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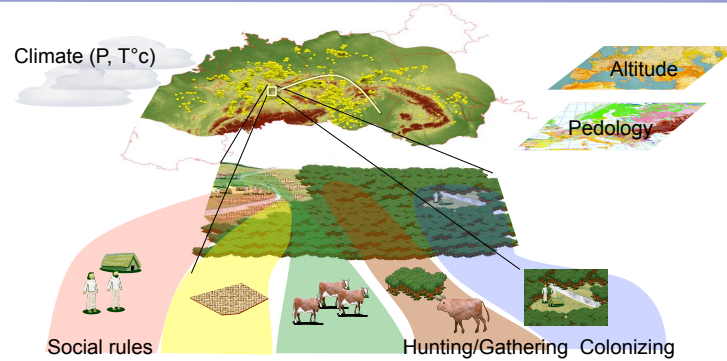
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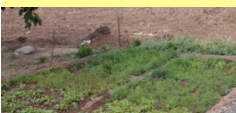
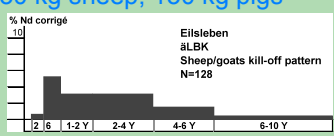
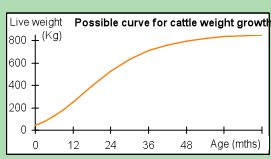
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The aim of this poster is to describe the contribution of bioarchaeology to the construction of the OBRESOC MAS. The hypotheses produced by this MAS will be eventually confronted with independent bioarchaeological observations.

AGRICULTURE

HUSBANDRY

<p>archaeological data (e. g.: Bakels 1978, 1999; Kreuz 1990, 2007; Knörzner 1997; Blenek 2002; Salavert 2011)</p>	<ul style="list-style-type: none"> • Emmer/Einkorn • Pea/Lentils • Flax/Poppy 	<h3>SPECIES</h3>	<ul style="list-style-type: none"> • Cattle • Sheep/goats • Pigs 	<p>archaeological data (Arbogast et al. 2001; Schmitzberger, 2008; Kovackova, 2011; unpub. databasis)</p>
	<ul style="list-style-type: none"> • Reproduction characteristics • Sowing seasons, maturation span & harvest season • Max. yield (weight/cultivated unit) • Growth speed 	<h3>ETHO- PHYSIOLOGICAL CONSTRAINTS</h3>	<ul style="list-style-type: none"> • Natural mortality • Age at first parturition • Calving/lambing rates • Litter size • Breeding life • Life span • Birth season • Duration of lactation • Weaning age • Amounts of milk • Animal weight & growth speed 	<ul style="list-style-type: none"> - feral populations - traditional farming (Africa, Middle-East) - primitive breeds (Western Europe) - extensive range management (Europe) <p>(e.g. Pennetier, 1893; Quillet & Denis, 1963; Quillet & Zert, 1971; Dahl & Hjort, 1976; Jociński, 1977; Molteni & Casabianca, 1979; Digard, 1981; Wapenaar et al., 1986; Lecomte et Le Neveu, 1986; Jensen, 1986; Hall & Hall, 1988; Lecrovin & Jansau, 1988; Boudoire & Vassant, 1989; Bertheaux & Micot, 1992; Amador, 1995; Berger et al., 1997; Frutinski & Labudzki, 2002; Otte & Chlonda, 2002; Clutton-Brock & Pemberton, 2004; Halstead & Isakidou, 2011)</p>
<ul style="list-style-type: none"> - archaeological data (Bogaard 2004) - experimentation - agronomy 	<ul style="list-style-type: none"> • Fields created from slashing & burning forests • Permanent small fields & Gardens: "garden cultivation" 	<h3>SCALE ENVIRONMENT ANIMAL FEEDING</h3>	<ul style="list-style-type: none"> • Herd management: village/micro-regional scale 0.5 cattle/individual (0.8 head/ind.) • Ruminants: meadow/forest pastures & leaf foddering in forest • Pigs: household refuse & acorns 	<p>(Ebersbach & Schade 2004; Gregg 1988)</p>
<ul style="list-style-type: none"> - archaeological data (Bogaard 2004; Bogaard, Jones 2007; Bakels 2009) - agronomy - ethnology 	<ul style="list-style-type: none"> • High labour input • Plant processing outside village • Significance importance of manure • Winter/spring sowing (cereals) • Mixed cropping (cereals/pulse) 	<h3>PRACTICES Agronomy Zootechnics</h3>	<ul style="list-style-type: none"> • Cattle slaughtered btw 1-4 yrs (priority) • Sheep: 6 mths-2 yrs & 2-6 yrs • Males preferably slaughtered • 850 kg max. cattle; 30 kg sheep; 130 kg pigs 	<p>archaeological data (Ménier, 1984; Arbogast, 1994; Hachem, 1995; Tresset, 1996; Kovackova, 2011; Bréhard, unpub.)</p> 
<p>archaeological data</p>	<ul style="list-style-type: none"> • Seeds • Oil? • Straw? • Fibres? - peas: 15 cwt/ha; lens: 11.5 cwt/ha - flax: 140 kg/ha 	<h3>PRODUCTS/ BY-PRODUCTS</h3>	<ul style="list-style-type: none"> • Meat • Milk/dairy products (cow; ewe; goat?) • Hair? - meat and offal weight/age at death - milk: 1.5 kg/milking cow/day; 0.3 kg/milking ewe/day 	<p>archaeological data (Hachem, 1995; Tresset, 1996; Bréhard et al., 2010; Kovackova, 2011; Bréhard, unpub.)</p> 

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