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Archaeozoological study of the herpetofauna from the Abri Unterkobel (Early Mesolithic to Bronze Age), Canton of Saint Gallen, Swiss.

Salvador BAILON ^{a)}, Simone HÄBERLE ^{b)} and Fabio WEGMÜLLER ^{c)}

^{a)} UMR 7209-7194 du CNRS, MNHN, Sorbonne Universités, Paris, France. salvador.bailon@mnhn.fr ^{b)} University of Basel – Integrative Prehistory and Archeological Science (IPAS), Switzerland, simone.haerberle@unibas.ch. ^{c)} Kantonsarchäologie St Gallen, Switzerland. fabio.wegmueller@sg.ch

The rock-shelter site of Abri Unterkobel is situated within the Alpine Rhine Valley in Eastern Switzerland.

Excavated between 2011 and 2012, the site has yielded large quantities of archaeological material, spanning from the Early Mesolithic (ca. 8000 BC) to the Roman-Iron Age period. Eight stratigraphic Units (A-I) have been differentiated.

The archaeological excavation recovered about 1000 stone artefacts, more than 20'000 bones and about 3000 potsherds. Additionally, many sediment samples have been collected for microvertebrate, malacological and archaeobotanical analyses.



Location



Unit A – Roman, Iron Age	(400 BC – 300 AD)
Unit B – Middle- Late Bronze Age	(1600 – 1000 BC)
Unit C – Early to Middle Bronze Age	(1700 – 1500 BC)
Unit D – Early Bronze Age	(2200 – 1800 BC)
Unit E – Neolithic	(3900 – 3500 BC)
Unit F – Neolithic	(4200 – 3700 BC)
Unit G – Neolithic	(5200 – 4300 BC)
Unit H – Late Mesolithic	(6500 – 5300 BC)
Unit I – Early Mesolithic	(8200 – 7000 BC)

Stratigraphy



Excavation and site



Washing



Interdisciplinary study

Amphibians and Reptiles

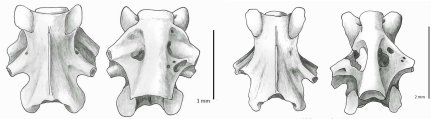
Five amphibian taxa:

Salamandra salamandra,
Lissotriton helveticus,
Ichthyosaura alpestris,
Bufo bufo,
Rana temporaria

Archaeology	ROM-IRON		BRONZE AGE					NEOLITHIC			MESOLITHIC			
	I	II	LE-M BA	II	E BA	III	IVa-IVb	IVc	V	VI	VII			
Unit	A	B	C	D-DII	DIII	E	F	G	H	I				
<i>L. salamandra salamandra</i>	1 (1)													
<i>Lissotriton helveticus</i>	5 (1)		4 (1)	10 (1)		22 (1)	12 (1)	7 (1)	9 (1)	15 (1)				
<i>Ichthyosaura alpestris</i>				9 (1)		14 (1)	3 (1)	2 (1)		1 (1)				
<i>Urodela</i>			5	11		7				1	6			
<i>Bufo bufo</i>	15 (3)		12 (1)	7 (1)	2 (1)	1 (1)	1 (1)	6 (2)	186 (32)	298 (27)				
<i>Rana temporaria</i>	48 (7)	5 (2)	29 (3)	128 (17)	139 (12)	130 (25)	145 (25)	185 (17)	349 (34)	575 (45)				
<i>Ambystoma</i>	1		15	10					58	76				
<i>Emys orbicularis</i>											8 (1)			
<i>Lacertidae</i>	2 (1)		5 (1)	1 (1)		1 (1)	2 (1)	2 (1)	6 (1)					
<i>Lacerta bilineata</i>			1 (1)											
<i>Anguis fragilis</i>	21 (1)		51 (1)	26 (1)		29 (1)	20 (1)	30 (1)	86 (1)	98 (2)				
<i>Natrix natrix</i>			1 (1)						7 (1)	6 (1)				
<i>Zamenis longissimus</i>			1 (1)	2 (1)		1 (1)			12 (1)	8 (1)	15 (1)			
<i>Scorpenia</i>									5	8				

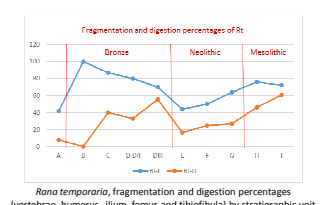
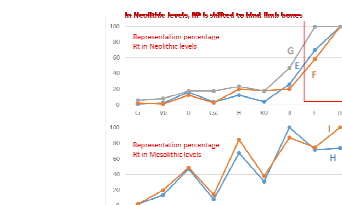
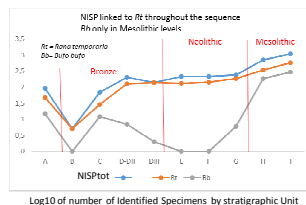
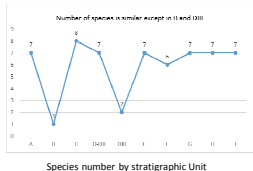
Six reptile taxa:

Emys orbicularis,
Lacerta bilineata,
Lacertidae,
Anguis fragilis,
Natrix natrix,
Zamenis longissimus

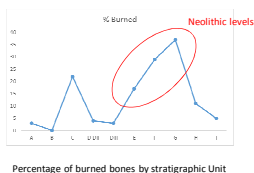


Paleobiogeography: *L. bilineata* and *Z. longissimus* currently more southern distribution
Climatic optimum of the Atlantic and Subboreal
Wooded landscape and bodies of water stagnant or slow-moving and poor in fish

Taphonomic analysis : Mesolithic – Neolithic – Bronze « transitions »



Rana temporaria, Representation Percentage (PR) in Neolithic (E, F and G) and Mesolithic (H and I) levels



- * **Mesolithic: predator accumulation (more probably mammal carnivores)** (eclectic diet; non bone selection; more uniform PR; fragmentation > 70%; digestion >50%)
- * **Neolithic: more probably human accumulation (human diet)** (*Rana temporaria* predominant species; PR shifted to the hind limbs; fragmentation 50%; digestion 20-30%; burned percentage more important)
- * **Bronze Age: predator accumulation, mixed origin ?**



Kanton St.Gallen
Archäologie



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