The Development of Western Civilization

Narrative Essays in the History of Our Tradition from
Its Origins in Ancient Israel and Greece to the Present

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THE GREAT DISCOVERIES
and the First Colonial Empires

By CHARLES E. NOWELL
A tenth-century wheel map of the T-in-O type. Paradise is at the top of the map, which is the east. The cross on the T is formed by the Nile (Nilus) and by the Don (Tanais). From Antonio Ballesteros Beretta, *Genesis del descubrimiento*. The drawing at the left is a simplification of the old map.
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GREAT DISCOVERIES

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Foreword

THE proposition that each generation must rewrite history is more widely quoted than practiced. In the field of college texts on western civilization, the conventional accounts have been revised, and sources and supplementary materials have been developed; but it is too long a time since the basic narrative has been rewritten to meet the rapidly changing needs of new college generations. In the mid-twentieth century such an account must be brief, well written, and based on unquestioned scholarship and must assume almost no previous historical knowledge on the part of the reader. It must provide a coherent analysis of the development of western civilization and its basic values. It must, in short, constitute a systematic introduction to the collective memory of that tradition which we are being asked to defend. This series of narrative essays has been undertaken in an effort to provide such a text for the introductory history survey course offered in the College of Arts and Sciences of Cornell University. It is being published in the present form in the belief that the requirements of this one course reflect a need that is coming to be widely recognized.

Now that the classic languages, the Bible, the great historical novels, even most non-American history, have dropped out of the normal college preparatory program, it
is imperative that a text in the history of European civilization be fully self-explanatory. This means not only that it must begin at the beginning, with the origins of our civilization in ancient Israel and Greece, but that it must introduce every name or event that takes an integral place in the account and ruthlessly delete all others no matter how firmly imbedded in historical protocol. Only thus simplified and complete will the narrative present a sufficiently clear outline of those major trends and developments that have led from the beginning of our recorded time to the most pressing of our current problems. This simplification, however, need not involve intellectual dilution or evasion. On the contrary, it can effectively raise rather than lower the level of presentation. It is on this assumption that the present series has been based, and each contributor has been urged to write for a mature and literate audience. It is hoped, therefore, that the essays may also prove profitable and rewarding to readers outside the college classroom.

The plan of the first part of the series is to sketch, in related essays, the narrative of our history from its origins to the eve of the French Revolution; each is to be written by a recognized scholar and is designed to serve as the basic reading for one week in a semester course. The developments of the nineteenth and twentieth centuries will be covered in a succeeding series which will provide the same quantity of reading material for each week of the second semester. This scale of presentation has been adopted in the conviction that any understanding of the central problem of the preservation of the integrity and dignity of the individual human being depends first on an examination of the origins of our tradition in the politics and philosophy of the ancient Greeks and the religion of the ancient He-
brows and then on a relatively more detailed knowledge of its recent development within our industrial urban society.

The decision to devote equal space to twenty-five centuries and to a century and a half was based on analogy with the human memory. Those events most remote tend to be remembered in least detail but often with a sense of clarity and perspective that is absent in more recent and more crowded recollections. If the roots of our tradition must be identified, their relation to the present must be carefully developed. The nearer the narrative approaches contemporary times, the more difficult and complicated this becomes. Recent experience must be worked over more carefully and in more detail if it is to contribute effectively to an understanding of the contemporary world.

It may be objected that the series attempts too much. The attempt is being made, however, on the assumption that any historical development should be susceptible of meaningful treatment on any scale and in the realization that a very large proportion of today's college students do not have more time to invest in this part of their education. The practical alternative appears to lie between some attempt to create a new brief account of the history of our tradition and the abandonment of any serious effort to communicate the essence of that tradition to all but a handful of our students. It is the conviction of everyone contributing to this series that the second alternative must not be accepted by default.

In a series covering such a vast sweep of time, few scholars would find themselves thoroughly at home in the fields covered by more than one or two of the essays. This means, in practice, that almost every essay should be written by a different author. In spite of apparent drawbacks, this pro-
Foreword

cedure promises real advantages. Each contributor will be in a position to set higher standards of accuracy and insight in an essay encompassing a major portion of the field of his life's work than could ordinarily be expected in surveys of some ten or twenty centuries. The inevitable discontinuity of style and interpretation could be modified by editorial co-ordination; but it was felt that some discontinuity was in itself desirable. No illusion is more easily acquired by the student in an elementary course, or is more prejudicial to the efficacy of such a course, than that a single smoothly articulated text represents the very substance of history itself. If the shift from author to author, week by week, raises difficulties for the beginning student, they are difficulties that will not so much impede his progress as contribute to his growth.

In this essay, *The Great Discoveries and the First Colonial Empires*, Mr. Charles E. Nowell recounts the story of one of the most colorful and fateful adventures upon which European civilization has embarked—the exploration of the entire globe. Not only did the effects of this adventure add powerfully to the acceleration of European development—which already was gathering momentum—but it decreed as the destiny of all human societies the necessity of exchanging the isolated independence in which they had grown for the ever-increasing intercommunication and interdependence which has gone so far toward fashioning the world in which we live today.

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## Contents

Foreword, by Edward Whiting Fox  
Introduction  

I  The Background of the Great Discoveries  
II  Europe Prepares for the Great Discoveries  
III  Portugal and the East  
IV  Portugal Rules the East  
V  Spain and the West  
VI  Conquistadors in America  
VII  The French Colonial Empire  
VIII  The Dutch Colonial Empire  
IX  The First English Colonial Empire  

Epilogue  
Chronological Summary  
Suggestions for Further Reading  
Index
List of Maps

Tenth-century T-in-O map  
Frontispiece

Thirteenth-century explorations in Asia  12

Africa and fifteenth-century Portuguese discoveries  26

European explorations in South America  46

Discoveries in North America  64

Tasman’s route around Australia  96
About nineteen centuries ago Seneca, the Roman philosopher, wrote:

Our descendants will one day know many things that are hidden from us, for some knowledge is reserved for future generations, when all memory of us will be gone. . . . The world would be small indeed if there existed no possibility of new discoveries. . . . A moment will come when all that has been concealed will surge to light as the result of time and prolonged study. There will be a time when our ignorance will startle our descendants, because all these things will appear perfectly clear to them.¹

He seems almost to be addressing the explorers of a future era, urging them to press on into the unknown. They finally did so, somewhat later, perhaps, than Seneca had expected. The earth they discovered turned out to be very different from the earth that early imaginations had conceived.

The present story tells how one part of the human race—the western European part—investigated this planet. The great explorations lasted from the fifteenth to the seventeenth centuries and together they form an epoch called the

¹ *Naturalium Quaestionum* (author’s translation).
The Great Discoveries

Age of Discovery. Since then, of course, exploration has gone on, but its purpose has been to fill in the details of a geographical pattern whose broad outlines were already known.

Empire building inevitably followed in the wake of discovery. The Europeans explored with the aid of newly developed techniques and weapons which made them physically superior to the alien peoples they encountered. These aliens, in many cases, had to pay the penalty for their weakness by being conquered. Some of the empires built by the European pioneers have vanished by now; others survive at least in part.

If Seneca could have returned to earth thirteen centuries after his death, he would have learned very little about geography that was not already known in his day. But if he had waited fifteen or sixteen centuries for his reincarnation, he would have been truly amazed, for by then many of his mysteries were puzzles no longer.
CHAPTER 1

The Background

of the Great Discoveries

THE Greeks developed science as we know it, and one of their oldest sciences was geography. They began, however, with a very small horizon. Their poet Homer (ninth century B.C.), who described the Trojan War and the wanderings of Ulysses, could scarcely think beyond the eastern Mediterranean and immediately bordering lands. He had some hazy impression of the Black Sea, since he knew the myth of Jason and the Argonauts who sailed through the Hellespont and Bosporus to seek the Golden Fleece. To him the earth was a saucer-shaped affair, inhabited on top. For Homer and men of his time, all land on earth was surrounded by Ocean, a stream forever languidly flowing around the rim of the disk.

As centuries passed, the Greeks gradually improved on this crude early concept. Both as traders and colonists they sailed the western Mediterranean and the Black Sea. Occasionally they entered the Atlantic, although the rising naval power of hostile Carthage in the west made such adventures extremely dangerous. The Carthaginians aimed at trade mo-
nopoly and had the unpleasant custom of drowning all Greek trespassers they captured.

Carthage herself might contribute to our story were her exploits better known. Unfortunately, the passion for monopoly made the Carthaginians keep their own discovery voyages the strictest secrets. All we know is that one of their citizens, Hanno (about 500 B.C.), sailed through the Strait of Gibraltar and explored a great distance down the African coast.

Greek Geography Develops

Greek geographical knowledge expanded in the fourth century B.C., when Pytheas of Marseilles coasted the British Isles and learned of northern lands beyond them. At almost the same time, Alexander the Great conquered the Persian Empire and pushed the Greek frontier of knowledge eastward to India and central Asia. It never advanced far beyond those regions, for although the classical world learned dimly of China, the easternmost conquests of Alexander were soon lost and Persia became for all practical purposes the limit of western knowledge of the Orient.

Meanwhile Greek philosophy took scientific forms and led to geographical speculation. The Ionian philosophers, who were Greeks living in Asia Minor in the sixth century B.C., knew that the earth was a body isolated in space. They did not consider it a sphere; they were more inclined to think it a cylinder with the inhabited part on top. Even so, the Ionian philosopher Thales was able to predict a solar eclipse from astronomical data. Hecataeus, a little later, earned the title "Father of Geography" by seeking geographical information far and wide and putting all the facts he gathered into a book.

The idea of a spherical earth seems to have originated at
about the same time with Greeks living in southern Italy. Perhaps Pythagoras was the first to grasp the truth; at any rate his pupils spread the belief. By the time of Plato (427–347 B.C.) it was generally accepted by learned Greeks, and Plato’s disciple, Aristotle, who was the tutor of Alexander the Great, lived to incorporate the geography of his young protégé’s conquests into his own learned works.

Following Alexander’s conquests, a heavy Greek migration poured into the Near East, and this gave geographical studies a powerful stimulus. Alexandria in Egypt became the world’s intellectual center and scholarship flourished there for centuries. Eratosthenes (third century B.C.) was one of the greatest Alexandrian scholars and one of the foremost Greek scientists. He estimated the circumference of the earth by measuring the angle of the sun’s rays at Alexandria on the day of the summer solstice, having already learned that on the same day there was no angle at Syene (Assuan) to the south on the Tropic of Cancer. This gave him the arc of a circle, the length of which was the distance between Alexandria and Syene. To find the total circumference was then but a matter of simple arithmetic. Eratosthenes came close to the correct figure for the circumference, but missed it slightly because the Greeks of his day were a little off in reckoning the distance between Alexandria and Syene.

Roman Geography

The Romans built the greatest empire of ancient times, yet they showed no especial interest in exploration for its own sake. They conquered Britain and learned something of Ireland, besides having a faraway knowledge of Scandinavia and the Baltic. Their eastern conquests brought them in touch with the Red Sea and the Indian Ocean, and Greek
subjects of the empire surely sailed down the east coast of Africa and beyond India and Ceylon. But these distant voyages can scarcely be called Roman achievements and they added little to the permanent store of information. There is no evidence that Rome seriously explored either the Atlantic to the west or the African Sahara to the south.

Ptolemy

Claudius Ptolemy (second century A.D.), an Alexandrian Greek living in Roman times, was the last of the famous ancient geographers. He is the one best remembered today, because his book of geography and world map have survived and because Europeans in the great discovery period had high regard for his opinions. His “Ptolemaic” system remained the one most in favor until it was superseded by that of Copernicus in the sixteenth century. Ptolemy believed the earth to be a sphere and also thought it the center of the universe, with moon, sun, planets, and stars revolving in orbits around it. His global knowledge extended from the Canary Islands in the west to the “Land of Silk,” or China, in the east, though even here he made two fundamental errors. He underestimated the earth’s size and exaggerated the eastward extent of Asia—miscalculations that exerted both good and bad influences upon explorers in the Age of Discovery.

The “Dark Ages”

When the Western Roman Empire fell to pieces in the fifth century, there came a general shrinkage of geographical knowledge. Wealth dried up and trade languished, as German barbarians divided and plundered the Roman provinces. Contact between Britain and civilization was for a time all but lost, and the Atlantic became again a neglected, if not a
Background

forgotten, ocean. In the seventh century the conquests of the Moslem Arabs threw an almost impenetrable barrier around the eastern and southern Mediterranean. As Christian Europeans now found travel in distant parts nearly impossible, fabulous belief and pious legend gradually gained sway over the western mind in all matters concerning the East.

Yet it would be wrong to say that geographical study—or at least geographical theorizing—ceased altogether. The so-called dark ages, from the fall of Rome to the Crusades, were never quite as dark as we mistakenly suppose. If knowledge declined, some people, even in the darkest centuries, believed that the earth is a sphere. Despite a persistent modern myth which dies hard, there was no religious objection to such a theory. To be sure, Cosmas Indicopleustes, a sailor who in later life became a monk, did fashion a theory of a flat earth. Moreover, he wrote vehemently on the subject, asserting that the spherical idea is not only blasphemous but ridiculous, since it involves believing that men can live upside down. Yet the vigorous way in which the good Cosmas attacked such wrongheaded notions proves that he was used to hearing them. Furthermore, he cannot be called a spokesman for the Church, which never made a pronouncement on the matter.

*T-in-O Maps*

The science of cartography or mapmaking, which the Greeks and Romans had developed, though not very highly, was one of those which almost died in the early Middle Ages. Men lacked the knowledge required for making accurate maps, so they drew theoretical or imaginary ones, perfectly aware that these gave no true picture of the earth. They reverted to Homer's old idea of a disk, not because they
wanted to emphasize flatness but because they were trying to get all known lands on one surface. Jerusalem had to be at the exact center, for the book of Ezekiel (5:5) declares: “Thus saith the Lord God: This is Jerusalem! I have set it in the midst of the nations and countries that are round about her.” The east, where the Garden of Eden was supposed to lie, must be at the top. Three almost shapeless land lumps, representing Asia, Africa, and Europe, surrounded a Mediterranean which a modern observer can recognize only with difficulty. Such drawings are often called T-in-O maps, because they give the earth an O shape, and their Mediterranean, bisected at right angles by perfectly straight Nile and Don Rivers, resembles a T. Moreover, with a symbolism dear to the mediaeval heart, the letters stood for Orbis terrarum (earth circle).

Norse Explorations

The only venturesome European explorers in the early Middle Ages were the Scandinavian Norsemen. Because of overpopulation, unpopular rulers at home, and sheer love of roving and fighting, large numbers of these hardy Norwegians, Swedes, and Danes left their native lands. Their formidable migrations poured forth in recurring waves from the eighth to the eleventh century. The wanderersTravel in fleets of small open ships, propelled by oars and driven during favorable winds by sails. The Norsemen frequently added to the hideous discomfort of a voyage by taking along their patient women, howling children, and seasick domestic animals. They thought nothing of keeping at sea for weeks, in every sort of weather. They had no compasses and steered by the stars and dead reckoning, yet they could set a true course and hold to it.
They explored and raided all lands within reach, and many of them settled in places that took their fancy. In the ninth century their extreme western wing commenced the coloniza-

tion of Iceland. This island had a little earlier been discovered and slightly populated by Irish religious hermits. These, however, offered no resistance to the heathen Norse-

men, who pre-empted Iceland and turned it into a republic which, with various ups and downs, has lasted to the present.

The next step was to Greenland. It is not certain just which Norseman discovered this huge, barren waste or precisely when he discovered it. Our knowledge begins with the fact that in 985 Erik the Red, a pagan Icelander who had been outlawed and exiled for manslaughter, organized a party to settle there. Erik, whose talent for real-estate pro-

motion almost equaled his talent for homicide, hoped to at-

tract many settlers to his new home. Inspired by the one patch of green grass in the whole wilderness, he named the country “green land,” since, as he said, “people will be more likely to come here if we give the place a pleasant name.” Under his leadership two settlements were made in Greenland, both west of Cape Farewell and hence both facing America. These colonies survived until their extinction, probably by starvation and Eskimo attacks, sometime in the fifteenth century.

Norse Discovery of America

By reaching Greenland, the Scandinavians had entered the New World; they immediately proceeded to discover main-

land America. The actual discoverer was a ship captain named Bjarni Herjulfson, who in attempting to find the new Greenland colony from Iceland overshot his mark and en-
countered some part of North America. Against the wishes
of his crew he turned away without exploring, and on reaching Greenland he incurred criticism for his want of enterprise.

About fifteen years later, Erik's Christian son Leif went from Greenland with one ship to explore the coasts sighted by Bjarni. He discovered three American lands, which he named Helluland (Baffin Island?), Markland (Labrador?), and Vinland (Newfoundland?). Leif and his crew were particularly impressed by Vinland, where they reported wild grapes growing abundantly. They also encountered a mild and pleasant climate, very much different from the harsh Greenland weather. Exactly what stretch of coast they explored is debatable; evidence points to Newfoundland, although we can scarcely be sure. The date of discovery is also uncertain but must have been soon after the year 1000.

Leif spent a winter in Vinland before returning to Greenland, and though he never voyaged there again, several other Norse parties visited the new land. On closer acquaintance it did not prove to be the enchanting place it had seemed at first. Leif had encountered no Indians, but the later visitors met savages whom they named Skraelings, or Screechers. The Skraelings were hostile and too numerous for the Norsemen, whose eleventh-century weapons gave them small advantage over American natives. Since Greenland itself was a remote and struggling colony, with no manpower to spare for dangerous adventures, the Norsemen seem to have lost interest. Perhaps Vinland voyages were given a bad name by Leif's sister Freydis, who appears to have resembled her violent father Erik. She went with the last-recorded expedition, and in Vinland she murdered five female shipmates, a performance which caused unfavorable talk in Greenland. There is, at any rate, no distinct account of
voyages after Freydis returned from her bloody exploit in 1016, although there are some indications that Norsemen were later in both Vinland and Markland. We can at least be sure that they never wholly forgot these lands in the distant west.

The discovery of the Kensington Rune Stone in Minnesota, by a Swedish-American farmer in 1898, furnishes important evidence that in the fourteenth century another Scandinavian party entered North America through Hudson's Bay. Carved on this stone is a brief and moving description of the sufferings of a mixed band of Norwegians and Swedes, who were expecting early death at Indian hands. If the inscription is authentic, as now seems probable, it fits with other bits of evidence to show that the Norsemen had a longer and wider acquaintance with the New World than was once supposed.

Yet, while the Scandinavians were the first Europeans in America, their voyages were more interesting than important. Proof is altogether lacking that the later great European discoveries owed anything to the Norse exploration of Vinland. The Scandinavians failed to understand what they had found and failed to make any practical use of it. This is not to their discredit, for Europe was then in every way unready to colonize the world beyond the seas. Anyone with an ounce of curiosity would wish to know more about Leif and his adventurous crew; yet in every sense that counts, Columbus remains the discoverer of America.