

Yapese Stone Money: Local Marble as a Potential Inspiration for Producing Limestone Exchange Valuables in Palau, Micronesia

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Between c. AD 1400-1900, Yapese islanders in western Micronesia traveled to the Palauan archipelago to carve large circular or ovoid-shaped disks, often referred to as "stone money", from limestone of a speleothem flowstone variety that formed by calcite precipitation along cave walls. These disks were an engineering marvel, and their transport to Yap more than 400 km away by watercraft makes them the heaviest objects ever moved over open ocean by traditional Pacific islanders. Thousands of pieces were brought to Yap pre- and post-European contact, and were (and still are) highly prized as important exchange valuables and symbols of cultural tradition.

One of the most fundamental questions regarding stone money is how it originated given that Yap has no native sources of limestone. Palau and Yap are part of an intra-oceanic island-arc-trench system that separates the Pacific and Philippine plates, and Yap is unusual in that it is mainly composed of metamorphic, not volcanic rocks. Yap also lacks uplifted limestone terrains common in the neighboring archipelagoes (Palau and the Marianas).

To address this question, we examined the occurrence of rare, small, and lichen-covered outcrops of calcitic marble (metamorphosed limestone) on Yap. While there are no definitive records of Yapese stone money being produced from marble, this study documents an attempt to carve a disk from marble. We suggest that the white color, crystalline texture, and shiny luster of marble may have initially inspired the Yapese to seek similar material elsewhere. The discovery of abundant flowstone with similar composition and appearance on Palau may have been the impetus for why this exchange system began. Even though the surface of most stone money on Yap is now darkened due to weathering, its value is based on the oral history of the acquisition and ownership of each individual object, and not on visual appearance.