History

The books reissued in this series include accounts of historical events and movements by eye-witnesses and contemporaries, as well as landmark studies that assembled significant source materials or developed new historiographical methods. The series includes work in social, political and military history on a wide range of periods and regions, giving modern scholars ready access to influential publications of the past.

The Travels and Researches of Alexander von Humboldt

In 1832, William MacGillivray published this abridged version of the explorer and naturalist Alexander von Humboldt’s Personal Narrative of Travels to the Equinoctial Regions of the New Continent During the Years 1799-1804, which had appeared in a seven-volume English translation between 1814 and 1829. MacGillivray’s edition, intended for the general public, also includes Humboldt’s accounts of his explorations of the Ural Mountains and Caspian Sea. Humboldt became a major figure in physical geography as a result of his arduous five-year trip to explore Central and South America. This book offers a brief biographical sketch of the scientist and covers his exciting journeys from the Island of Tenerife across the Atlantic Ocean to Caracas, and up the Orinoco River by canoe. Humboldt fights mosquitoes in dense rain forests and climbs Andean peaks in Peru without mountain gear, taking detailed notes at every stage.
Cambridge University Press has long been a pioneer in the reissuing of out-of-print titles from its own backlist, producing digital reprints of books that are still sought after by scholars and students but could not be reprinted economically using traditional technology. The Cambridge Library Collection extends this activity to a wider range of books which are still of importance to researchers and professionals, either for the source material they contain, or as landmarks in the history of their academic discipline.

Drawing from the world-renowned collections in the Cambridge University Library, and guided by the advice of experts in each subject area, Cambridge University Press is using state-of-the-art scanning machines in its own Printing House to capture the content of each book selected for inclusion. The files are processed to give a consistently clear, crisp image, and the books finished to the high quality standard for which the Press is recognised around the world. The latest print-on-demand technology ensures that the books will remain available indefinitely, and that orders for single or multiple copies can quickly be supplied.

The Cambridge Library Collection will bring back to life books of enduring scholarly value (including out-of-copyright works originally issued by other publishers) across a wide range of disciplines in the humanities and social sciences and in science and technology.
The Travels and Researches of Alexander von Humboldt

Being a Condensed Narrative of his Journeys in the Equinoctial Regions of America, and in Asiatic Russia; Together with Analyses of his More Important Investigations

William MacGillivray
BARON F.H.A. HUMBOLDT.

PUBLISHED BY OLIVER A. BOYD, EDINBURGH.
TRAVELS AND RESEARCHES

OF

BARON HUMBOLDT.
THE

TRAVELS AND RESEARCHES

OF

ALEXANDER VON HUMBOLDT:

BEING A CONDENSED

NARRATIVE OF HIS JOURNEYS

IN THE

EQUINOCTIAL REGIONS OF AMERICA,

AND IN

ASIATIC RUSSIA;

TOGETHER WITH

ANALYSES OF HIS MORE IMPORTANT INVESTIGATIONS.

BY W. MACGILLIVRAY, A.M.,
Conservator of the Museums of the Royal College of Surgeons of Edinburgh, Member of the Natural History Societies of Edinburgh and Philadelphia, &c.

WITH A PORTRAIT OF HUMBOLDT BY HORSBURGH, A MAP OF THE ORINOCO BY BRUCE, AND FIVE ENGRAVINGS BY JACKSON.

EDINBURGH:

OLIVER & BOYD, TWEEDDALE COURT;

AND SIMPKIN & MARSHALL, LONDON.

MDCCXXXII.
PREFACE.

The celebrity which Baron Humboldt enjoys, and which he has earned by a life of laborious investigation and perilous enterprise, renders his name familiar to every person whose attention has been drawn to political statistics or natural philosophy. In the estimation of the learned no author of the present day occupies a higher place among those who have enlarged the boundaries of human knowledge. To every one accordingly whose aim is the general cultivation of the mental faculties, his works are recommended by the splendid pictures of scenery which they contain, the diversified information which they afford respecting objects of universal interest, and the graceful attractions with which he has succeeded in investing the majesty of science.

These considerations have induced the Publishers to offer a condensed account of his Travels and Researches, such as, without excluding subjects even of laboured investigation, might yet chiefly embrace those which are best suited to the purposes of the general reader. The public taste has of late years gradually inclined towards objects of useful knowledge,—works of imagination have in a great mea-
sure given place to those occupied with descriptions of nature, physical or moral,—and the phenomena of the material world now afford entertainment to many who in former times would have sought for it at a different source. Romantic incidents, perilous adventures, the struggles of conflicting armies, and vivid delineations of national manners and individual character, naturally excite a lively interest in every bosom, whatever may be the age or sex; but, surely, the great facts of creative power and wisdom, as exhibited in regions of the globe of which they have no personal knowledge, are not less calculated to fix the attention of all reflecting minds. The magnificent vegetation of the tropical regions, displaying forests of gigantic trees, interspersed with the varied foliage of innumerable shrubs, and adorned with festoons of climbing and odoriferous plants; the elevated table-lands of the Andes, crowned by volcanic cones, whose summits shoot high into the region of perennial snow; the earthquakes that have desolated populous and fertile countries; the vast expanse of the Atlantic Ocean, with its circling currents; and the varied aspect of the heavens in those distant lands,—are subjects suited to the taste of every individual who is capable of contemplating the wonderful machinery of the universe.

It is unnecessary here to present an analysis of the labours of the illustrious philosopher whose footsteps are traced in this volume. Suffice it to observe, that some notices respecting his early life introduce
the reader to an acquaintance with his character and motives, as the adventurous traveller, who, crossing the Atlantic, traversed the ridges and plains of Venezuela, ascended the Orinoco to its junction with the Amazon, sailed down the former river to the capital of Guiana, and after examining the Island of Cuba mounted by the valley of the Magdalena to the elevated platforms of the Andes, explored the majestic solitudes of the great cordilleras of Quito, navigated the margin of the Pacific Ocean, and wandered over the extensive and interesting provinces of New Spain, whence he made his way back by the United States to Europe. The publication of the important results of this journey was not completed when he undertook another to Asiatic Russia and the confines of China, from which he has but lately returned.

From the various works which he has given to the world have been derived the chief materials of this narrative; and, when additional particulars were wanted, application was made to M. de Humboldt himself, who kindly pointed out the sources whence the desired information might be obtained. The life of a man of letters, he justly observed, ought to be sought for in his books; and for this reason little has been said respecting his occupations during the intervals of repose which have succeeded his perilous journeys.

It is only necessary further to apprise the reader, that the several measurements, the indications of the
thermometer, and the value of articles of industry or commerce, which in the original volumes are expressed according to French, Spanish, and Russian usage, have been reduced to English equivalents.

Finally, the Publishers, confident that this abridged account of the travels of Humboldt will prove beneficial in diffusing a knowledge of the researches of that eminent naturalist, and in leading to the study of those phenomena which present themselves daily to the eye, send it forth with a hope that its reception will be as favourable and extensive as that bestowed upon its predecessors.

Edinburgh, October 1832.
CONTENTS.

CHAPTER I.
INTRODUCTION.
Birth and Education of Humboldt—His early Occupations—He resolves to visit Africa—Is disappointed in his Views, and goes to Madrid, where he is introduced to the King and obtains Permission to visit the Spanish Colonies—Observations made on the Journey through Spain—Geological Constitution of the Country between Madrid and Corunna—Climate—Ancient Submersion of the Shores of the Mediterranean—Reception at Corunna, and Preparations for the Voyage to South America,.............Page 17

CHAPTER II.
VOYAGE FROM CORUNNA TO TENERIFFE.
Departure from Corunna—Currents of the Atlantic Ocean—Marine Animals—Falling Stars—Swallows—Canary Islands—Lanercota—Fucus viticulosus—Causes of the Green Colour of Plants—La Graciosa—Stratified Basalt alternating with Marl—Hyalite—Quartz Sand—Remarks on the Distance at which Mountains are visible at Sea, and the Causes by which it is modified—Landing at Teneriffe,................................................. 25

CHAPTER III.
ISLAND OF TENERIFFE.
Santa Cruz—Villa de la Laguna—Guanches—Present Inhabitants of Teneriffe—Climate—Scenery of the Coast—Orotava—Dragon-tree—Ascent of the Peak—Its Geological Character—Eruptions—Zones of Vegetation—Fires of St John, ......................... 41
CONTENTS.

CHAPTER IV.

PASSAGE FROM TENERIFFE TO CUMANA.

Departure from Santa Cruz—Floating Seaweeds—Flying-fish—
Stars—Malignant Fever—Island of Tobago—Death of a Pas-
senger—Island of Coche—Port of Cumana—Observations made
during the Voyage; Temperature of the Air; Temperature of
the Sea; Hygrometrical State of the Air; Colour of the Sky and
Ocean,.................................................................Page 55

CHAPTER V.

CUMANA.

Landing at Cumana—Introduction to the Governor—State of the
Sick—Description of the Country and City of Cumana—Mode of
Bathing in the Manzanares—Port of Cumana—Earthquakes;
Their Periodicity; Connexion with the State of the Atmosphere;
Gaseous Emanations; Subterranean Noises; Propagation of
Shocks; Connexion between those of Cumana and the West In-
dies; and General Phenomena,............................... 68

CHAPTER VI.

RESIDENCE AT CUMANA.

Lunar Halo—African Slaves—Excursion to the Peninsula of Araya
—Geological Constitution of the Country—Salt-works of Araya
—Indians and Mulattoes—Pearl-fishery—Maniquarez—Mexi-
can Deer—Spring of Naphtha,........................................... 77

CHAPTER VII.

MISSIONS OF THE CHAYMAS.

Excursion to the Missions of the Chayma Indians—Remarks on
Cultivation—The Impossible—Aspect of the Vegetation—San
CONTENTS.


CHAPTER VIII.
EXCURSION CONTINUED, AND RETURN TO CUMANA.
Convent of Caripe—Cave of Guacharo, inhabited by Nocturnal Birds—Purgatory—Forest Scenery—Howling Monkeys—Vera Cruz—Cariaco—Intermittent Fevers—Cocoa-trees—Passage across the Gulf of Cariaco to Cumana........................................ 99

CHAPTER IX.
INDIANS OF NEW ANDALUSIA.
Physical Constitution and Manners of the Chaymas—Their Languages—American Races.............................................111

CHAPTER X.
RESIDENCE AT CUMANA.
Residence at Cumana—Attack of a Zambo—Eclipse of the Sun—Extraordinary Atmospheical Phenomena—Shocks of an Earthquake—Luminous Meteors.............................................121

CHAPTER XI.
VOYAGE FROM CUMANA TO GUAYRA.
Passage from Cumana to La Guayra—Phosphorescence of the Sea—Group of the Caraccas and Chimanas—Port of New Barcelona—La Guayra—Yellow Fever—Coast and Cape Blanco—Road from La Guayra to Caraccas.............................................128
CONTENTS.

CHAPTER XII.
CITY OF CARACCAS AND SURROUNDING DISTRICT.

CHAPTER XIII.
EARTHQUAKES OF CARACCAS.
Extensive Connexion of Earthquakes—Eruption of the Volcano of St Vincent’s—Earthquake of the 26th March 1812—Destruction of the City—Ten Thousand of the Inhabitants killed—Consternation of the Survivors—Extent of the Commotions, ......157

CHAPTER XIV.
JOURNEY FROM CARACCAS TO THE LAKE OF VALENCIA.

CHAPTER XV.
JOURNEY ACROSS THE LLanos, FROM ARAGUA TO SAN FERNANDO.
Mountains between the Valleys of Aragua and the Llanos—Their Geological Constitution—The Llanos of Caraccas—Route over the Savannah to the Rio Apure—Cattle and Deer—Vegetation—Calabozo—Gymnoti or Electric Eels—Indian Girl—Alligators and Boas—Arrival at San Fernando de Apure,.................186
CONTENTS.

CHAPTER XVI.
VOYAGE DOWN THE RIO APURE.

CHAPTER XVII.
VOYAGE UP THE ORINOCO.
Ascent of the Orinoco—Port of Encaranada—Traditions of a Universal Deluge—Gathering of Turtles' Eggs—Two Species described—Mode of collecting the Eggs and of manufacturing the Oil—Probable Number of these Animals on the Orinoco—Decorations of the Indians—Encampment of Pararuma—Height of the Inundations of the Orinoco—Rapids of Tabage,.................219

CHAPTER XVIII.
VOYAGE UP THE ORINOCO CONTINUED.
CONTENTS.

CHAPTER XIX.

ROUTE FROM ESMERALDA TO ANGOSTURA.

CHAPTER XX.

JOURNEY ACROSS THE LLANOS TO NEW BARCELONA.
Departure from Angostura—Village of Cari—Natives—New Barcelona—Hot Springs—Crocodiles—Passage to Cumana, ......286

CHAPTER XXI.

PASSAGE TO HAVANNAH, AND RESIDENCE IN CUBA.
Passage from New Barcelona to Havannah—Description of the latter—Extent of Cuba—Geological Constitution—Vegetation—Climate—Population—Agriculture—Exports—Preparations for joining Captain Baudin's Expedition—Journey to Batabano, and Voyage to Trinidad de Cuba, ...........................................298

CHAPTER XXII.

VOYAGE FROM CUBA TO CARTAGENA.
Passage from Trinidad of Cuba to Cartagena—Description of the latter—Village of Turbaco—Air-volcanoes—Preparations for ascending the Rio Magdalena, ...........................................309
CONTENTS.

CHAPTER XXIII.

BRIEF ACCOUNT OF THE JOURNEY FROM CARTAGENA TO QUITO AND MEXICO.

Ascent of the Rio Magdalena—Santa Fe de Bogota—Cataract of Tequendama—Natural Bridges of Icononzo—Passage of Quindiu—Cargueros—Popayan—Quito—Cotopaxi and Chimborazo—Route from Quito to Lima—Guayaquil—Mexico—Guanaxuato—Volcano of Jorullo—Pyramid of Cholula,..............Page 323

CHAPTER XXIV.

DESCRIPTION OF NEW SPAIN OR MEXICO.

General Description of New Spain or Mexico—Cordilleras—Climates—Mines—Rivers—Lakes—Soil—Volcanoes—Harbours—Population—Provinces—Valley of Mexico, and Description of the Capital—Inundations, and Works undertaken for the Purpose of preventing them,........................................343

CHAPTER XXV.

STATISTICAL ACCOUNT OF NEW SPAIN CONTINUED.

Agriculture of Mexico—Banana, Manioc, and Maize—Cereal Plants—Nutritive Roots and Vegetables—Agave Americana—Colonial Commodities—Cattle and Animal Productions,.......375

CHAPTER XXVI.

MINES OF NEW SPAIN.

Mining Districts—Metalliferous Veins and Beds—Geological Relations of the Ores—Produce of the Mines—Recapitulation,..390
CHAPTER XXVII.

PASSAGE FROM VERA CRUZ TO CUBA AND PHILADELPHIA, AND VOYAGE TO EUROPE.

Departure from Mexico—Passage to Havannah and Philadelphia—Return to Europe—Results of the Journeys in America, Page 401

CHAPTER XXVIII.

JOURNEY TO ASIA.

Brief Account of Humboldt’s Journey to Asia, with a Sketch of the Four great Chains of Mountains which intersect the Central Part of that Continent........................................407

ENGRAVINGS.

PORTRAIT OF BARON F. H. A. HUMBOLDT,—To face the Vignette.

VIGNETTE—Basaltic Rocks and Cascade of Regla...........Page 48
Dragon-tree of Orotava........................................129
Humboldt’s Route on the Orinoco.....................................212
Jaguar, or American Tiger........................................318
Air-volcanoes of Turbaco........................................341
Costumes of the Indians of Mechoacan}