

## PROPOSED RESEARCH TOPICS

1. The Ural Mountains and western steppes are among the most highly mineralized regions of the world. Inventory the principal mineral resources of the region, describe the geological processes that resulted in their presence, and discuss their economic and strategic importance.
2. During the Pleistocene Epoch, extensive lakes often occupied the lowlands of Central Asia. Discuss the environmental circumstances that would account for the existence of such lakes, the resulting topographic features, and their impacts upon the cultural ecology of the region.
3. During the Middle Pleistocene Epoch, Central Asia witnessed two major glacial advances—the Saale (265,000-225,000 B.P.) and the Warthe (170,000-125,000 B.P.). During the Upper Pleistocene, the region experienced another major advance—the Weichsel (75,000-10,000 B.P.). Explore interactions among climate, glaciation, topography, and human activity in relation to current distributions of florae and faunae in Central and South Asia.
4. The Turfan Depression (*Turpan Pendi*) was once home to some twenty kingdoms. The depression is now occupied by the *Taklimakan Shamo*—one of the great deserts of the world. Describe the physical attributes of the region, including ground-water hydrology; explore the human-environmental interactions that have altered the environmental systems of the depression; propose measures that could enhance the region's biological productivity.
5. It is believed by many that seaworthy watercraft and navigation initially entered prehistory in Southeastern Asia and its associated islands. Explore this hypothesis in light of the Quaternary environmental and social history of the region.
6. Major hearths of plant and animal domestication are located in Asia. Compare and contrast these hearths in terms of the domesticates ascribed to each, as well as the environmental and social concomitants of domestication.
7. In recent decades, the waters of the Amu Darya and Syr Darya have supported the expansion of irrigated agriculture—chiefly in Turkmenistan, Uzbekistan, Kazakhstan. This has resulted in a dramatic reduction in the volume of the Aral Sea. Discuss the ecological, social, economic, and geopolitical consequences of the changes that have taken place.
8. The degradation of the highlands bordering the Mesopotamian Plain resulted in widespread sedimentation and salinization. Discuss cause-effect relationships in the environmental transformation of the region; explore the possible contributions of environmental change to urban genesis and the emergence of hydraulic civilization in Mesopotamia; and propose measures that might be taken to rehabilitate the environmental systems of the region.
9. Japan boasts 192 volcanoes, of which 52 have been active within historical times. Earthquakes are common, numbering some 1500 significant shocks each year. Level land covers fifteen per cent of Japan, and may be divided into diluvium and alluvium. The major geomorphic regions of Japan are the outer and inner zones, each divided into southern and northern halves by the Fossa Magna. Describe the cultural adaptations to this complex landscape, including its implications with regard to the current distribution of economic activity.
10. The monsoon is a particularly important feature of South Asia. Nowhere else are so many people so intimately dependent upon the rhythms and eccentricities of precipitation. Describe the mechanics of the South Asian monsoon; related social adaptations; and the environmental hazards imposed by the monsoon.