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Piles of Piles: A survey of nuclear pile development during World

War II CAMERON REED, Alma College (Emeritus) — Between the time of the discovery of nuclear fission in early 1939 and late 1946, approximately 90 nuclear piles were constructed in six countries. About 60 of these were constructed in the United States, 20 in Germany, and a handful in Britain, France, Canada, and Russia. These devices included simple graphite columns containing only neutron sources, uncooled and cooled graphite and heavy-water moderated uranium-bearing models constructed in efforts to achieve criticality, and the enormous plutonium production reactors built at Hanford, Washington. This paper will review wartime pile developments, summarizing activities in different countries and pointing out interesting contrasts in design approaches.

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