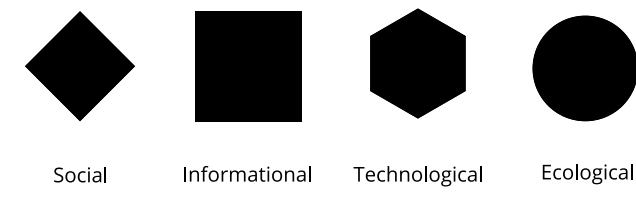


Planetary scale

Bug scale

Infrastructure of a Migratory Bird



The Northern Bald ibis (*Geronticus eremita*) is a migratory bird with a historic habitat in Europe, the Middle East, and North Africa and a rich cultural history dating back to ancient Egypt. Its current global status on the IUCN's Red List is "endangered".

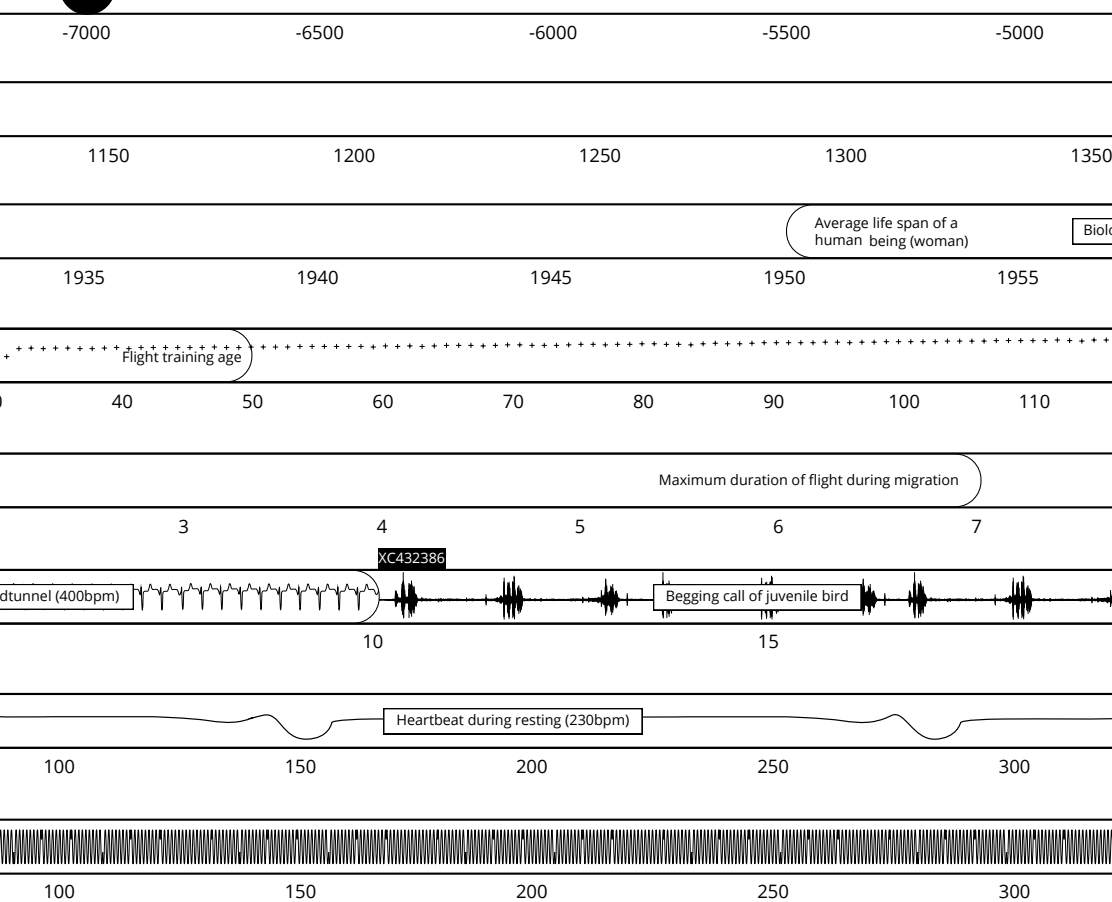
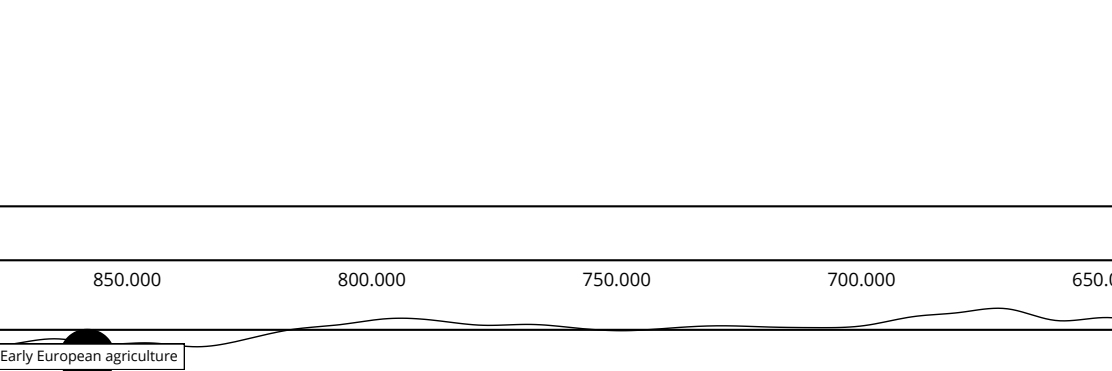
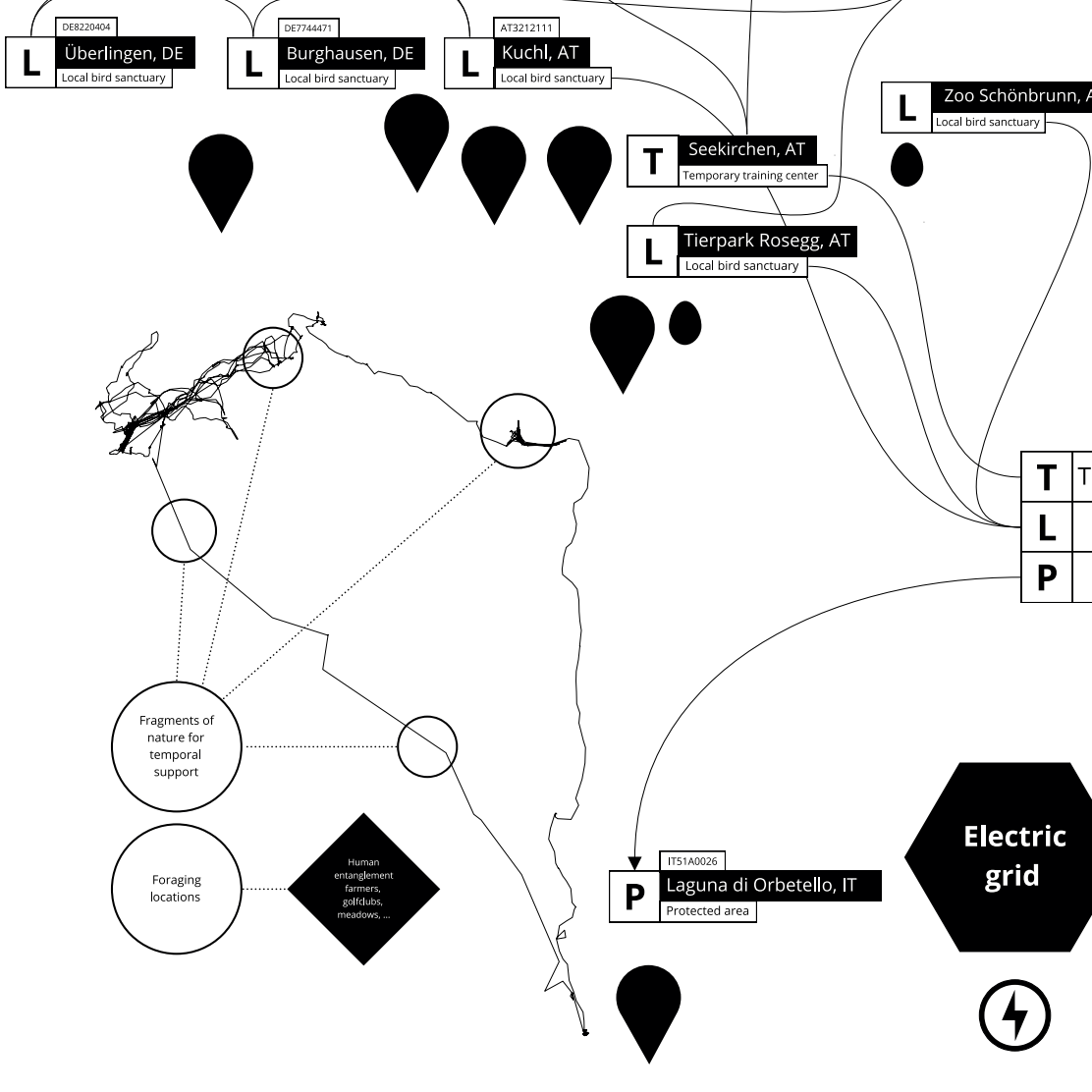
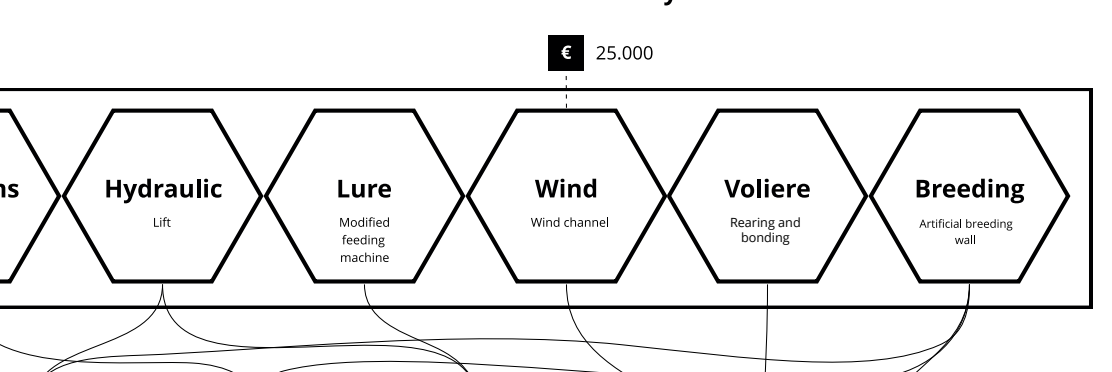
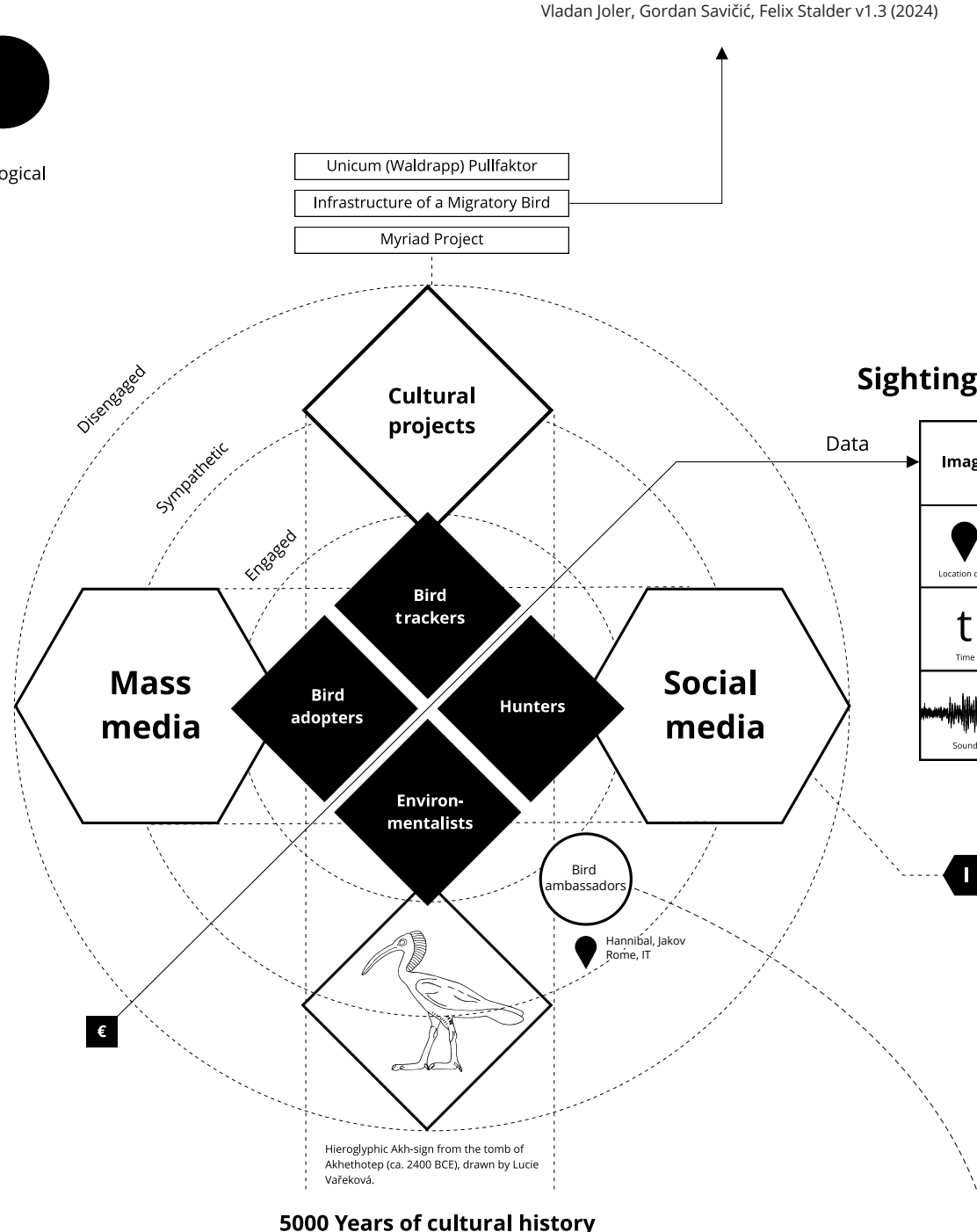
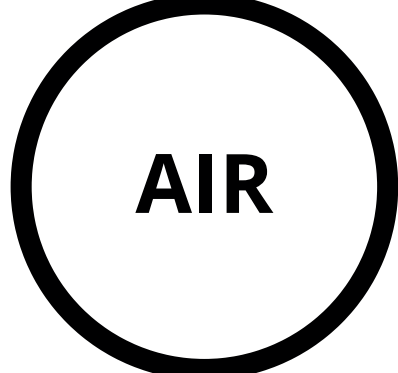
In Europe, the bird has been breeding north of the Alps (in Switzerland, Southern Germany, and Austria) and spending winters in the south. It became extinct around 1621, due to over-hunting and adverse climate conditions ("little ice age"). In the 1950s, birds from a Moroccan colony were transferred to zoos and bird sanctuaries in Europe, held in captivity, and fed through the winter.

In 2013, after 11 years of pre-studies, a project led by Johannes Fritz began to rewild the Northern Bald ibis in Europe. The majority of birds have been equipped with GPS trackers and are monitored in real-time. In the first 9 years, the number of rewilded birds rose from zero to almost two hundred.

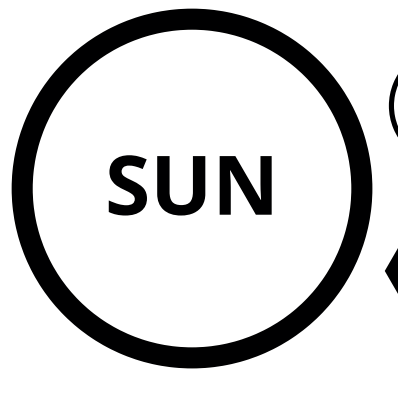
According to current models, at least 360 birds are necessary for the population to be self-sustainable. This number is projected to be reached by 2028, at which point the infrastructure mapped here is expected to be transformed significantly.

This map represents the extent of the infrastructure in the early 2020s. It was realized in the framework of the research project Latent Spaces: Performing Ambiguous Data, ZHDK <https://latentspaces.zhdk.ch>. Thanks to Johannes Fritz, Helena Wehner and the entire Waldrappteam.

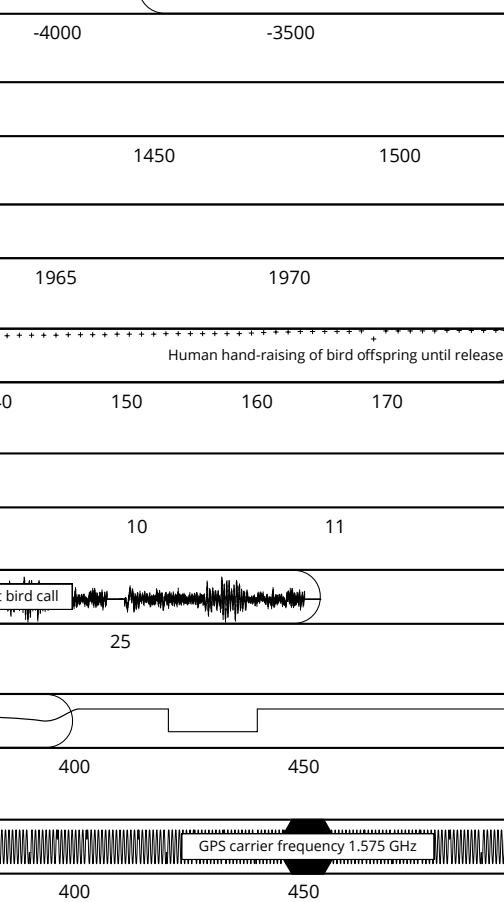
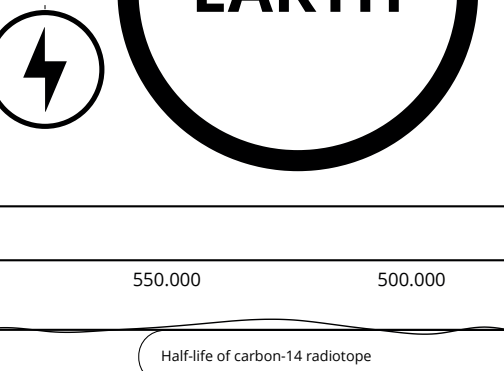
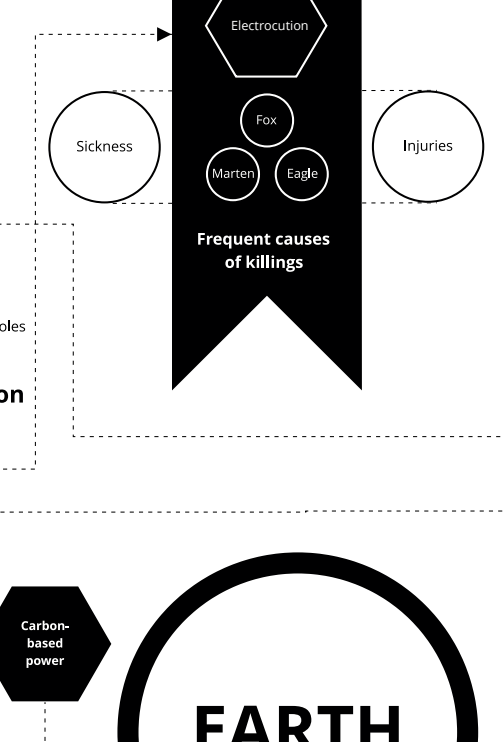
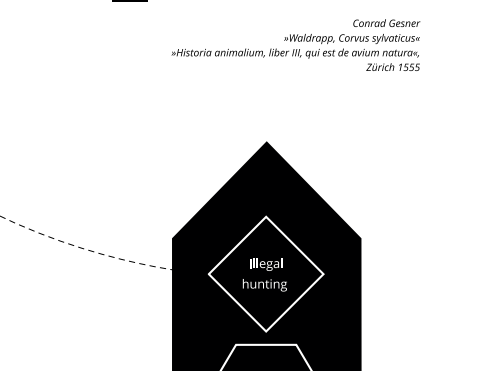
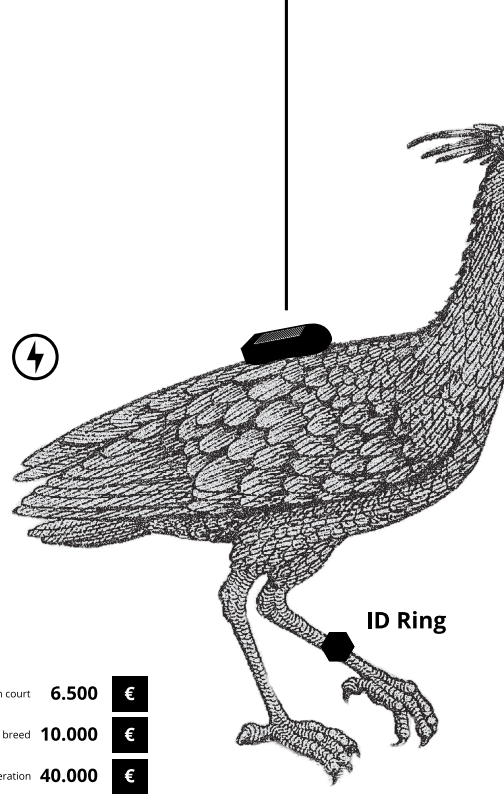
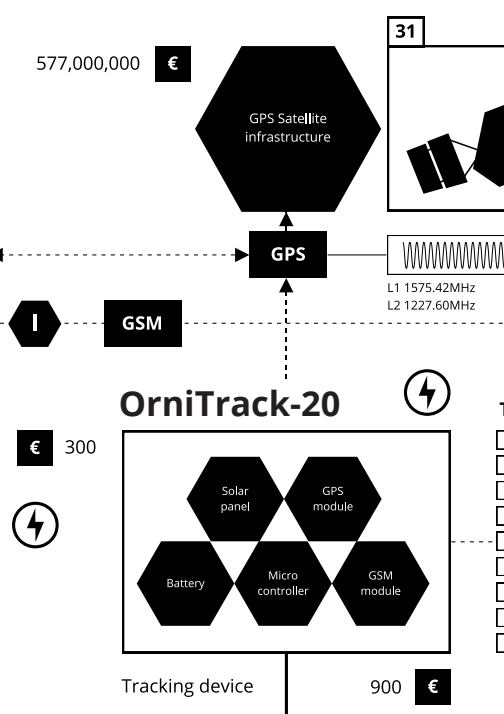
Online-Version: <https://bird-map.net> CC BY-NC-ND 4.0



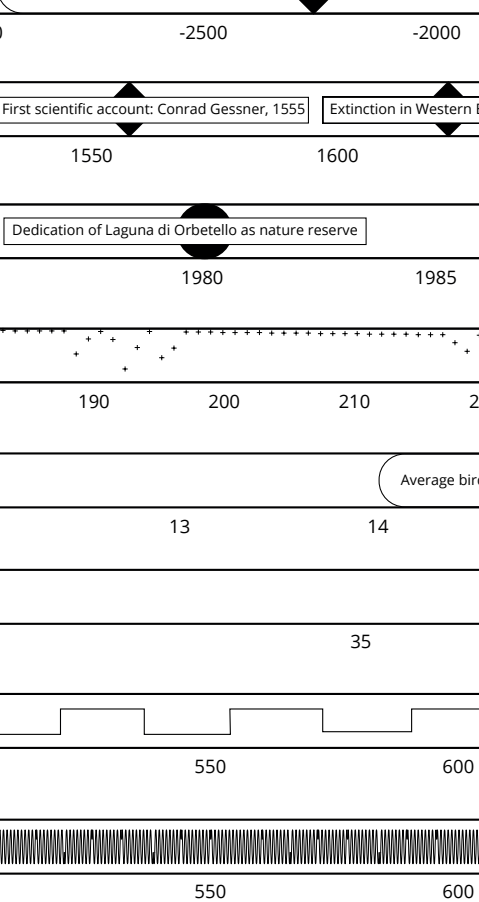
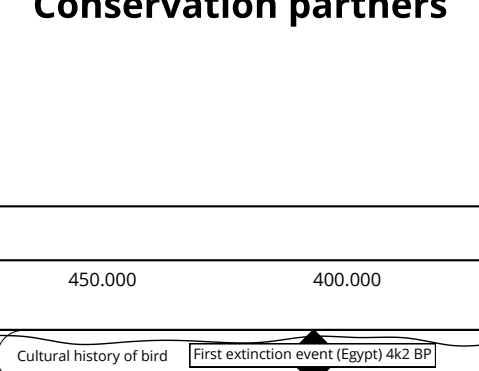
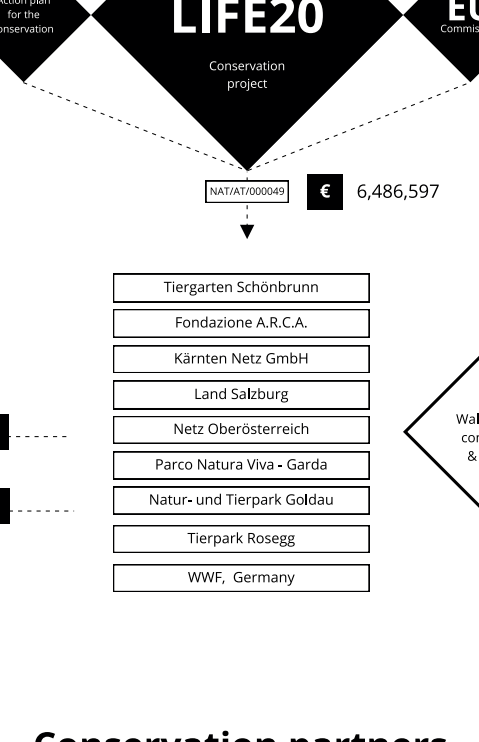
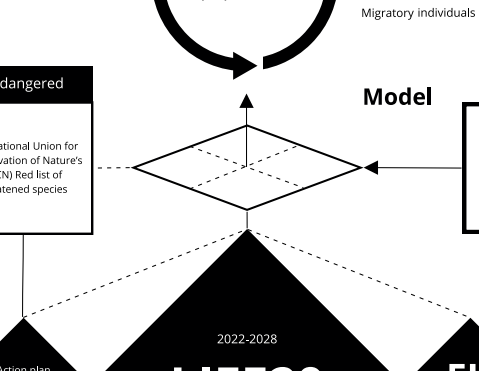
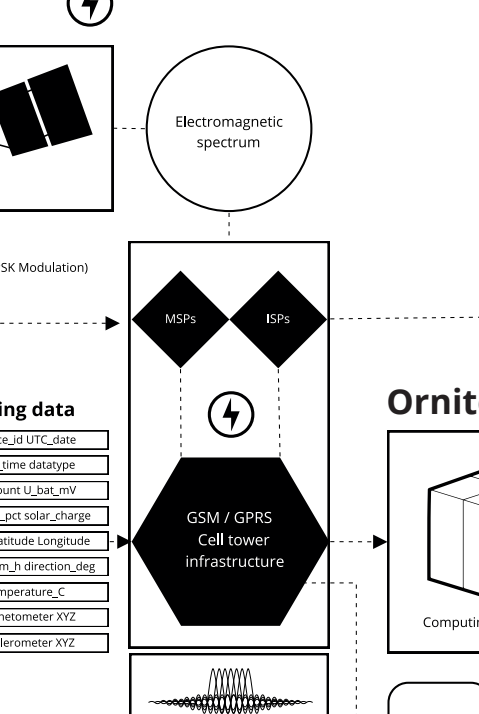
Geological Time
Biological Time
Atomic Time



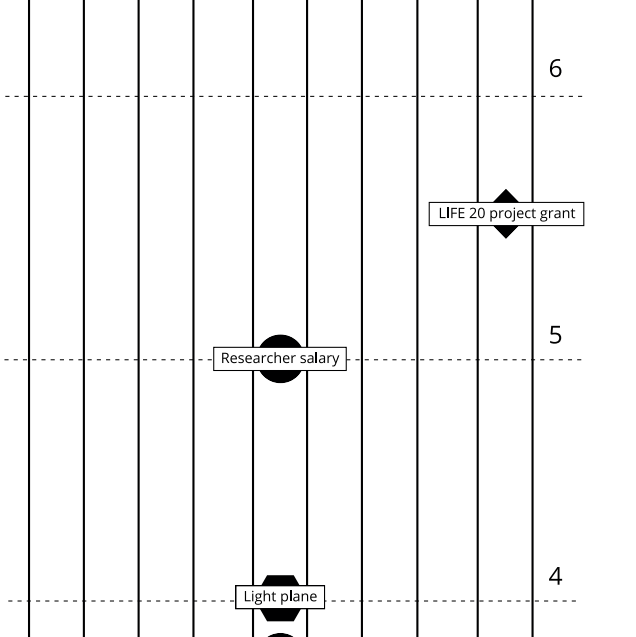
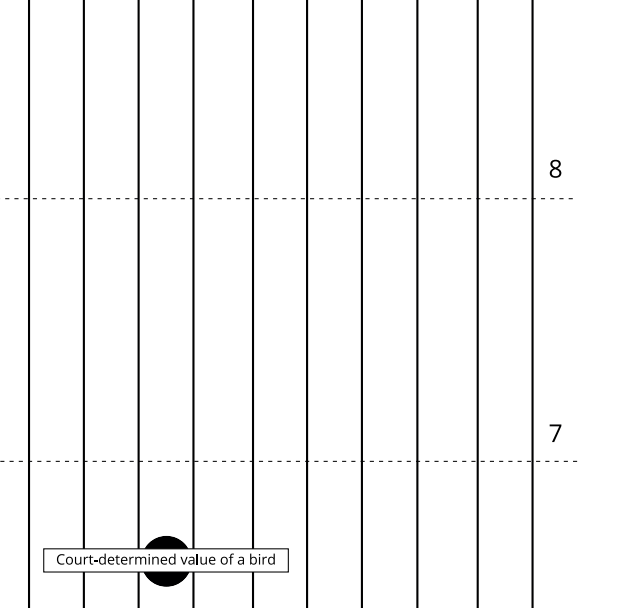
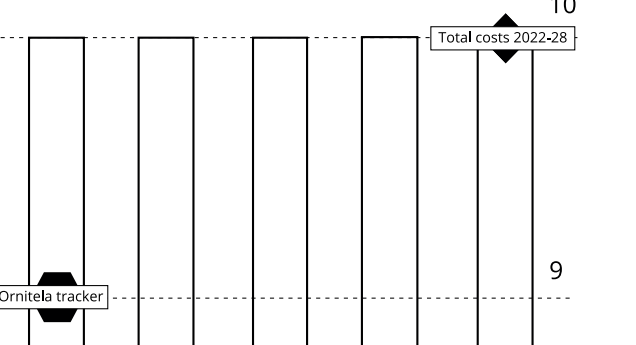
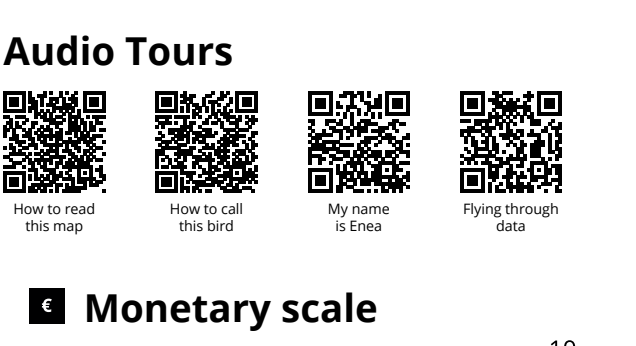
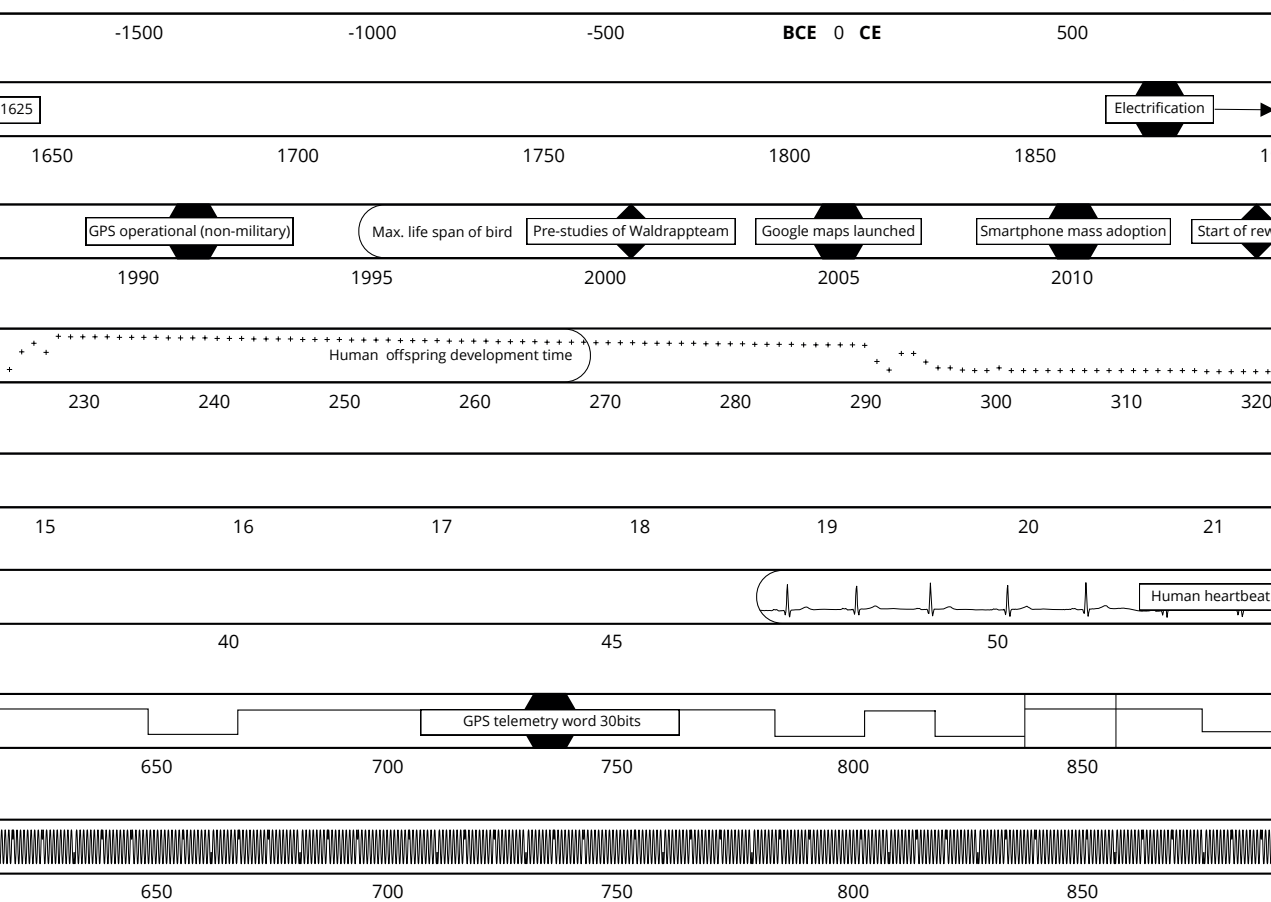
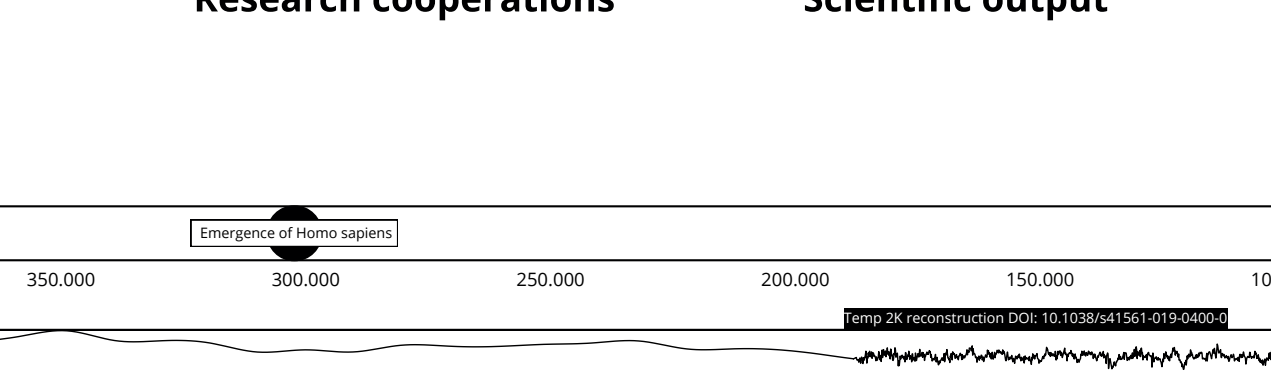
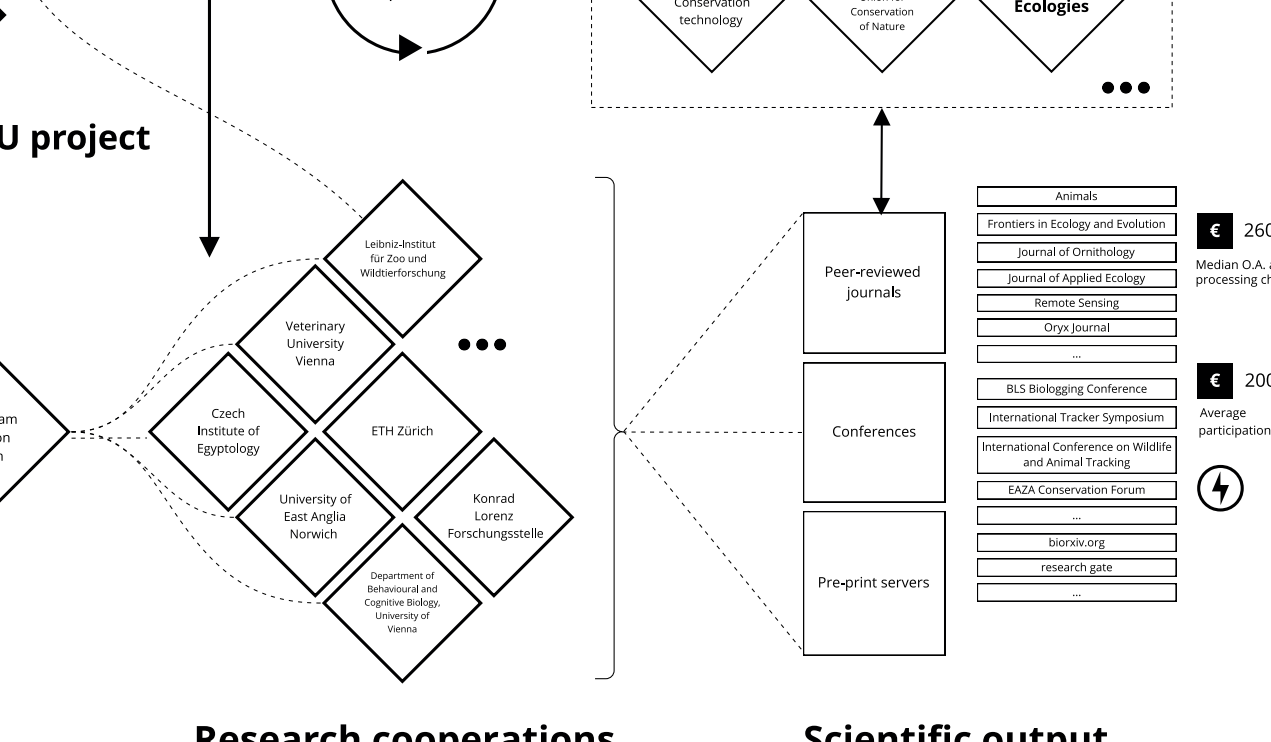
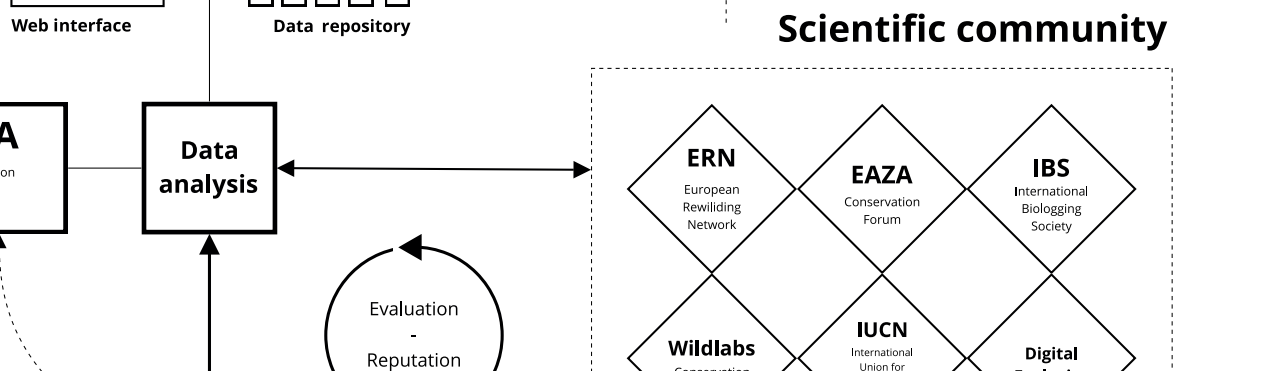
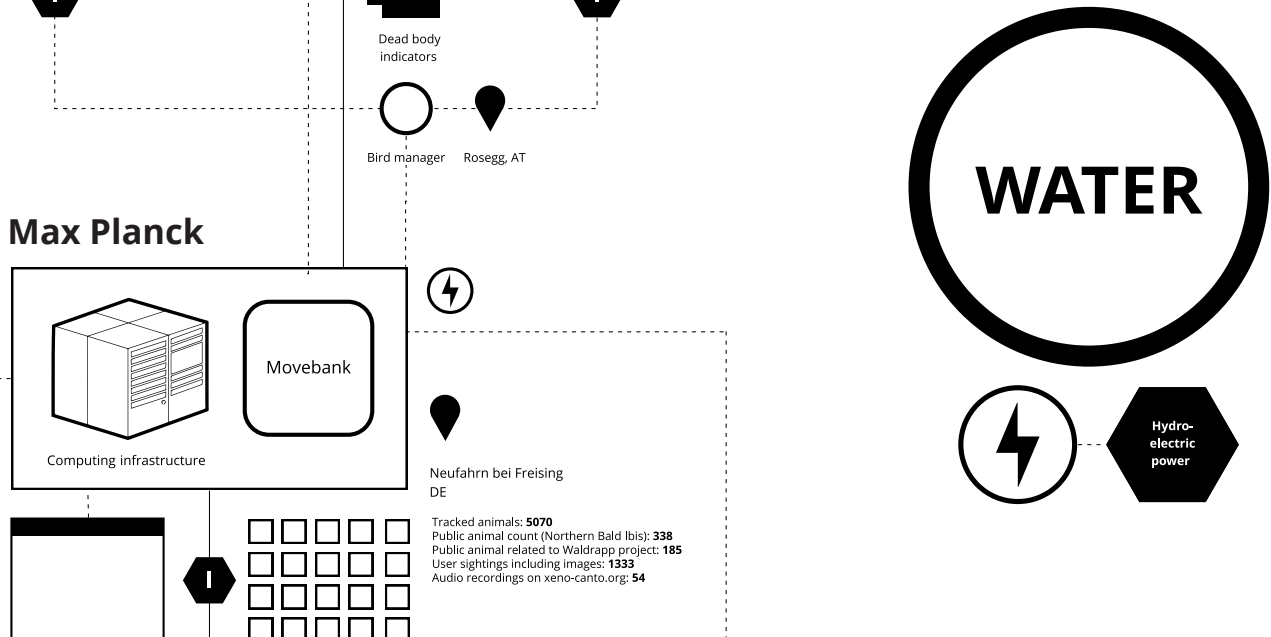
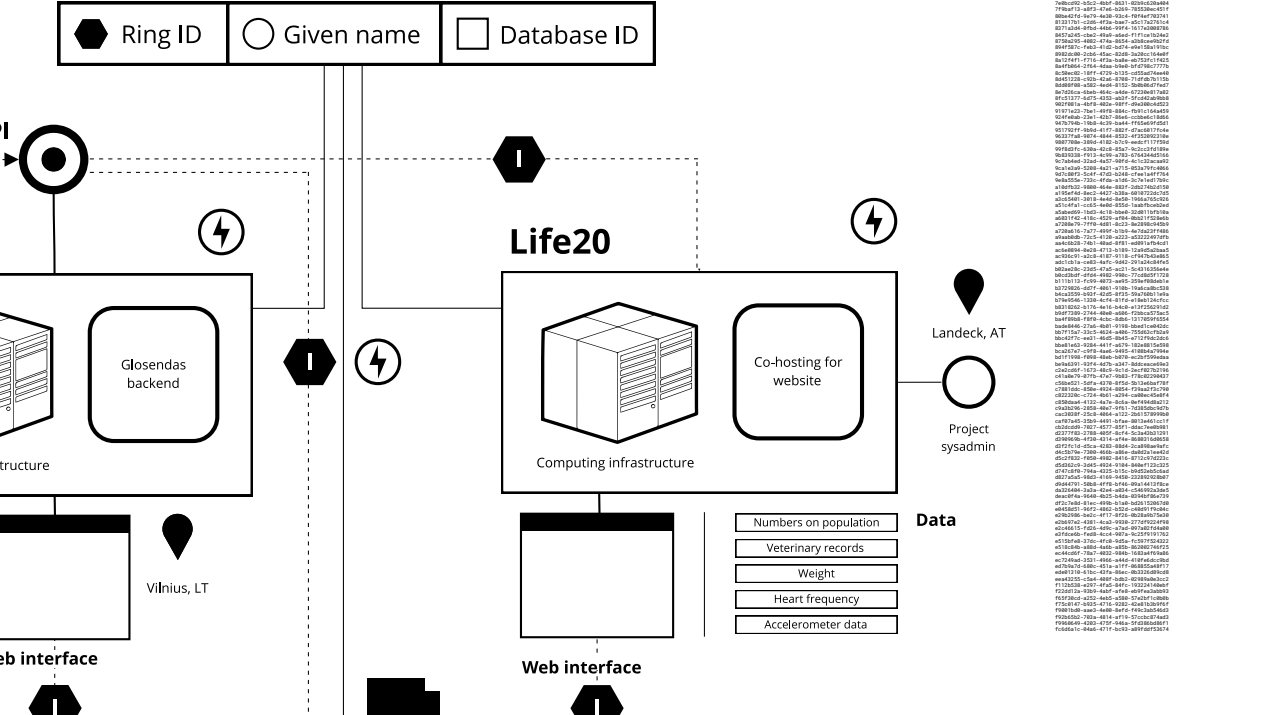
GPS Satellite infrastructure



GPS Satellite infrastructure



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Value of young bird diagram showing **Sever infrastructure** and **Average participation cost**.

Value of young bird diagram showing **Sever infrastructure** and **Average participation cost**.

Value of young bird diagram showing **Sever infrastructure** and **Average participation cost**.

Geological Time
Biological Time
Atomic Time