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PERUVIAN OR POLYNESIAN: THE STONE-LINED EARTH OVEN

OF EASTER ISLAND

Roger Green
Anthropology Department
University of Auckland

In a useful article in Antiquity, "Stone-lined earth ovens in Easter Island", McCoy (1978:204) opens with the following paragraph, "Prior to the recent description of stone-lined ovens in Hawaii (Hendren, 1975:133, 139), such ovens had not been reported elsewhere in Polynesia, and as a result some attention has been placed on the origin of the umu pae. An undocumented claim has been made for the probable Peruvian source of the stone-lined oven (Heyerdahl, 1968: 195), but in fact cultural origin is still in question because local innovation by the undeniably Polynesian substratum of the indigenous population has not been ruled out."

Several of these assertions raise issues discussed in recent literature from Polynesia not cited by the author which might be considered with profit.

In Hawaii Takayama and Green (1970) prior to and more fully than in the article cited by Hendren discussed the difference between stone-lined (and unlined) ovens or firepits (imu pao) and stone-lined hearths or fireplaces (kapuahi) in relation to the archaeological evidence from the dry inland garden habitation zone of Makaha. On surface evidence both stone-lined forms were morphologically and in size very similar, but the distinction between them on excavation was the deepened pit inside the firepit form, which often also contained stone, ash and charcoal. On the evidence of Halawa (Hendren, 1975:140) the stone-lined firepit or oven may occur within a cook house in Hawaii, while on the evidence of Makaha it may also occur near temporary field shelters but out in the open (Takayama and Green, 1970:44, 50). The occurrence in both a cook house (hale imu) and out in the open is entirely consistent with Buck's (1957:17-18) ethnographic description of Hawaiian earth ovens (imu pao). More important the two categories, fireplaces and firepits, were not entirely discrete functionally, so that the kapuahi fireplace for cooking, while it did not have a deepened pit like an oven, could be quickly converted to a imu pao by the addition of more stones of the right size (Handy and Pukui, 1958:13).

For New Zealand (Leach, 1972) provides a useful article summarizing a long series of archaeological reports on stone-edged and stone-free, rectangular and circular hearths which have been recovered by archaeologists from both Archaic and Classic contexts. Leach's analysis is in many ways similar to McCoy's. Again the placement of the stone-lined fireplace (takuahi) within habitations was shown to be general although not exclusively so. Certainly a number of the Palliser Bay examples (on the basis of more careful excavation than many of the reports she cites where housing was simply assumed from the presence of so-called fireplaces) were in fact not within any feature that could be interpreted as a house and others were a short distance from such a house (Leach, 1972:70-71). More important, as in Hawaii, there is a common difficulty in easily distinguishing between those features within houses and those outside and their respective functions as hearths, fireplaces, or firepits for cooking. Thus as Leach indicates, "The similarity between these features [firepit and scoop features (with and without heated stones) and their presence within houses] and the haangi pit or simple scoop used for cooking, must be taken as warning against assigning function too readily. At this stage it might be advisable to avoid ethnographic terms such as haangi or umu,...".

In this light it is interesting to note that two of the umu pae cited by McCoy for Easter Island and excavated outside the house at village no. 1 of Vinapu were called by Mulloy (1961:139-140) hearths not ovens. From the description of structure no. 4: "The charcoal level was depressed about 15 cm below the surrounding ground level", and of no. 5: "The charcoal level inside was about the same as the occupation outside. It was not penetrated deeper, and may have contained more deeply buried fire remains", it would appear the hearth designation may be entirely appropriate in the sense that these were exterior fireplaces not firepits used as cooking ovens. In contrast, the other excavated example cited by McCoy is contained within a circular stone dwelling at Anakena, and is not a hearth but cooking oven because it contained within its 30cm deep pit charred remains of food (Skjölsvold, 1961:297). Finally a more recently excavated rectangular stone-lined umu pae in the plaza of Ahu A Kivi turned out to be a hearth with a 20cm thick charcoal lens inside (Mulloy and Figueroa, 1978:24).

The point is this: on the basis of their morphology and size, the Easter Island umu pae are very similar both to stone outlined fireplaces and firepits in New Zealand and Hawaii. The summary by Leach (1972: Table 1) of the New Zealand forms, square, rectangular, and oblong, for examples shows most of them to fall into the same size range (40-80cm) as the Easter Island types, and to have similar variations in the composition of perimeter stone outlines. It also seems clear that stone-lined fireplaces and stone-lined firepits or ovens are closely linked features,

difficult to separate as to function except on excavation, and not always even then. Moreover, they occur outside as well as inside structures in all three island groups. Finally it should be mentioned that morphologically similar stone-lined fireplaces of the same general size commonly occur archaeologically within houses in Western Samoa, although stone-lined earth ovens are not known from there (Davidson, 1974:232, 237). Also a stone-lined fireplace within a house is known archaeologically from Rurutu (Verin, 1969:75).

Given the above information one might offer the following as an alternative to Heyerdahl's claim of Peru as the source for the Easter Island stone-lined oven. The stone-lined fireplace is an expectable form in Polynesian dwellings with a probable antiquity of several thousand years and rectangular as well as oval and other irregular forms of fireplaces are known from several islands (Hawaii, New Zealand, Easter Island) in Eastern Polynesia. In Easter Island and Hawaii local innovation saw the trait of stone-lining of hearths within houses transferred from these fireplaces to firepits or small ovens used for cooking both within and outside habitations of various types. Thus the origin of the umu pae of Easter Island in the "undeniably Polynesian substratum of the indigenous population" of Easter Island is far more likely than any claims for its origin through contact with some unrelated outside culture. Moreover, it was specifically the "rectangular masonry oven of dressed slabs set on edge to project above ground" to which Heyerdahl referred in citing Peru, Easter Island, and New Zealand as its archaeological distribution, but pentagonal and rectangular fireplaces like those of New Zealand are also known in Hawaii, along with the more common oval forms (Rasor, 1970:64; Chapman, 1969:74). An Eastern Polynesian affinity for this particular form is therefore more likely than that of distant and culturally unrelated Peru.

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