by agriculture.<sup>2</sup>

The predominance of *Melania* in Gua Sireh probably reflects its greater availability rather than choice through taste. However, Harrison (1966:265) and Tweedie (1951:179) mentions that it is a tasty mollusc and thus it could have featured quite substantially in the diet of the occupants of Gua Sireh. It can also survive for long periods if kept in moist conditions. Tunjang (the *Tua Kampong* of Kampong Bantang Plaman) related to us stories of people keeping caches of *Melania* as a food reserve when taking refuge in the cave during unsettled times.

**TABLE 28**  
**Frequencies of edible freshwater shellfish according to species in**  
**Trench EFG 8 Gua Sireh**

| Level<br>in cm | <i>Melania</i> |         | <i>Neritina</i> |        | <i>Clea</i> |       | Mussel* |       | Totals |
|----------------|----------------|---------|-----------------|--------|-------------|-------|---------|-------|--------|
|                | Qty            | (%)     | Qty             | (%)    | Qty         | (%)   | Qty     | (%)   |        |
| 0-5            | 1997           | (98.5)  | 15              | (0.7)  | 9           | (0.4) | 9       | (0.4) | 2030   |
| 5-10           | 623            | (98.1)  | 12              | (1.9)  | 0           |       | 0       |       | 635    |
| 10-15          | 408            | (91.0)  | 42              | (9.0)  | 0           |       | 0       |       | 450    |
| 15-20          | 956            | (88.3)  | 124             | (11.4) | 3           | (0.3) | 0       |       | 1083   |
| 20-25          | 1458           | (75.1)  | 483             | (24.9) | 0           |       | 0       |       | 1941   |
| 25-30          | 948            | (79.5)  | 179             | (15.0) | 66          | (5.5) | 0       |       | 1193   |
| 30-35          | 129            | (75.0)  | 44              | (25.0) | 0           |       | 0       |       | 173    |
| 35-40          | 231            | (87.5)  | 33              | (12.5) | 0           |       | 0       |       | 264    |
| 40-45          | 80             | (78.0)  | 22              | (22.0) | 0           |       | 0       |       | 102    |
| 45-50          | 88             | (96.0)  | 4               | (4.0)  | 0           |       | 0       |       | 92     |
| 50-55          | 66             | (99.0)  | 1               | (1.0)  | 0           |       | 0       |       | 67     |
| 55-60          | 29             | (100.0) | 0               |        | 0           |       | 0       |       | 29     |
| 60-65          | 15             | (100.0) | 0               |        | 0           |       | 0       |       | 15     |
| 65-70          | 6              | (100.0) | 0               |        | 0           |       | 0       |       | 6      |
| Totals         | 7034           | (87.0)  | 959             | (11.9) | 78          | (1.0) | 9       | (0.1) | 8080   |

\* Individual valves

The next most common freshwater species is *Neritina pulligera*, with an admixture of some *N. auriculata*. The preferred habitat of *N. pulligera* is similar to that of *Melania* and indeed they are often found together, with *Melania* numerically superior as observed in the Bantang Kiri stream. *N. auriculata* is understandably rare as it prefers deeper water (Medway 1960:377) which is not found in the immediate vicinity of Gua Sireh.

*Neritina* are numerous between 15 and 30 cms in EFG 8 and between 15 and 50 cms in 89A, but they fade rapidly in importance in the upper spits of both trenches, a circumstance which might reflect environmental changes in stream regimes caused by agricultural clearance and soil erosion.

*Clea nigricans* is the third most common freshwater shellfish found in Gua Sireh. It is mainly concentrated between 25 and 30 cms in EFG 8 (one meal?) while its distribution is more general throughout the layers in 89A. It is found in rivers, which occur at a distance from Gua Sireh. It was placed as most desirable in a scale of palatability at Niah by Medway (1960:378). Hence, the Gua Sireh specimens might have been carried in from quite a distance away, the nearest sources being the Kayan river to the southeast and the Bukar river to the northeast.

Another species of shellfish recovered in Gua Sireh is a bivalve freshwater mussel, possibly *Pseudodon* (Harrison and Tweedie 1951:179) or *Rectidens* (Medway 1960:377). It is mainly found in mud beneath deep water, which implies a habitat in a large river rather than a stream. The nearest such sources to Gua Sireh would be the Kayan and the Bukar rivers.