

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

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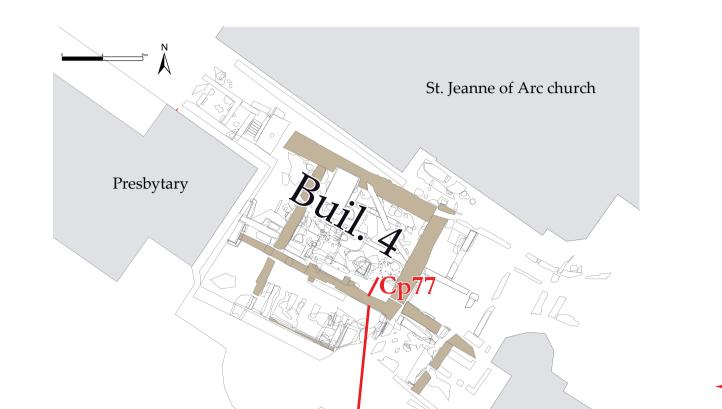
# Indoor floors from Gien (8th - 10th c.)

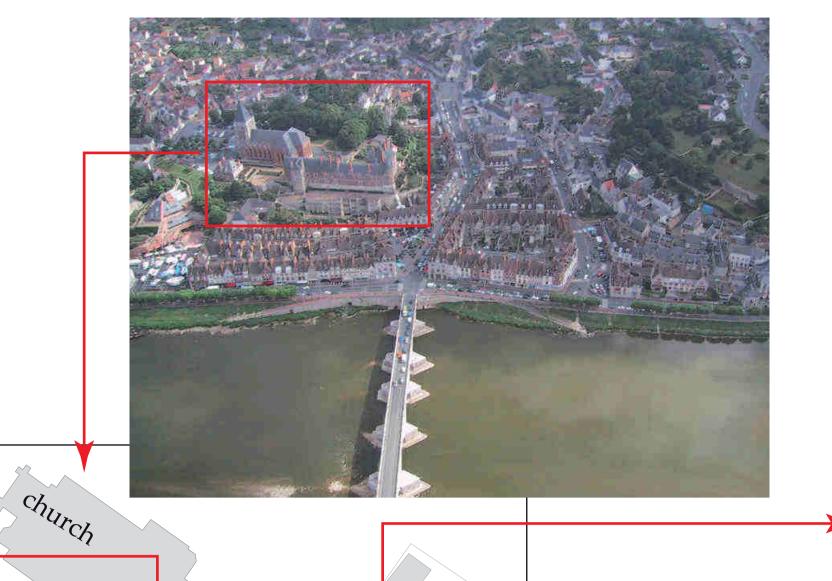
building materials, use of space and formation processes

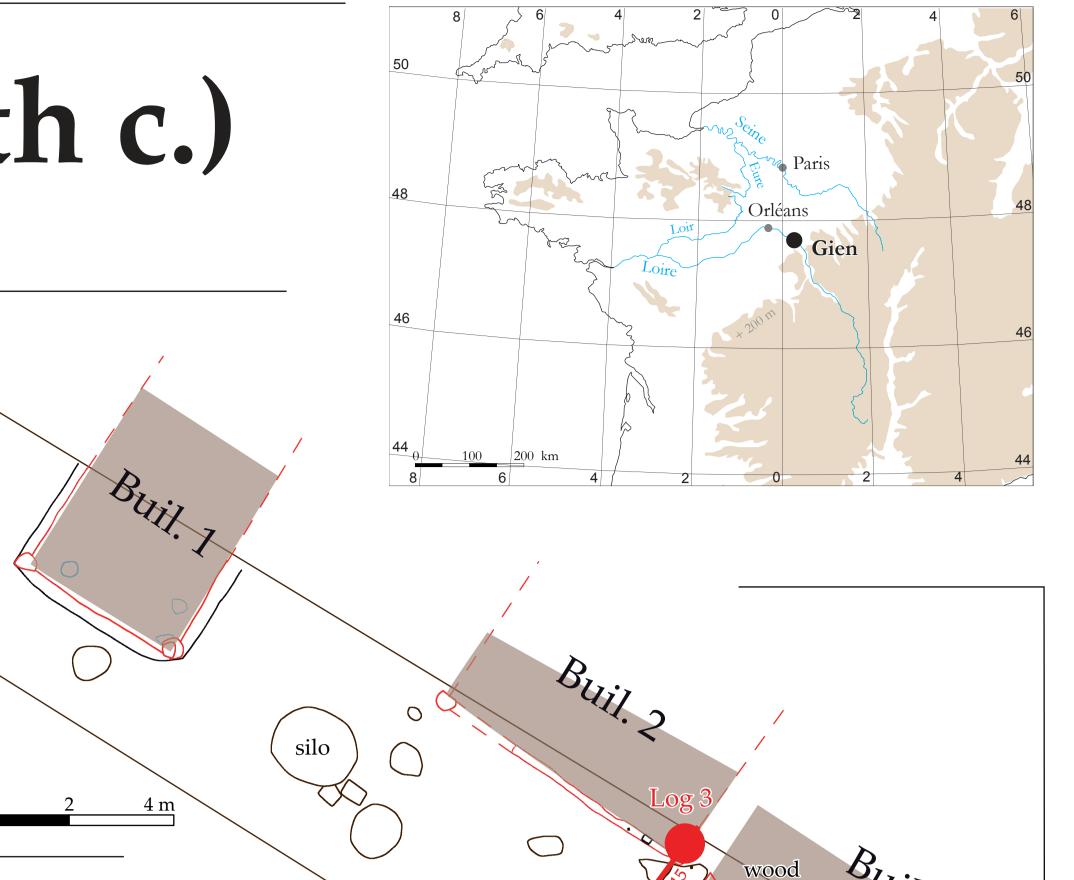
Quentin Borderie<sup>1, 2</sup>, Mélinda Bizri<sup>3</sup>

1 : Service de l'archéologie d'Eure-et-Loir 2 : CNRS - UMR 7041 - ArScAn "Archéologies Environnementales" 3 : CNRS - UMR 6298 - ARTeHIS

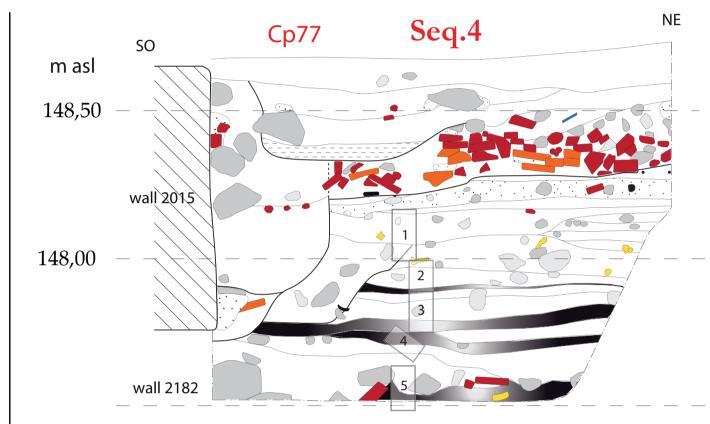
## Beneath the 14th c. castle...











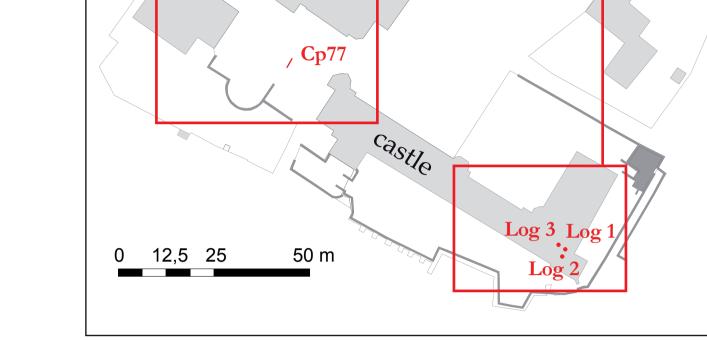
### Sequence 4

**Thick floors** - Only mineral building materials - Refuses:

- fireplace (11 µcontexts)

- mixed (3 µcontexts)

More fireplace refuses in top layers



## ... 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)

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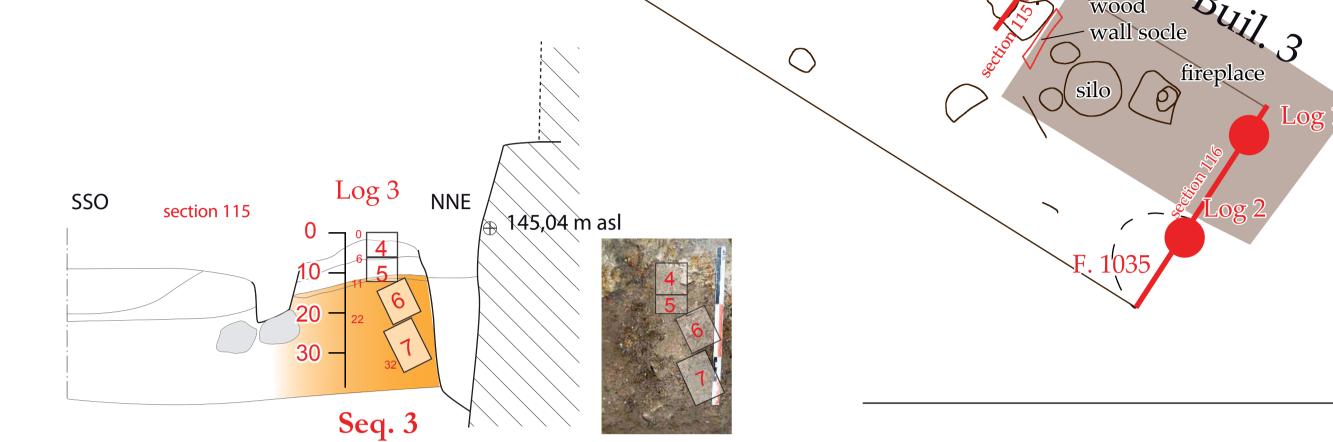
Archaeological interpretation: - high status ocupations: early castrum? - domestic houses and/or crafting areas



Only compaction &
subsidence of layers
Trampled floors

Sociation	Section	Type of layers	Building ma	Refuse	
Sequence			plant	mineral	layers
Seq1	116	Succession of indoor floors	9	-	12
Sogl			11	14	13
Seq2			9	10	13
<b>F. 1035</b>		Pit infill	Reworl	ked fragments	11
Seq3	115	Succession of indoor floors	5	7	9
Seq4	Cp77		_	9	16
3644			-	7	10

4 occupation sequences (Seq1, Seq2, Seq3, Seq4) 1 pit infill (F.1035)

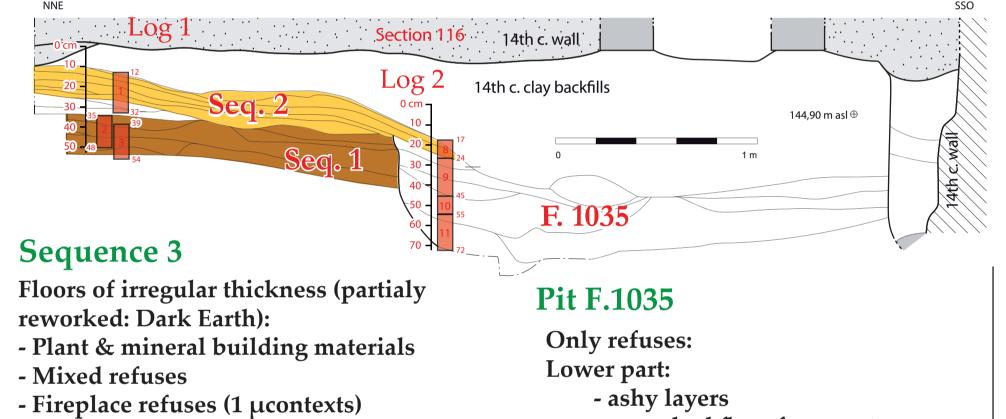


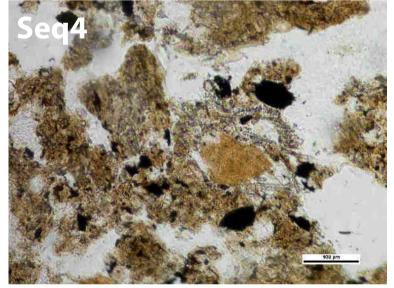
## Investigations

**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







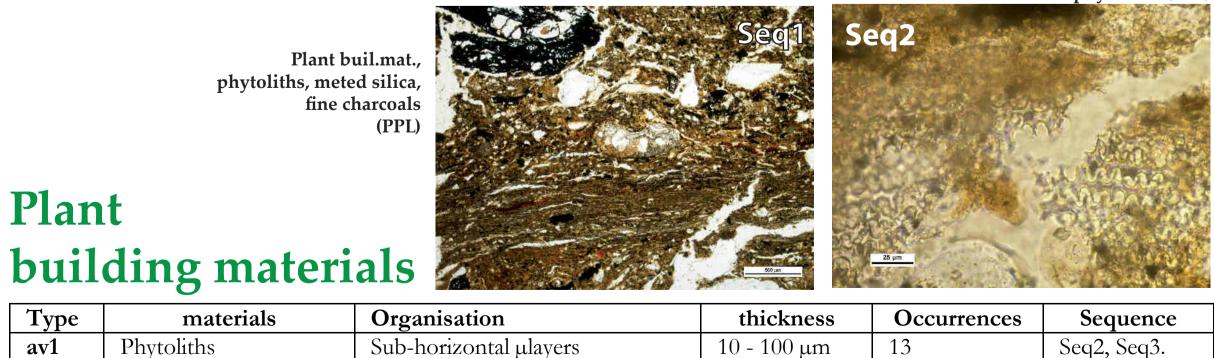
Ashes, phytoliths (PPL)

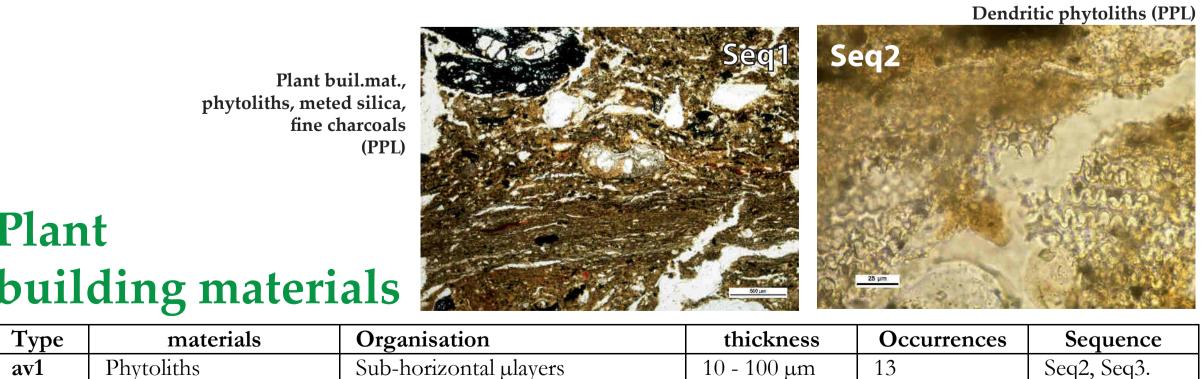
## Mineral building materials

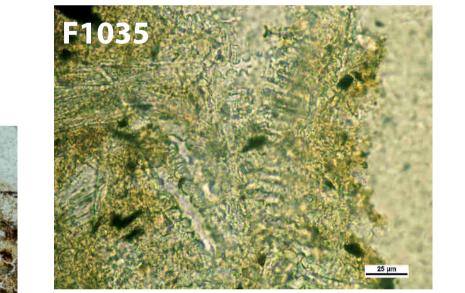
Туре	materials	Raw materials	Structure	Occurrences	Sequence
am1	clayish sand or sandy clay, carbonated	Local alluvial sand Carbonated clay from marl	Massive, homogenous, planar voids	12	Seq2. (bottom)
am2a	silty sand or sandy silt, not carbonated	Alluvial sand Silts from BT horizon of Luvisol (not local)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

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

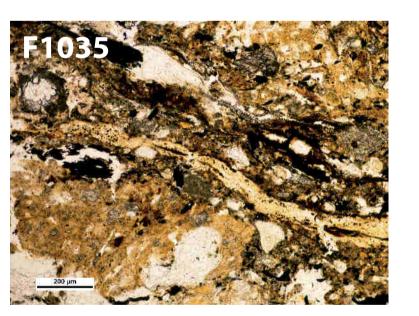
**Complexity of building processes: non local raw materials Often rebuilt floors** 







**Dendritic phytoliths (PPL)** 



**Reworked fragment of floor (PPL)** 

Sequence 1

Floors 5 - 10 mm thick: - Only plant building materials (graminae phytoliths) - Refuses:

- cooking and faeces (5 µcontexts)
- fireplace (2 µcontexts)
- building mat. (2 µcontexts)

### Sequence 2

Floors 9 mm thick:

- Plant & mineral building materials - Refuses:
- Northern part:
- cooking and faeces (11 µcontexts)
- fireplace (2 μcontexts)

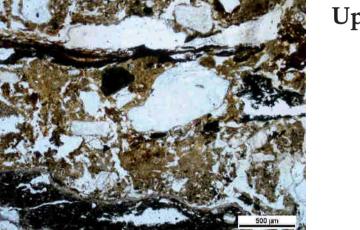
Southern part:

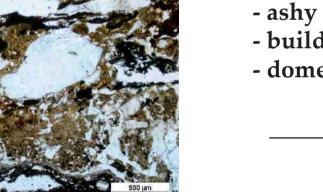
- cooking and faeces (7 µcontexts) - fireplace (3 µcontexts)

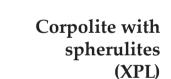
## **Occupation refuses**

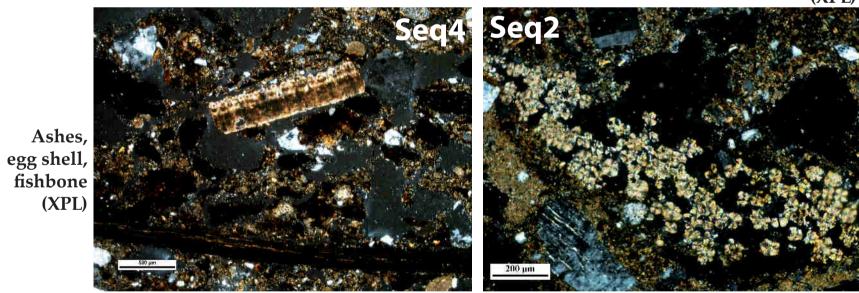
Reworked frag. of floor (PPL)











			Texture, ground mass, structure	Minerals	Organic comp.	Anthropogenic	Features	Sequence
Seq2	Fireplace	aning	Silty, layered to massive, homogenous, carbonated (micritic), dusty		Very fine charcoals plant remains and phytoliths	Melted silica. Rare fine bone frags	Ferruginisation	Seq4
<u>- 300 µm</u>		se	Silty, dusty, massive, carbonated	Few flint frags Hematite	Lot of fine charcoals plant remains and phytoliths Lot of charcoals	Lot of bones Melted silica. Heated quartz. Heated earth aggregates	Ferruginisation	All seq
Ashes with melted silica (XPL)	Contina		Silty to sandy silt, dusty, carbonated, layered, planar voids		Lot of fine charcoals Few phytoliths and plant remains Rare seeds	Egg shells, bones, fishbones. Pottery sherds. Ashy aggregates with bones Omnivorous coprolites Glass	P-impregnations Vivianite	All seq

- - reworked floor fragments
  - building mat.
  - domestic refuses (cooking, feaces)
  - **Upper part:** - ashy layers
    - building mat.

    - domestic refuses (cooking, feaces)

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

	Well	maintained	surfaces
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Litters: smell ? sanitation ? recycling crop-processes refuses (wheat) ?

				Clustered phytoliths		
Build mat	dustv	Fragments of flint, clay, limestone			_	All seq
Reworked	Layered massive aggregates: building material (plant and/or mineral) and refuse		Phytoliths, plant remains	Heterogeneous waste		Seq3 F.1035

**— Dedicated areas (fireplace)** 

Multiplicity of activities in one space

**Intense frequentation** 

UMR 7041 SCAN ARCHEOLOGIES ET <u>SCIENCES DE L'ANTIQUITÉ</u> CNRS - Univ. Paris I Panthéon Sorbonne Univ. Paris Ouest Nanterre la Défense Ministère de la Cult



**Reworking of layers leading to 'Dark Earth like' deposits** 

