Compiling Excavated Archaeological Data at a Large-Scale:

Preliminary Results

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The Problem

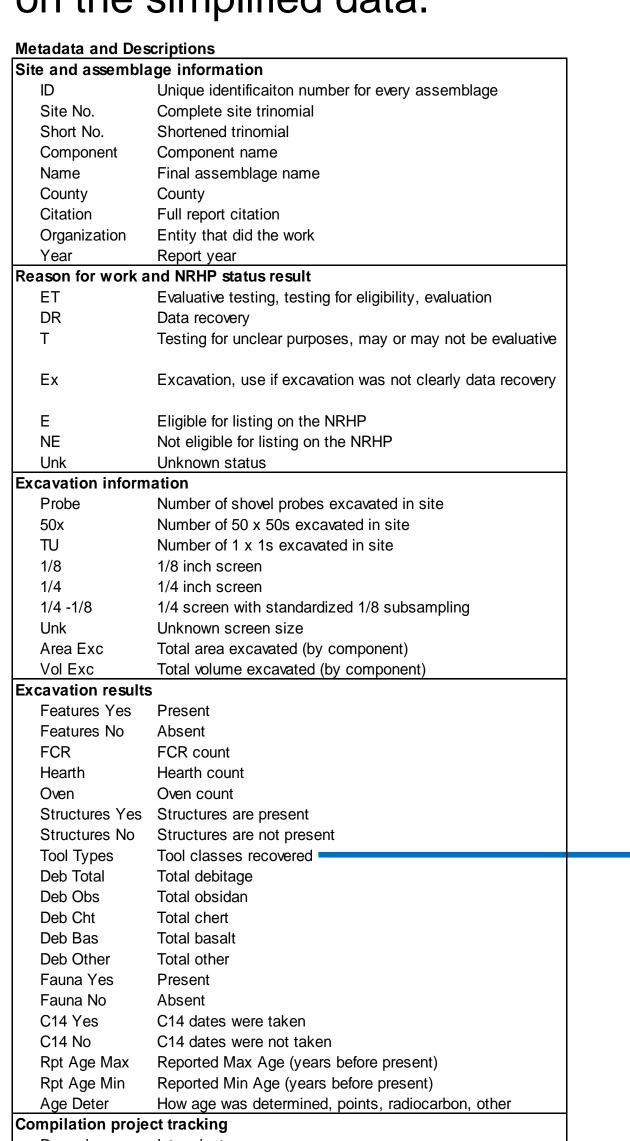
A vast amount of excavated archaeological data are collected and reported at great cost to the public. Excavated data from select, well-known or stratified flagship sites is sometimes used in later analyses. Data from the more numerous, but smaller, often single component sites or sites found not eligible for NRHP listing are rarely used in later analyses.

There are a number of interrelated reasons for this:

- Some previously collected data is poorly analyzed and reported.
- Even when well-reported, compiling large amounts of previously collected, quantitative data is difficult and time-consuming.
- Use of previously excavated data is not required or even encouraged in most CRM efforts.
- Many archaeologists view sites not eligible for listing on the NRHP as meaning having no useful archaeological information.

Methods

- 1. Mined through archeological reports from sites in the Willamette Valley, Portland Basin and nearby Cascades, gathering pertinent data (listed below).
- 2. Input data into an excel spreadsheet.
- 3. Simplified collected data for preliminary presentation.
- 4. Created graphs and tables based on the simplified data.

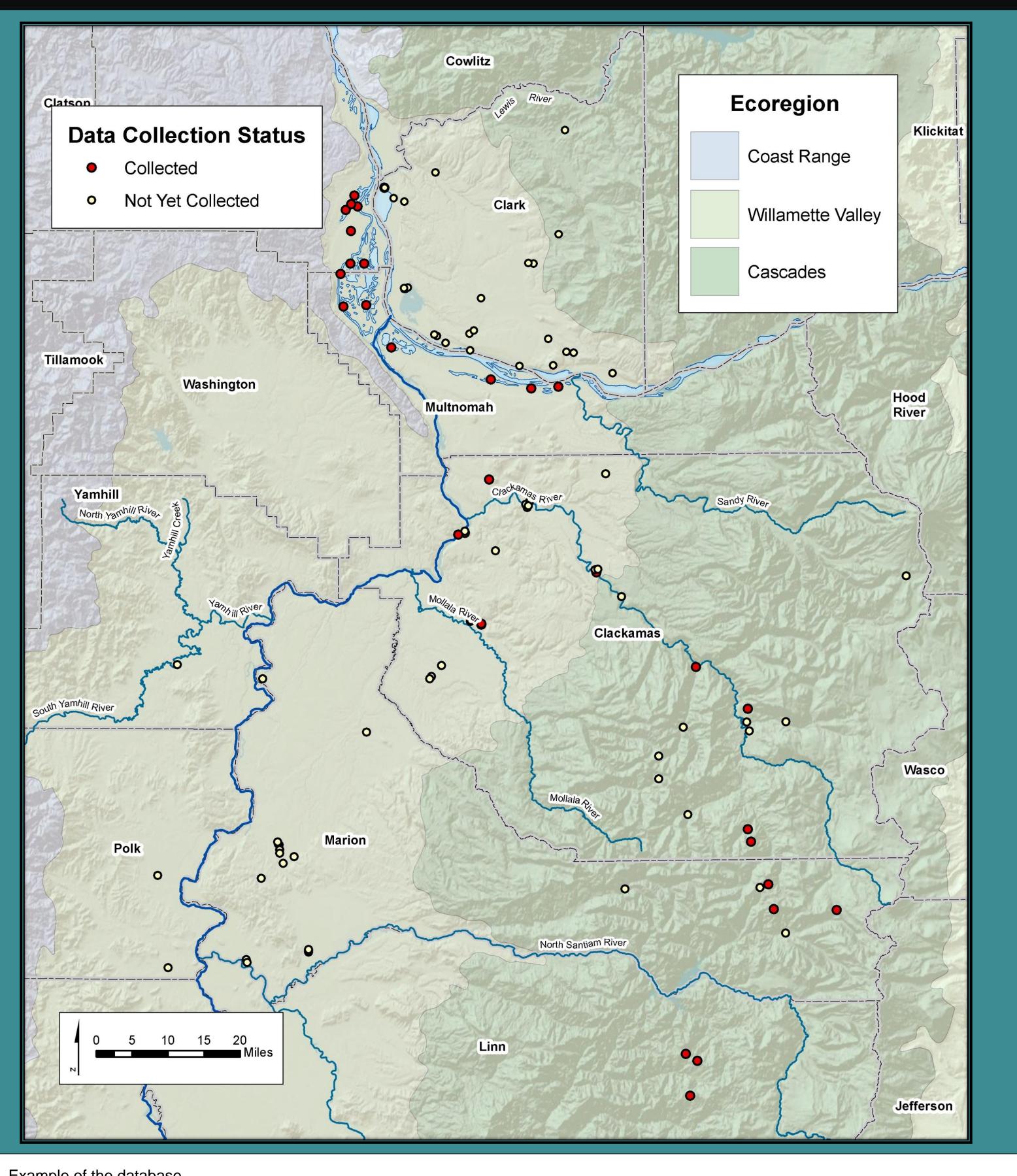


Comments, quesitons or problem



| Tool Classes and Desc | riptions | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|
| Tool Class | Defininition | | | | | | | | |
| Flaked Stone Tools | | | | | | | | | |
| Biface | Biface, knife, preform, unknown stage | | | | | | | | |
| Biface-early stage | Percusion flaked | | | | | | | | |
| Biface-late stage | Pressure flaked | | | | | | | | |
| Point Whole | Whole projectile points | | | | | | | | |
| Point-tip | Point tip | | | | | | | | |
| Point-Mid | Point midsection | | | | | | | | |
| Point-Base | Point base | | | | | | | | |
| Scraper | Scraper/Uniface | | | | | | | | |
| Dril | Drill | | | | | | | | |
| Graver | Graver | | | | | | | | |
| Used flake | Used flake, no intentional modification | | | | | | | | |
| Worked flake | Worked flake, Uni/Bif unknown | | | | | | | | |
| UniFlake | Unifacially worked flake | | | | | | | | |
| BifFlake | Bifacially worked flake | | | | | | | | |
| Microblade | Microblade | | | | | | | | |
| Cobble Tools | | | | | | | | | |
| Chopper | Cobble chopper | | | | | | | | |
| Split/Flaked Cob | Split / flaked cobble, spall, tested cobbl | | | | | | | | |
| Core | Core, type unknown | | | | | | | | |
| CoreBipolar | Bipolar core | | | | | | | | |
| CoreBifacial | Bifacial core | | | | | | | | |
| CoreMicroblade | Microblade core | | | | | | | | |
| CoreUnidir | Unidirectional/standardized core | | | | | | | | |
| CoreAmorph | Amorphous/unstandardized core | | | | | | | | |
| Hamerstone | Hammerstone | | | | | | | | |
| Anvil | Anvil | | | | | | | | |
| Battered Cob | Battered cobbles | | | | | | | | |
| Ground Stone Tools | | | | | | | | | |
| Edge-gnd Cob | Edge-ground cobble | | | | | | | | |
| Abrader | Abrader | | | | | | | | |
| Mortar | Mortar, grinding slab | | | | | | | | |
| Pestle | Pestle, handstone/mano | | | | | | | | |
| Netweight | Netweight | | | | | | | | |

This project is the result of an internship between Portland State University and WillametteCRA.

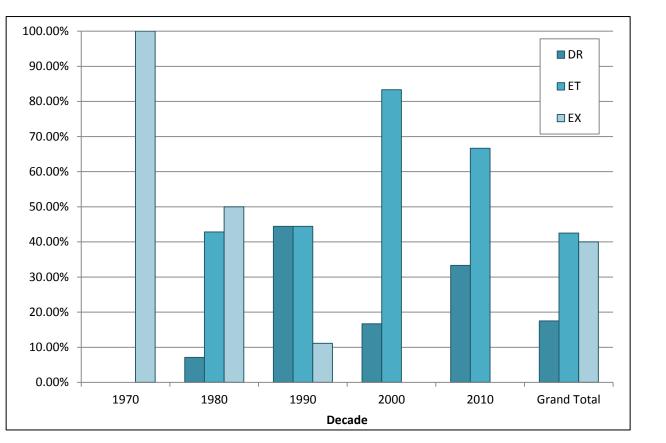


| Site_No. | Comp | Year | Org | Citation | Cause | NRHP Status | Probe | 50x | TU | Screen | Area Ex | Vol Ex | Feat | Hearth | Oven | Struc | Fauna | Points | Flaked Stone | Cobble Tools | Ground Stone | Total Tools | Deb | FCR | C14 | Max BP | Min BP | Average Age | Recorde |
|-------------|-------|------|--------|----------------------------|-------|----------------|-------|-----|-----|---------|------------|-----------|------|--------|-------|-------|-------|--------|-----------------|-----------------|-----------------|----------------|--------|------|-----|-----------|-----------|----------------|---------|
| 35-CLA-100 | • | 1997 | ODT | Musil 1997 | ET | NE | 0 | 14 | 2 | 1/8 | 5.5 | 2.9 | No | 0 | 0 | No | No | 1 | 1 | 0 | 0 | 1 | 203 | 9 | No | 700 | 200 | 450 | KNL |
| 35-CLA-14 | | 2001 | PGE | Oetting 2001 | ET | Е | 27 | 0 | 0 | Unk | 12.7 | 0.9 | No | 0 | 0 | No | No | 1 | 3 | 1 | 0 | 4 | 145 | 0 | No | 2000 | 100 | 1050 | KNL |
| 35-CLA-20 | | 1990 | PSU | Burtchard et al. 1990 | DR | Е | 10 | 0 | 13 | 1/4-1/8 | 13.0 | 4.3 | No | 0 | 0 | No | No | 3 | 16 | 6 | 2 | 24 | 345 | 0 | No | 4000 | 1000 | 2500 | JD |
| 35-CLA-21 | | 1990 | PSU | Burtchard et al. 1990 | DR | Е | 66 | 0 | 33 | 1/4-1/8 | 40.0 | 14.4 | No | 0 | 0 | No | No | 14 | 38 | 5 | 0 | 43 | 1119 | 0 | No | 4000 | 1000 | 2500 | JD |
| 35-CLA-22 | South | 1990 | PSU | Burtchard et al. 1990 | DR | Е | 43 | 0 | 8 | 1/4-1/8 | 12.7 | 18.2 | No | 0 | 0 | No | No | 2 | 3 | 0 | 0 | 3 | 91 | 0 | No | 4000 | 1000 | 2500 | JD |
| 35-CLA-22 | North | 1990 | PSU | Burtchard et al. 1990 | DR | Е | 22 | 0 | 28 | 1/4-1/8 | 30.4 | 18.2 | Yes | 2 | 0 | Poss | No | 21 | 61 | 14 | 2 | 77 | 1449 | 0 | Yes | 4000 | 1000 | 2500 | JD |
| 35-CLA-293 | | 2006 | PGE | Oetting 2006 | ET | Ε | 10 | 0 | 25 | 1/8 | 29.7 | 15.3 | No | 0 | 0 | No | No | 2 | 60 | 1 | 0 | 61 | 2,221 | 0 | No | 7,000 | 1,000 | 4000 | KNL |
| 35-CLA-334 | | 2009 | ODT | Bland et. al. 2009 | ET | NE | 19 | 10 | 0 | 1/8 | 14.0 | 6.5 | No | 0 | 0 | No | No | 0 | 0 | 0 | 0 | 0 | 26 | 0 | No | Unk | Unk | Unk | KNL |
| 35-CLA-335 | | 2009 | ODT | Bland et. al. 2009 | ET | NE | 2 | 4 | 0 | 1/8 | 1.9 | 1.4 | No | 0 | 0 | No | No | 0 | 0 | 0 | 0 | 0 | 2 | 0 | No | Unk | Unk | Unk | KNL |
| 35-CLA-336 | | 2009 | ODT | Bland et. al. 2009 | ET | NE | 117 | 39 | 0 | 1/8 | 2.7 | 5.4 | No | 0 | 0 | No | No | 0 | 0 | 0 | 0 | 0 | 2 | 0 | No | Unk | Unk | Unk | KNL |
| 35-CLA-55 | | 1985 | AN/OSU | Lebow 1985 | DR | E | 0 | 0 | 108 | Unk | 108.0 | 36.0 | No | 0 | 0 | No | Yes | 23 | 322 | 45 | 9 | 376 | 36166 | 0 | No | 8000 | 4000 | 6000 | JD |
| 35-CLA-74 | | 1997 | USFS | Bevill et. al. 1999 | Ex | Е | 0 | 0 | 29 | 1/8 | 28.5 | 26.5 | Yes | 1 | 0 | Poss | No | 10 | 164 | 13 | 0 | 177 | 85,000 | 0 | Yes | 1500 | 500 | 1000 | KNL |
| 35-CO-3 | | 1981 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 20 | 1/2,1/4 | 20.0 | | No | 0 | 0 | No | No | 116 | 742 | 186 | 23 | 951 | 1027 | 0 | Yes | 1750 | 700 | 1225 | JD |
| 35-CO-3 | | 1973 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 20 | Unk | 20.0 | 24.5 | Yes | Unk | Unk | No | Yes | 116 | 743 | 186 | 23 | 952 | 1027 | 0 | Yes | 1750 | 700 | 1225 | KNL |
| 35-CO-4 | | 1981 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 18 | 1/2,1/4 | 18.0 | | No | 0 | 0 | No | No | 19 | 71 | 28 | 8 | 107 | 104 | 0 | Yes | 1500 | 1000 | 1250 | JD |
| 35-CO-4 | | 1973 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 22 | Unk | 22.0 | 22.2 | Yes | Unk | Unk | No | No | 19 | 71 | 30 | 7 | 108 | 1004 | 0 | Yes | 1750 | 700 | 1225 | KNL |
| 35-CO-5 | | 1981 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 12 | 1/2,1/4 | 12.0 | | No | 0 | 0 | No | No | 35 | 351 | 192 | 4 | 547 | 882 | 0 | Yes | 700 | 0 | 350 | JD |
| 35-CO-5 | | 1973 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 12 | Unk | 12.0 | 11.2 | Yes | Unk | Unk | No | Yes | 35 | 85 | 192 | 4 | 281 | 882 | 0 | Yes | 700 | 0 | 350 | KNL |
| 35-CO-6 | | 2014 | WCRA | Paraso et al. 2014 | ET | Ε | 18 | 0 | 3 | 1/4-1/8 | 6.6 | 6.3 | Yes | 5 | 1 | No | Yes | 7 | 22 | 3 | 5 | 30 | 349 | 1723 | Yes | 500 | 100 | 300 | PS |
| 35-CO-7 | | 1981 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 4 | 1/2,1/4 | 4.0 | 4.8 | No | 0 | 0 | No | No | 29 | 233 | 33 | 2 | 268 | 394 | 0 | Yes | 700 | 0 | 350 | JD |
| 35-CO-7 | | 1973 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 4 | Unk | 4.0 | 4.8 | Yes | Unk | Unk | Yes | Yes | 29 | 233 | 35 | 2 | 270 | 394 | 0 | Yes | 700 | 0 | 350 | KNL |
| 35-DO-13 | | 1976 | OSMA | Pettigrew 1976 | EX | Unk | 0 | 0 | 16 | Unk | 20.0 | 4.8 | No | 0 | 0 | No | No | 12 | 230 | 49 | 8 | 287 | 494 | 0 | No | 2000 | 1500 | 1750 | KNL |
| 35-LIN-301 | | 1989 | WNF | Nilsson, 1989 | ET | E | 0 | 0 | 2 | 1/8 | 2.0 | 1.6 | No | 0 | 0 | No | No | 3 | 12 | 2 | 1 | 15 | 620 | 0 | No | 1500 | 100 | 800 | KNL |
| 35-LIN-302 | | 1989 | LSA | Spencer 1989 | ET | NE | 0 | 35 | 1 | 1/8 | 9.8 | | No | 0 | 0 | No | No | 1 | 9 | 0 | 1 | 10 | 54 | 0 | No | 6000 | 2000 | 4000 | JD |
| 35-LIN-373 | | 1990 | LA | Flenniken et al. 1990 | ET | Е | 0 | 20 | 6 | 3mm | 11.0 | 6.6 | No | 0 | 0 | No | No | 4 | 13 | 0 | 0 | 13 | 877 | 0 | No | 8000 | 4000 | 6000 | JD |
| 35-MA-119 | | 1993 | 4D | Draper et al. 1993 | ET | Ē | 0 | 73 | 11 | 1/8 | 29.3 | 13.7 | No | 0 | 0 | No | No | 11 | 32 | 3 | 0 | 35 | 1151 | 0 | No | 5000 | 3000 | 4000 | JD |
| 35-MA-22 | | 1991 | WNF | Churchill and Jenkins 1991 | ET | E | 0 | 21 | 6 | 1/8 | 11.3 | 8.6 | No | 0 | 0 | No | No | 1 | 5 | 0 | 0 | 5 | 113 | 0 | No | 3,000 | 1,000 | 2000 | KNL |
| 35-MA-48 | | 1984 | CMS&S | Jenkins and Churchill 1983 | ET | NE | 0 | 16 | 2 | 1/4 | 6.0 | 2.4 | No | 0 | 0 | No | No | 3 | 8 | 0 | 0 | 8 | 13 | 0 | No | 6000 | 2000 | 4000 | NJ |
| 35-MU-1 | | 1981 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 12 | 1/2,1/4 | 12.0 | 29.6 | No | 0 | 0 | No | No | 78 | 638 | 269 | 13 | 920 | 995 | 1 | Yes | 1800 | 500 | 1150 | JD |
| 35-MU-1 | | 1973 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 12 | Unk | 12.0 | 7.4 | No | 0 | 0 | No | Yes | 78 | 554 | 152 | 9 | 715 | 995 | 1 | Yes | 1750 | 700 | 1225 | KNL |
| 35-MU-234 | | 2014 | WCRA | Solimano et al. 2014 | DR | E | 0 | 1 | 48 | 1/4-1/8 | 48.0 | 40.5 | Yes | 2 | 2 | No | No | 10 | 34 | 24 | 6 | 64 | 657 | 1996 | Yes | 3900 | 1000 | 2450 | PS |
| 35-MU-44/46 | | 2005 | Casc. | Pettigrew 2005 | Dr | Ē | 0 | 0 | 27 | 1/4-1/8 | 26.5 | 11.6 | Yes | 6 | 0 | Yes | Yes | 55 | 189 | 49 | 2 | 240 | | 2714 | | 2000 | 100 | 1050 | NJ |
| 35-MU-58 | Upper | 1989 | OSMA | Bland and Connolly 1989 | ET | Unk | 0 | 0 | 10 | n/a | 9.8 | 4.4 | Yes | 1 | 1 | No | Yes | 0 | 0 | 1 | 0 | 1 | 15 | 0 | Yes | 1500 | 1200 | 1350 | NJ |
| 35-MU-58 | Lower | 1989 | OSMA | Bland and Connolly 1989 | ET | Unk | 0 | 0 | 10 | n/a | 9.8 | 4.4 | Yes | 1 | 1 | No | No | 0 | 2 | 0 | 0 | 2 | 29 | 0 | Yes | 2000 | 1800 | 1900 | NJ |
| 35-MU-6 | Lower | 1981 | UO | Pettigrew 1981 | EX | Unk | 1 | 0 | 8 | 1/2,1/4 | 8.0 | | No | 0 | 0 | No | No | 22 | 144 | 94 | 4 | 242 | 627 | 0 | Yes | 700 | 0 | 350 | JD |
| 35-MU-6 | | 1973 | UO | Pettigrew 1981 | EX | Unk | 1 | 0 | 8 | Unk | | 17.3 | Yes | Unk | Unk | Yes | Yes | 22 | 70 | 93 | 4 | 167 | 627 | 0 | Yes | 700 | 0 | 350 | KNL |
| 35-MU-9 | | 1981 | UO | Pettigrew 1981 | EX | Unk | 1 | n | 12 | 1/2,1/4 | 12.0 | 17.0 | No | 0 | 01110 | No | No | 110 | | 209 | - | 1176 | 2662 | 0 | Yes | 2250 | 1750 | 2000 | JD |
| 35-MU-9 | | 1973 | UO | Pettigrew 1981 | EX | Unk | 0 | 0 | 12 | Unk | 12.0 | 28.6 | Unk | Unk | Unk | No | Yes | 110 | | 111 | 14 | 583 | 2662 | 0 | Yes | 2250 | 1750 | 2000 | KNL |
| 45-CL-00376 | | 2011 | AINW | Punke et al 2011 | ET | E | 2 | 16 | 0 | 1/8 | 4.1 | 2.1 | No | 0 | U | No | Yes | 13 | 436 | 51 | 7 | 102 | 226 | 170 | Yes | 4000 | 500 | 2250 | NJ |
| Museum Site | | 1987 | JWAAC | Woodward 1987 | ET | _ | 0 | 0 | 25 | Unk | 25.0 | 0.0 | Yes | 0 | 0 | No | Yes | 16 | 34 | 45 | 3 | 82 | 1546 | 0 | No | 2000 | 100 | 1050 | JD |

Thanks to Dr. Shelby Anderson, Danny Gilmour, David V. Ellis and Thomas Brown

Results

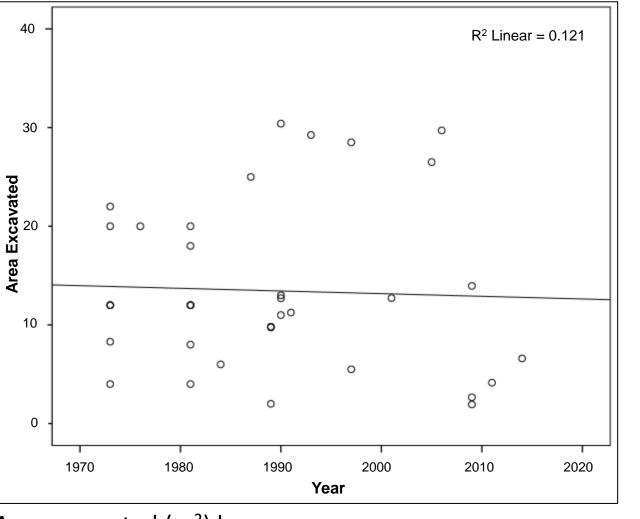
Data from 40 assemblages representing 36 individual sites have been compiled. At least 50 additional excavated sites can be added to the database. Some basic and preliminary patterns in the excavated data are possible.

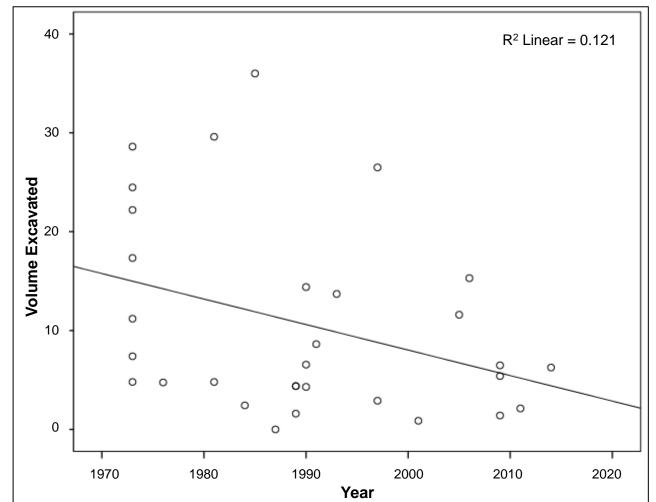


100.00%
90.00%
80.00%
70.00%
60.00%
40.00%
10.00%
10.00%

Percent of sites evaluation method: Data Recovery (DR), Evaluative Testing (ET), Excavation (EX) by decade

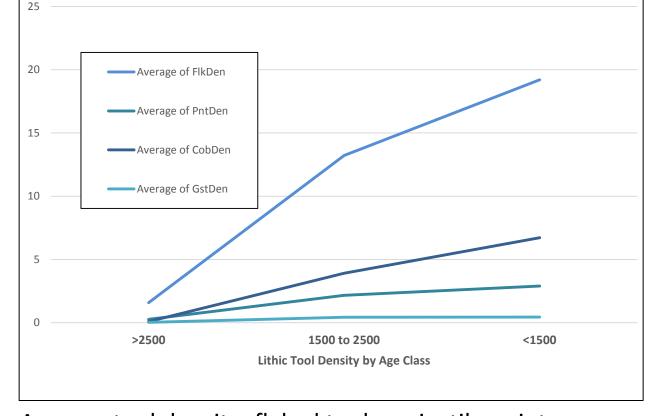
Percent of sites eligible by age class, for which NRHP eligibility is known

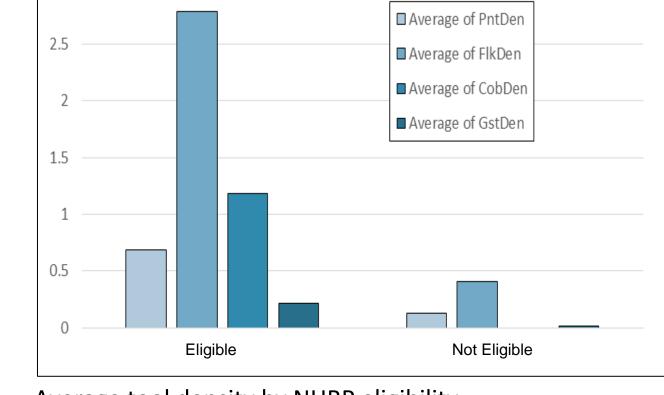




Area excavated (m²) by year Volume

Volume excavated (m³) by year





Average tool density: flaked tool, projectile point, cobble tool, groundstone by age class

Average tool density by NHRP eligibility

Conclusions

This pilot project is the result of an internship designed to provide an opportunity for students to work with a local CRM firm. Interns gained experience working with archaeological gray literature through data mining and research. Future interns will continue adding to the database. When completed, the database of quantitative excavated archaeological data can be used for:

- Large-scale land-use studies.
- A source for information available in CRM literature.
- Significance evaluations that move beyond intuition and rely more on comparisons of quantitative data.