### A7 Embedding

Subclass of: [A8](#_E3_Condition_State) Stratigraphic Unit

Superclass of:

Scope Note: This class comprises instances of A8 Stratigraphic Unit partially or completely embedding one or more instance of E20 Physical Thing and at a particular position with relative stability in one or more instance of A2 Stratigraphic Volume Units. Normally, an embedding is expected to have been stable from the time of generation of the first instance of A2 Stratigraphic Volume Unit that surrounds it. However, it may also be due to later intrusion. As an empirical fact, the expert may only be able to decide that a particular embedding is not recent, i.e. has been persisting for longer than the activity that encountered it. This class can be used to document the fact of embedding generally with respect to the surrounding matter or, more specifically, with respect to a more precise position within this matter.

Examples:

Τhe individual fallen slabs (E19) that were discovered (S19) during the excavation process of Room 5 (A1) of the West House in Akrotiri, Thera, were embedded (A7) in an almost vertical position (E55) within deposit (A8) on the ground floor (E53) (Fig. 10). [Μιχαηλίδου 2001, pp. 68-70]

The backfilled sand with imprint of a part of boardwalk of the Gjellingstad iron age ship created when when the mound was erected.(tentative)

The calcified layers of fine ash covering body x during the eruption of Mount Vesuvius in AD79. (tentative)

San Galgano’s sword embedded ate the Hermitage of Monte Siepi, [He retired around 1170 to live as a hermit. as a symbol of peace he embedded his sword in a stone, which can still be seen today] (https://en.wikipedia.org/wiki/Galgano\_Guidotti)

In First Order Logic:

 A7(x) ⊃ A8(x)

Properties:[AP17](#_AP17_is_found) is found by (found): [S19](#_S19_Encounter_Event) Encounter Event

[AP18](#_AP18_is_embedding) is embedding of (is embedded): [E18](#_E18_Physical_Thing) Physical Thing

A[P19](#_P19_was_intended) is embedding in (contains embedding): [A2](#_A2_Stratigraphic_Volume) Stratigraphic Volume Unit

[AP20](#_AP20_is_embedding) is embedding at (contains): [E53](#_E53_Place_1) Place

### AP17 is found by (found)

Domain: [A7](#_A7_Embedding) Embedding

Range: [S19](#_S19_Encounter_Event) Encounter Event

Subproperty of: [O8](#_O8_observed_(was) observed (was observed by)

Quantification: one to many (0,n:0,1)

Scope note: This property associates an instance of S19 Encounter Event with an instance of A7 Embedding that has been found during this even.

Examples: Τhe embedding of a small whetstone with an erratic runic inscription in a Medieval rubbish dump (A7) *is found by* the discovery of the whetstone in the early morning in November 2017 in Oslo, Norway (S19)

In First Order Logic:

AP17(x,y) ⊃ A7(x)

AP17(x,y) ⊃ S19(y)

AP17(x,y) ⊃ O8(x,y)

### AP18 is embedding of (is embedded)

Domain: [A7](#_A7_Embedding) Embedding

Range: [E18](#_E18_Physical_Thing) Physical Thing

Subproperty of: [P44](#_P44_has_condition) has condition (is condition of)

Quantification: one to many (0,n:0,1)

Scope note: This property identifies the E18 Physical Thing that is contained in an A7 Embedding.

Example: The embedding of the small whetstone with an erratic runic inscription in a Medieval rubbish dump (A7) *is embedding of* this whetstone, discovered in the early morning in November 2017 in Oslo, Norway (E18)

In First Order Logic:

AP18(x,y) ⊃ A7(x)

AP18(x,y) ⊃ E18(y)

AP18(x,y) ⊃ P44(x,y)

### AP19 is embedding in (contains embedding)

Domain: [A7](#_A7_Embedding) Embedding

Range: [A2](#_A2_Stratigraphic_Volume) Stratigraphic Volume Unit

Quantification: one to many (1,1:0,n)

Scope note: This property identifies the instance of [A2](#_A2_Stratigraphic_Volume) Stratigraphic Volume Unit that contains the [A7](#_A7_Embedding) Embedding. An Embedding may not extend over more than one instance of [A2](#_A2_Stratigraphic_Volume) Stratigraphic Volume Unit.

Example: The embedding of the small whetstone with an erratic runic inscription, discovered in the early morning in November 2017 in Oslo, Norway, in a medieval rubbish dump (A7) *is embedding in* the medieval rubbish dump Follo234532 (A2).

In First Order Logic:

 AP19(x,y) ⊃ A7(x)

 AP19(x,y) ⊃ A2(y)

### AP20 is embedding at (contains)

Domain: [A7](#_A7_Embedding) Embedding

Range: [E53](#_E53_Place) Place

Quantification: one to many (1,n:0,n)

Scope note: This property identifies the [E53](#_E53_Place_1) Place that is documented as the [E53](#_E53_Place_1) Place of the [A7](#_A7_Embedding) Embedding. This place must be at rest relative to the instance of [A2](#_A2_Stratigraphic_Volume) Stratigraphic Volume Unit that contains the [A7](#_A7_Embedding) Embedding.

Example: Τhe embedding of the small whetstone with an erratic runic inscription, discovered in the early morning in November 2017 in Oslo, Norway,  in a Medieval rubbish dump (A7) is embedding at the bottom of the Medieval rubbish dump, Follo234532, (E53 Place).

In First Order Logic:

 AP20(x,y) ⊃ A7(x)

 AP20(x,y) ⊃ E53(y)

AP20( x,y) ⊃ (∃z)[ A2(z) ∧ AP19(x,z) ∧ P157(y,z)]