

Analyzing Pueblo Bonito Bone Artifacts

by Madeleine Cravens and Olivia Dzumaga under mentorship of Adam Watson

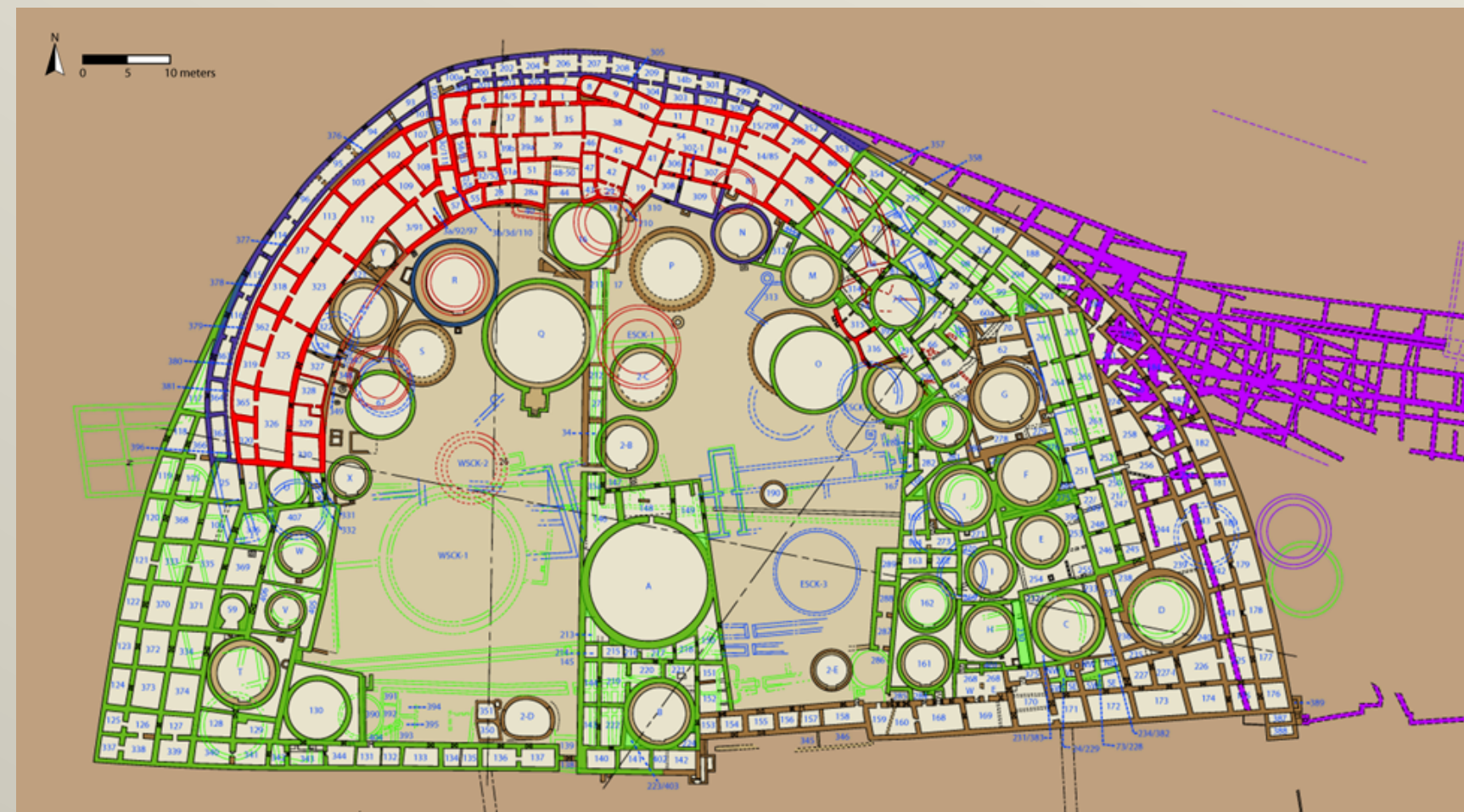


Fig.1 Map of Pueblo Bonito Site

Abstract

Using New Mexico's famed Chaco Canyon a backdrop for our research, we conducted a thorough analysis of the American Museum of Natural History's bone assemblages. First, we identified the taxon and element of each specimen and collected their measurements and wear-based data. Next, we used Geographic Information Systems (GIS) to generate visual representations of our data distributions. Within GIS, two distinct methods were used- *kriging* and Inverse Distance Weighted Interpolation Works (IDW). To measure the richness and diversity of raw material choice in bone products, we implemented Simpson's Index and Simpson's Measure of Evenness.

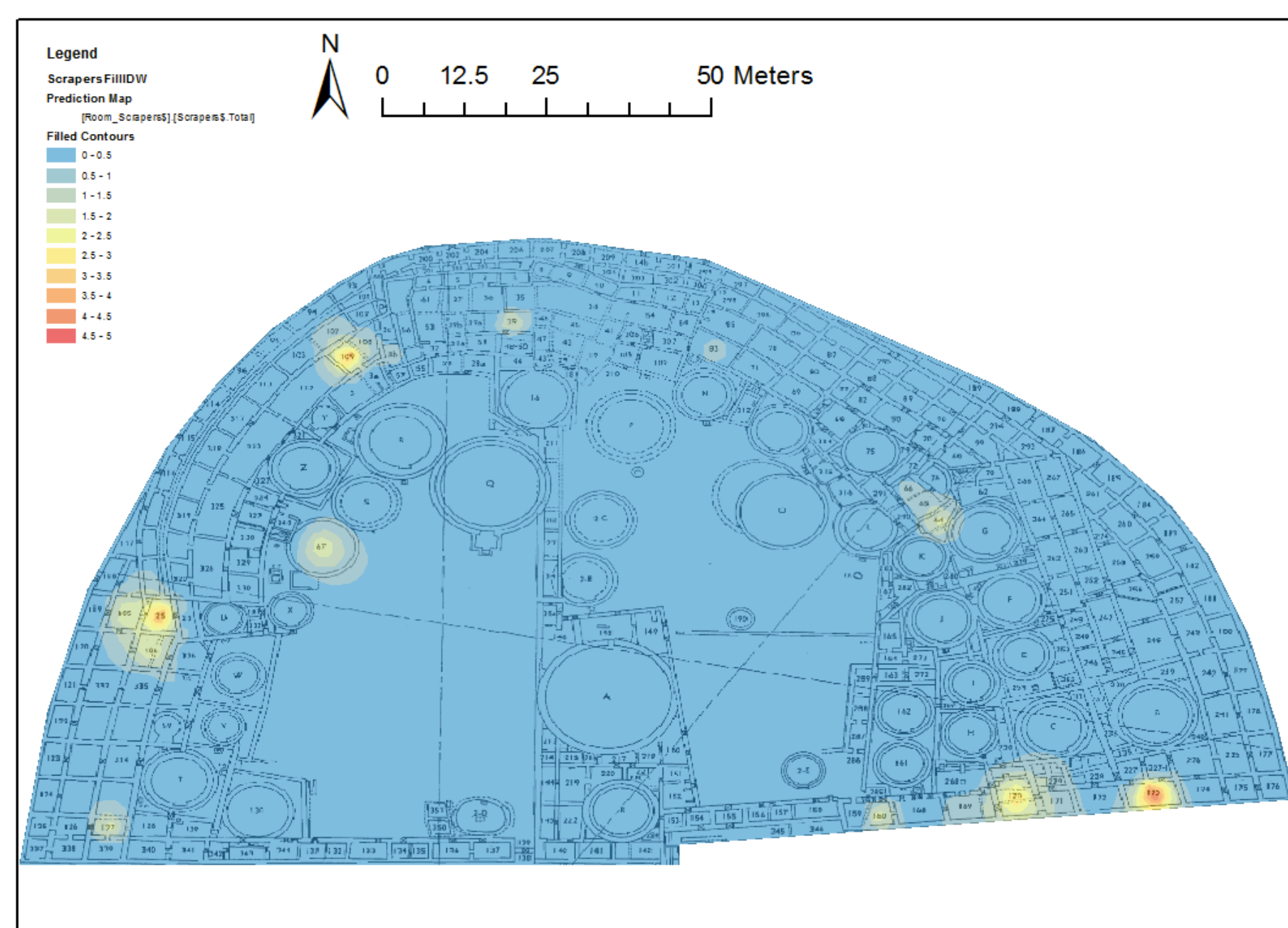


Fig.2 Scrapper Distribution

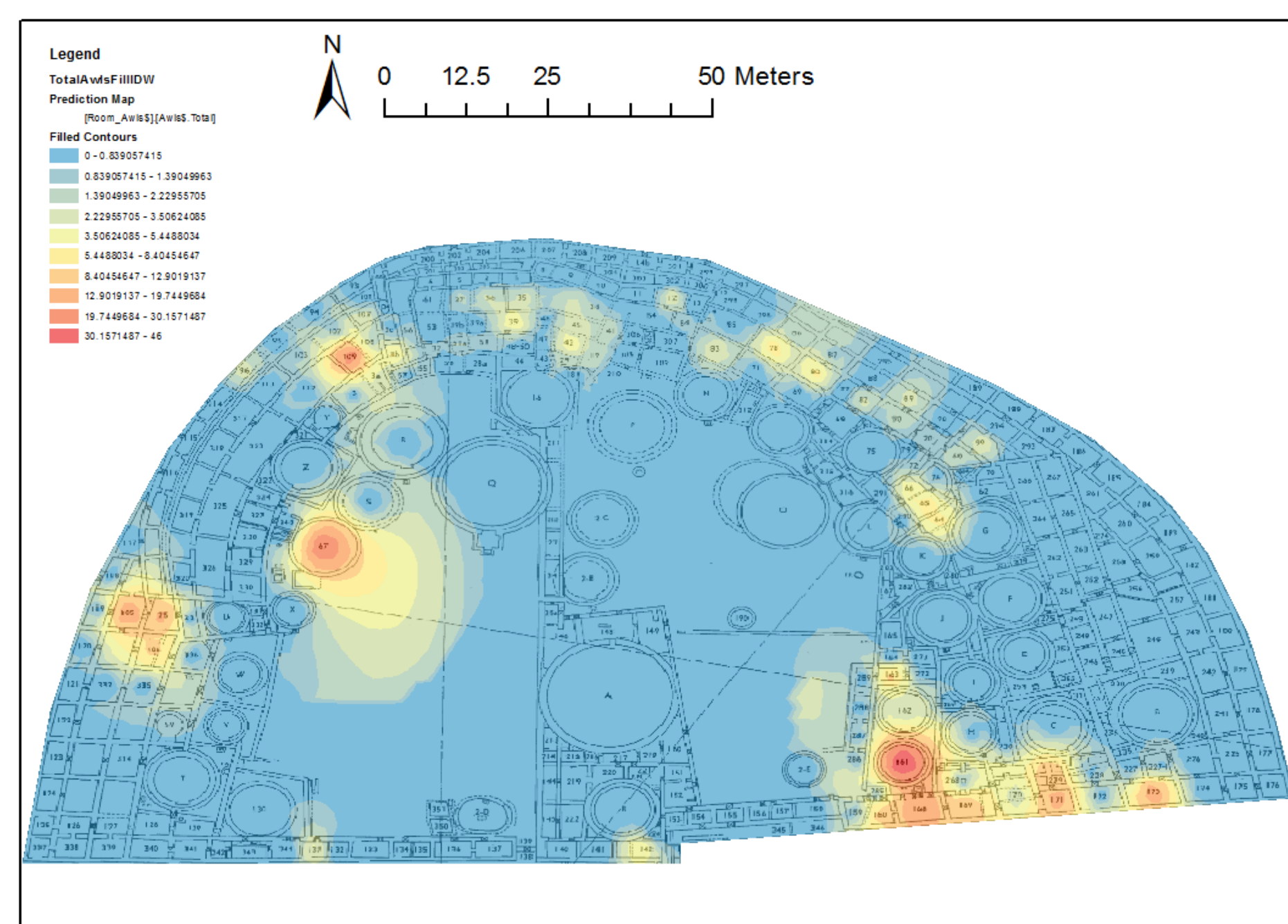


Fig.3 Awl Distribution

Period	Taxon			n
	Richness	Evenness (Simpson's E_{ID})	Diversity (Simpson's D)	
Early - Classic Bonito	11	0.51	5.60	63
Late Bonito	8	0.61	4.91	59
McElmo	9	0.68	6.11	36

Figure 4: Richness, Evenness, and Diversity in skeletal elements selected as raw material for awl manufacture by time period (for Pueblo Bonito).

Acknowledgements

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