

GUEST EDITOR'S PREFACE

The title of this journal expresses its purpose to serve authors and readers who are interested in evolutionary changes and in historical analyses that are applied to social behavior. The seven articles in this special issue encompass an unusually broad scope of these topics. Most of the articles contain a very large number of cited publications, which are useful resources for readers.

(1) Leonid Grinin, Alexander Markov, and Andrey Korotayev compare biological and social macroevolution, their general similarities and differences; they discuss a number of regularities that describe biological and social macroevolution, employing the concepts of social and biological aromorphoses.

(2) Donald Kurtz explains how the interface of recently discovered genomic processes, the updated fossil record, insights into primate evolution and behavior, and ideas regarding the cultural practices of early hominin females, enabled hominins to evolve into *Homo sapiens* while the hominids evolved into the great apes.

(3) Han Goo Lee discusses the concept of cultural genes that correspond in most respects to biological genes. From a viewpoint of cultural gene, civilization is a system of cultural genes, and the fusion of civilizations is recombination of cultural genes. The recent intensified fusion of civilizations leads to more variations of cultural genes, and the artificial variation of cultural genes is characteristic of evolution of civilizations.

(4) Akop Nazaretyan surveys the history of technological developments, from the hominid ancestors of our species to contemporary history. He demonstrates that each increase in destructive power has required improvement of social cooperation.

(5) Richard Blanton and Lane Fargher describe how public goods, bureaucratization, and control over ruler had beneficial effects on 30 pre-modern states.

(6) Peter Turchin and Sergey Gavrillets examined the transition from small-scale, 'simple' societies to large-scale, hierarchically complex ones from the perspective of the multilevel selection theory.

Hierarchical government is a crucial component of nations and empires. (7) Herbert Barry III focuses on variations in number of government levels above the community in a world sample of 186 diverse societies. Differences between pairs of societies, which are similar in most attributes, allow us to identify variables that are apparently functionally linked with more government levels.

Preliminary versions of most of the articles were presented at the Fifth International Conference on Hierarchy and Power in the History of Civilizations, in Moscow, 23–26 June 2009. This special issue appears a short time after that conference because the authors cooperated with this journal's co-editor, Leonid Grinin, by rapid preparation of the final versions of the articles.

Herbert Barry III