

***Analysis of ecosystem and natural geography of the eastern bank plains  
of Alvand and their role in primitive human communities attraction,  
based on archaeological studies***

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**Extended Abstract**

**Introduction**

Present research is a wide reflection of coordination of archeology and geography based on different geographical components to examine the role of geography in forming human communities with the wide view and to introduce catcher of its role in absorbing and non-absorbing primary societies. The emergence concept of primary societies should be analyzed based on geography. From this perspective, geography of eastern bank plain of Alvand is less considered that includes large area of Hamadan province with different mountain plains and basins surrounded by different bumps and folds such as Hamadan-Bahar, Ghahavand, Kaboudrahang and Razan-Famenin plains to Avaj Mountains. By studying Alvand eastern bank, two factors of the place of this basin in the cold and dry geography, with respect to its height degree from the sea level (1500 to 2000 m), and also lack of mineral resources of raw material outcrops (ChertStone) for industry of primary societies (Paleolithic to Neolithic) are the most important agents of non-absorbing settlement of human primary societies in this basin.

**Materials and methods**

Present research by descriptive-analytical method is based on two library and field methods. It has explained climate and geography of eastern Central Zagros and Alvand Eastern bank based on written sources left by travelers, historians and geographers and then addressed by geographical studies and classifications explained by contemporary researchers of geography and in the field

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studies area. This research addressed the the ecosystem and natural geography of Alvand Eastern bank plains and its role in non-attracting habitats of human primary societies based on field findings of the plains archeology. By examining types of geography and consequences of environmental conditions with a view to the vegetation, animal coverage and its role in forming primary deployments, the factors of climate and natural environments in the perspective of geomorphology and ecosystem were effective on non-absorbing primary deployments. What is the role of geography in archeologic studies? What are the effects of natural geography of Alvand Eastern bank plains on absorbing and non-absorbing human primary societies?

### Results and Discussion

The most obvious features of Central Zagros highlands is their wrinkle and being tattered, apparent conformity of geological structure and ripples form as a large number of parallel northwest-southeast mountain ranges. Alvand Eastern bank is studied as a part of natural and cultural basin of "East Central Zagros" in archeology literature. Alvand mountain range in its north- west to south-east direction serves as a natural limiting factor. In political classifications the area in two western and eastern basins acts as a buffer zone between Central Plateau and Central Zagros and created the connected plains in its eastern bank (east and northeast). This is also among the condensation plains and granite formation from the geomorphological perspective in which formation of caves and Karstic shelters is not possible. Generally, weather of Alvand Eastern bank is variable despite of high mountains, rivers, abundant springs and ups and downs. Therefore, air of this basin has cold winters (similar to weather of Younger Dryas) with low water and moderate summers. It has not favorable conditions for human primary societies (Paleolithic and Neolithic), because, yet, despite of archeology studies carried out in the set limit of Alvand Eastern bank plains, no reporting is obtained about the deployments of Paleolithic and Neolithic communities. With respect to the life style based on hunting and deployment of the human in the cave and natural shelters, Alvand Eastern bank plains ecosystem and natural geography has not environmental conditions of human primary societies. The findings of archeology have introduced formation of human primary societies in this basin from Bronze Age.

### Conclusion

The results of present research are concluded in two main and basic points by geographical examining and analyzing of Alvand Eastern bank by archeological approach. First, from ecosystem perspectives (vegetation and fauna); any region has deep dependence on the natural geography and its weather and based on the conducted examination and study, the most important factor of non-absorption is the climate weakness and inappropriate geography of natural environment in Alvand Eastern bank with high height degree of the region that the plains of the basin show higher than 1500 m from the sea level (average height 1700 m from sea level). This bank has the slope and mountains that are factor on the lack of natural environment and plain and unfavorable lands for agriculture (Especially in Neolithic Age). In addition to above points, the regions of Alvand Eastern bank with respect to its cold and dry climate (Similar to Weather of Younger Dryas) have low capabilities for forming Pre-Neolithic and Neolithic deployment. Second, from geomorphology perspective (Geomorphological Formation), most plains of the area, especially Alvand mountain range unlike high Zagros have Granite formations in which it is

impossible to find caves and Karstic shelter. Therefore, with deployment of the human groups, least in the form of seasonal in the region, it should be in the open place that most of places are completely covered due to young sediment of the late Pleistocene and Holocene period. Also, in relation to the lack of the deployments from Neolithic periods in the high plains of Eastern bank of Alvand and with respect to the height, it has high frigidity and more cold duration. It is impossible to deploy human life and use its resources until Chalcolithic periods and progress in the architectural technique to overcome living conditions. This can only took place from Chalcolithic periods to the next. Therefore, this reason is the effective factor for the lack of deployment of Pre-Neolithic and Neolithic periods. From the raw materials of stone industrial period, presence of mineralogical composition and locating Eastern bank of Alvand and large part of Hamadan province in "Iranid" region (and absence of outcrops of Cherty Stone) have caused lack of raw materials for producing required tools for industrial stone communities (Paleolithic and Neolithic). This problem has also been important reason in the absence of primitive human communities.

**Keywords:** *archaeological studies, eastern bank plains of Alvand, geography, primitive humans.*