Societal Complexity and Unpredictability: The Fabric of State Formation

There has been a reductive trend in the work of some scholars seeking to simplify the formation of states. Despite emphasizing the interconnected and unpredictable nature of systems, Charles Redman, who outlined the goals of resilience theory in archaeology, encourages archaeologists to "learn these lessons of history well enough to repeat those worth repeating, and to avoid those best left unduplicated (Redman 2003, 13)." In a similar vein, John Cherry proposed that states were created when a single factor, a "quantum leap," suddenly provided a break-through technology that allowed coalescence (Cherry 1983, 39). I argue that, having been built from past processes, societies respond to novel environmental changes in unpredictable ways. Through the integration of these changes an individualized social system is created from a hierarchical framework, and the implicit rules of that society are stabalized through familiarization of the framework. Selecting one isolate for intentional modification will lead to unintended changes to other variables in ways impossible to predict. Like Cherry, I will examine the formation of the Minoan state and consider not only the introduction of the sail, but also prior technologies and the inbedded nature of international relationships with the empires to the east. And like Redman, I will consider the four features of ecosystems but suggest that they elucidate the unpredictability of future events.

Before the Minoan state coalesced, other societies were driven by trade. Renfrew believed there were two critical factors that guided these impulses: the invention of the longboat, and the desire for metal (ibid, 451-455). These factors provided a foundation for increasing societal interconnectedness as the Bronze Age progressed, but they predated the introduction of sail technologies in Egypt which allowed the Egyptian empire to dominate Mediterranean shipping during the 2nd millennium (Gertwagon 2014, 155). Thus it was that sail technology was introduced to Crete, where prism seals from between Early Minoan III and Middle Minoan I depict ships with sails and small luxury goods began to appear (Cherry 1983, 41). From this development, Minoan society coalesced under the influence of older, larger states and was able to utilize the influence and technology of these states to become an active participant in the trade networks of the Mediterranean. (Parkinson and Galaty 2007, 118). The archaeological record gives access to the societal changes that followed, with a palatial network forming in the wake of these events that was capable of mobilizing society in a way that drove increasingly sophistocated patterns of produciton. For example, loom weights from the First Palace Period have been found in the palaces of Knossos, Mallia, and Phaistos that suggest a working staff of up to 90 workers at each palace were employed in the creation of textiles (Militello 2014, 41). The integration of outside technologies and the influence of continuing trade networks helped initiate and sustain a predictable foundation upon which Minoan society was built.

However, this framework was subject to unpredictability, as are all integrated systems. According to Redman, four aspects of ecosystems provide the underlying assumptions of resilence theory, but these aspects also comment on the volatile nature of systems (Redman 2003, 1). These forces apply to the state system created at Crete. It was incorporated into an international system in a way that allowed for incredible advances, yet the networks created led to an increasingly complex system. The aspects of ecosystems attest to the unpredicatbility of any given factor, and when the chaos of nature is joined into the theory the levels of unpredictability increase exponentially. Perhaps this is particularly resonant today, after our own experience of the past two years. Retrospective views are a wonderful way to examine aspects of past societies and help guide an awareness of our own society. However, caution should be taken before using a single variable to define an entire system, or using past systems as a guide to manipulate the course of future systems.

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