Variations on a Theme:
Dual-Processual Theory and the Foreign Impact on
Mycenaean and Classic Maya Architecture

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Abstract
This article examines evidence for external influences on developing Mycenaean architecture, specifically at Pylos, during the Middle to Late Bronze Age. Previous investigation suggests that emerging mainland elites eclectically appropriated foreign material cultural forms, styles, and techniques into established local traditions, most likely for use in localized prestige competition. Although a wealth of previous scholarship has convincingly demonstrated an extensive Minoan impact on the Greek mainland, less work has been done to provide a context for the mechanisms whereby such influence occurred. Considering architecture as a reflection of social structure and employing a dual-processual theoretical framework, we explore the possibility that architectural similarities and differences between Crete and Messenia are material manifestations of varying exclusionary and corporate strategies of sociopolitical power. We subject the Minoan influence at Pylos to a cross-cultural comparison with the Teotihuacano impact on the development of lowland Maya architectural styles and cultural projects in the Mesoamerican Early Classic period. We also discuss what these two case studies teach us about the relationship between interaction, architecture, and social organization in emergent complex societies, in both the Old World and the New World.*

INTRODUCTION
In this article, we explore external influences on the development of Mycenaean architecture at Pylos. In doing so, we seek to answer the question of how variation in architecture may correlate with variable forms of sociopolitical organization. We suggest that similarities in architectural forms, styles, functions, construction techniques, and schemes of spatial organization between the regions of north-central Crete and Messenia indicate Minoan influence on developing Mycenaean elite architecture in the Middle Helladic (MH) III to Late Helladic (LH) IIIA periods (ca. 1750–1300 B.C.E.) of the southwestern Peloponnese. As a whole, the evidence from Pylos indicates an eclectic appropriation of Minoan architectural elements and techniques, which were selectively incorporated into local traditions by emerging elites for use in prestige competition.¹

Although most researchers agree that there existed a connection between Crete and Messenia in the Early Mycenaean period, diversity in the archaeological assemblages both within and between the regions supports multiple interpretations of the nature of that relationship.² While some posit the presence of a Cretan aristocracy, traveling Minoan artisans on the mainland, or a Minoanizing predecessor of the LH IIIB palace at Pylos, others are skeptical of such claims, cautioning that the existence of Minoan objects is not evidence of an actual Minoan presence.³ Significant changes in material culture—particularly in architectural plans and construction techniques—between the LH IIIA and LH IIIB periods cannot be explained simply as the result of diffused or changing Minoan stimuli, Mycenaean emulation of the relatively advanced Cretans, or overt Minoan presence on the mainland. The data suggest that the relationship between Crete and the mainland was far more complex than current explanations consider. While a variety of scholars have convincingly demonstrated an extensive

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² Hägg 1982, 27; Rutter 2005, 33. Variation is also evident between Messenia and other parts of the mainland (Dickinson 1982, 125).

Minoan impact on the Greek mainland, less work has been done on the context for the mechanisms that facilitated such influence. In other words, rather than concentrating on how Minoan elements were adopted into the Mycenaean corpus (the focus of most earlier scholarship on the subject), we instead address the contextual question of why such elements were introduced in the first place.

To provide such a context, we adopt a dual-processual anthropological framework. Dual-processual theory offers an alternative explanatory approach to discussion regarding Cretan influence on the mainland, one that can simultaneously account for the parallels and discrepancies observable in Minoan and Mycenaean architectural programs at Pylos in both synchronic and diachronic terms. We first outline the main tenets of dual-processual theory and its use. By linking material diversity with processes of social transformation, a dual-processual perspective permits us to move beyond static, somewhat simplistic explanations of variability and allows for cross-cultural comparison—a valuable interpretative device often overlooked in classical archaeology. We next turn to a brief description of Mycenaean architecture at Pylos and its relation to Minoan architectural traditions. We draw on dual-processual theory to suggest that similarity and disparity between Mycenaean and Minoan architecture reflect distinct forms of sociopolitical organization present in these societies.

The architectural evidence at Pylos lends itself well to an application of dual-processual theory. It is our hope that our demonstration of the value of this perspective in the context of Pylian architectural change will inspire others to consider dual-processual theory in explanations of social transformation at other Mycenaean polities, with the aim of more fully understanding the variable development of greater Mycenaean society throughout the mainland. Comparing Minoan influence on Messenia with Teotihuacano impact on the development of lowland Maya architectural styles in the Mesoamerican Early Classic period (ca. 250–600 C.E.) adds nuance to the argument. The Mesoamerican case presents many striking parallels to the situation in the Bronze Age Aegean and may assist in elucidating the processual dynamics at play in Minoan-mainland interaction and the emergence of Mycenaean society. Cross-cultural comparison enriches the debate surrounding models of developing sociopolitical complexity and state formation. Moreover, such comparative approaches may serve to bridge the “great divide” between classical and anthropological archaeology.

We conclude that the data reflect variations on a theme. Synchronic similarities in architectural forms between sites within the Aegean and Mesoamerican worlds suggest interaction with and influence from other areas in each case. At the same time, diachronic inter- and intraregional discrepancies hint at variable sociopolitical configurations, which subsequently were reflected architecturally. In the Aegean, Messenia and Crete exhibited significantly different forms of political and economic organization as they moved toward statehood. We close with a discussion of the parallels between the Mesoamerican and Aegean data and thoughts on what these cases tell us about the relationship between interaction, architecture, and social organization in emerging complex societies.

It appears that emerging Mycenaean and Maya states, with their exclusionary networks and lineage-based focus on the individual, stand in contrast to the Minoan and Teotihuacano polities, which were organized along more corporate lines. While processes of interaction, emulation, and influence are evident in both cases, it seems that the architecture of the corporate societies is characterized generally by greater uniformity and standardization in architectural plans; emphasis on the collective, commercial, and inclusive ritual-religious aspects of architecture; and far fewer restrictions on access to structures. The more exclusionary network-based societies in turn exhibit greater variability in site-planning principles, increased focus on the administrative aspects of architecture, and increased control over access to sites and buildings. Ultimately, the evolving needs of distinct sociopolitical configurations found dynamic architectural expressions as these societies developed and changed over time.

THEORETICAL FRAMEWORK: THE SOCIAL PRODUCTION OF ARCHITECTURE

Architecture is an excellent medium for exploring the connection between variation in material culture and distinct political economies, insofar as buildings are social objects, and their production potentially

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1 Supra nn. 2, 3.
2 Blanton et al. 1996; see also Blanton and Fargher 2008.
4 We do not suggest that these categorizations are static, typological entities but rather points along a continuum with which these societies can be more closely identified (see Blanton et al. 1996, 2). As Feinman (2000, 221) notes, “corporate/network is neither a typology nor a dichotomy,” given the presence of a large definable middle ground (cf. Small 2009, 206); see also infra nn. 13, 17.
reifies sociocultural circumstances or institutions.

The built environment is a form of social communication, which expresses, reaffirms, and/or redefines the particular social relations between individuals within a specific cultural milieu. Since the production of architectural space is a sociocultural process, it is temporally and spatially variable. The meaning of the built environment is subject to change through dynamic sociopolitical formations often brought about through interaction. As Mycenaean society changed over time, its architecture was likewise altered. In this light, palaces may be seen as evolving material expressions of Mycenaean social behavior.

In attempts to elucidate variability within and among societies of similar complexity and scale, dual-processual theory is a productive framework. Dual-processual theory focuses on variation in ancient political economies and distinguishes between exclusionary, individual-centered political economies and those that are more corporate, or group oriented. Rather than reify a dichotomy between corporate and exclusionary organizations or institutions, the phenomenon of the Mycenaean mainland through time, the focus of this chapter, is the persistence of a specific system of sociopolitical organization and the spatial, temporal, or sociocultural circumstances. Social actors may alternately reproduce society, reject it, or modify it as a way of achieving desired outcomes. Differing social, political, or economic needs will thus find shifting expression over time. The larger the number of individuals invested in the persistence of a specific system of sociopolitical organization, the more the decision-making “voice” is widely distributed among members of a given society. Such collective action provides the mechanisms that can lead to more corporate (vs. exclusionary) social patterns. Since architecture is an expression of sociopolitical configuration, architectural changes over time may reflect different political strategies in discrete spatial, temporal, or sociocultural circumstances.

We propose that architectural similarity and variability between Pylos and Minoan Crete reflect differing forms of sociopolitical organization on Crete and in Messenia, one an exclusionary and individual-centered network (hereafter, “exclusionary”) and the other more collective and group oriented (“corporate”). We evaluate this proposition by examining the relationship of Pylian architecture to Minoan traditions. Dual-processual theory adds a new cultural

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8 Rapoport 1988; Mathews and Garber 2004; Maran 2006a; Wright 2006a, 11; 2006b, 49. Cf. Martin (2001, 168): “architecture is not simply a shell or stage filled by cultural activity; it is an embodiment of it.”

9 Maran 2006a; 2006b, 75; Thaler 2006; cf. Marcus 1983; Martin 2001. Of course, architecture may also question, deny, or intentionally misrepresent an established social order.

10 Cf. Wright 2006a, 7.

11 Such interaction may be both internal and external to the society itself, i.e., within and between social actors and audiences, or societies.

12 See Blanton et al. (1996) for an overview; see also Galaty and Parkinson 2007; Parkinson and Galaty 2007; Blanton and Fargher 2008; Small 2009; cf. Pauketat 2007.

13 See also de Montmollin’s (1989) concept of “bundled continua of variation.”

14 Small 2009.


16 Small 2009, 206. Although some material culture may be associated with exclusionary strategies, the same materials may also be associated with a corporate ideology, given different uses within or between contexts; cf. Blanton et al. 1996, 2.
axis of analysis to this examination by providing an alternate framework within which to approach variation in architectural styles. Our goals are to locate the material correlates of variable exclusionary and corporate political ideologies and to identify how diachronic changes in these political strategies found expression in architecture.\textsuperscript{19}

CASE STUDY: THE MYCENAEN PALACE AT PYLOS

The Bronze Age site of Pylos in southwestern Messenia (fig. 1; tables 1, 2), by far the best-preserved palatial site on the Greek mainland, is well known archaeologically.\textsuperscript{20} Although most construction at the site dates to LH IIIB, a great deal of material is earlier, and remains of early structures were found below the palace. There is evidence of a long occupational history on and near the Englianos hilltop, stretching back into the late Early Helladic period.\textsuperscript{21} We focus on the Late Helladic architecture and briefly outline the sequence and characteristics of Pylian construction and building techniques during the Early Mycenaean period.

In the LH I–II periods, there was a trend toward the monumentalization of architecture on the Englianos hilltop. Pseudo-ashlar walls of poros limestone are found in the southwest quadrant and northwest area, near the Wine Magazine, and along the western facade of Building X. L-shaped wall sections were constructed to flank the northeast gateway, which itself aligned with the dromos of Tholos IV. Also dating to LH I–II are the pseudo-ashlar circuit wall in the southwest quadrant, the rubble walls founded on bedrock in the Belvedere area, and northwest quadrant rubble walls AB, H, L, and O. Additionally, the earliest walls in the lower town appeared at this time.\textsuperscript{22}

During the later LH II period and into LH IIIA, orthostate walls and cut-stone column bases appeared at Pylos along the western facade of the Southwest Building, as well as on Building X, along the west of the southwest quadrant, in the northwest area, southeast of Room 65, and south of the Wine Magazine.\textsuperscript{23} The emergence of orthostate construction was concurrent with advancement in wall-construction techniques: Nelson notes that blocks generally increased in size; anathyrosis assured smooth, flush joints at the exterior faces of the walls; and mortises and dowels secured wooden members to stone.\textsuperscript{24} Later in LH IIIA, true ashlar masonry (fig. 2) appeared on the western facade of the Southwest Building, in the southwest quadrant, and along what would later become the eastern facade of the main building (the megaron) (fig. 3). In LH IIIA, when the ashlar style was prevalent, there were at least two and possibly three building phases, which are evident in the northeast facade of the main building; the last phase included the introduction and use of ashlar shell walls.\textsuperscript{25}

At the end of LH IIIA, the constructions on the Englianos hilltop were destroyed by fire. The site was rebuilt in LH IIIB; more walls and structures survive from this period. After the LH IIIA destruction, a new construction technique and formal plan appeared at Pylos, one not previously attested at the site (fig. 4). The previous circuit wall fell into disuse, and it is possible that a retaining wall was constructed along the west of the Englianos hilltop.\textsuperscript{26} LH IIIB also marked the discontinuation of ashlar construction. Although older ashlar walls and facades were reused and incorporated into the new plan, there was no new cut-stone masonry quarried or used at Pylos after the end of LH IIIA. LH IIIB construction employed “pier-wall” construction (fig. 5).\textsuperscript{27} This new style of masonry characterizes the central tripartite megaron unit that forms the core of the LH IIIB palace. Architecturally, LH IIIB may be subdivided into two construction phases, during the latter of which, as Rutter summarizes, “circulation patterns within the now recognizably Mycenaean palace are substantially altered as industrial activity and an enhanced concern for storage become progressively more evident.”\textsuperscript{28}

\textsuperscript{19} In contrast to Small (2009, 207), we are less interested in understanding evolutionary change between social formations themselves. Hence, we focus on the “why” rather than the “how” in our consideration of Mycenaean adoption of Minoan material culture. We also hope to illustrate how architectural elaboration can help identify corporate and exclusionary political strategies, in response to Small’s (2009, 217) caveat.

\textsuperscript{20} Blegen and Rawson 1966; McDonald and Rapp 1972; Davis et al. 1997; Davis 1998 (but see supra n. 18).

\textsuperscript{21} E.g., fragments of walls on the southwest and northwest edges of the plateau, Wall B, the wall below Room 104, a wall beneath Corridor 26, and Drain C in the northwest area (see Hägg 1982; Wright 1984; Davis et al. 1997, 403; Davis 1998; Nelson 2001; Bennet 2007).

\textsuperscript{22} Blegen and Rawson 1966; Nelson 2001, 324, fig. 79; Rutter 2005, 22.

\textsuperscript{23} Nelson 2001, 325, fig. 80; Rutter 2005, 23, fig. 3. A painted plaster floor may also have been present to the south of the northwest area.

\textsuperscript{24} Nelson 2001, 182.

\textsuperscript{25} As in Room 32 and the northeast facade of the Southwest Building (Nelson 2001, 184, 326, fig. 81; Rutter 2005, 24, fig. 4).

\textsuperscript{26} See Bennet 2007.

\textsuperscript{27} Nelson 2001, 154–69, 185, 207–12, tables 17–27, figs. 10, 11, 84, 94–8, 108; see also Rutter 2005, fig. 6.

\textsuperscript{28} Nelson 2001, 212–16; Rutter 2005, 26–7. Wright (1984) suggests that the Southwest Building was the first structure completed after the LH IIIB leveling of the hilltop, followed
Thus, five distinct styles of cut-stone masonry were used at Pylos during four successive chronological phases (table 3). Cut-stone masonry first appeared prior to LH I, and its use was discontinued at the end of LH IIIA. At some point between these two periods, orthostate construction went in and out of fashion. Exactly when the changes took place cannot be determined definitively because of the lack of reliable stratigraphic sequences.29

Continuity and Disjunction: Commonalities and Differences Between Minoan Architecture and the Early Palace at Pylos

Before discussing the ways in which dual-processual theory may contribute to our understanding of architectural variability within Pylian architecture and between Messenia and Crete, it is first necessary to outline briefly the similarities and differences between Pylian and Minoan construction practices as well as their temporal contexts. The evidence at Pylos indicates the adoption of Minoan wall-construction techniques, masonry practices, architectural layout, and orientation contemporary with the use of the same features on Crete. At Pylos, as on Crete, wall construction employed rough stones and clay bricks connected by mortar in the interior walls, while the corners of palatial structures were fashioned by sharply defined rectangular ashlar blocks. Foundation walls, piers, lintels, and thresholds were built of ashlar blocks; upper walls and stories were constructed with timber frameworks enclosing rubblestone masonry faced by stucco and decorated by wall paintings. In terms of ashlar wall construction, there is little difference between Minoan examples and the large quantity of dressed poros blocks found at Pylos.30

The numerous early orthostate and ashlar walls cited by Kilian as evidence of a “Cretan” structure that by the construction of the Wine Magazine and Northeast Workshop, echoing Blegen’s conclusion from his initial excavation reports (Blegen and Rawson 1966); cf. Palyvou 1987.

Fig. 1. The southern Aegean region, detailing sites discussed in the text.

Table 1. Bronze Age Aegean Chronology.

<table>
<thead>
<tr>
<th>Period</th>
<th>Dates (B.C.E.)</th>
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</thead>
<tbody>
<tr>
<td><strong>Early Bronze Age</strong></td>
<td></td>
</tr>
<tr>
<td>Mainland</td>
<td></td>
</tr>
<tr>
<td>EH I</td>
<td>3100/3000–2650</td>
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<tr>
<td>EH II</td>
<td>2650–2200/2150</td>
</tr>
<tr>
<td>EH III</td>
<td>2200/2150–2050/2000</td>
</tr>
<tr>
<td>Crete</td>
<td></td>
</tr>
<tr>
<td>EM I</td>
<td>3100/3000–2700/2650</td>
</tr>
<tr>
<td>EM II</td>
<td>2700/2650–2200/2150</td>
</tr>
<tr>
<td>EM III</td>
<td>2200/2150–2050/2000</td>
</tr>
<tr>
<td><strong>Middle Bronze Age</strong></td>
<td></td>
</tr>
<tr>
<td>Mainland</td>
<td></td>
</tr>
<tr>
<td>MH I</td>
<td>2050/2000–1950/1900</td>
</tr>
<tr>
<td>MH II</td>
<td>1950/1900–1750/1720</td>
</tr>
<tr>
<td>MH III</td>
<td>1750/1720–1680</td>
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<tr>
<td>Crete</td>
<td></td>
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<tr>
<td>MM IA</td>
<td>2050/2000–1925/1900</td>
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<tr>
<td>MM IB</td>
<td>1925/1900–1900/1875</td>
</tr>
<tr>
<td>MM II</td>
<td>1900/1875–1750/1720</td>
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<tr>
<td>MM III</td>
<td>1750/1720–1675/1650</td>
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<tr>
<td><strong>Late Bronze Age</strong></td>
<td></td>
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<tr>
<td>Mainland</td>
<td></td>
</tr>
<tr>
<td>LH I</td>
<td>1680–1600/1580</td>
</tr>
<tr>
<td>LH IIA</td>
<td>1600/1580–1520/1480</td>
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<tr>
<td>LH IIB</td>
<td>1520/1480–1425/1390</td>
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<tr>
<td>LH IIIA</td>
<td>1425/1390–1310/1300</td>
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<tr>
<td>LH IIIB</td>
<td>1310/1300–1190/1180</td>
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<tr>
<td>LH IIIC</td>
<td>1190/1180–1065/1050</td>
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<tr>
<td>Crete</td>
<td></td>
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<tr>
<td>LM IA</td>
<td>1675/1650–1600/1550</td>
</tr>
<tr>
<td>LM IB</td>
<td>1600/1550–1490/1470</td>
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<tr>
<td>LM IIb</td>
<td>1490/1470–1435/1405</td>
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<tr>
<td>LM IIIA</td>
<td>1435/1405–1365/1325</td>
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<tr>
<td>LM IIIB</td>
<td>1365/1325–1200/1190</td>
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<tr>
<td>LM IIIC</td>
<td>1200/1190–1075/1050</td>
</tr>
</tbody>
</table>

*Abbreviations are explained in text, with the exception of EH (Early Helladic), EM (Early Minoan), and MM (Middle Minoan).*

*b* LM II applies just to the Mycenaean occupation of Knossos, at which time it was the only functioning palace on Crete.
mirrored the Minoan palatial design\textsuperscript{31} (see fig. 3) are executed in the orthostate fashion, a style otherwise unknown on the mainland.\textsuperscript{32} Coursed ashlar is particularly characteristic of the Minoan architecture of the palaces, and the examples found at Pylos exhibit similar construction practices.\textsuperscript{33} Only a few details of the construction of the masonry systems vary slightly between Minoan Crete and Pylos. Minoan builders appear to have preferred larger overall blocks and finely cut and squared stone socles.\textsuperscript{34} Pylian ashlar lacks mud mortar between its stone courses, employing instead timber courses mortised into place with wooden dowels. (In one orthostate wall, there is a mortised anta.) The ashlar at Pylos is very close to its Minoan counterparts in all other respects.\textsuperscript{35}

The Early Mycenaean construction phases at Pylos appear to be contemporary with those on Crete. Minoan orthostate wall construction continued into the Late Minoan (LM) I period, which corresponds approximately to the suggested date of orthostate construction at Pylos (LH II). One of the last examples of Minoan ashlar construction, Building ABCD at Hagia Triada in southern Crete, dates to LM IIIA and roughly corresponds to the introduction of the coursed-ashlar style at Pylos during LH IIIA, epitomized in the northeastern section of the later palace.\textsuperscript{36} Structurally, it appears that a major Minoan element, the vertical

\begin{table}[h]
\centering
\begin{tabular}{|l|l|}
\hline
Period & Time Span \\
\hline
Prepalatial & EM I–MM IA \\
Protopalatial (Old or First Palace period) & MM IB–MM II \\
Neopalatial (New or Second Palace period) & MM III–LM IB \\
Mycenaean (Final or Third Palace period)\textsuperscript{b} & LM II–IIIA \\
Postpalatial & LM IIIA–C \\
\hline
\end{tabular}
\caption{Alternate Minoan Chronology.\textsuperscript{a}}
\end{table}

\textsuperscript{a} Abbreviations are explained in text, with the exception of EH (Early Helladic), EM (Early Minoan), and MM (Middle Minoan).

\textsuperscript{b} This period applies just to the Mycenaean occupation of Knossos, at which time it was the only functioning palace on Crete.

\textsuperscript{31} Kilian 1987, 209, 213–17, figs. 5, 12; see also Hiller 1996, 76–7; Nelson 2001, 330, fig. 85; Rutter 2005, 20–1, fig. 1; Shaw 2009, 74. This suggestion has been criticized for relying on dubious dating (see Nelson 2001 for discussion).

\textsuperscript{32} Kilian 1987. Nelson (2007, 151, 155–7, 159) dates the walls to LH II–early LH IIIA.

\textsuperscript{33} E.g., the monumental west facade of the palace at Knossos (Nelson 2001, 187, 189; cf. Shaw 1973).

\textsuperscript{34} This fact is perhaps a function of the availability of suitably sized stones.

\textsuperscript{35} Nelson 2001, 187; Rutter 2005, 24–5; Shaw 2009, 74–5; cf. Shaw 1973. Pylian-style ashlar is found in only a few other places on the mainland, including Mycenae, Tiryns, and the Menelaion (Nelson 2007, 144). While Minoan ashlar usually sits on socles of cut stone and lacks the timber inserts characteristic of Pylian ashlar, a few examples of timber members do exist in Minoan architecture, such as the fourth course in the Western Light Well of the Hall of Double Axes in the palace at Knossos and the beam inserted between the second and third courses in the west wall of the Little Palace at Knossos (Nelson 2001, 188; cf. Shaw 1973).

\textsuperscript{36} Other evidence at Pylos of shared building practices includes so-called mason’s marks found on ashlar orthostate blocks often cited as characteristically Minoan and Minoan-style painted plastered floors of an exceptionally early date (LH I–IIA). The shape of the typical Mycenaean column appears to have been based on a Minoan model, diminishing in diameter from top to bottom; fluted columns of this kind are evident at both Pylos and Knossos; see Hood 1987; Hiller 1996, 76–7; Nelson 2001, 198–99, fig. 22; 2007, 155; Rutter 2005, 24, 29–30; Shaw 2009, 78.
wooden and stone support system, was transferred from Crete to the mainland, where it appeared in the LH IIIB period.

Minoan and Pylian ashlar construction is above all characteristic of exterior facades; such walls therefore mark the exteriors of built structures. Nelson identifies exterior ashlar walls from three buildings of the LH IIIA period, which he labels A, B, and C (see fig. 5). Although the evidence is limited, the distribution of these ashlar walls at Pylos in the LH IIIA period suggests the existence of three separate structures clustered around a large open space. The positioning of these buildings appears to recreate the layout of a Minoan palace. The supposed central court aligns with the peak of Mt. Lykodimos to the southeast, just as the central court of the palace at Knossos aligned toward Mt. Juktas. Thus, Nelson’s careful reexamination of LH IIIA Pylos suggests that Kilian may have been correct in postulating a Minoanizing predecessor to the LH IIIB palace at Pylos. As Rutter summarizes:

[T]he masonry styles in use from LH I through LH IIIA at Pylos [are] thoroughly Minoan in character, they succeed each other in the same relative chronological sequence as on Crete . . . and they appear to define a series of ashlar-outlined buildings clustered around a large . . . court. Moreover, there is nothing in the layout of this LH IIIA palatial structure at Pylos that recalls the plan of . . . a Mycenaean palace.

In sum, the material and techniques used in the orthostate and ashlar phases at Pylos and the manner of construction were all Minoan. Pylian walls favor a Minoan legacy, as the masonry styles at Pylos were approximately concurrent with the end of the very same styles in Minoan architecture, and the sequence of the palace’s masonry styles matches a similar transition in

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37 Nelson 2001, 327, fig. 82; 2007, 156, fig. 7; Rutter 2005, 25.
Minoan architecture. While cut-stone masonry has a much longer history on Crete, Minoan and Pylian builders were using the same styles and bringing about the same changes in stone masonry at roughly the same time. Early Mycenaean architecture at Pylos employed Minoan building practices that had no precedent on the mainland. With the construction of the final LH IIIB palace at Pylos, Minoan architectural influence in wall building disappeared.

INTERPRETATIONS AND DISCUSSION

Dual-processual theory provides a framework for more profitably approaching the institutional contexts in which material cultural variation occurred, thus adding a new dimension to our understanding of the complexity of interaction between Messenia and Crete. Minoan influence on mainland architecture is clear. The architectural forms and techniques at Pylos prior to LH IIIB were distinct from contemporary

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41 Nelson 2001, 190; 2007, 158; Shaw 2009, 76. The inspiration for such lavish use of ashlar at Pylos must have come from Crete (Rutter 2005, 32).

structures in other parts of the mainland in terms of overall architectonic plan and construction technique and the frequent use of ashlar walls. Although the architecture at Pylos suggests that Messenia enjoyed a special connection to Crete during the Early Mycenaean period, an unlikely explanation for this phenomenon is a nebulous "diffused Minoan influence." As Voutsaki cautions, asserting the importance of Minoan influence does not address the reasons behind the opening of the mainland to external influences: "the question is not only where the new forms came from, but rather why they were adopted and what kind of cultural significance or social function they had ... while Minoan influence is given such a central role, it remains a vague and self-explanatory concept." Ultimately, the nature, extent, and importance of Cretan-Mycenaean contacts in the Early Mycenaean period elude adequate explanation.

In addressing this dilemma, we must remember that the presence of foreign objects is not the same as the presence of foreigners on the mainland. Moreover, complex cultural changes are neither purely social nor purely cultural. Cultural change cannot be understood as the result of strictly internal developments or solely externally induced phenomena. Dual-processual theory adds a new dimension to the analysis by allowing for the consideration of both internal and external factors as they relate to shifting strategies of sociopolitical power, as well as the expression of these variable configurations in material culture.

Although the degree of Minoan influence throughout the mainland was variable, Minoan, Minoanized, and Minoan-inspired ceramic and artistic forms appeared during the Early Mycenaean period at the Ano Englianos Grave Circle, Pylos Tholos IV, and Peristeria Tholos 1 in Messenia. From only a few imports in LH I, the number of imported Minoan vases in Messenia increased substantially after the LH II period, and there was a clear, strong Minoan influence on locally produced LH IIIA pottery. Additionally, the anteced-
ent forms of mainland figurative art are Minoan.\textsuperscript{50} The Mycenaeans, however, selectively incorporated those forms that they could most effectively adapt to meet their particular sociocultural needs.\textsuperscript{51} For example, the famous Lion Gate at the citadel of Mycenae integrates the image of a Minoan altar, albeit in a new and unfamiliar context. The selective adoption of Minoan architectural forms at Pylos during the Early Mycenaean period is contemporaneous with evidence for the spread of Minoan material culture in other parts of the Aegean.\textsuperscript{52}

As in architecture, Mycenaean ceramic and artistic traditions may represent a blend of Helladic and Minoan elements, signifying the incorporation of Cretan influences into native aesthetic canons.\textsuperscript{53} Many of the vessel types found in the Shaft Graves at Mycenae and in Laconia are of Minoan origin, either as imports or local imitations.\textsuperscript{54} Likewise, Minoan cult symbols (e.g., the palm and double-axe motifs) were often used in Mycenaean burials soon after their transferance from Crete.\textsuperscript{55} However, while most of the objects found in mortuary contexts on the mainland find close parallels in Crete, these symbols were redefined through appropriation into mainland cultural norms.\textsuperscript{56} Mycenaean elites may have adopted Minoan objects or practices, but they were contextualized differently and thereby were likely stripped of their original symbolic meaning and force and used purely as prestige display items.\textsuperscript{57} It appears that during the Early Mycenaean period and into LH IIIA, emerging elites at Pylos were appropriating exotic Minoan goods and ideas, including architectural plans and construction techniques, into their own tradition to attain prestige and power within mainland social networks. Architectural styles and techniques were, however, being adopted piecemeal, not in full, just as the Minoan ritual and written repertoires were adopted selectively to serve certain Mycenaean needs and wants.\textsuperscript{58} Depending on the context of use, these symbols or objects could have been associated with either exclusionary or corporate political ideologies.\textsuperscript{59}

We argue that the evidence may be best explained through a consideration of the contradictions and interactions of distinct exclusionary and corporate power strategies present in Minoan and Mycenaean society at different times. These two stratagems of sociopolitical organization resulted in divergent patterns of material production and consumption and, therefore, in the disparate archaeological assemblages that stem from these types of political strategies. By comparing how these political strategies were expressed architecturally in the discrete contexts considered in this case study, we may be able to clarify the extent, nature, and degree of interaction or mutual influence within or between two societies of similar scale and complexity, such as Minoan Crete and Early Mycenaean society, as exhibited at Pylos.\textsuperscript{60}

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\textsuperscript{50}Immerwahr (1990) and Hiller (1996, 78–81) detail connections between Knossian and Pylian wall painting. The Pylian palatial frescoes may reflect the intentional melding of Knoso-Messenian and Argive characteristics, a process that may parallel the combination of architectural styles observed in the LH IIIA palace at Pylos (Rutter 2005, 31–2).

\textsuperscript{51}Voutsaki 1999, 114; 2010; Burns 2010.

\textsuperscript{52}E.g., at Akrotiri, the architecture largely mirrors elite Minoan construction (Shaw 2009, 70–1). At Phylakopis, there is Late Cycladic I (LM I) evidence of ashlar bases cut with the technique used in the pier-and-door partition system on Crete, and at Hagia Irini on Kea, we find Minoan architectural elements incorporated into a well-developed local tradition (Shaw 2009, 72; cf. Hägg 1983). The presence of a Minoan-style peak sanctuary at Hagios Georgios near Kastri also attests to a strong Minoan presence just off the coast of Laconia (Sakellarakis 1996; Broodbank and Kiriatzi 2007).

\textsuperscript{53}Shear 1968, 58, 62–3; see also Vermeule 1975.


\textsuperscript{55}Whittaker 2002.

\textsuperscript{56}Such recontextualization is discussed by Darcque 1987; Wright 1987, 2006a; Voutsaki 1999, 113.

\textsuperscript{57}Hägg 1982; Voutsaki 1999, 114. Such prestige items perhaps included the plan of the Minoan palace itself (Moody 1987). Of course, the process of Minoanization varied in different locales within the southern Aegean (supra nn. 50–2). Mycenaean elites in the Argolid adopted different Minoan cultural forms at essentially the same time (LH I) that Pylian elites were adopting Minoan architectural practices (cf. Fitzmonos 2006, 2007; Voutsaki 2010). Pylos is distinct from other mainland centers in its unique imitation of Minoan architectural practices during LH I–II (supra n. 18).

\textsuperscript{58}Other areas of the Aegean (supra nn. 46, 52), in contrast, adopted Minoan material culture wholesale. In the Early Mycenaean period on the mainland, however, rival elites were laying claim to “external symbols that represented distant alternatives to local power” (Burns 2010, 191).

\textsuperscript{59}Small 2009 (supra n. 16).

\textsuperscript{60}Cherry 1986. Pylos is, of course, a single Mycenaean polity, and Minoan Crete was larger in terms of population, area, and resources than was Pylos. Moreover, Crete was highly regionalized at various times during the periods under consideration here. We are admittedly being selective in our evidence—we do not suggest that early Pylos is representative of Mycenaean society as a whole—but this fact should not affect the potentiality of dual-processual theory or its application in other contexts. Treatments of Minoan impact on architecture at other Mycenaean sites, or of Minoan influence on aspects of mainland material culture other than architecture, may benefit from this approach (supra n. 18).
Neopalatial Minoan society was corporate in nature, characterized by power sharing across different groups and sectors of society in such a way as to inhibit exclusionary strategies centered on individual control. This sociopolitical configuration, manifested architecturally in the existence of large-scale public spaces suitable for communal ritual, is described by Blanton et al. as a "comparative egalitarianism in which individuals are ‘faceless and anonymous.’" Evidence for such configurations abounds on Crete, particularly at Knossos (fig. 6). In contrast, the exclusionary sociopolitical power characteristic of Mycenaean society involved the creation and manipulation of social relationships through interaction and exchange of exotic or prestige goods or ideas employed to exercise dominance in small-scale personal networks. The sudden and dramatic rise in evidence for Minoan sumptuary goods after LH II in Messenia suggests that local elites were actively seeking control over the prestige-goods system, recognizing the value of emulative strategies and exotic luxury items in attracting or maintaining followers.

The development of political legitimation through monopolization of trade is characteristic of emerging exclusionary strategies of political power. Political strategies, however, are not static entities. Just as they differ between societies, they may vary diachronically within a single society. In terms of architecture, variability in construction phases may reflect changing (or “cycling”) sociopolitical organization over time. For example, the introduction and use of poros ashlar construction in Messenia occurred when connections and cultural links between the mainland and Crete were particularly strong and after Minoan builders of monumental architecture associated with power had, as Nelson suggests, “pioneered the use of poros block masonry.” At this point in time, however, a full-scale exclusionary power strategy had not yet taken root at Pylos or at any site on the mainland. Rather, emerging stratification through LH IIIA took the form of localized elites engaged in factional competition and conspicuous consumption dependent on wealth and prestige acquired through the manipulation of exchange networks.

As discussed above, from a dual-processual framework, objects or practices acquired through such exchange networks could have functioned in either exclusionary or corporate institutional settings. Although evidence for imported prestige goods at Pylos is limited, it is clear that the elites occupying Ano Englianos adopted Minoan construction techniques and, potentially, an architectural plan at an exceptionally early date. Thus, in the absence of exclusionary power strategies on the mainland at this time, it would appear that at Pylos, Minoan material culture was incorporated into institutional contexts more closely affiliated with a corporate political economy on the dual-processual continuum. This resulted, and was reflected, in an unusually high degree of similarity between Minoan and early Pylian construction. As Mycenaean political strategies changed, cycling more toward the exclusionary spectrum, material culture, including architecture, was likewise recontextualized and transformed.

The LH IIIB architectural changes in the palace at Ano Englianos brought with them a striking new perspective and Crete and the Greek mainland (see Hägg 1982; Korres 1983; Rutter and Zerner 1984; Cavanagh 1995; Hiller 1996; Broodbank et al. 2005; Rutter 2005; Broodbank and Kiriati 2007; Taylor and Janko 2008). Also at this time, other parts of the mainland began to exhibit Minoanizing tendencies (see Fitzsimons 2006), and the southwestern Peloponnesian coast of Laconia was during the Middle Helladic (see Dickinson 1996, 69–70; Hiller 1996; Rutter 2005, 19).
building technique and palace plan. The LH IIIB architectural transformation of the palace at Pylos was the result of a reconfiguration of the power base of Mycenaean society, in which one group emerged from the LH IIIA local prestige competition, consolidated its power in a wider regional network, redefined the social dynamics of Mycenaean society, and established an exclusionary, lineage-based state focused on one individual—the *wanax*. These social transformations promoted the institutionalized standardization of the Mycenaean palatial form and led to the abandonment of burial tholoi. The LH IIIB architectural changes represent the culmination of developing complexity in Messenia as the Pylian state continued to grow and expand. Thus, the architectural reconstruction of power at LH IIIB Pylos mirrors fundamental transformations in Mycenaean social structure throughout the mainland, as sociopolitical complexity increased exponentially and a full-scale exclusionary power strategy took root. In other words, emerging elites at Pylos used Minoan goods and symbols to validate claims to power, but once power was established, these Minoanizing cultural projects were recontextualized and reformulated into a Mycenaean style.

This process was reflected in the diminishing spaciousness and elegance of the LH IIIB palace, the addition of storage facilities and workrooms, and increased restriction on access to and circulation at this time (see Bennet 1995). Of course, the disappearance of tholoi as a burial form at Pylos was not a universal event for the entire Greek mainland at the LH IIIA–IIIB transition.

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73 Darcque 1987; Wright 1987, 2006a. Interestingly, if we consider burial tholoi Minoan-derived phenomena, then their abandonment would suggest waning Minoan influence at this time (see Bennet 1995). Of course, the disappearance of tholoi as a burial form at Pylos was not a universal event for the entire Greek mainland at the LH IIIA–IIIB transition.
74 Wright 1987, 2006a; Fitzsimons 2006, 2007; Thaler 2006; supra n. 69 (but see supra nn. 18, 60).
75 Voutsaki 1999, 2010; Burns 2010 (supra n. 58).
within the palatial complex. When one considers the additional resources needed for the new LH IIIB architectural style and the discontinuation of the ashlar style, it appears, as Nelson concludes, that Pylian rulers deliberately attempted to erase a building material and technique associated with an outside, foreign influence. With the discontinuation of ashlar at Pylos and the construction of the Mycenaean megaron, the palace at Knossos burned, and Minoan architecture became a building style of the past.

Although the specific mechanism behind the diffusion of Minoan cultural forms on the mainland remains unclear, the motivational contexts that underlay their adoption are somewhat less obscure. On Crete, it appears that the basic aspects of the palatial plan that emerged in the Neopalatial period appropriated Near Eastern and/or Egyptian elements along with local architectural canons, a process that may parallel the spreading influence of Minoan architectural styles and techniques in the wider Aegean area. A more interesting question is what significance foreign material culture held for the emerging Pylian elite. We posit that Messenian elites at Pylos expressly sought the incorporation of exotic Minoan material culture to increase localized power through the acquisition of foreign luxuries. Seen in this light, the specific mechanism of adoption becomes less important.

From an anthropological perspective, it is more fruitful to connect diachronic changes in material culture to changes in systems of social organization. Since Early Mycenaean elites used foreign cultural projects to attain power within local networks through prestige competition, the relative complexity of the technologies acquired was crucial. Simply importing objects is considerably easier than establishing and executing a new style of masonry or producing local copies of ceramics that could be acquired abroad. As more power was gained, exercised, and established, not only did the scale, nature, and products of the competition expand exponentially, so too did the sociopolitical complexity of Mycenaean society itself. This process fed back into the ongoing prestige competition, which was at this point far more exclusionary; networks expanded on a regional scale in which social transformations were reflected in the dynamic reformulation of both appropriated and indigenous material cultural traditions. Considering the increased effort and resources necessary to undertake the architectural changes at LH IIIB Pylos, it seems clear that Mycenaean society at Ano Englianos had by that time reached a much higher level of sociopolitical development, one in which power and complexity were consequently mirrored in the architecture. In this sense, dual-processual theory provides both the most informative descriptions and the most plausible explanations, as it is simultaneously able to account for synchronic and diachronic similarities and differences within and between Crete and Messenia throughout the Early Mycenaean period.

**A CROSS-CULTURAL PERSPECTIVE: MESOAMERICAN ART AND ARCHITECTURE AT TIKAL AND TEOTIHUACAN**

Despite a shared body of method and theory, a disciplinary rift still exists between classical and anthropological archaeologists, although recent trends to bridge the divide are encouraging. Although Mesoamericanists rarely consider the Aegean world, they often encounter the same sort of difficulties as their Aegean counterparts, especially when it comes to interpreting evidence concerning the nature, extent, and effects of interregional interaction. Even a cursory examination of the evidence at hand reveals that similar processes were at play in both the Aegean Bronze Age and the Mesoamerican Preclassic (2000 B.C.E.–250 C.E.) and Classic (250–900 C.E.) periods. Therefore, we believe that much may be gained from a comparative evaluation of Mesoamerican evidence as it relates to questions regarding cultural interaction, architectural innovation, and material variability in the Aegean world.

Moreover, a stated goal of dual-processualism is the promotion of cross-cultural comparison. Here, we offer one example from Mesoamerican contexts (fig. 7; table 4) that provides a useful parallel to the situation in Messenia at LH IIIA–B Pylos. We contend that the relationship between the architecture of Teotihuacan and that of Classic-period Maya sites, particularly Tikal, reflects a similar process of appropriation and reformulation coeval with social transformations in the Maya lowlands of Central America. This process parallels Minoan-Mycenaean exchange and architectural development in the Bronze Age Aegean.
The site of Teotihuacán emerged in the central highland Valley of Mexico by 300–100 B.C.E. and grew rapidly in the first and second centuries C.E. At its height in 600 C.E., it was the largest and most densely populated city in Mesoamerica. Architecturally, Teotihuacán is noted for its monumental public works, including an enormous enclosed courtyard known as the Ciudadela (citadel), a plaza that could have held some 100,000 people. The city, divided into four parts by the East–West Avenue and the Avenue of the Dead, was organized in a grid pattern with rectilinear streets. Along the northern 2.5 km of the Avenue of the Dead was a district covering 150–250 ha; it contained large civic-ceremonial structures and complexes and likely served as the social, ritual, and commercial center of the city (fig. 8). A distinctive feature of the built environment at Teotihuacán is the near uniform adherence of its structures to an orientation 15.5° east of true north. These standardized directional orientations and the fact that distances between structures and architectural features are simple multiples of one another suggest that Teotihuacán was likely laid out from its inception according to a master plan—perhaps using a standardized unit of measurement—to reflect cosmological principles or a specific worldview.

Beyond the monumental architecture, the remainder of the site consists of approximately 2,000 walled residential compounds in which most of the population

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Table 4. Summary of Mesoamerican Chronology.

<table>
<thead>
<tr>
<th>Period</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archaic</td>
<td>3500–2000 B.C.E.</td>
</tr>
<tr>
<td>Preclassic (Formative)</td>
<td></td>
</tr>
<tr>
<td>Early</td>
<td>2000–1000/950 B.C.E.</td>
</tr>
<tr>
<td>Middle</td>
<td>1000/950–450/400 B.C.E.</td>
</tr>
<tr>
<td>Late</td>
<td>450/400 B.C.E.–200/250 C.E.</td>
</tr>
<tr>
<td>Classic</td>
<td></td>
</tr>
<tr>
<td>Early</td>
<td>200/250–600 C.E.</td>
</tr>
<tr>
<td>Late</td>
<td>600–850/900 C.E.</td>
</tr>
<tr>
<td>Terminal</td>
<td>850/900–950/1000 C.E.</td>
</tr>
<tr>
<td>Postclassic</td>
<td></td>
</tr>
<tr>
<td>Early</td>
<td>950/1000–1200 C.E.</td>
</tr>
<tr>
<td>Late</td>
<td>1200–1519 C.E.</td>
</tr>
</tbody>
</table>

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81 Cowgill 2003, 37. The city covered some 20 km² and would have held a population on the order of 150,000 people (Headrick 2007, 171 n. 6).
82 Sugiyama 1993; Blanton et al. 1996, 10.
lived after the second century C.E. Although variation exists between compounds, most measure approximately 60 m per side, have two or three entrances, and contain several rooms on low platforms fronted by porticoes and arranged around a square central patio. Importantly, the various arrangements of space in the residential compounds, as well as the existence of multiple apartments in a single compound, suggest that the social units formed by compound residents must have been larger than individual households or nuclear families. Although the composition of such units is uncertain, they likely included extended kin groups of multiple lineages and individuals bound by looser kin ties or by patron-client or other relations.

These groups, bound together by common residence, likely played an important part in the city’s socio-political organization and administration. Leaders of such groups may have formed an oligarchy in which political offices and headship of state circulated among elite families, or “houses.” The presence of an easily identifiable “palace,” or seat of an individual ruler, is conspicuously lacking, as is ruler iconography. Moreover, the distinct lack of portrayal or reference to named rulers at Teotihuacán is decidedly idiosyncratic when compared with other Mesoamerican cultures. Teotihuacano art seems to have avoided emphasis on the individual and instead promoted integration and a collective ideology. Murals and painted ceramic vessels display ritual processions of personages belonging to so-called military orders or other corporate organizations. As such, Teotihuacano society is often characterized as corporate.

Interval (Cowgill 2003, 42–3). Moreover, evident architectural uniformity at Teotihuacán suggests a strong and effectively centralized authority.

Although the Ciudadela may have served this purpose at some point (Headrick 2007, 10).

Again, we do not wish to reify a sharp dichotomy between corporate and exclusionary political economies (supra n. 7).
main civic-ceremonial buildings at Teotihuacán were destroyed by fire, and the city declined and eventually was abandoned.

In contrast to the collective, corporate ideology evident at Teotihuacán, the public glorification of named rulers, themselves considered divine kings, was fundamental to the Classic Maya political economy. Monumental stone architecture appeared in the Maya lowlands ca. 500 B.C.E.; over the next several centuries, Maya society grew in sociopolitical and cultural complexity, ultimately reaching state-level organization by at least the first century C.E. Large, ostensibly palatial structures as well as other monumental buildings associated with specific individuals dominated the Classic-period lowland Maya architectural program. Such structures reflected the political agendas of elites and high-status individuals who were themselves frequently depicted in monumental art, in iconography, and on architectural facades designed to command public attention and reinforce claims to power—the antithesis of the faceless polity of contemporary Teotihuacán (fig. 9). Maya architecture employed the symbolic power of space in the built environment as a structural and experiential support for the institution of kingship and the veneration of individual rulers. Given these architectural configurations, the Classic-period lowland Maya are often described as an exclusionary network society. Classic Maya society was not a monolithic entity with a single central authority; architectural problems were therefore solved differently, and variability between sites and regions is evident in both synchronic and diachronic terms.

Despite such variation, some generalized patterns are manifest in Maya architectural and site-planning principles. Although not organized in a grid pattern, the layout of several Maya sites suggests that Maya cities were planned and constructed to reflect higher-level cosmological or archaeoastronomical meaning. Maya structures usually were built of plastered lime-

stone with highly elaborate exteriors of pliable stucco built over tenoned supports. The facades of the largest buildings often featured monumental godheads, which may have functioned as idols or effigies for adoration and ritual offerings. A common concern among the lowland Maya was ancestor veneration: royal tombs were enclosed within constructions and shrines placed atop temples as sites of worship. Finally, Maya sites were often fortified by walls and other defenses, and access to structures within sites was tightly controlled. The site of Tikal exhibits these characteristic Maya architectural configurations.

Tikal was a dynamic urban center located in the northern lowlands of the Petén region of Guatemala. The civic-ceremonial core of the city (fig. 10) consisted of several monumental architectural groups with a long and detailed construction history. At its apogee in the eighth century C.E., Tikal encompassed more than 3,000 structures, covered at least 16 km², and held a population of between 60,000 and 90,000 inhabitants. The North Acropolis, the most complex architectural group, is located at the geographic center of the site. Directly to the south lie the Great Plaza and the Central Acropolis, the central residential, administrative, and ceremonial complex. To the southwest is the Mundo Perdido Complex, a primary site of elite activity during the Preclassic and Early Classic periods. A series of raised stone causeways connected peripheral architecture with the city core.

Tikal is among the most heavily investigated Maya cities, primarily because of its size, extensive material record, and complex architectural history. Most monumental architecture at Tikal was constructed in the classic Petén style, with apron-molded terraces surrounded by a corbel-vaulted superstructure, following stylistic conventions established in the Middle Preclassic period. Nonetheless, the architects of Tikal also embraced innovation and selectively integrated foreign elements.

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92 E.g., between the northern Maya lowland of the Petén, Guatemala, southern sites such as Copán and Quiriguá, and western centers such as Palenque; see also Houston 1998; Braswell 2003a, 34–5.
93 This meaning is evident in the alignment between architectural features and celestial bodies (e.g., the presence of archaeoastronomical observatories known as E-groups at Maya sites); see, e.g., Houston 1998; Miller 1998; 1999, 26–7; Ashmore and Sabloff 2002; Aveni 2003; Harrison 2003, 198–99; Mathews and Garber 2004; cf. Smith 2005.
94 E.g., the Mundo Perdido Complex at Tikal (Marcus 1983; Suardo 2003).
96 As with our discussion of Pylos, however, we should point out that we do not hold Tikal to be indicative of the whole of Classic Maya society (supra nn. 18, 60). In many ways, however, Tikal is less atypical than Pylos, and as such its architecture is a fair representation of Classic Maya canons.
and styles into conventional Maya architectural canons. Frequently, such formal innovations appear as superficial qualities located on the exterior facades of a variety of structures. The incorporation and application of foreign elements in structures at Tikal did not disrupt Preclassic architectural traditions in terms of overall structural type, form, layout, or function; the result was a built environment that retained long-standing conventions of construction yet at times exhibited eclectic and visually complex exteriors.99

The Talud-Tablero Style and the Teotihuacano Impact on Maya Architecture at Tikal
The epigraphic and material records of Tikal contain a large number of formal, stylistic, and symbolic references to Teotihuacán. The presence of central Mexican materials and art forms (such as green obsidian from the Pachuca source in central Mexico and cylinder tripod ceramics) at Tikal as early as 250 B.C.E. suggests the appropriation of Teotihuacano elements into lowland Maya conventions beginning in the Late Preclassic period.100 Moreover, evidence of Teotihuacán-style “foreign” iconographic conventions is rife at Tikal and throughout the Maya lowlands.101

The data suggest that interaction with central Mexico, particularly Teotihuacán, strongly impacted Maya elite culture and politics throughout the Classic period.102 Perhaps the most obvious architectural indication of such interaction is the use of a distinct style referred to as talud-tablero (fig. 11). A talud-tablero structure consists of

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100 Braswell 2003b, 113; Cash 2005, 79, 168. Some ceramics were directly imported while others appear to be locally fabricated copies of foreign ceramic forms.
of a flat, rectangular platform, or tablero, which sits atop an angled, sloping side called the talud. This architectural technique is ubiquitous at Teotihuacán and was the dominant style employed in construction at the site, appearing on virtually all structures in the civic-ceremonial core along the Avenue of the Dead and on the facades of apartment compounds. Although chronological evidence indicates that talud-tablero architecture predated the foundation of Teotihuacán, the style was ostensibly a central Mexican invention and characteristic of Teotihuacano construction.103 The technique was used widely throughout pre-Columbian Mesoamerica and occurred at a number of sites in the Maya area, most clearly and frequently at Tikal.104 Talud-tablero appears in two primary contexts at Tikal: the Mundo Perdido Complex and the Group 6C-XVI residential and ceremonial complex located 350 m south of the Mundo Perdido Complex. By the second half of the third century C.E., the architectural record at Tikal included a relatively large number of talud-tablero elements.105

The talud-tablero style thus appeared in the Maya lowlands in the Late Preclassic and Early Classic periods (ca. 250 B.C.E.–250 C.E.), a time span marked by Teotihuacano expansionism throughout Mesoamerica, the rise of Maya states, and frequent contact between

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Tikal and Teotihuacán. The introduction of *talud-tablero* at Tikal was coeval with the flourishing of central Mexican ceramic forms and iconography in the Maya lowlands, the beginning of true masonry construction at the site, and increasing access control to ritual and elite residential structures. As such, the presence of *talud-tablero* and the specialized groups in which it is found has often been interpreted as evidence of direct Teotihuacano influence and/or intrusion in Tikal—previous scholarship has put forth the idea that Tikal and other lowland Maya sites were rebuilt in the image of an expansionist Teotihuacano empire. Indeed, at Kaminaljuyú in the southern Guatemala highlands, *talud-tablero* structures demonstrate remarkable similarities to those at Teotihuacán in terms of stylistic elements, materials, and construction techniques.

At Tikal, however, the data do not support the idea that the lowland Maya adopted Teotihuacano material culture wholesale. Rather, builders at Tikal experimented with new ideas, taking stylistic elements out of context and combining them with local techniques and styles. All structures at Tikal that display *talud-tablero* incorporate varying amounts and combinations of the style, and it always appears in conjunction with key elements of conventional Maya architectural forms, such as apron-molded terraces and stucco sculpture, suggesting a pattern of free borrowing and local innovation. Continual modification to the proportion, angle, and scale of these architectural features indicates that the *talud-tablero* stylistic complex was never accepted as a so-called pure Mexican standardized form that perfectly replicated the architecture of Teotihuacán from the inside out. Rather, elements were selectively appropriated into established Maya conventions of construction and design.

At Teotihuacán, the preferred *talud-tablero* form consisted of pairs of *taludes* and framed *tableros* that completely encircled a platform and balustrade staircases capped with finial blocks called *remates*. These features were consistently used as a complex of traits and almost never in isolation. At Tikal, however, different versions of *talud-tablero* were established and incorporated into local architectural canons. Such modified adaptations diverged from stylistic norms evident in contemporary examples at Teotihuacán. For example, the use of *taludes* in local architecture predated the increase in interaction between the Maya lowlands and central Mexico during the Late Preclassic and Early Classic periods. The Late Preclassic–period Structure 5C-49 in the Mundo Perdido Complex had a vertical *tablero* that was devoid of a frame, and its stairways were flanked by balustrades that lacked *remates* (fig. 12). The second construction of this building displayed a variation of *talud-tablero*: the *tableros* were placed on the front of the structure and projected toward the sides, and only the

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106 The most famous instance of Tikal–Teotihuacán contact is the *entrada* (arrival of strangers) of 15 January 378 C.E., as recorded on Tikal Stele 31 (and other monuments). In this event, a group of foreigners, ostensibly from central Mexico, arrived at Tikal. On the same day, the ruler of Tikal died, and shortly thereafter a new ruling dynasty was established at the site, one that frequently flaunted its association with Teotihuacán in monumental art and iconography and may in fact have had direct ties to Teotihuacano elites (see Stuart 2000).


108 See Cheek (1977, 447) and Braswell (2003b), although these similarities may simply be the result of the availability of suitable materials and the specific engineering requirements of the *talud-tablero* style. This echoes the case of “Minoan” architecture at Pylos, in which similarity in ashlar construction could have been nothing more than a function of the availability of suitably sized stones (supra n. 34).

109 Cheek 1977, 444–45; Miller 1999, 30. The appropriation of *talud-tablero* elements seems to have been a product of local artistic choice and not an externally imposed style associated with the presence of a central Mexican population. Wright (2005) notes that the first king of the post-entrada dynasty at Tikal (supra n. 106) was not, in fact, from Teotihuacán. Importantly, the architectural style of the North Acropolis changed little over the duration of the Classic period (Loten 2003; Cash 2005, 169). This situation is reminiscent of the Mycenaean recontextualization of certain elements of Minoan material culture.

110 Cheek 1977, 447; Laporte 2003, 200. However, Laporte (2005) cautions that there is no “standard ratio” or “pure” central Mexican style at Teotihuacán itself.
uppermost level had a tablero on all four sides. Moreover, the preferred size proportion of talud-tablero at Tikal was 1:1, differing from the Teotihuacano “standard” of 1:3. The architectural record of the Mundo Perdido Complex clearly indicates that talud-tablero architecture was selectively assimilated; it coexisted with local elements in various combinations and amounts since the Preclassic period. The structural core of every building was essentially Maya in its conception, construction, and composition, and all structures were finished with exterior features grounded firmly in Preclassic Maya aesthetic traditions despite the inclusion of talud-tablero stylistic elements.

At Tikal, talud-tablero occurred as a single element in a multifaceted visual program dominated by lowland Maya architectural and sculptural forms. The coexistence of the two styles suggests that they functioned together as part of an architectural program that provided meaning to the structures. In the Mundo Perdido and Group 6C-XVI Complexes, talud-tablero architecture was combined with ball game, warrior, and/or cosmic imagery. These contexts symbolically emphasized a ruler’s control over the forces of nature and death. Patterns in the location, function, and symbolism of talud-tablero structures imply that the style was adopted by the emerging Maya elite to illustrate a metaphorical connection with the power and prestige of Teotihuacan as a source of sociopolitical and supernatural authority. This desired association did not replace existing Preclassic representational, architectural, or symbolic conventions. Rather, the symbolic meaning of talud-tablero acted in conjunction with traditional forms and symbols to project a new, more powerful image of the ruler that complemented aspects of his budding political authority. Thus, Maya rulers at Tikal actively appropriated, selectively integrated, and recontextualized talud-tablero architecture to evoke a visible, spatial, experiential, and metaphorical connection with sacred distant landscapes, an association that served to validate and reinforce their claims to power within emerging localized networks.

The use of the talud-tablero style continued at Tikal through the Early Classic period until ca. 600 C.E., at which point Teotihuacan declined, its influence waned, and new architectural styles and techniques

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111 Or in some cases, 1:5. Laporte 1987, 306; 2003, 201 (fig. 7.2), 205. See also Braswell (2003b, 106–7) and Cheek (1977, 447) for similar modified variation at Kaminaljuyu.


114 See Clark and Blake 1994; Stuart 2000.

115 Miller 1998; Laporte 2003, 200, 205; Cash 2005, 71–2, 106, 179–80. See also Braswell (2003b, 110–14) for a discussion of a similar process at Kaminaljuyu. This process appears almost identical to the Mycenaean adoption and recontextualization of Minoan material culture (see, e.g., Burns 2010, 191 [supra nn. 56, 58]).
came into vogue at Tikal and other sites in the Maya lowlands associated with Teotihuacán during the Late Classic period (600–900 C.E.). The final construction phases in the Mundo Perdido and Group 6C-XVI Complexes (ca. 400–500 C.E.) covered all earlier structures, completely removed their talud-tablero elements, and displayed a more traditional architectural style. At Tikal, the talud-tablero style fell into disuse during the Middle Classic hiatus and experienced a mild resurgence during the Late Classic period in association with buildings that evoked and reinforced symbolic connection to past power.

CONCLUSIONS: PARALLELS BETWEEN THE MESOAMERICAN AND AEGEAN WORLDS

The similarities between the Mesoamerican and Aegean cases are striking. In both instances, two cultures of slightly different levels of complexity and variable sociopolitical configurations came into contact with each other, and the emerging exclusionary society borrowed elements of material culture from the more established corporate one. Mycenaean at Pylos and Maya at Tikal selectively adopted, modified, and recontextualized, respectively, Minoan and Teotihuacano architectural forms into preexisting local aesthetic canons. In both cases, the borrowed elements were subsequently built over in later construction phases using new styles and techniques, and few vestiges of the older foreign architecture remained (fig. 13). In neither case was the process one of wholesale importation, although in both areas the specific mechanism of cultural diffusion is ultimately unclear. At Pylos and Tikal, spatial and temporal variation in architectural style was not the result of either purely internal or strictly external processes. We contend that architectural style is itself more dynamic in structure, diverse in application, and complex in meaning than this equation allows. Specific elements were incorporated through interaction into local traditions. The material correlates of this interaction fluctuated over time and space within both regions, as did the nature and effects of that interaction. The examples we have offered demonstrate how dual-processual theory elucidates further complexity in evaluations of interregional cultural exchange.

Dual-processual theory allows for nuanced descriptions and explanations of variability in archaeological remains. It encourages us to see that architectural variation is not always an either/or scenario but may be regarded as an evolving expression of cycling and changing strategies of sociopolitical organization. Just as early Mycenaeans at Pylos appropriated Minoan cultural projects in the Aegean, emerging Maya rulers in the Late Preclassic period incorporated foreign Teotihuacano architectural styles and techniques, as well as iconographic symbolism and material culture (prestige goods), to solidify and justify their own power base in small-scale localized networks. Talud-tablero architecture and Teotihuacano cultural influence are most noticeable during the Late Preclassic and Early Classic periods in the Maya lowlands, a time when emerging elites were constructing localized power bases through manipulation of social connections and association with the prestige of distant Teotihuacán. This situation echoes that of early Pylian elites, who sought to expand their own power by acquiring Minoan luxury items for use in status competition.

As lowland Maya society at Tikal developed further, increasing in sociopolitical complexity, it drew more on its own established architectural and cultural traditions. As with the LH IIIB architectural changes at Pylos, the transformations in architecture at Tikal seen in the transition between the Early and Late Classic periods ca. 600 C.E. correspond to increasing complexity and new power dynamics within Maya society. These new sociopolitical configurations subsequently were reflected in novel architectural forms and functions, which themselves were incorporated into earlier traditions. Synchronic and diachronic similarities suggest the selective assimilation or appropriation of ostensibly foreign architectural forms, styles, and techniques. In both cases, these imported elements were used by emerging elites engaged in prestige competition to secure sociopolitical power within expanding localized networks tending toward increasingly exclusionary political economies. In LH IIIA Mes-

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116 E.g., the twin-pyramid Complexes N, O, P, Q, and R at Tikal, dedicated to ancestor worship, individual aggrandizement, and the justification of authority.


118 The borrowed elements were replaced in the LH IIIB reconstruction of the palace at Pylos and after the transition from the Early Classic to Late Classic period at Tikal. Some combinations of Teotihuacano and Maya elements remained in the Late Classic-period Maya lowlands, likely as attempts by rulers to retain their power through association with old symbols of authority (cf. Cheek 1977, 448–49).

119 Braswell (2003a, 7, 34–5) asserts as much, echoing Voutaki’s (1999, 103) observations in the Mycenaean case; see also Becker 2003.

120 It is noteworthy that differences in scale (i.e., size of sites and population) do not appear to affect the general processes of dynamic cycling between power strategies; compared with Teotihuacán and Tikal, Knossos and Pylos are significantly smaller.
In the case of Early Mycenaean Pylos is not exhaustive but will, we hope, stimulate further debate and applications of dual-processual theory in the data-rich environment of classical archaeology.121

In this article, we have sought to locate the material correlates of cycling corporate and exclusionary political ideologies and to identify how these strategies found variable material expression over time. We have demonstrated that architectural transformations in LH IIIA–B Messenia and Early Classic Maya society at Tikal can allow us to reconstruct changing systems of social organization, strategies of display, political shifts, and cultural interaction. While the precise nature and specific mechanisms of this interaction remain obscure, the complex transformations that it brought about were neither purely internal social developments nor solely the result of external cultural stimuli. In more concrete terms, the data allow for the observation of the architectural consequences of distinct systems of social organization and divergent strategies of sociopolitical power, as informed by dual-processual theory. In both the Mesoamerican and Aegean cases, the data reflect variations on recurring themes within the corporate–network continuum. While synchronic similarities in architectural forms between sites in both regions suggest interaction and influence, inter- and intraregional discrepancies hint at variable sociopolitical configurations, which themselves were reflected architecturally. Although there is a wealth of evidence that Mycenaeans at Pylos adopted Minoan cultural forms in the Aegean—just as lowland Maya appropriated Teotihuacano cultural

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121 See Small 2009. Our point in this article is to illustrate the potential value of dual-processual theory, not to generalize evolutionary history on the basis of admittedly limited, and in some cases atypical, evidence (supra nn. 18, 60, 97). There is much more to be learned regarding the effects of cycling political strategies on interaction and material culture. We believe that dual-processual theory and cross-cultural comparison greatly assist in this effort, in both classical and anthropological archaeology.
projects—sites and areas within and between both regions had significantly different forms of political and economic organization as they moved toward increasing sociopolitical complexity. The evolving needs of distinct sociopolitical configurations found dynamic architectural expressions as these sites, cultures, and societies developed and changed over time.

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