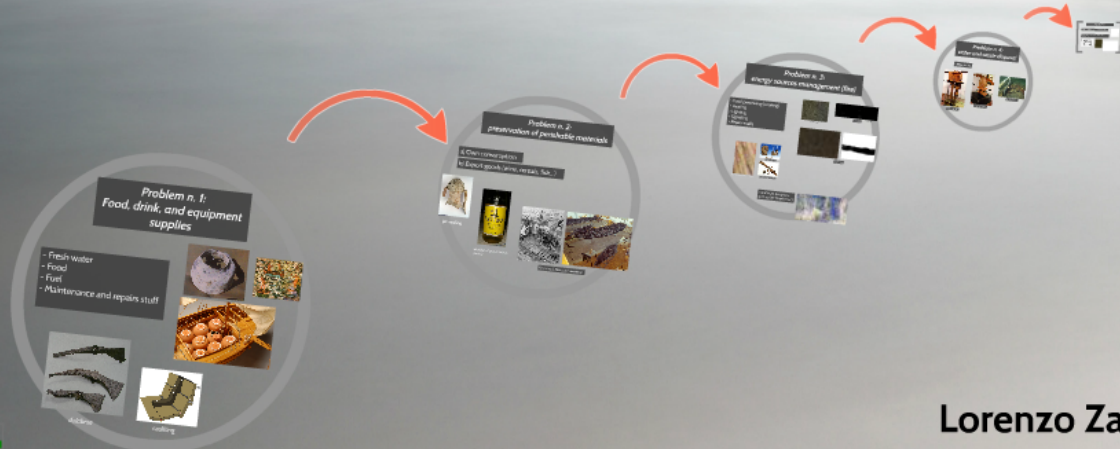
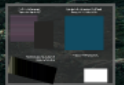
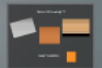


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5.000 anni di innovazioni tecnologiche alla conquista del terzo pianeta

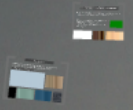
The conquest of the 3rd Planet through 5,000 years of technological innovations



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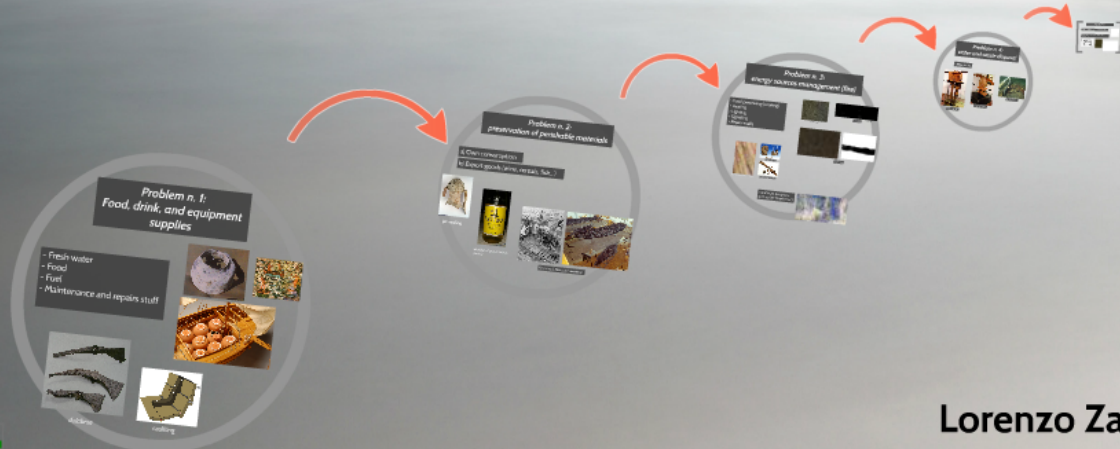
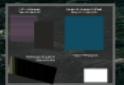
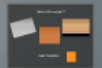
AGROSPACE
to look into the future, to participate in the present
LIFE IN SPACE
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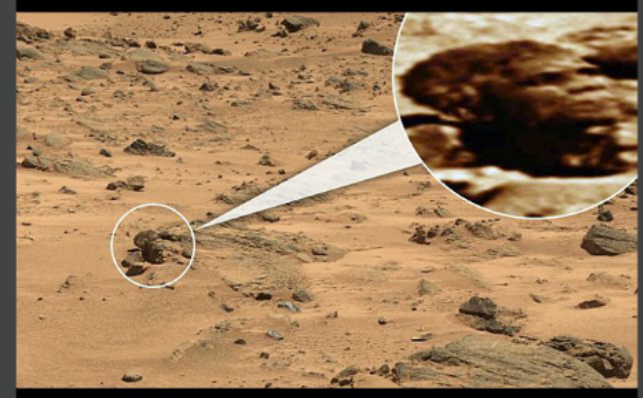


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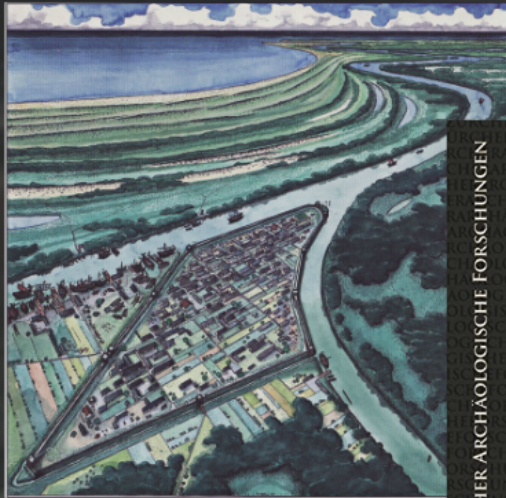
Space Archaeology ?!?



DON'T WORRY...



Ph.D. in Archaeology "Spina the liquid city"



ZÜRCHER ARCHÄOLOGISCHE FORSCHUNGEN

Spina città liquida
Gli scavi 1977-1981 nell'abitato e i materiali tardo-arcadici e classici

Lorenzo Zamboni



3

VMI

A project of archaeometry of food during EXPO Milan 2015

ARCHEO-FOOD

**ARCHEOLOGIA E ARCHEOMETRIA DEGLI ALIMENTI
ARCHAEOLOGY AND ARCHAOMETRY OF FOOD**

SCIENCE CORNER
EXPO 2015 MILANO

LE UNIVERSITÀ PER L'ESPOSIZIONE

Progetto "Dieci assegni di ricerca per EXPO 2015":
"L'impatto della cultura alimentare greca nel Mediterraneo occidentale tra VI e III secolo a.C."

Project "10 research fellowships for EXPO 2015":
"GR-EAT. The impact of Greek Eating Culture in Western Mediterranean, 6th - 3rd BC"

Field director, excavation of a late-roman ship



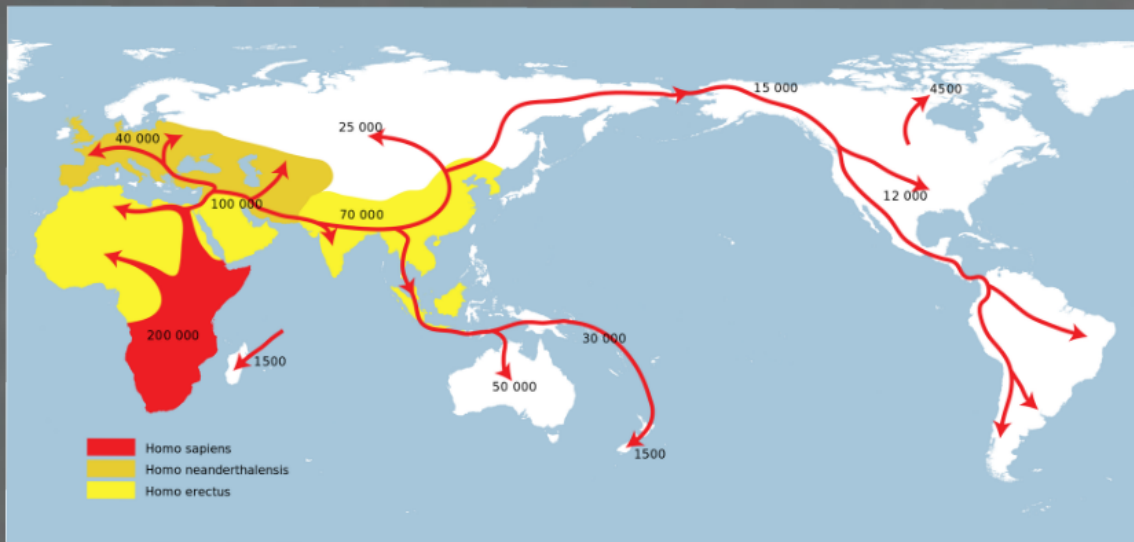
Projects with Aerosekur...



Hypothesis n. 1:

Surviving strategies and technological solutions to extreme/closed environments as a marker of the spread of *Homo* on Earth

= the "AgroSpace" millennial background



ARCHAEOLOGY OF EXTREME ENVIRONMENTS

Or the material responses, such as technological innovations and surviving strategies, to extreme/closed environments

Extreme and closed environments (in the past):

- > Natural (glaciers, deserts, seas)
- > Artificial (ships, outposts, or even a castle under siege...)

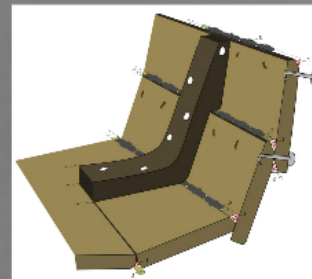


Problem n. 1: Food, drink, and equipment supplies


- Fresh water
- Food
- Fuel
- Maintenance and repairs stuff



dolabrae



caulking



Problem n. 2: preservation of perishable materials

a) Own consumption

b) Export goods (wine, cereals, fish...)



jar-sealing



addition of preservatives
(resins)



Fiumicino 5 (Barca del Pescatore)

Problem n. 3: energy sources management (fire)

- > Food processing (cooking)
- > Heating
- > Lighting
- > Signaling
- > Repair works



Chamberberg burial ship, Oslo

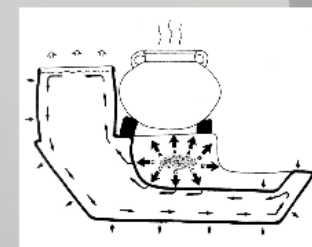


brick hearth

Cala Gialpa IV



Silver 1



lead focula



Otzi - the Iceman (3359 / 3105 BCE)



two birch-bark containers



flint pyrite and Fomes Fomentarius

> and more (weapons,
such as the "Greek Fire")





Ötzi – the Iceman (3359 / 3105 BCE)



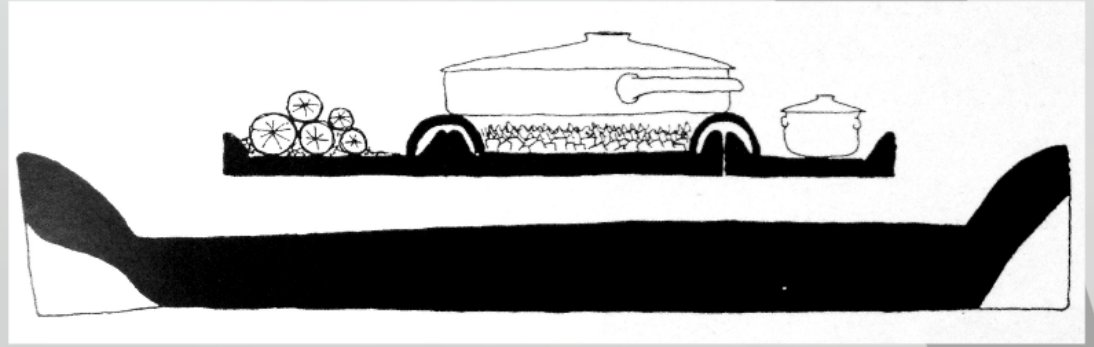
two birch-bark containers



flint, pyrite and Fomes Fomentarius



Oseberg burial ship, Oslo



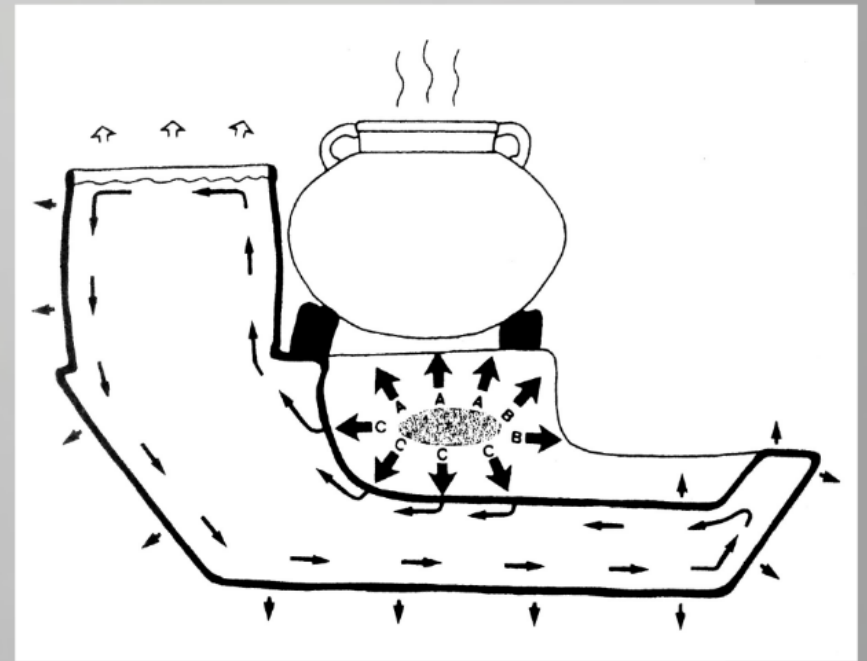
brick hearth

Cala Culip IV



Bénat 3

lead focula



Problem n. 4: water and waste disposal

> Bilge pump



pompa a bindolo



pompa a stantuffo

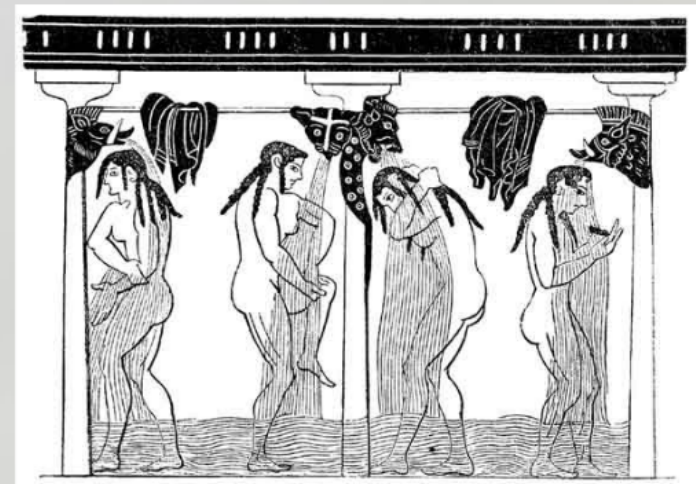


bilge pump hose

Hypothesis n. 2:

> Earth exploration as a technological "arms race"

> Stemming improvements and benefits in everyday life in the past?





WE LANDED!

Thanks for your attention!