does. He has an obligation to examine both the evidence that is available and the premises that lead some people to different conclusions from his own. At times he may feel that he must cry out in moral outrage. But he must recognize that his moral outrage will not win others to his point of view unless he can demonstrate that his own premises are valid and that the evidence he has mobilized is compelling.

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Ancient Peru

Peru before the Incas. EDWARD P. LANNING. Prentice-Hall, Englewood Cliffs, N.J., 1967. viii + 216 pp., illus. Cloth, $5.95; paper, $2.95.

Lanning's book is the fourth general work on the archeology of Peru to appear within the last decade. There has been a great deal of activity in Peruvian archeology during this time, and Lanning has been responsible for much of it. He has spent four years in the field and has contributed much new knowledge and familiarized himself with the work of others, a good deal of which has not yet been published. He is certainly one of the best informed of Peruvianists, having not only worked in traditional archeological ways but also engaged in less usual ecological studies that help to explain many of his new finds. These have been mainly, but by no means exclusively, in the preceramic periods that have been coming to light recently as a result of increasing interest in the origins of Central Andean agriculture and pottery.

Peru before the Incas is the most up-to-date of the general books and is the first to use John H. Rowe's classification of Peruvian culture history by time periods rather than by cultural stages, such as, for example, the late Wendell Bennett's Early Farmers, Cultists, Master Craftsmen, and so on. Rowe's periods seem to have been adopted by almost all the active, younger Peruvianists, in no small measure because a large majority of such scholars were trained by Rowe at Berkeley or by Rowe's students, including Lanning.

I think the most important and exciting new material that Lanning contributes is that derived from his work on the central coast. Here, not far north of Lima, he and his colleagues have established a long chronology of preceramic periods dating from perhaps as long ago as 10,000 B.C. or even earlier. He presents six such periods, based in part on stratigraphy but mostly on the seriation of stone tools. These periods are correlated with climatic changes and culminate with the introduction of pottery at about 1800 B.C. in some places. Agriculture appears in a small way in the penultimate Preceramic V period. This is all new, as far as general books are concerned. Lanning's chronology represents the first apparently unbroken sequence from a very early hunting and gathering stage to developed agriculture based on irrigation and Peruvian civilization.

The rest of the book deals with more familiar aspects of Peruvian life and, the title notwithstanding, includes a very good summary of Inca history and culture. I have only one bone to pick with Lanning. That is his use of the word "Empire" in connection with the spread of influences, as evidenced by art styles from Tiahuanaco and Wari. I do not think that the archeological evidence justifies this terminology, as it so amply does for the Inca Empire.

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A National Architecture

Canada Builds. 1867–1967. T. RITCHIE and the staff of the Building Research Division, National Research Council of Canada. University of Toronto Press, Toronto, 1967. x + 331 pp., illus. $12.50.

The author of this pioneer history of the building arts in Canada has succeeded remarkably well in presenting what would seem to be an unmanageably large subject. As associate research officer in the Division of Building Research at Ottawa he has a professional knowledge of structural materials and techniques, to which he has added a good grasp of both the history and the geography of Canadian building. The vast area of the country alone offers the historian formidable problems: we need to recall that the relatively narrow strip of French-English Canada extends across six time zones, from the Atlantic outpost of North America at St. John's, Newfoundland, to Prince Rupert, British Columbia, at the southern tip of Alaska. The physiographic and geological features include nearly the entire range of continental forms. Moreover, in large wilderness areas settled mainly during the past three centuries —Canada, Australia, the United States, and the Soviet Union are virtually alone in this category—the entire development of building, from its Neolithic origins to its present-day metropolitan character, was recapitulated over and over again as the colonists moved steadily inland from the points of original settlement.

Ritchie's method is to tell his story several times, each section treating a different aspect of the complex building art and its associated industries. The first account, following an introductory section on the construction of the Parliament group at Ottawa, presents building in terms of its socioeconomic history and its spread from east to west (the directional movement and the chronological development are exactly parallel in Canada). The second is analytical, concerned with materials and their associated structural and manufacturing techniques; this is followed by two brief chapters on community development and the various stylistic phases of Canadian architecture. The text is supplemented by about 540 expertly printed plates, most of which are photographs, the balance including drawings and early maps. Ritchie's various chapters are literate, readable, and, except for a sprinkling of errors in his references to building in the United States, are thoroughly reliable.

In spite of his somewhat confusing way of splitting a unified cultural process into separate parts, the author's text and illustrations together make it possible for the reader to grasp the essential features of the totality of Canadian building. For all the geographical diversity of the land, construction and architectural style in Canada exhibit much greater homogeneity than in the United States. One is struck, as a matter of fact, by the persistence of eastern forms throughout the Prairie region and the mountain and coastal West. The French framing technique known as *pièce-sur-pièce,* for example, reappears in Manitoba and Saskatchewan as the Red River or Manitoba frame. The French tradition, as we might expect, had a far greater influence on Canadian building than on that of the United States, where the French building of the Mississippi Valley was rapidly obliterated by the westward movement of English-speaking people. In the periods preceding the establishment of the modern rail network and the new techniques of steel