

THE PULSE OF ASIA



ELLSWORTH
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THE PULSE OF ASIA

A JOURNEY IN CENTRAL ASIA ILLUSTRATING
THE GEOGRAPHIC BASIS OF HISTORY

BY

ELLSWORTH HUNTINGTON

ILLUSTRATED

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TO
WILLIAM MORRIS DAVIS
FIRST OF MODERN GEOGRAPHERS

PREFACE

THIS book is the record of a journey in Central Asia, and its aim is to illustrate the geographic relation between physical environment and man, and between changes of climate and history. Most of the individual hypotheses advanced are already familiar, although the facts presented in support of them are new. If the book possesses any claim to recognition, it lies in the combination of various hypotheses, hitherto unrelated, into a single consistent geographic theory of history. The theory harmonizes a vast array of facts derived, not from one branch of science, but from the varied fields of geography, meteorology, archæology, folk-lore, and history. It will doubtless require modification, but if it shall advance the scientific as opposed to the empirical study of geography and history, the purpose of this volume will have been accomplished.

In the following pages, the name of Professor Davis, to whom the book is dedicated, appears frequently. He has raised geography from an empirical to a rational science. To him half the geographers of America, myself among the number, owe their instruction in the new science which, when it comes to its own, bids fair to be the most fascinating of all. I owe him far more than this, however, for it was through him that I had the opportunity to spend three years in Central Asia in addition to the four which I had previously spent in Asia Minor. Since my return to America, the liberal terms of a Hooper Fellowship in the Graduate School of

Arts and Sciences of Harvard University have enabled me to devote an uninterrupted year to the preparation of this volume and of several technical papers. During six years of intimate association with Professor Davis, I have ever found him the most inspiring of teachers, the most thoughtful of fellow travelers, and the most severe and helpful of critics. He has read the manuscript of this volume, and has suggested important modifications. The many faults of the book are mine; to him is due a large share of whatever in it may be valuable. I cannot here give adequate expression to my deep appreciation of all his help and kindness.

Two other friends have read the manuscript — Mrs. Charles L. Ziegler and Mr. Herbert R. Gibbs. Both have made most valuable suggestions, especially as to matters of literary form, where the scientist is apt to be weakest; and to both I render hearty thanks. My indebtedness to Mr. Robert L. Barrett, whose companion I was during the first part of the journey here described, is great, as appears in the Introduction. In India we were treated with the utmost courtesy by the government through Lord Curzon, to whom we would express our gratitude. The American traveler expects kindness from his English cousins, and is never disappointed. It is less common to be treated with unfailing courtesy and consideration by Chinese officials. It is therefore with peculiar pleasure that I put on record my thanks to the Chinese government for its genuine and ready help at all stages of my journey in China. In Russia and Siberia, through which lay my hasty homeward way, similar official courtesy was shown. The best was placed at my disposal; and although it was the midst of the revolutionary crisis,

my passport was not once asked for until I was about to cross into Germany at Warsaw.

In conclusion, I wish to make special mention of the kindness of George Macartney, Esq., British Political Agent at Kashgar in Chinese Turkestan. Though personally unacquainted with Mr. Barrett and myself, he took charge of our mail, procured currency for us, and sent men to us, bringing our letters and purchases. To the stay-at-home these things sound small, but when a man's mail and money reach him once in three or four months, after being carried five or six hundred miles by a special messenger on horseback or afoot, he feels extremely grateful to the man at the other end who sees that things go straight. One of the greatest pleasures in looking back at a journey in unknown lands is the memory of the chain of kindly deeds performed by missionary, consul, official, traveler, or native.

E. H.

MILTON, MASS., July, 1907.

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INTRODUCTION

THE SIGNIFICANCE OF CENTRAL ASIA

IN the progress of human knowledge the marked advances in each science have been made under the stimulus of a great fundamental principle. Astronomy could proceed but little beyond astrology until Newton discovered the law of gravitation; physics remained empirical until the conservation of energy was recognized; chemistry was merely alchemy until its pioneers worked out the unfailing law of the replacement of atom by atom; and geology would still be miner's lore, if scientists had not seen that in the course of ages the earth as we know it has been slowly evolved by processes identical with those still in action. So, too, in the biological sciences, botany, zoölogy, and physiology, all was confusion until Darwin touched the key of evolution and a vast number of apparently unrelated facts fell into their appointed places, and the way was open for the wonderful advances of the last half century.

The anthropological sciences are also bound together by the unifying principle of evolution. Geography, anthropology, history, and sociology form an anthropological group possessing a unity as great as that of the biological sciences, although this has been perceived only within a few years. The average man thinks of geography, the oldest of all the sciences, as a schoolboy study of maps and of empirical descriptions of places and people. He forgets that