

Geology of the Bolaghi area, Zagros Mountains, Southern Iran; paying special attention to origin of artifacts

Ken-ichiro Hisada[1]; Hotaka Ito[2]; Ayako Kunii[3]; Yoshihito Kamata[4]

[1] Grad. School Life and Envir., Univ. Tsukuba; [2] Earth Evolution Sci., Univ. Tsukuba; [3] GSI Co.,Ltd; [4] Dept. of Earth Sciences
Yamaguchi University

We examined the stratigraphy of carbonate rocks in the Bolaghi area, southern Iran in 2006 and 2007. The Bolaghi area belongs geographically to the Zagros Mountains which are located in the middle part between the Alps and the Himalayas. In this report, we present tectonic meanings of the Bolaghi basin and probable raw material procurement of artifacts.

The following presents the stratigraphy in the Bolaghi area in descending order. This sequence is typically seen along the Tang-i Bolaghi; Bedded limestone (50m+), Massive limestone (20m), Bedded limestone (50m), Massive limestone (120m), Bedded limestone (100m), Massive limestone (80 m), Bedded limestone (100 m+).

The large-scale injection structure was observed along the wadi where BV75 (excavation site; Proto-Neolithic period) is located at its entrance. The injection structure is confirmed as a mound shape, 30m high and 30m long. The bedded limestone gently dips downstream with a nearly same angle as wadi gradient. The injected part is in step-like contact with the surrounding bedded limestone, and is characterized by a lens-shape fracture. The size of a lens ranges from 10cm to 50cm, whose longest axis is oriented in the same direction. The arrangement of the longest axis is nearly parallel to the contact surface of the wall rock of the bedded limestone.

In this report, we pointed out that the ophiolite rock assemblage could be good raw material procurement. Fortunately, the Bolaghi area is located not so far from the Abadeh Tashk ophiolite, approximately 60 km. Also the Sivand River has a part of this ophiolite rock assemblage as a drainage basin. Accordingly, the ancient people can get a raw material in relatively easier access.