Physical Sample Day 2 Summary

Steve's Competency questions

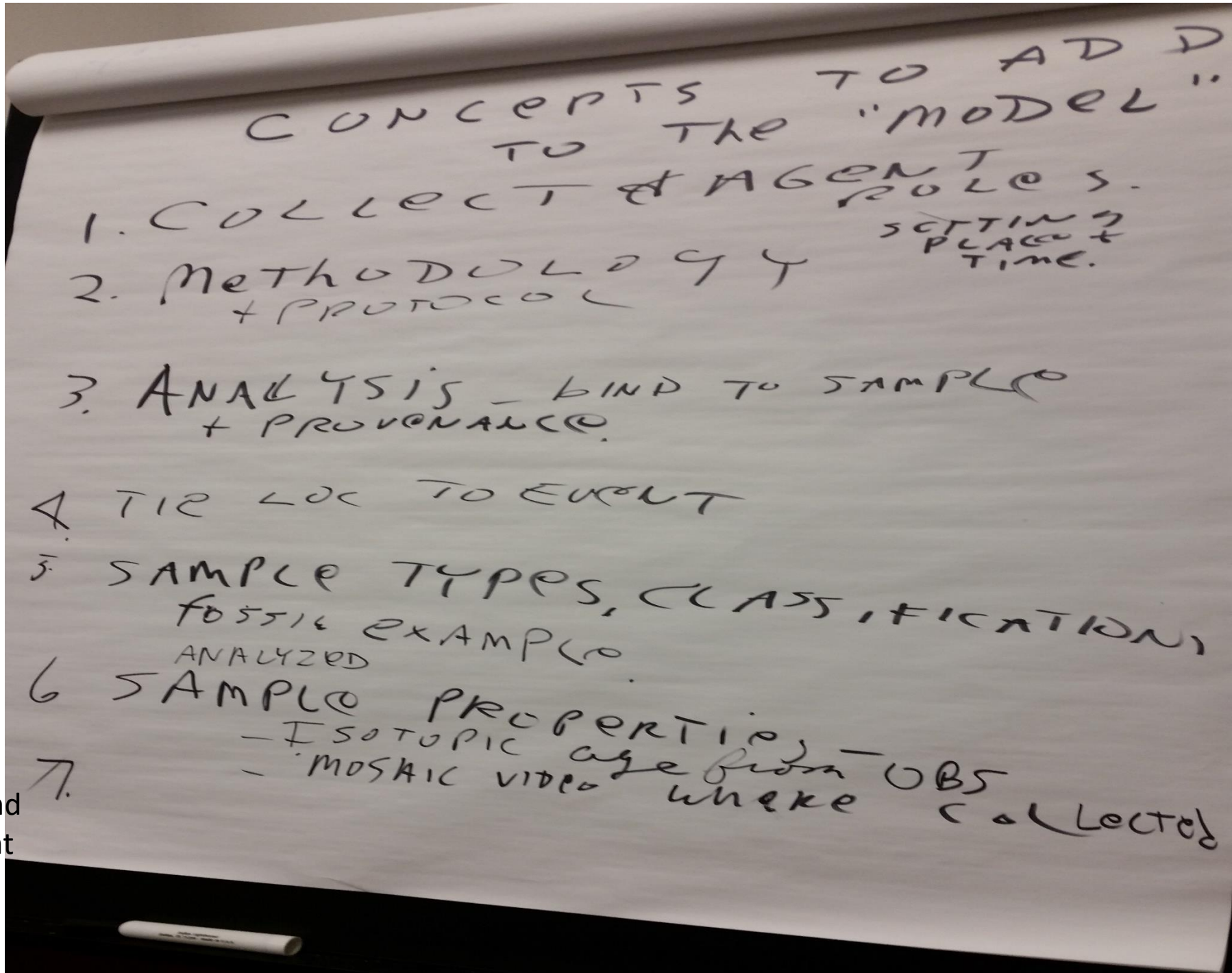
1. Given that we have a Chemical analysis on a sample
   - Where was this sample collected?
2. . What is the provenance (history) of the analyzed sample material.
3. Given a Sample, what analytic data was derived?
4. Given a Fossil Sample
   1. Are there any isotopic age data from within 1 km of where sample was acquired.
5. Given video mosaic
   1. Are there any bottom samples in the field of view?
6. Where did Geologist X collect samples in 1970?

Day 2 Concepts to Address

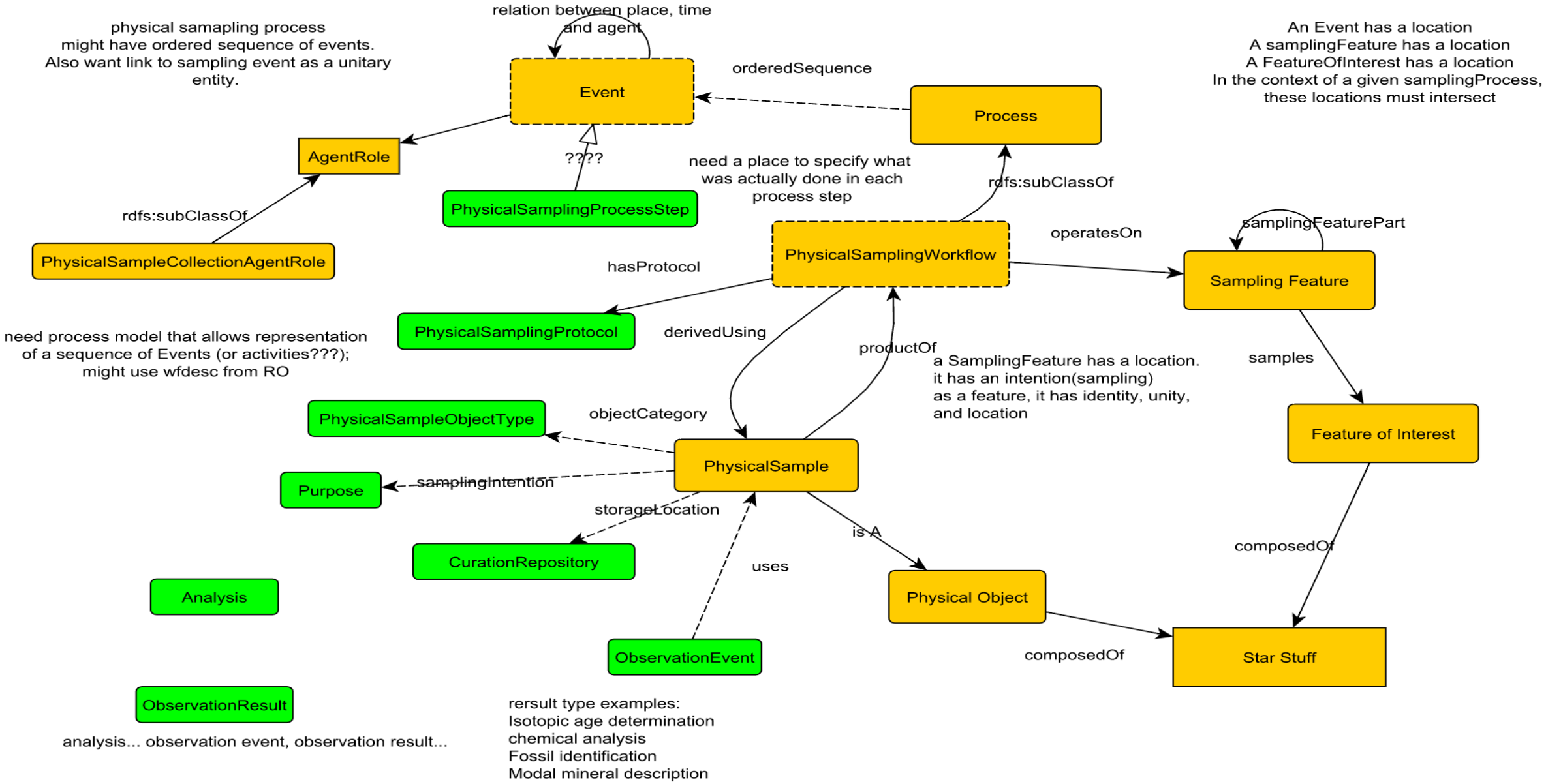
How do we get between aggregated samples and observations?

Can a site have a borehole or is it a borehole??

Is what we are calling Collection a Sampling Feature Complex?
No, that refers to the idea of a Core and other samples collected around a point of that core.
Say 3 jars of water.



Our Working day 2 Conceptual Model



Sample types page describes the different samples that can be registered. The sample type vocabulary is listed below.

- Core - long cylindrical cores
- Core Half Round - half-cylindrical products of along-axis split of a whole round
- Core Piece - material occurring between unambiguous [as curated] breaks in recovery.
- Core Quarter Round - quarter-cylindrical products of along-axis split of a half round.
- Core Section - arbitrarily cut segments of a "core"
- Core Section Half - half-cylindrical products of along-axis split of a section or its component fragments through a selected diameter.
- Core Sub-Piece - unambiguously mated portion of a larger piece noted for curatorial management of the material. Core Whole Round - cylindrical segments of core or core section material.
- CTD - a CTD (Conductivity, Temperature, and Depth) cast sample.
- Cuttings - loose, coarse, unconsolidated material suspended in drilling fluid. Dredge - a group of rocks collected by dragging a dredge along the seafloor.
- Grab - a sample (sometimes mechanically collected) from a deposit or area, not intended to be representative of the deposit or area. Hole - hole cavity and walls surrounding that cavity.
- Individual Sample - a sample that is an individual unit, including rock hand samples, a biological specimen, or a bottle of fluid. (seemed like a top level, but then what about multiple samples?)
- Oriented Core - core that can be positioned on the surface in the same way that it was arranged in the borehole before extraction.

Some definitions –Feature, FoI, Event Process, Place

- A feature is something that has identity, location, and unity.
  - Features (DOLCE) Here only features of physical endurants are considered as 'parasitic entities', that exist insofar their host exists.
  - Typical examples of features are holes, bumps, boundaries, or spots of color.
  - Features may be relevant parts of their host, like a bump or an edge, or dependent regions like a hole in a piece of cheese,
  - All features are essential wholes, but no common unity criterion may exist for all of them. However, typical features have a topological unity, as they are singular entities.
- Feature of interest: a feature (so a representation of a real-world object) that carries the property which is observed. Water sample carries salinity
- This can be either a domain feature (aka sampled feature), e.g. “Mississippi”, or a sampling feature, e.g. “water gage X" at Mississippi river.
- Place (from DOLCE)A location, in a very generic sense: a political geographic entity (Rome), a non-material location determined by the presence of other entities ("the area close to Rome"), pivot events or signs ("the area where the helicopter fell"), complements of other entities ("the area under the table"), etc.
  - In this generic sense, a Place is an "approximate" location. For an "absolute" location, see the class SpaceRegionProcess subClassOf
- Event This is a placeholder for events that are considered in their evolution, or anyway not strictly dependent on agents, tasks, and plans. See Event class for some thoughts on classifying events. See also 'Transition‘
- A process may also be defined as the workflows and sequence of events inherent in processes.
- Event (DOLCE) Events are said to occur or happen. They are considered perduring entities that unfold over time, i.e., they take up time and have participating objects