### PRIMARY RESEARCH QUESTIONS:

- > Does morphology change over time?
- > Does morphology change over space?
- > Is it possible to confidently define Native-made versus blacksmith-made points?
- > Does morphology reflect intended function (i.e. battle versus hunting)?
- Can synthetic research provide information to strengthen interpretation of no-context specimens?

# **Metal Projectile Point Survey of the Interior West:**

## **Preliminary Numbers and Directions for Future Research**

Metal projectile points of the Protohistoric and early Historic periods are a somewhat rare, yet ubiquitous artifact type that has received little attention regarding synthetic research. Their brief period of use across the interior west coincided with perhaps the most profound and rapid culture changed experienced by native groups during the entirety of North American prehistory and history. A survey of 14 states across the interior west is currently underway to gather data on all available metal projectile points in an effort to better articulate their changes over time and space. Preliminary numbers from this ongoing data collection effort are presented and goals of the research are introduced.

### ADVANTAGES OF VIRTUAL DATA COLLECTION & ANALYSIS

- 100% cost effective given willing contributors (i.e. photos are free, e-mail is free)
   Demonstrates cheap equipment works equally well as expensive equipment
   Demonstrates healthy to ames a large data set for a large study area
   Demonstrates the ease of sharing data
   Facilitates synthetic research questions rather than regionally restricted ones due to
- access to artifacts

  Could be used as a rallying cry for more expeditious in-field recording time

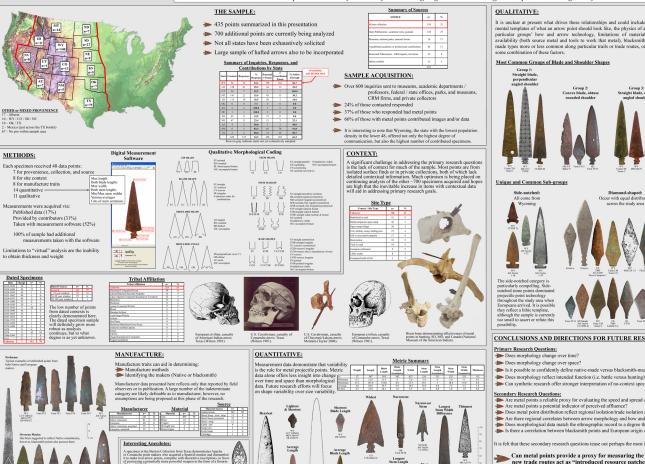
  Could be used as a rallying cry for non-collection archaeology

### CONSIDERATIONS FOR THE FUTURE

- → Higher standards of uniformity for taking, presenting, and sharing images
  → Heightened involves of condition field.
- ner standards of unfortune of good in-field digital documentation

  amunal effort to create "universal" digital image collections

  blishing a research-friendly protocol for use and sharing of images and data (i.e.



# mental templates of what an arrow point should look like, the physics of a particular groups' bow and arrow technology, limitations of material availability (both source metal and tools to work that metal), blacksmith made types more or less common along particular trails or trade routes, or some combination of these factors. Most Common Groups of Blade and Shoulder Shapes

# Unique and Common Sub-groups









Hafting Element Variations





Preliminary Patterns of Spatial Distribution:

Side-notched sample only in the northern states

Obtuse angled shoulders appear with equal distribution

→ 61% of finely serrated bases are from the southern states

Sample size is currently biased by the northern half of the study area

→ 74% of acute-angled barbed shoulders are from the northern states

"Footed" and/or barbed sample only occurs in Wyoming, Montana, and the Dakotas

Long, narrow stemmed points occur with a slightly higher distribution in the south



### Primary Research Questions:

- > Does morphology change over time?
- > Does morphology change over space?
- Is it possible to confidently define native-made versus blacksmith-made points?
- Does morphology reflect intended function (i.e. battle versus hunting)?
- Can synthetic research offer stronger interpretation of no-context specimens?

### Secondary Research Questions:

- > Are metal points a reliable proxy for evaluating the speed and spread of culture change? Are metal points a potential indicator of perceived affluence?
- ➤ Does metal point distribution reflect regional isolation/trade isolation and/or contact opportunities?
- Are there regional correlates between arrow morphology and bow and arrow technology? In other words, are regional and/or tribal differences in bow and arrow technologies reflected in point morphology? Does morphological data match the ethnographic record to a degree that morphology alone could lead to interpretation of tribal affiliation.
- Is there a correlation between blacksmith points and European origin of the maker? In other words, did Scottish blacksmith points differ from Irish, German, Spanish, French, or Swedish made points'

Currently undetermined

Currently undetermined

Preliminary results encouraging

Preliminary results encouraging

Preliminary results encouraging

It is felt that these secondary research questions tease out perhaps the most interesting inquiry of all:

Can metal points provide a proxy for measuring the degree to which access to metal reconfigured the ecological landscape? In other words, to what degree did significant trails and new trade routes act as "introduced resource patches" on the landscape and to what degree did these new patches alter established mobility and settlement patterns?

Barbed, Acute-Angled Shoulders

Metal points are only one artifact class of interest to address the dynamics of culture change during the Protohistoric and early Historic. By themselves, however, metal points offer only a single research dimension. Rather than a stand-alone project, it is hoped that this synthetic research effort can be a useful contribution to multi-vector collaborative research efforts and offer a complement to other artifact classes and suits of data to explore culture change during the Protohistoric

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