

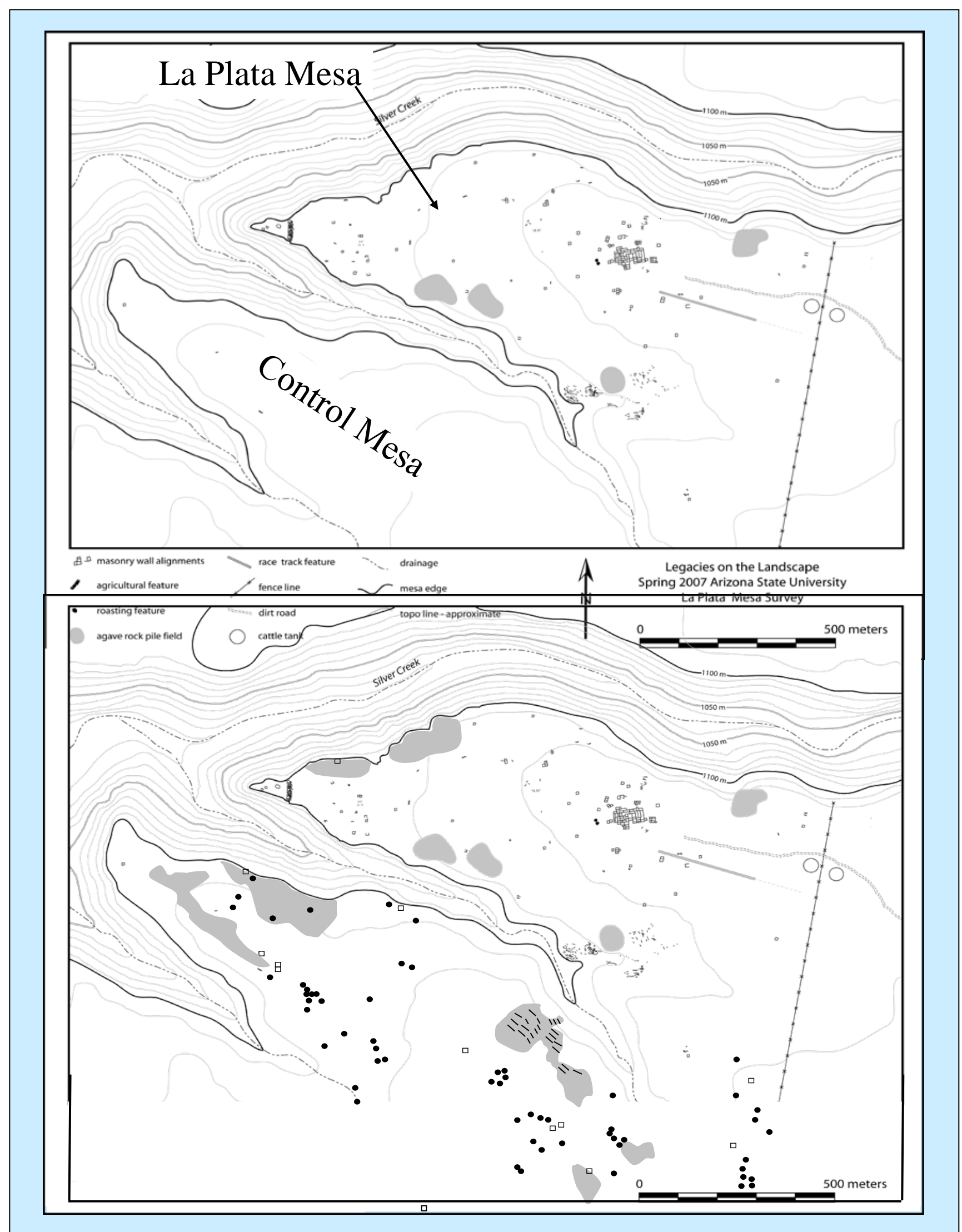
Ancient agriculture of the Perry Mesa Tradition in Central Arizona: interpreting ancient land-use and modern landscapes

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Abstract:
 Recent surveys of large segments of Perry Mesa in the Agua Fria National Monument revealed a previously undocumented agricultural system. The newly discovered fields are associated with settlements of the Perry Mesa Tradition dating from ca. AD 1250-1375. These fields extend over hundreds of acres, incorporating many dry-land water and soil control features. The features are represented by a range of types including terraces, check-dams and areas cleared of stone to grow a variety of crops from native and imported agave species, to cultivars such as maize and squash. The existence of these features has implications for current archaeological research regarding the sustainability of these prehistoric community and their interactions with the surrounding cultural groups. Our ongoing research is seeking to 1) quantify the land cultivated by each pueblo, 2) determine the types of ancient landscape modifications and degree of alterations needed to create persistent ecological legacies, and 3) provide this information to land managers regarding the extent of culturally modified landscape that exists within the National Monument for interpretive purposes and preservation.

Traditional archaeological studies have focused on structures, rather than on a landscape scale approach. This has resulted in a biased view of the human use of the landscape, as well as a biased view of the human impact on landscapes.

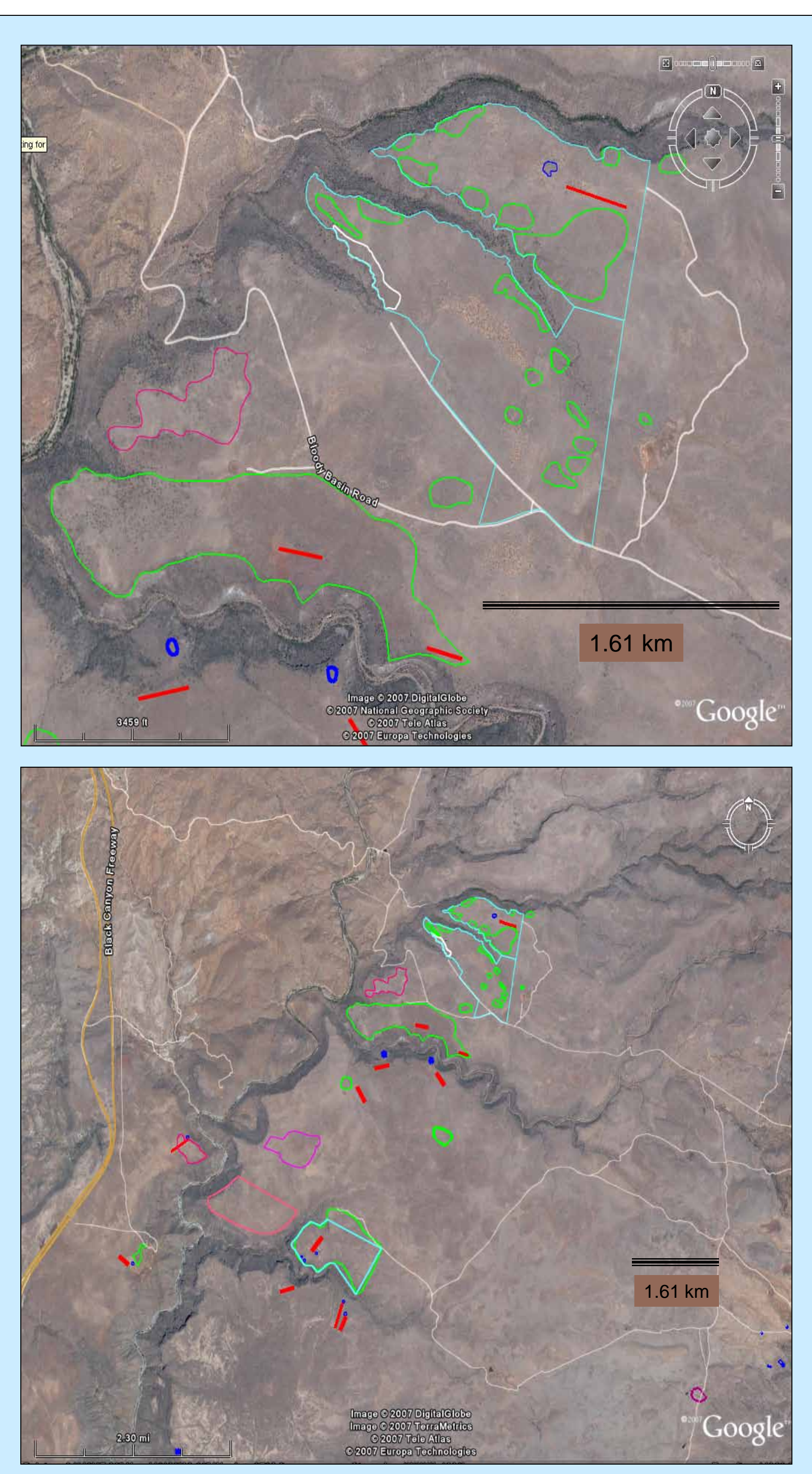
Archaeological maps such as these of Pueblo La Plata suggest that human activities were limited to the structures and their immediate environs.



- The findings resulting from the surveys of 2007 have important implications for interpretations of the social structure and interpretation of the interactions between the population of Perry Mesa and neighboring populations.
- Wilcox propose that agricultural success on the mesa was limited, creating the need to raid the Hohokam to the south to augment their subsistence (Wilcox 2007).
- Wilcox suggest that the configuration of aggregated villages were a defensive strategy to defend against retaliatory attacks by offended Hohokam.
- Our findings suggest that a large portion of the population was living in scattered single family homes around central villages with extensive field systems surrounding them.
- At La Plata there are as many rooms in the isolated structures as there are in the pueblo itself. At Pato, there are at least a third as many rooms in the isolated structures as in the pueblo. Many of the isolated structures had well developed middens suggesting substantial and long-term use. Additionally, ceramics found at these sites was similar to that found around the village, suggesting that the isolated structures were inhabited contemporaneously with the pueblos.

Pueblo La Plata # of rooms		Pueblo Pato # of rooms	
Pueblo	Isolated structures	Pueblo	Isolated structures
85	85	150	ca 50

- Scott Ingram has reconstructed the climate during the period of the Perry Mesa Tradition and suggests that the area was wetter and thus likely better able to support crops (Ingram pers. com. 2007). Access to water may explain the positioning of the pueblos near the perimeter of the mesa since the largest rivers in the area are off the western edge of the mesa.



- Survey areas
- Confirmed agricultural areas
- Reported agricultural areas
- Villages over 50 rooms
- "Race Track" Features

Our archaeological surveys conducted over the past year began by following the traditional pattern: we initially surveyed La Plata Mesa since we figured that was where people had been.

Control Mesa was assumed to be relatively free of human constructs

Survey found that though there was no village, there were houses and fields covering the surface

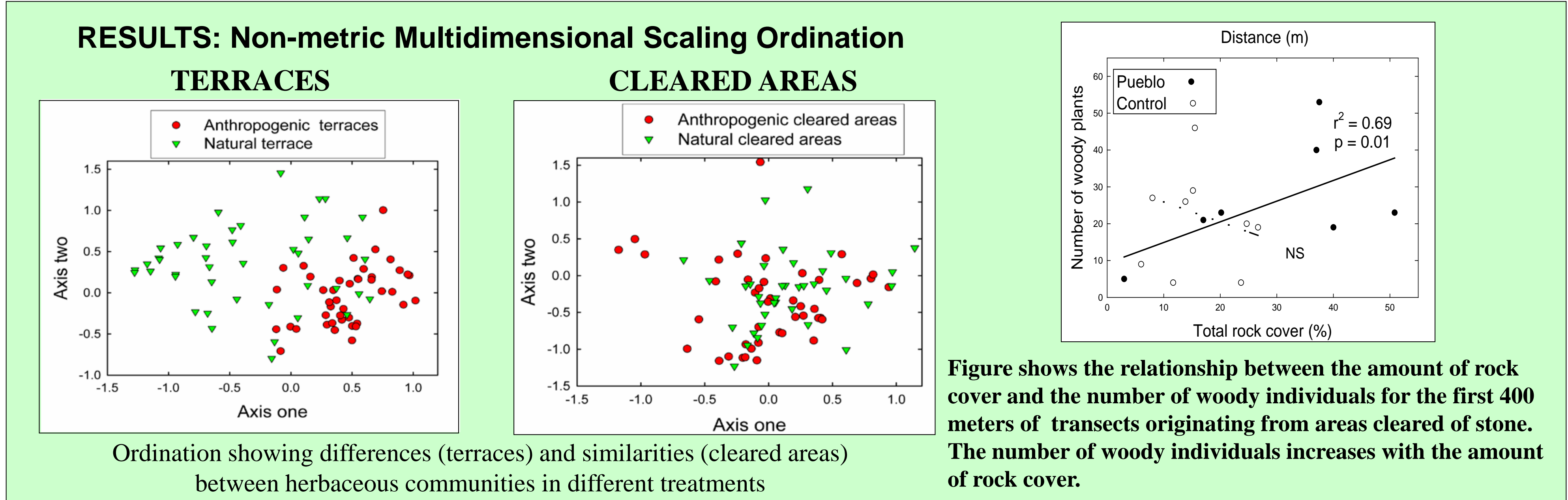
So much for a control area free of human influence!!22

Total area surveyed around Pueblo La Plata (including Control Mesa): 200 hectares

Results on La Plata Mesa 89 hectares surveyed: 49 loci including: 44 structures 15 multi-roomed structures 26 single-room structures 3 three walled "carport" structures Extensive agricultural fields numerous roasting pits and rockpiles ca. 100 terrace feature agave fields relict living agave populations	Results on Control Mesa 110 hectares surveyed: 15 structures 2 multi-room structures 8 single-room structures 5 ephemeral structures Extensive agricultural fields numerous roasting pits and rockpiles ca. 200 terrace features 2 grid-gardens agave gardens relict living agave populations
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Results at Pueblo Pato 89 hectares surveyed: 42 loci including: 38 structures 21 multi-room structures 11 single-room structures 6 unidentifiable structures 1 rock ring 2 roasting pits Extensive agricultural fields numerous roasting pits and rockpiles ca. 200 terrace features 2 grid-gardens agave fields relict living agave population	
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- The discovery of landscape-scale manipulations has important implications for the modern landscape of Perry Mesa. Our initial studies have shown that some anthropogenic changes have left legacies at some scales and may not have at others
- Herbaceous communities compared between areas cleared of stones for agriculture and areas naturally clear of stones do not seem to have been altered
- woody communities have responded to clearing of stones
- Terraces, however, appear to have created a legacy in the herbaceous communities



Implications of this study for landscape management include, but are not limited to

- 1) the necessity of recognizing anthropogenic cultural landscapes
- 2) determining management strategies to take them into account
- 3) Exploring ways to integrate modern ecology with past and present human actions

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