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## **Masonry Construction Systems at the Acrópolis, Copán, Honduras**

**Research Year:** 1995

**Culture:** Maya

**Chronology:** Classic

**Location:** Copán, Honduras

**Site:** Copán Acrópolis

FAMSI provided support for the Grantee for two 90-day field seasons of archaeological investigation at Copán, a Classic Period (A.D. 150-900) Maya center located in western Honduras. Conducted under the auspices of the Proyecto Arqueológico Acrópolis Copán, this dissertation research examines growth, change and decline in the Copán polity through an analysis of monumental architecture—its construction, destruction and reconstruction. The study aims to provide a detailed and comprehensive analysis of the diachronic variability in masonry construction at the Copán Acrópolis and of the labor and task specialization involved in producing it. It addresses theoretical questions concerning the relationship between energy expenditure and social standing, as well as issues of growth and change in royal power, through an analysis of the changing methods used and the magnitude of labor commanded by members of the Copán ruling dynasty.

A sacred place, as well as the administrative and religious center of the ruling dynasty, the Copán Acrópolis was periodically destroyed and rebuilt, resulting in a complex 400-year sequence of superimposed masonry architecture. Erosive action by the Copán River has cut the eastern face from the Acrópolis, exposing the full series of stone, stucco and earth constructions and providing access points for tunneling excavations into all levels. Tunnel lengths currently total in excess of three kilometers, exposing in extraordinary detail the remains of royal residences and ritual and administrative structures which were only partially destroyed before their burial and the subsequent construction of later versions. The excavations are supervised by numerous members of three sub-projects, and the Grantee is charged with collecting, integrating, and analyzing data on construction methods and materials from the various excavation contexts, as well as conducting analyses and quantifications of the labor energetics involved in architectural production.

In the 1980's, Elliot M. Abrams conducted research at Copán, which quantified the investment of energy in numerous residential structures in the Copán Valley. His research clearly demonstrated the usefulness of energetics studies in Maya archaeology, and his results have been used by some scholars as a means of evaluating the sociopolitical complexity of the Copán polity. The Grantee's study, builds

upon Abrams' residential investigation by applying similar methods of energetics analysis to the numerous royal structures forming the Acrópolis, the center of dynastic power at Copán. It is combining data from the three tunneling projects to explore diachronic changes in elite construction by investigating the multiple, superimposed versions of structures. It does so in the unique context of the Copán Acrópolis, where the structures clearly were intended for royal use.

The principal goals of this study are to: (1) establish a systematic program of masonry attribute definition and analysis; (2) record in detail the architecture, construction methods, and decoration for all buildings, platforms and plazas exposed by the tunneling and clearing excavations; (3) conduct analyses of the energetics and mechanics involved in the monumental construction—and periodic destruction—of the Acrópolis; (4) identify and define spatial and temporal trends, continuities or discontinuities; (5) tie the data on construction sequence and labor energetics to the known dynastic sequence and historical events; (6) relate the results of this research to the broader archaeological, epigraphic and iconographic investigations at Copán in order to advance a more complete understanding of the evolution of architecture and dynastic power at this major Classic Maya center; and (7) contribute significant data which may be applied cross-culturally to future architectural and energetics research.

The 1995 and 1996 field seasons were completed successfully under this FAMSI grant, documenting diachronic variations in construction techniques and construction magnitude and investigating the concurrency of various construction, destruction and modification episodes. Calculation of energy investment also has begun. The Grantee's data base will not be complete until all excavated architecture exposed in this on-going project has been recorded. The research continues to date.

*Submitted 11/01/1996 by:*  
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