FOREWORD

The Hitchcock Lectures, begun at the University of California in Berkeley in 1909, have been unrestricted as to their “scientific or practical” range except that they are not to be “for the advantage of any religious sect, nor upon political subjects.” They are public, annual, usually a single series by a scholar from other parts. The Earth Sciences had early attention in the lectures of Harry Fielding Reid on earthquakes and in those on vertebrate evolution by Henry Fairfield Osborn. In later years a half dozen series have been concerned with aspects of the history of the earth and the organic and physical processes that are expressed in its changing face. The Russell lectures of 1965, here published, are the first to take features of land and sea as their theme, a subject now known as geomorphology and which in earlier days and with different emphasis was considered a part of physiography or physical geography.

The appointment of Richard Russell as Professor on the Hitchcock Foundation had several good reasons. He has been a principal in revitalizing geomorphology, giving it new directions, new and sharper means of inspection, and linking it to other disciplines. It was hoped that in meeting the obligation of the lectures he would give an overview of the several lines of inquiry he has followed, their interrelation, results, and prospects. He has done so with a synthesis and perspective and simplicity that will reward any reader who is attentive to the features of land, stream, or seacoast. Also, it was proper to bring him back to the place where he spent his formative years and from which he went out to a life of greatly independent discovery.

In the twenties the doctrine of William Morris Davis prevailed in all countries of English speech: that the surfaces of the land were to be explained by cycles of erosion, characterized by stages proceeding from youth to old age. The system had the elegance of attractive models that were proposed as representing the stage to which any given land surface would be assigned. By accepting premises and
presumed criteria, attention to event and process in actual (geological) time was excluded. Landforms were thus taken out of the context of earth history.

When Professor Davis retired from Harvard University he moved to California, repeatedly lecturing at Berkeley. Here the young Russell became companion to the old master of physiography and here also he began to have doubts that the Davisian doctrine was adequate or even valid. His Hitchcock Lectures begin with the influence of Davis and how he found his independence by moving to Louisiana in 1928. This base, with which he has chosen to remain, gave him a great new field of study, beginning with the Mississippi River, its flood plain and delta. Its terraces led to new insights into the course of glacial and later time in lower latitudes. The Gulf Coast plain with its shores and shallow waters came into his widening range of inquiry, as did alluvial valleys in other continents. Finally his Coastal Studies Institute has engaged in work in the morphology of the borders of sea and land about the world.

This is the record and reading of the forty-year trail of discovery Russell has followed, told in sequence and thus also partly autobiographical. It tells of observations at first casually noted, becoming significant clues, and continued to new understanding of forms and processes. Meanders, levees, terraces that disappear below the flood plain; deltas that are continuing accumulations of sediment and which do not grow as to extent of surface; shapes of lagoons and beaches; beach rock and coral strand and reef—these are some of the items he discusses here. His assurances to the reader that geomorphology is an exciting science in its infancy are substantiated by the new vistas he opens on the nature and origin of lowlands and fringing seas.

Carl Sauer