



## Indoor floors from Gien (8th-10th c. AD). Buildings materials, use of space and formation processes

Quentin Borderie, Mélinda Bizri

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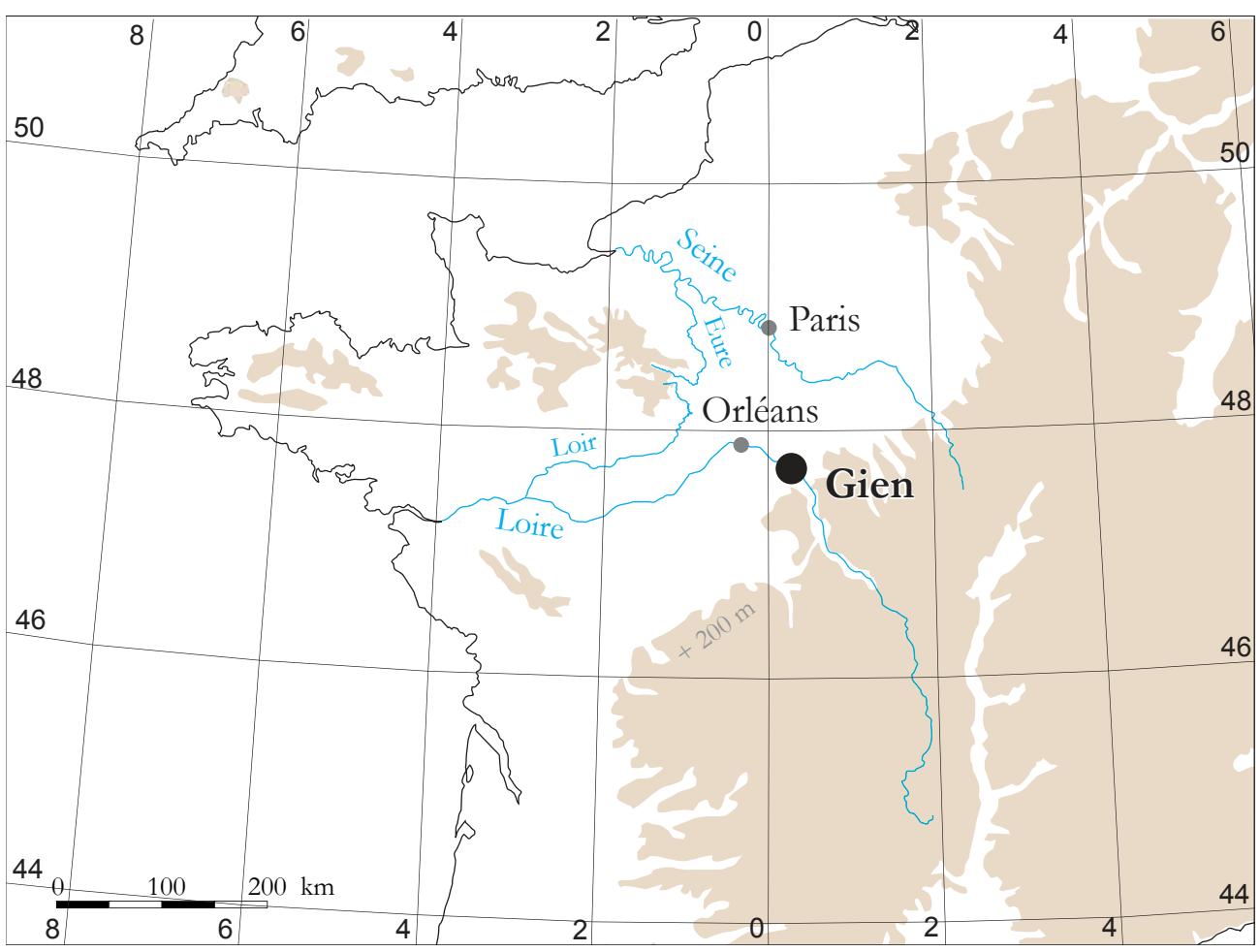
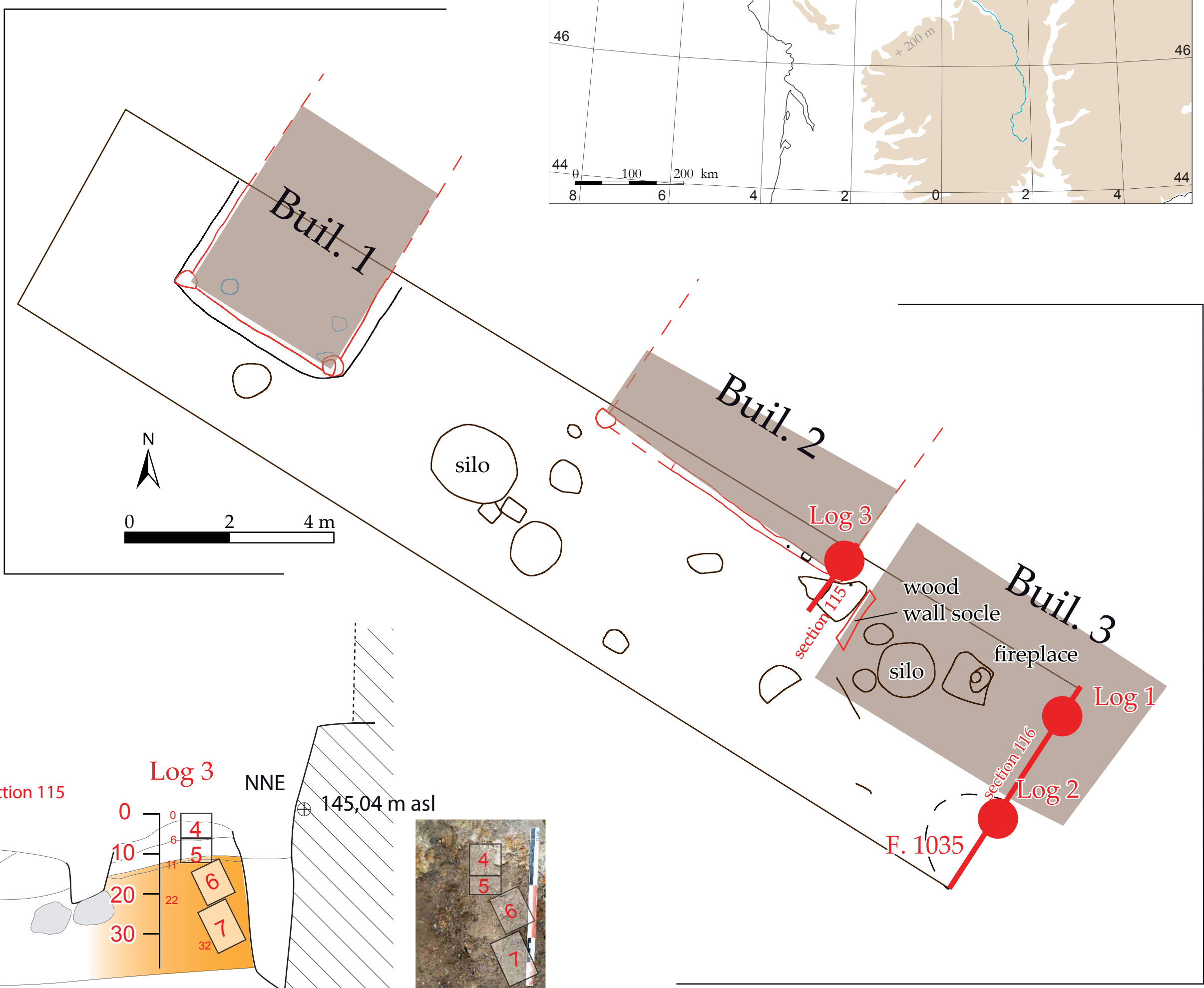
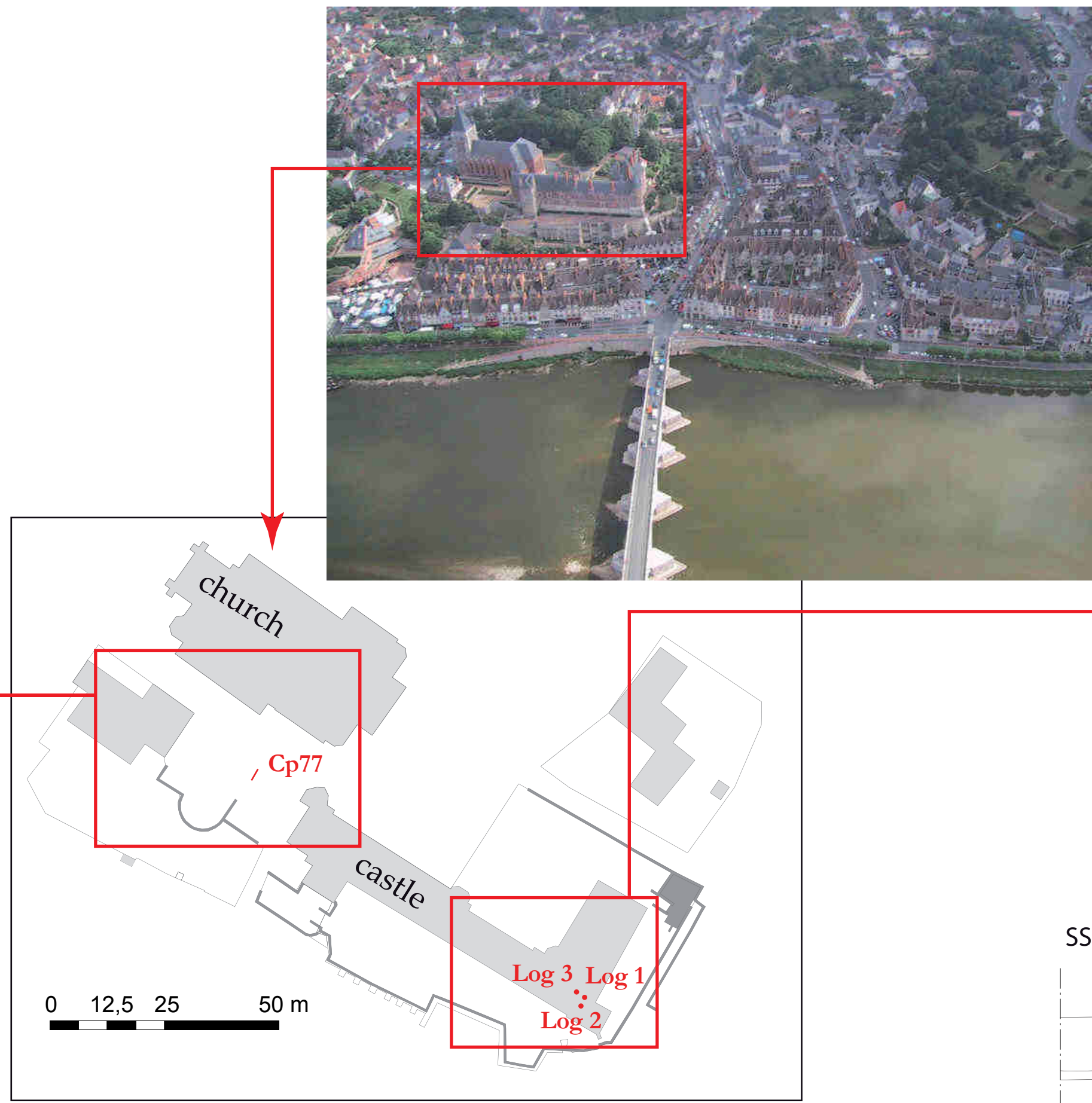
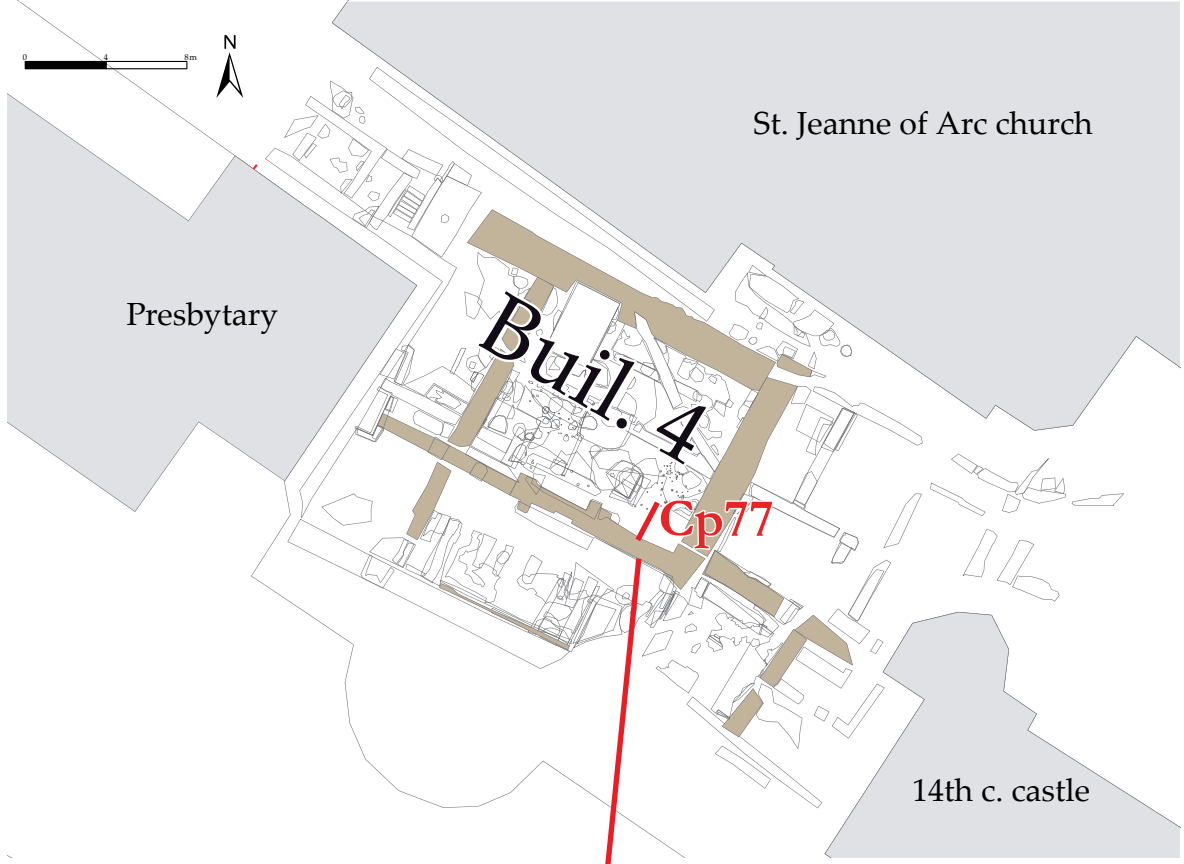


# Indoor floors from Gien (8th - 10th c.)

## building materials, use of space and formation processes

Quentin Borderie<sup>1,2</sup>, Méline Bizri<sup>3</sup>  
1 : Service de l'archéologie d'Eure-et-Loir  
2 : CNRS - UMR 7041 - ARSCAN "Archéologies Environnementales"  
3 : CNRS - UMR 6298 - ARTEHIS

Beneath the 14th c. castle...



... Early Middle Ages buildings.

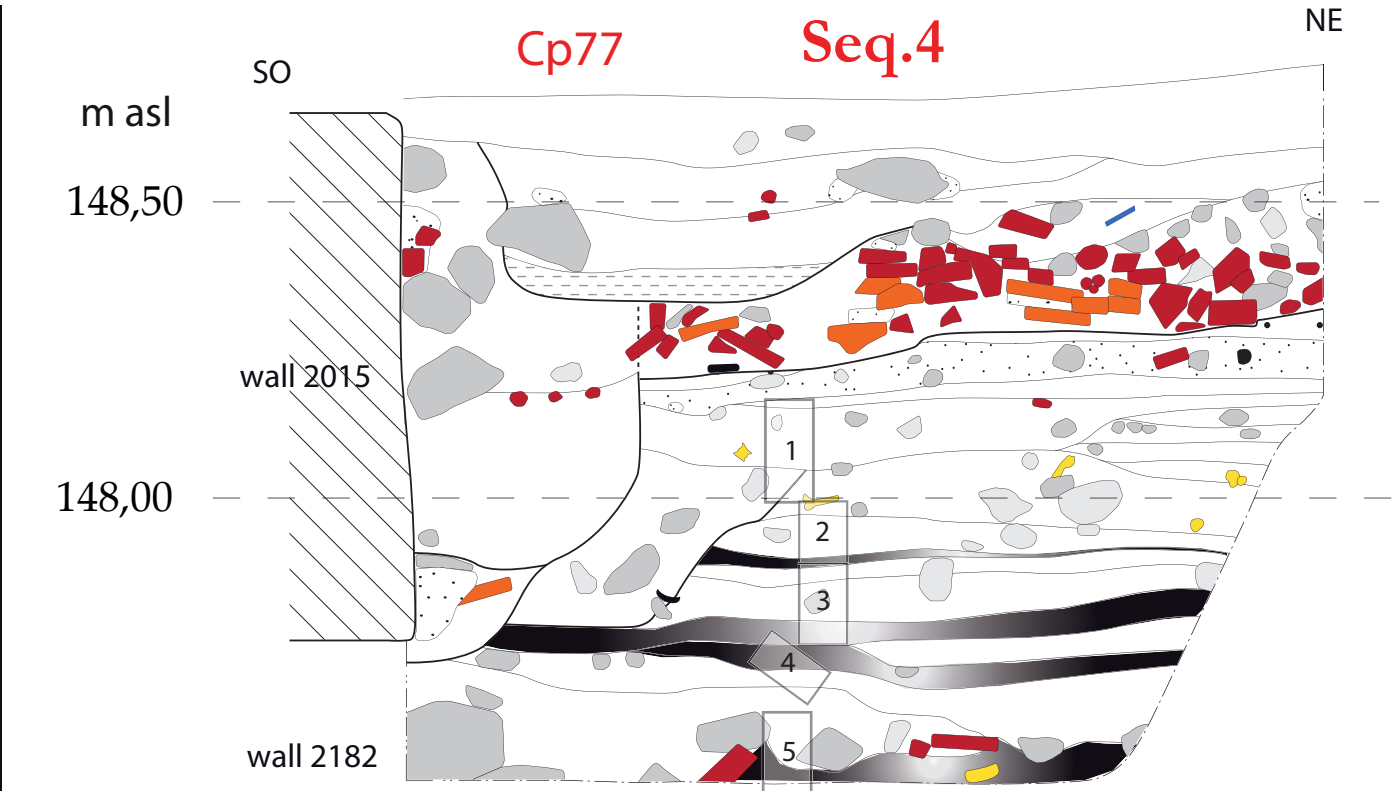
Strata of more than 1 m thick  
Protected by clay backfills  
Wooden architecture (Buil. 1 to 3)  
Limestone architecture (Buil. 4)

Archaeological interpretation:  
- high status occupations: early castrum?  
- domestic houses and/or crafting areas

Investigations

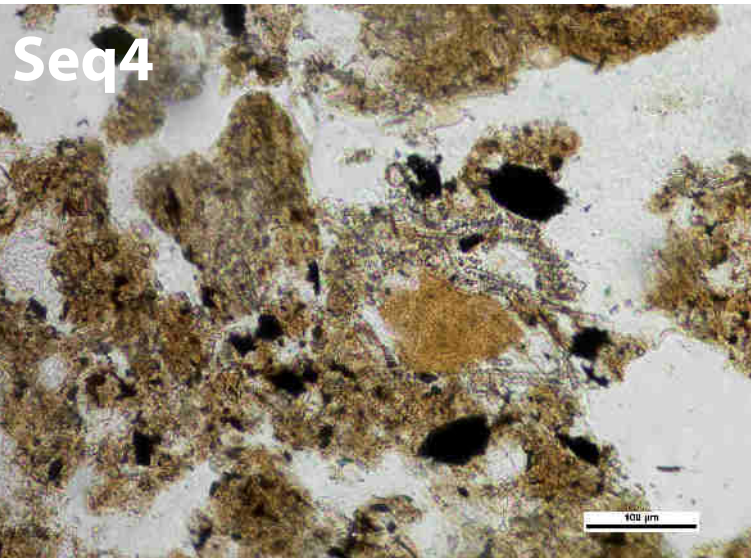
4 logs : log1, log2, log3 and Cp77  
20 thin sections 140x86 mm  
114 micro-stratigraphic contexts (μcontexts)

Phytoliths analysis of log3  
Chemical analysis of Cp77



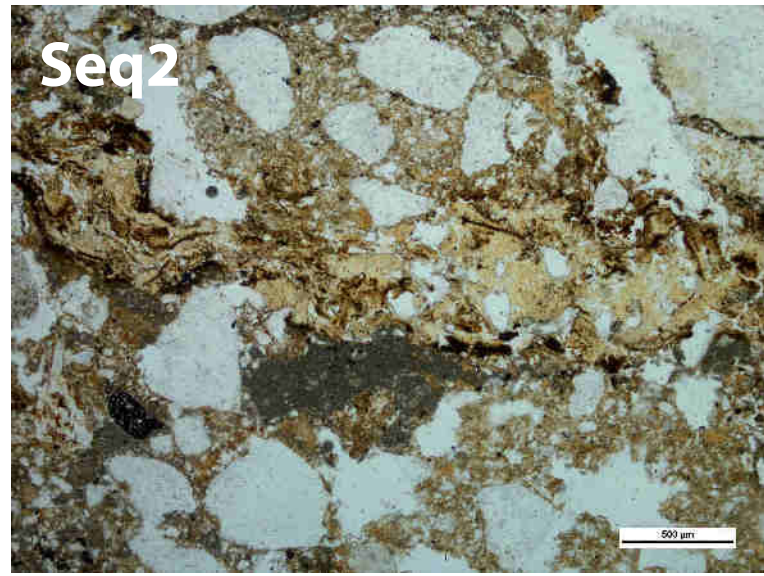
Sequence 4

Thick floors  
- Only mineral building materials  
- Refuses:  
- fireplace (11 μcontexts)  
- mixed (3 μcontexts)  
More fireplace refuses in top layers

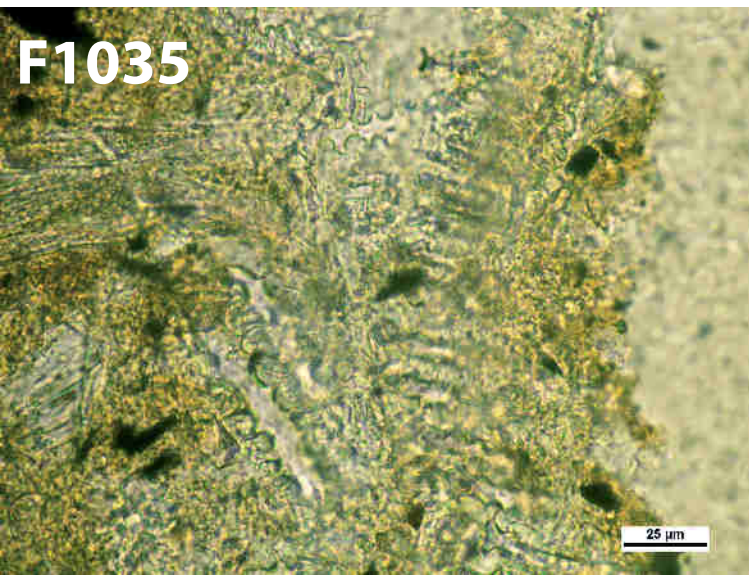


Ashes, phytoliths (PPL)

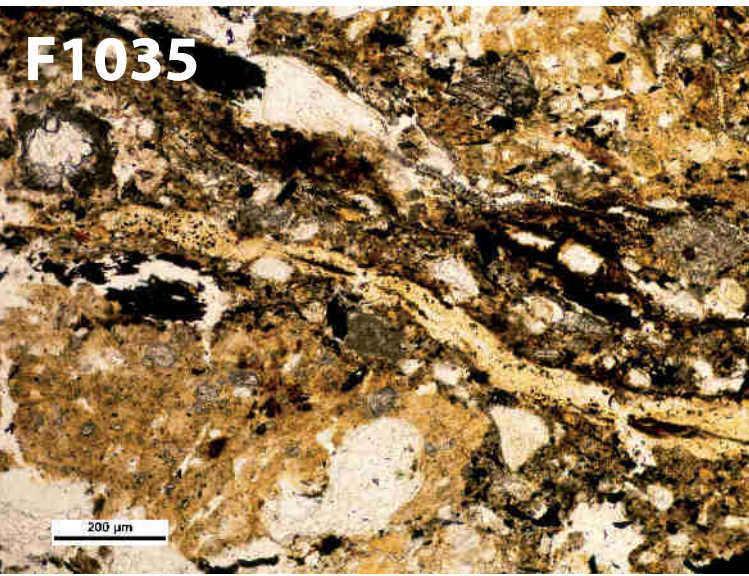
Mineral buil.mat., ashy layer, P-layer, phytoliths and plant remains (PPL)



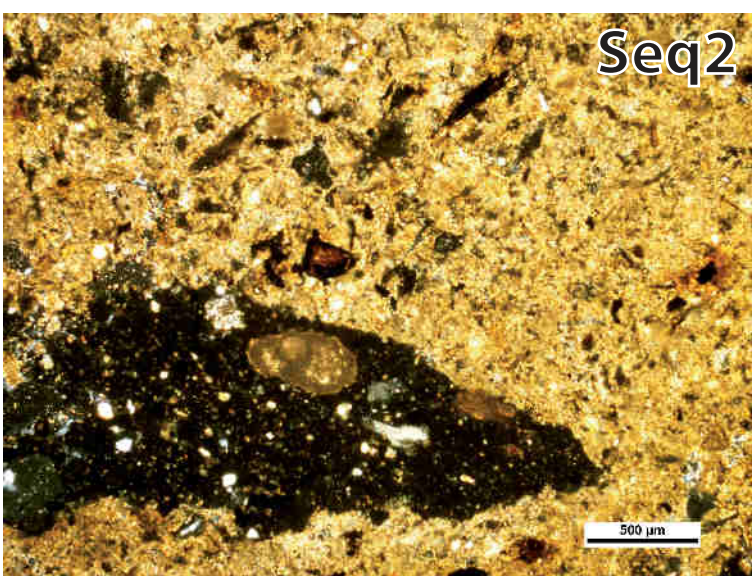
Seq2



Dendritic phytoliths (PPL)



Reworked fragment of floor (PPL)



Ashes with melted silica (XPL)

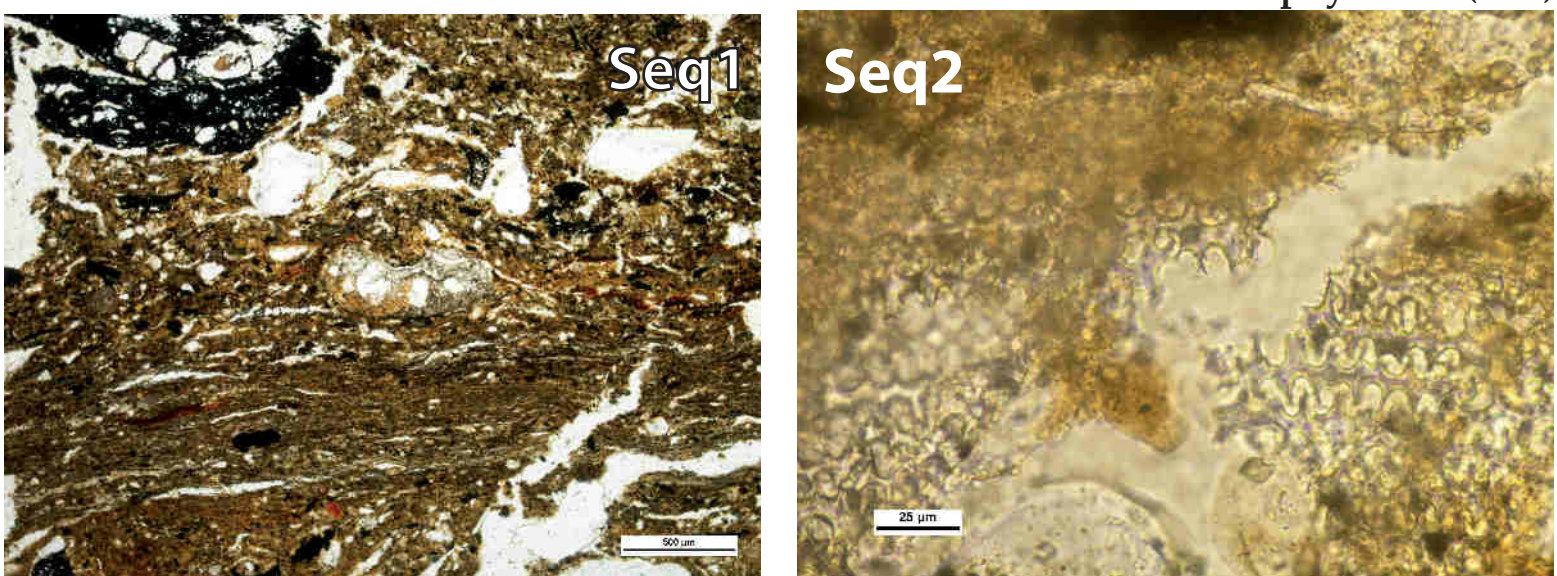
Mineral building materials

Type	materials	Raw materials	Structure	Occurrences	Sequence
am1	clayish sand or sandy clay, carbonated	Local alluvial sand Carbonated clay from marl	Massive, homogenous, planar voids (cracks), rare vesicles	12	Seq2. (bottom)
am2a	silty sand or sandy silt, not carbonated	Alluvial sand Silt from BT horizon of Luvisol (not local)	Aggregates Massive, homogenous	11+1 in Seq4	Seq2 (top) Seq3 Seq4
am2b				4	Seq2
am3	not carbonated clay	Local clay from chalk alteration		3	Seq2
am4	chalk mortar	Local alluvial sand		1 + frags in F.1035	Seq2
am5	carbonated clay (marl)	Local marl	Packing of aggregates	2	Seq2 (top) Seq1 Seq2 (top) Seq3
am6	silty sand, dusty groundmass	Fragments of other floors, waste		1 + 3 in log3	
am7	carbonated clay (marl) with inclusions of clay, limestone, silex, papules, charcoals...	Local marl Silt from BT horizon of Luvisol (not local) Waste		8	Seq4

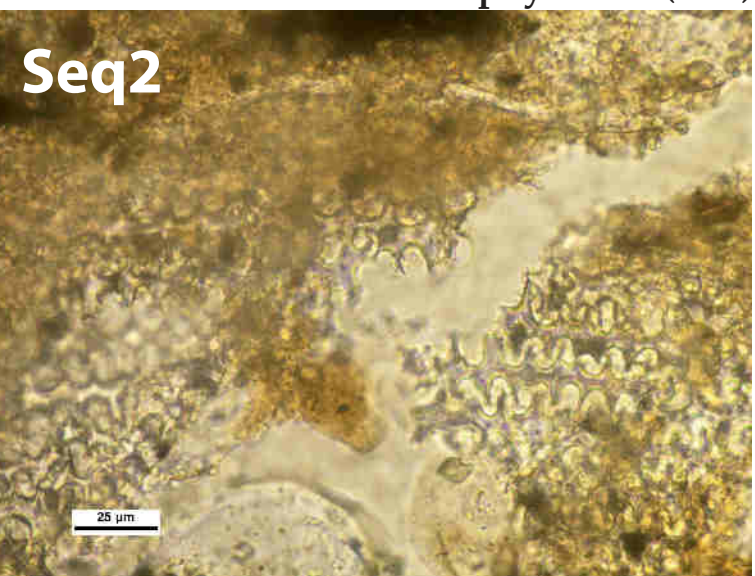
Complexity of building processes: non local raw materials  
Often rebuilt floors

Plant building materials

Type	materials	Organisation	thickness	Occurrences	Sequence
av1	Phytoliths	Sub-horizontal layers	10 - 100 μm	13	Seq2, Seq3.
av2	A lot of phytoliths. Very fine charcoals.	Sub-horizontal layers of phytoliths and few layers of plant remains partially decayed	100 μm - 3 mm	9	Seq1
av3	Many plant fragments (leaves, rods), few phytoliths	Sub-horizontal layers	200 μm - 1,5 mm	13	Seq2 Seq3



Plant buil.mat., phytoliths, melted silica, fine charcoals (PPL)



Dendritic phytoliths (PPL)

Dedicated areas (fireplace)

Multiplicity of activities in one space  
Intense frequentation

Reworking of layers leading to 'Dark Earth like' deposits

