**Supplement 1: Models of Economic Organization in the Casas Grandes Region**

Many of the models aimed at explaining the development of Paquimé and its role in a regional context revolve around its economic organization. Di Peso (1968, 1974, 1983) saw Paquimé as an outpost established by central Mexican traders. He argued that it was a mercantile center, where a variety of goods, such as shell, copper, and ceramics were produced by craft specialists who were organized in "guilds." Pailes and Reff (1985) basically agreed with Di Peso that Paquimé was a mercantile center. They further argued that Paquimé developed an administered market system with a solar central place, following Carol Smith (1976). In this model, the indigenous population of the region continued to produce utilitarian goods, while central Mexican (or central Mexican influenced) merchant-priests tried to control the regional economy through the monopolies of religious and ritual paraphernalia. This system, according to them, actually stimulated the development of local economies, which led to the disintegration of control by the central Mexicans. LeBlanc (1989), though he did not necessarily agree with the physical presence of central Mexicans, suggested that Paquimé served as major trade center where goods such as copper bells were produced by craft specialists. VanPool and colleagues (VanPool et al. 2008a; VanPool and VanPool 2007) continue to interpret Paquimé as part of the West Mexican Aztatlan trading system (Foster 1992, 1999).

Other scholars, mostly those who disagree with the Mexican occupation thesis, criticized the mercantile center model, and instead proposed explanations within the framework of a prestige goods economy (Bradley 1993, 1999; Lekson 1999; Neitzel 1989; Whalen and Minnis 1996, 2001; Wilcox 1995; see also Rappaport 1967; Sahlins 1972). Although the precise definition of a prestige goods economy varies among scholars, this concept emphasizes a sociopolitical framework in which the production and exchange of rare goods were embedded. According to the model, items that had a high sociopolitical or status value were distributed horizontally through networks of elites in other communities or regions, and the exchange, possession, and display of these objects served to enhance the prestige of elites and to form and consolidate political alliances. In turn, the distribution of prestige goods to lower-ranked groups and individuals helped to ensure allegiance and to receive goods and services, such as food and labor.

With regard to Paquimé, most proponents of a prestige goods model believe that the distribution of the goods was controlled by elites. Neitzel (1989:157), for example, suggested that prestige items were most frequently traded by the elite of large sites and that Paquimé served as a major distribution center for exotic birds, copper and shell. The organization of production of these prestige goods, however, was either not a focus of explanation in these studies (Neitzel 1989) or if it was, scholars arrived at different interpretations. Bradley (1993:134-137, 143, 1999) thought that shell ornaments were produced by craft specialists at a few locations at Paquimé, predominantly for exchange, because the local consumption of shell ornaments seems to have been very limited and restricted to high status individuals (see also Ravesloot 1988).

In contrast, Whalen and Minnis (1996:174-175, 2001:184) have argued that the production of prestige items at Paquimé was dispersed. Following Wolf (1982:88-99) they proposed a kin-ordered mode of production where these goods were manufactured by local residential groups and not in specialized workshops (see also McGuire 1986:248-250). Reporting large quantities of turquoise at the relatively small site of Villa Ahumada, Maxwell and Cruz (2008) suggest that Paquimé may not have controlled the turquoise trade and may even have received finished objects from Villa Ahumada (see also Maxwell 2006:103-104; Rakita and Cruz 2015:74-76). In addition, Pailes (nd) is criticizing the long-distance prestige goods models on a more general level.

Sprehn (2003, 2006) found that Chihuahuan Polychrome jars and some incurved bowls were highly standardized in size, form, and decoration and argues that they were produced by part-time specialists and that elites sponsored some pottery production (Sprehn 2003:22). She has proposed that Paquimé and the Casas Grandes region were economically organized in a more complex variant of Wolf’s kin-ordered mode of production, what she calls the “incipient tributary mode of production” (Sprehn 2003: 22, 239-245) (Wolf [1982:97] actually refers to chiefdoms and “how social labor is deployed”. He distinguishes two classes of chiefdoms. In the kind of chiefdom where a dominant group transforms divisions of rank into division of class – some may call this a complex chiefdom [e.g., discussion in Yoffee 2005:24-25; Wright 1984] – “the chiefly lineage is in fact an incipient class of surplus takers in the tributary mode”). Like Douglas (1992) she doubts that exotic items like macaws, shell, and copper were part of a prestige goods economy (Sprehn 2003:44-46; see also Whalen 2013:636 for a similar view on shell).

Fish and Fish (1990:40-41) have suggested that, similar to some models for Chaco (e.g., Cameron and Toll 2001), Paquimé may have been a regional pilgrimage center fostering trade and exchange without extracting tribute or exerting political control over the participants (but see Plog and Watson [2012] for a critique of the Chacoan model). Carpenter (2002:162) suggests that the “dispersed number of commodities within household and storage contexts [at Paquimé] can, perhaps, be interpreted as reflecting market acquisition, as defined by Pryor (1977:106). In this system, both subsistence and exotic goods may be obtained through barter in both goods and services.” He envisions a multi-faceted economic system with different organizational modes for the distribution of exotic prestige goods, such as shell, macaws, and copper (Carpenter 2002:162-164) and more utilitarian goods such as Chihuahuan Polychrome ceramics (see also Pailes 2016).

One aspect most colleagues agree on is that although great strides have been made, there are still significant research gaps in the Casas Grandes area (e.g., Minnis and Whalen 2015b:14-15; Rakita and Cruz 2015:82; Sprehn 2003:245-246; Whalen and Minnis 2009:2, 2012:421). Thus, the economic role of Paquimé is far from resolved and remains an important research focus.

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