



FUTURE FOOTWEAR

SUMMER SCHOOL  
KEA  
July 2012

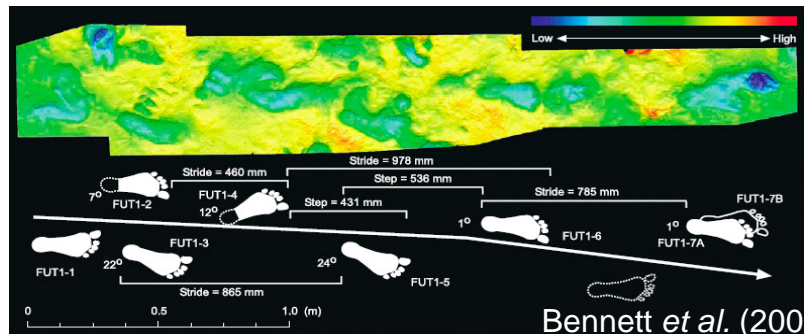
Catherine Willems  
And  
Kristel Peters

## The human foot is highly **complex**

- 26 bones (+ sesamoids)
- numerous ligaments
- numerous intrinsic muscles
- numerous extrinsic muscles

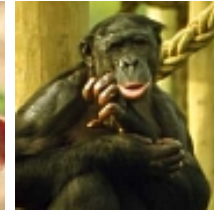
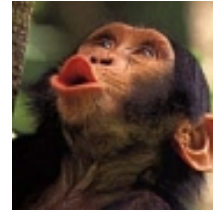


The human foot is important and one of the **key adaptations** in human evolution



Ileret footprints (Kenya, 1.5 MYA)  
“oldest evidence of an essentially modern human-like foot anatomy”  
(Bennett *et al.*, 2009, Science)



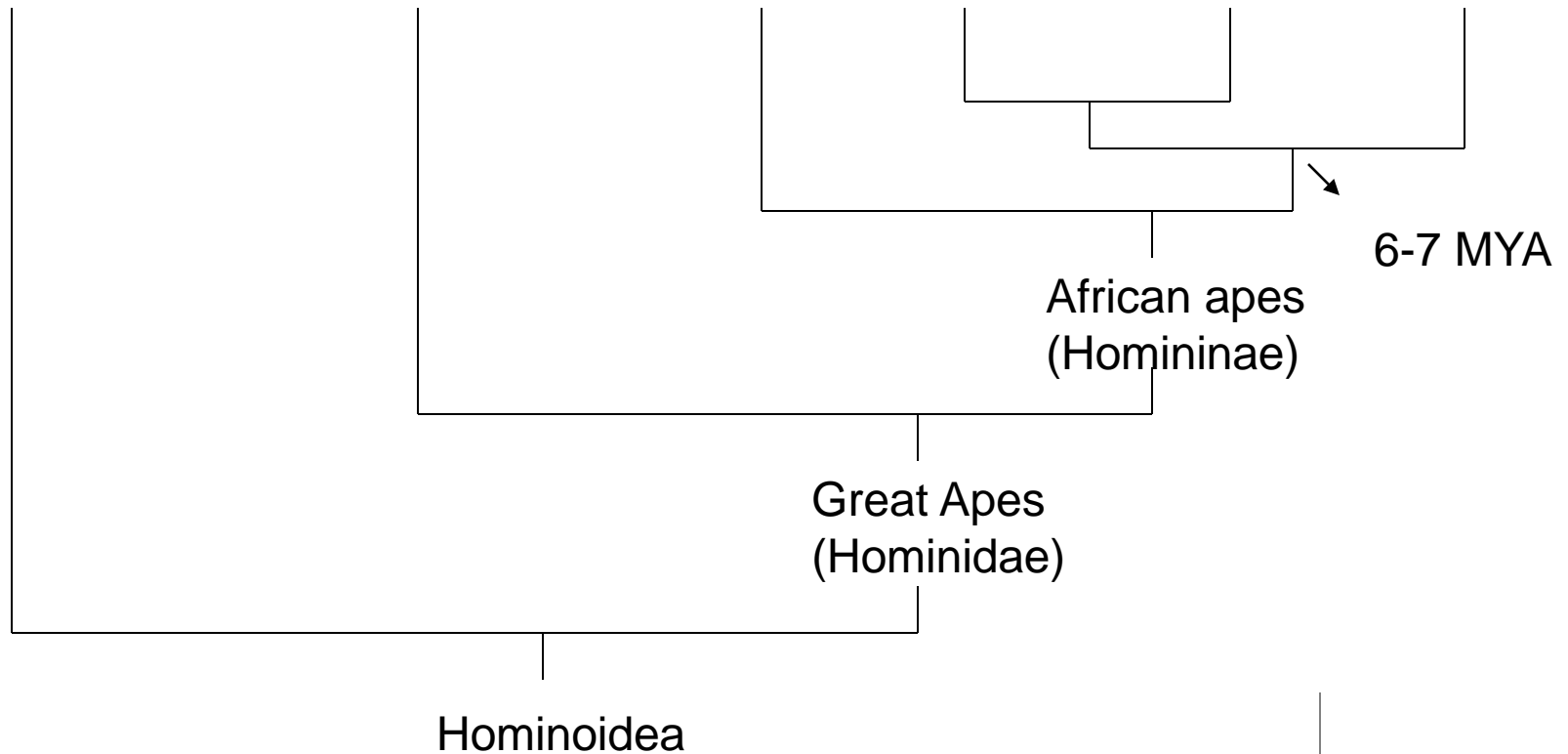


Gibbons  
(Hylobatidae)

Orang-utans  
(Ponginae)

Gorilla Chimpanzee Bonobo

Hominini



➤ Ankle morphology

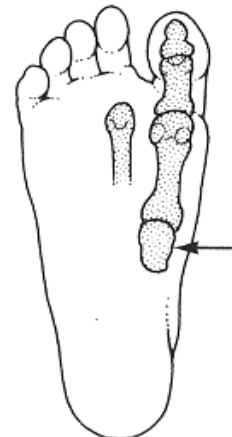
➤ **Hallux as propulsive structure (adducted & robust)**



Orang-utan



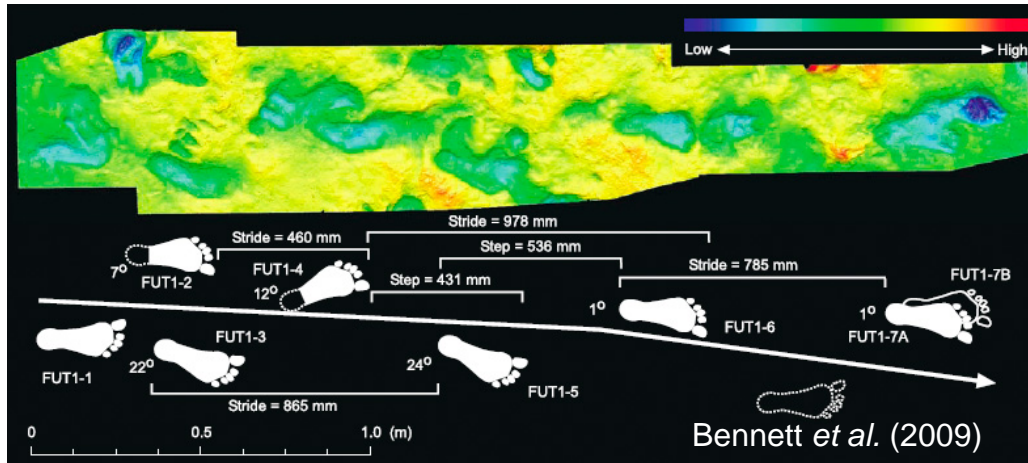
Chimpanzee



Modern human

medial cuneiform

State of the art knowledge on foot function is heavily based on Western subjects.



Ileret footprints (Kenya, 1.5 MYA)  
“oldest evidence of an essentially  
modern human-like foot anatomy”  
(Bennett *et al.*, 2009, Science)

Oldest shoe found  
approx. 8300 years old.



Ötzi the Iceman, a 5,300-year-old frozen mummy discovered in 1991 in the Italian Alps, wore remnants of deer- and bear-leather shoes with upper and lower parts held together by straps.



OTSI'S SHOES DATE BACK TO 5300 YEARS AGO  
MEN STARTED TO WEAR SHOES ABOUT 40.000 YEARS AGO



vibram® fivefingers®



COLOR grey upper, grey bottom  
SIZES W/36-42 | M/40-47  
PRICE \$60.00

FiveFingers KSO









# Foot shape - Foot function



<http://www.ccds.charlotte.nc.us/History/China/04/hutchins/hutchins.htm>



Feet are plastic structures which can be influenced by footwear













# Future Footwear

a six year PhD project in the Arts funded by the  
University College Ghent

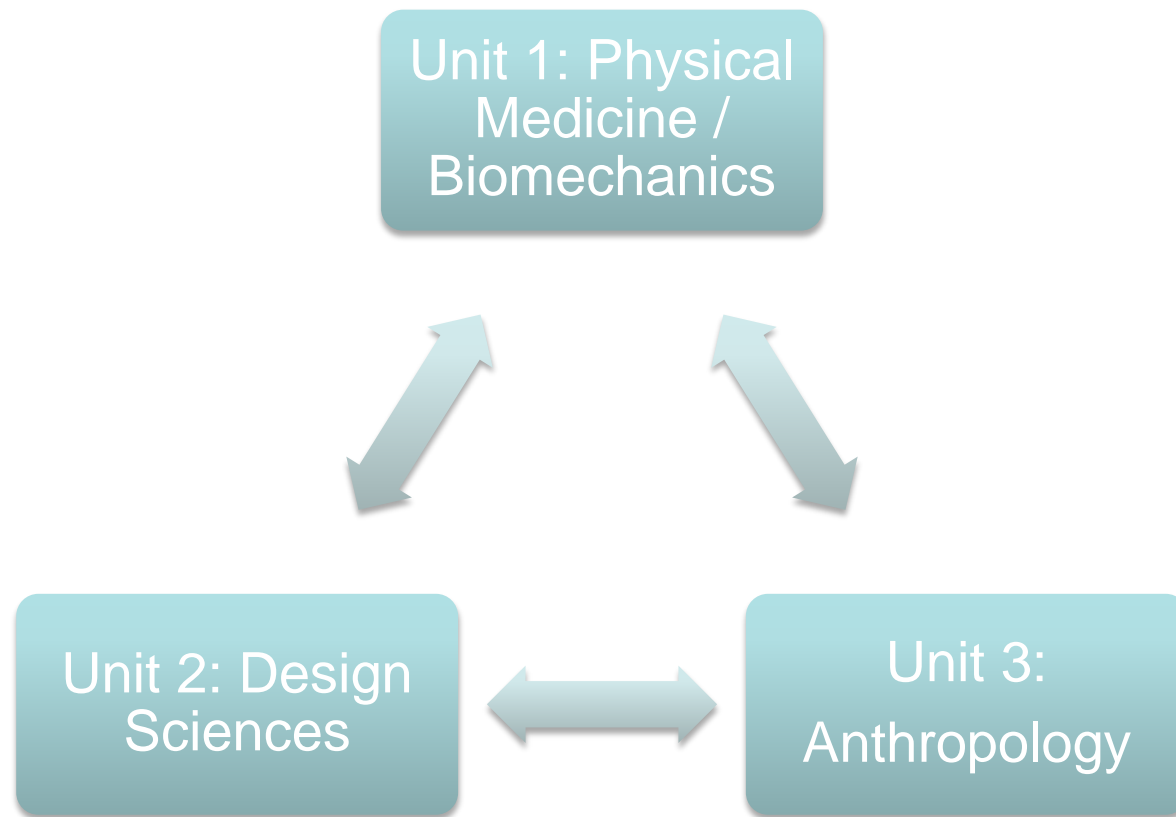
Supervisors:

Prof. dr. Gaetane Stassijns (University of Antwerp)  
Dr. Kristiaan D'Août (University of Antwerp)  
Prof. dr. Hendrik Pinxten (Ghent University)  
Dr. Dirk van Gogh (University College Ghent)

## 'Future Footwear'

wants to develop a design toolbox for the efficient creation of footwear.

The set-up of the research is interdisciplinary with input from:



2 cases deliver the necessary data to create a toolbox for the efficient creation of footwear:

The selection of the cases is based on:

1/ surface, 2/ climate and 3/ the relation the community has with the environment.



Kolhapur footwear

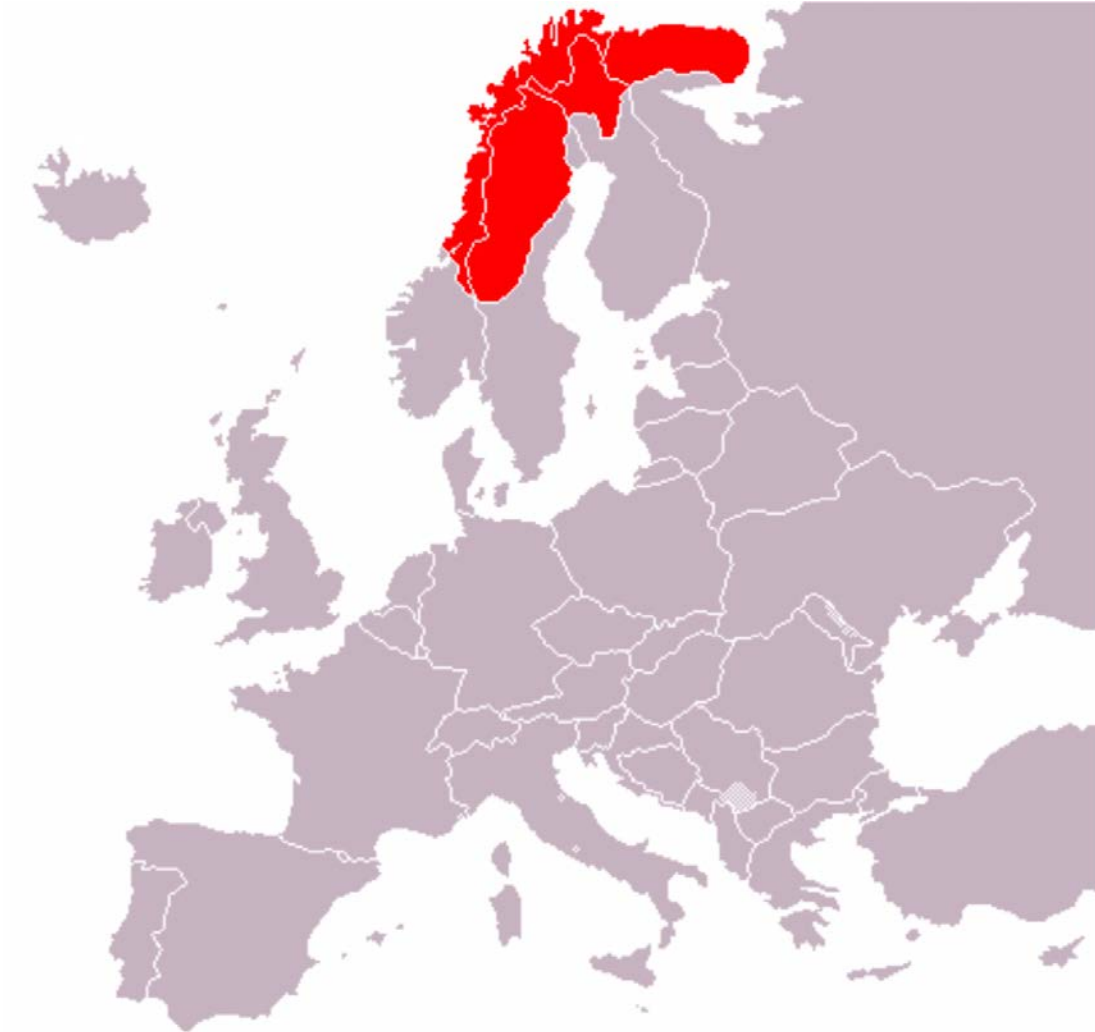
Vegetable tanned buffalo  
hides  
India

Sami Boots

Vegetable tanned  
reindeer hides  
Finland

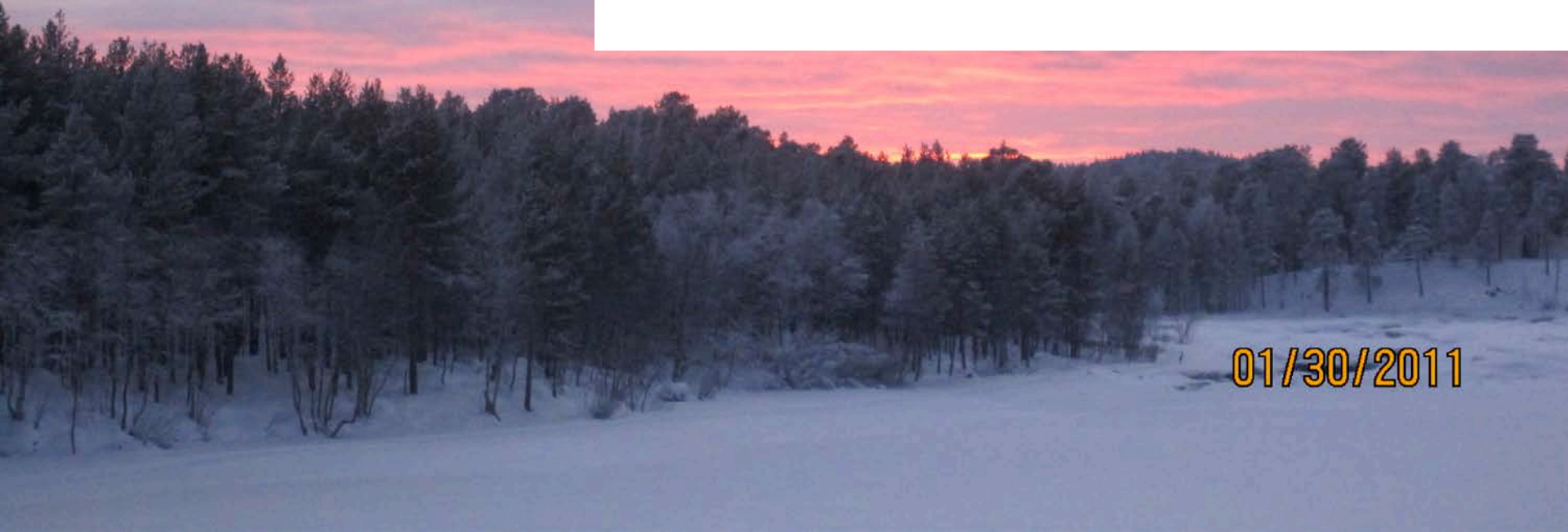
Contemporary  
fashion footwear  
Europe

# REINDEER BOOTS / NUVTTOHAT



- THE ANATOMY OF THE FOOTWEAR
- THE ART OF MAKING THE FOOTWEAR
- THE ART OF WEARING THE FOOTWEAR





01/30/2011



RAW MATERIAL







01/30/2011





02/01/2011





Make to 20  
x 1/2

20

Belted to 2  
20

02/01/2011



KATARINA  
KURTTILA

02/01/2011

57 DIE  
108



02/07/2011



01/30/2011







01/30/2011







# Walking in a cross-cultural perspective - Kolhapur footwear.

February – March 2010



# THE RAW MATERIAL



















Show Paris 2009  
Walter van Beirendonk

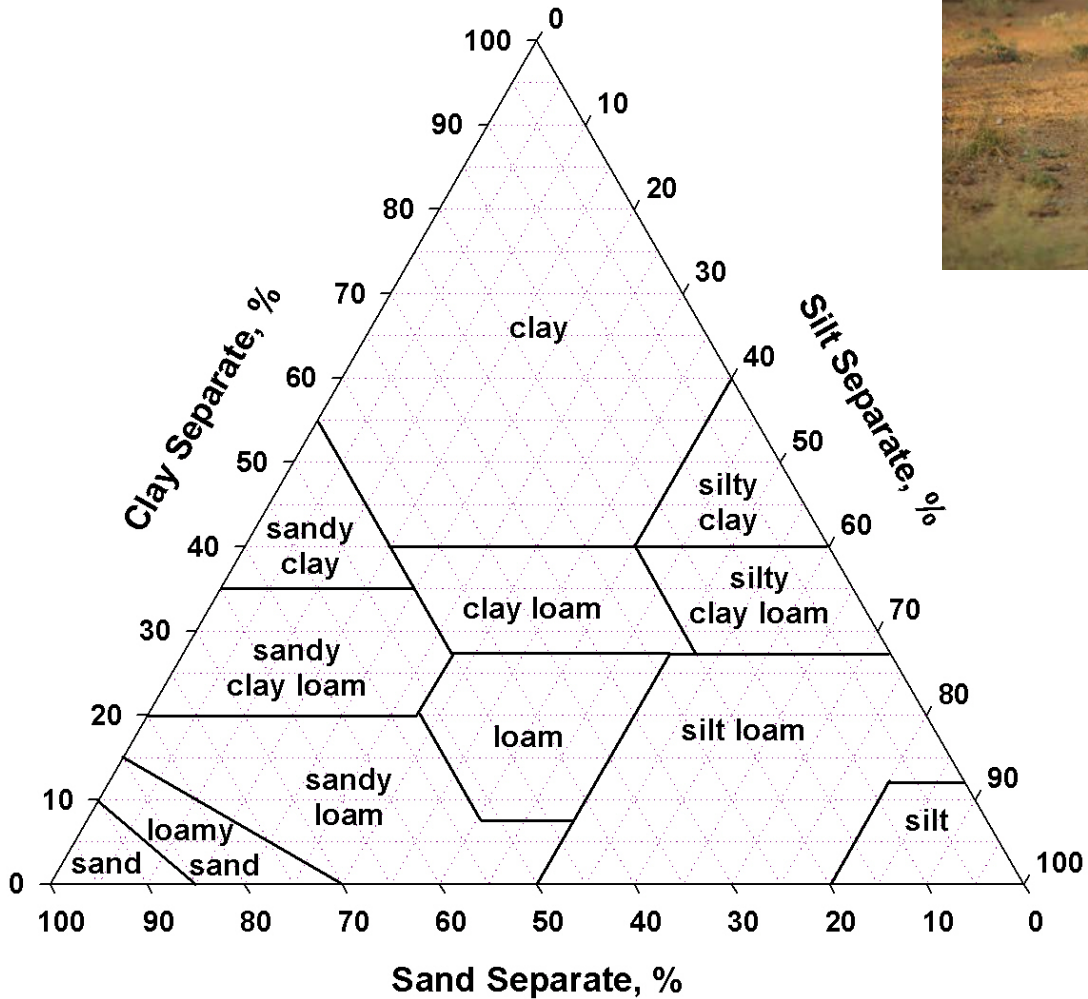


## Collection 2009 with Toehold / Catherine Willems



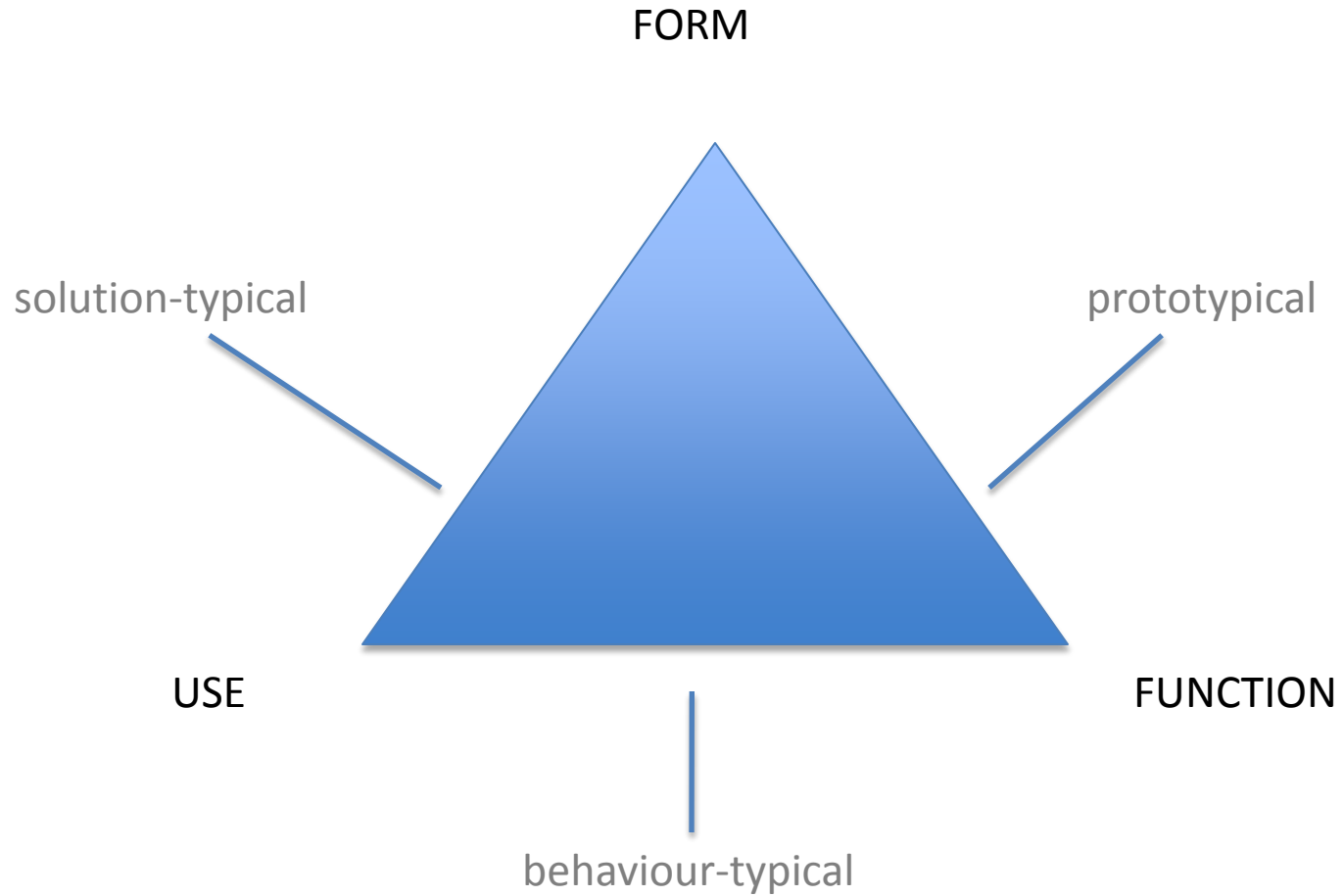


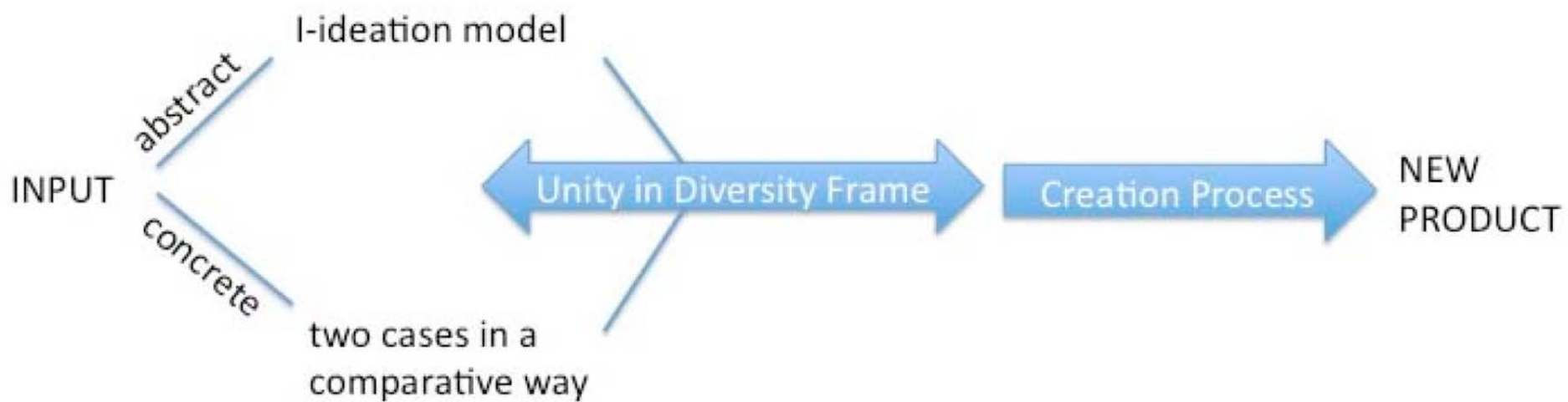
## USDA Texture Triangle



Clayish soil

# DESIGN AS A METHOD OF THINKING

























# THE WORKSHOP

## SOME TECHNICAL SKILLS

- 1/ OPANCA CONSTRUCTION
- 2/ KOLHAPURI CONSTRUCTION
- 3/ MOCCASIN

































# REBUILDING A SHOE

- 5 GROUPS
- 5 ATMOSPHERES
- 10 PROTOTYPES OF SHOES













