# AP2 and a new property

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The AP2 as it is now with the changes accepted. The property is a sub property of O2 and there is no reason to restrict the quantification to (0,n:0,1). It should be (0,n:0,n). The original idea with this property seems to have been the removal of matter into a specific place, e.g. a heap. It is as we have discussed, tempting to use

‘P25 moved (moved by): E19 Physical Object’. However:

S11 Amount of Matter isa S10 Material Substantial isa E70 Thing

E19 isa E18 Physical Thing isa E72 Legal Object isa E70 Thing

In a typical iron age excavation (in Norway) the removed stuff is brought in buckets to the sieving area and sieved or simply dumped at a heap. If we want to be able to model the “end point” of matter removed during an instance A1 Excavation Processing Unit, we need an extra property similar to the original version of AP2, say AP29. The (original) idea is that the(range) instance of S11 Amount of Matter is (a part of) a heap and that this amount of matter can only stem from only one instance of A1 Excavation Processing Unit. This is too strict. It is possible to imaging two instances of A1 Excavation Processing Unit, for example excavations in to seasons at the same site, dumping discarded material into the same heap.

### AP2 discarded (was discarded by)

Domain: [A1](#_A1_Excavation_Process) Excavation Processing Unit

Range: [S11](#_S11_Amount_of) Amount of Matter

Subproperty of: [O2](#_O2_removed_(was) removed (was removed by)

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

Scope note: This property identifies an instance of S11 Amount of Matter discarded (e.g. onto a heap) by an instance of A1 Excavation Processing Unit.

Examples:

The stratum of ash, pumice and other volcanic material removed (S11) *was* *discarded by* the excavation of Villa of the Mysteries in Pompeii, Italy (A1).

In First Order Logic:

AP2(x,y) ⊃ A1(x)

AP2(x,y) ⊃ S11(y)

AP2(x,y) ⊃ O2(x,y)

### AP29 discarded into (was discarded by)

Domain: [A1](#_A1_Excavation_Process) Excavation Processing Unit

Range: [S11](#_S11_Amount_of) Amount of Matter

Subproperty of:

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

Scope note: This property identifies the S11 Amount of Matter (e.g. a heap) into which material from an A1 Excavation Process Unit is discarded.

Examples:

 The Excavation Process Unit excavating the Stratigraphic Volume Unit (2) discarded an amount of matter into the waste heap of the excavation.

Properties: