DIPIR

digital information curation
social science data Archival contribute maintaining
preservation Dissemination
sciences archaeology
communities facilitate identify repository representation
packages research
properties reuse zoology

Dissemination Information Packages for Information Reuse

Dynamics of Data Reuse when Aggregating Data through Time and Space: The Case of Archaeology and Zoology

Motivation

Archaeologists and zoologists seek to aggregate data collected over time or data collected contemporaneously across different geographic areas to answer research questions. Yet, each of these disciplines faces challenges in reusing data. Data curation can address these issues by attending to context, such as metadata, research design, and data format.

Research Questions

- What are the important contextual elements to curate/preserve when temporal and spatial data are critical for the research in archaeology and zoology?
- What are the implications data curation?

Excavation: Exposing Stratigraphic Layers
(http://flic.kr/p/fBJb2J)

Data Collection

	Archaeologists	Zoologists
Interviewees	22	27

Implications for Data Curation

Metadata is Data: Metadata is more than descriptive; it is an essential means through which the limits of data reuse are evaluated and understood.

CAU26 (Zoologist): "I sometimes ignore most things until I download the occurrence records but generally they provide... Well no, they do provide all the time, they provide a really good overview of what the data that you've queried is and what sort of sources it came from, as well as the citation and the time and the space."

CCU06 (Archaeologist): I actually mean what strata it's from. I was talking about the importance of having a clear stratigraphy. And so, if they had labeled stratigraphy, let's say, A, B, C, D, E, and if they're comparing the fauna from E to A, that tells me that when they excavated, they were really careful about preserving that information. But a lot of times, that's the kind of thing, especially, again, with these older collections, it tends to get lost."

Research Practices Change Over Time: Establishing a study's original methodology is important when reusing older or aggregating new and old data.

CAU11 (Zoologist): "In the case of what I'm working on right now actually, so the guy who did the surveys in the '80s tracked down the guy who did the surveys in the '40s . . . And I'm now working with the guy who did the surveys in the '80s. So, there is at least essentially a direct communication link between our three survey periods."

CCU20 (Archaeologist): "Yeah, there are certain built-in frustrations to working with materials that somebody else excavated and recorded, even if it was yesterday or if it was 80 years ago, let's say. So, yeah... Well, first of all, of course, the field of archaeology has changed. Well, some things have changed radically in the last 80, 90 years and other things have remained relatively consistent or were in more sort of rudimentary forms decades ago."

Maintaining Relationships among Data Preserves Temporal and Spatial Information

CAU07 (Zoologist): "The idea of going and trying to collate literature . . . I'd say it takes me as much time to do that as it does to work with these repositories. The simple reason is that, it's just so much more laborious and that is do effectively data reconciliation between what's written in different formats, in different ways of kind of expressing time or location and then I have to go look up where this Siberian cave is and find a source from the internet that allows me to georeference that site effectively. And all this takes a lot of time."

CU05 (Archaeologist): "Since we've spent the better part of the decade just trying to put the stuff in electronic form and get it linked to the correct records, we have not been able to do a lot of the interpretation of the scholarship and the analysis that we would like to."
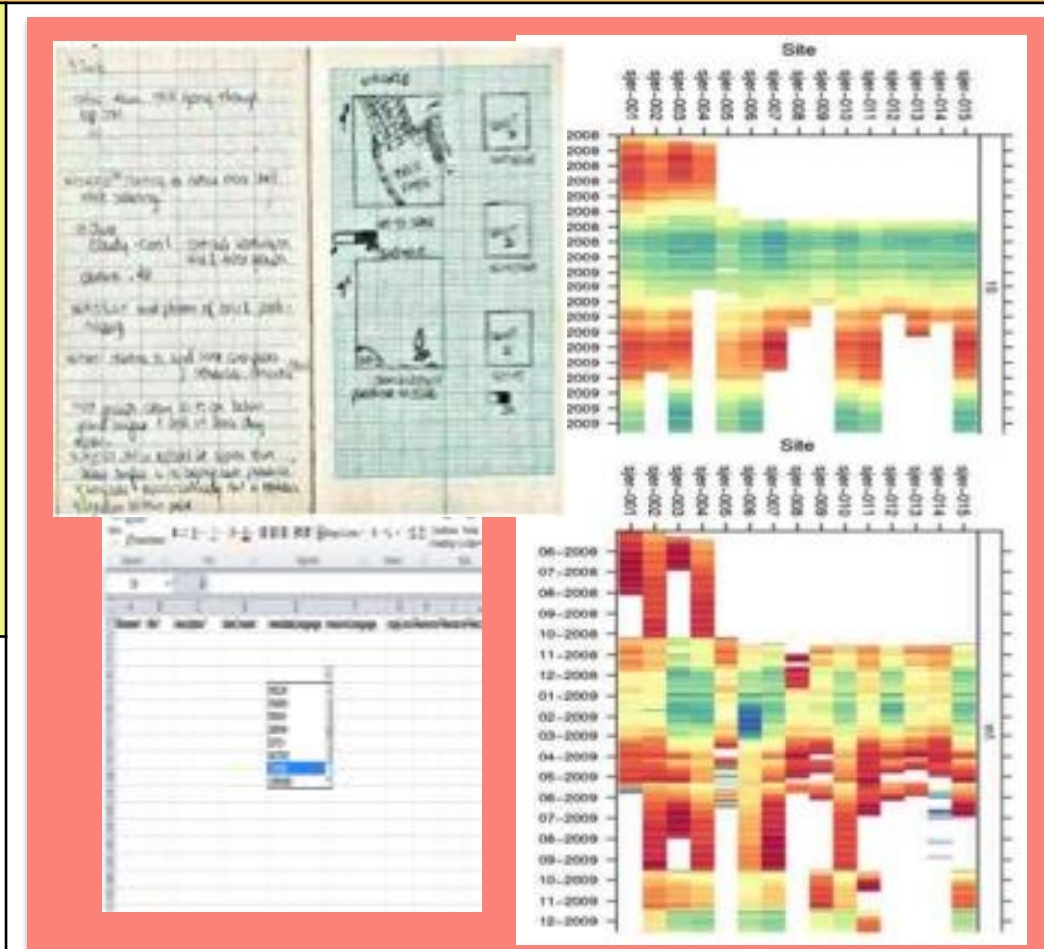
Stepping in the Same Stream Twice,

http://flic.kr/p/7dbcGj

http://flic.kr/p/fzj9TC

Next Steps

- Continue analysis of contextual information and significant properties across disciplines
- Identify which contextual data are universal and which is discipline-specific.

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