

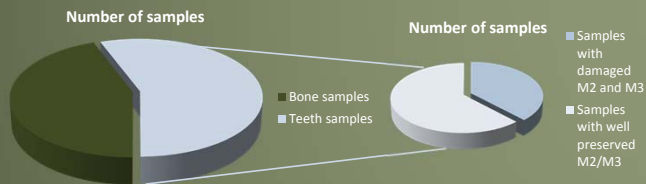
The spread of domestic pig in the central and eastern part of the Romanian territory described by the ancient mitochondrial DNA

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Over the last century science tried to answer to more and more questions related to the domestication process. It is well known already that the first European domestic pigs were introduced from the Near-East, and studies also showed that by the beginning of the fourth millennium BC European domestic pigs started to replace the Near-Eastern ones. Further investigations are still being carried out to explain how this process took place.

Material and methods

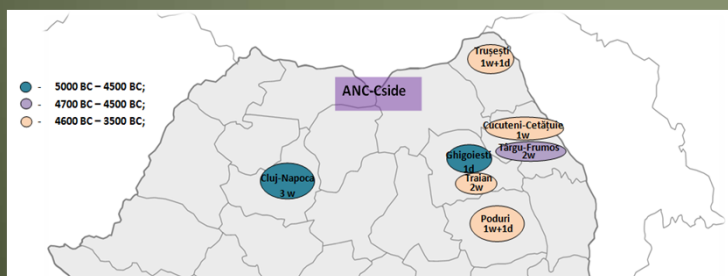
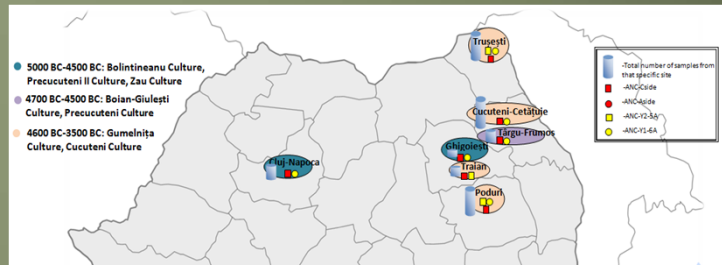
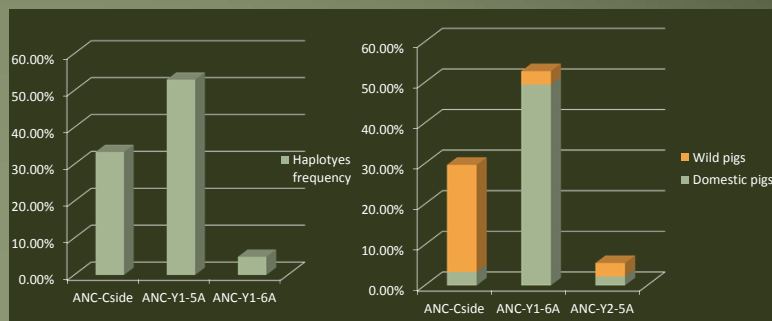
In this study were analyzed 52 samples from 7 different sites from the central and eastern parts of Romania, spanning a period of almost two millennia: from 5000 BC to 3500 BC.



All samples were subjected to extraction protocols, PCR and sequencing reactions.

Results

For the periods of time and geographical area considered in this study, three haplotypes were identified, both in wild and domestic individuals.



The last three maps show the distribution of each haplotype in the territories considered. Apart from the ANC-Y2-5A, which appears only in three wild boars, the ANC-Cside and ANC-Y1-6A are widely spread. Still, if the ANC-Cside haplotype is mainly found in wild boars, the ANC-Y1-6A haplotype (Near-Eastern origin) can be found, as expected, only in domestics.

The European ANC-Cside haplotype appears also in few samples of domestic pigs from different sites, and this could give the wrong idea of a possible domestication in those particular sites.

Considering, on one hand, the complexity of the domestication process, with all the pathways which could describe it, and, on the other hand, the predominance of the Near-Eastern domestic pigs in the sites where the European ones were found, our data clearly highlights an introgression step that took place from the wild stock into the introduced, domestic one.