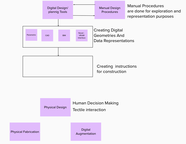
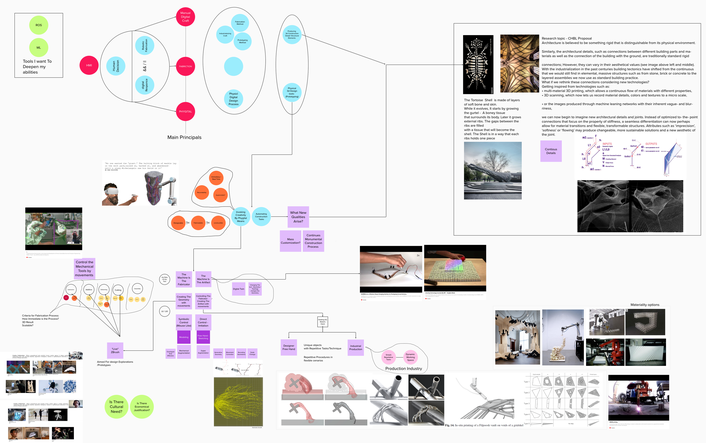
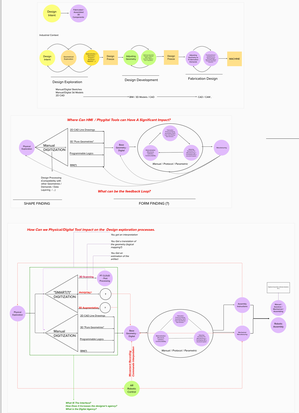
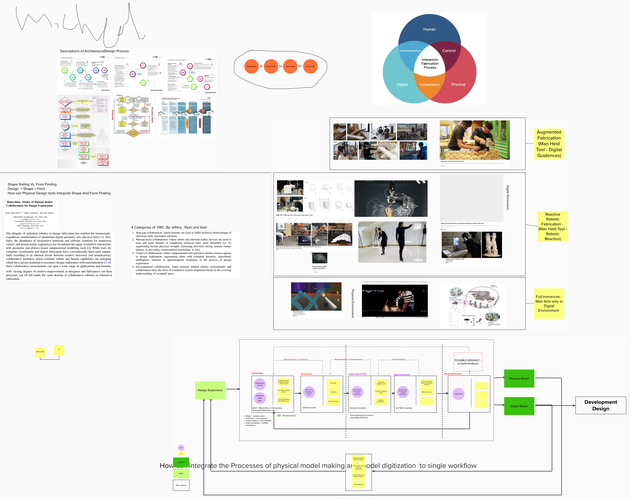

Digital Design/ Joining Tools
Manual Design Procedures
Manual Procedures are done for exploration and representation purposes
Creating Digital Geometries And Data Representations
Creating instructions for construction
Physical Design
Human Decision Making
Textile interaction
Physical Fabrication
Digital Augmentation


Tools I want To Designin my abilities
Main Principals
Research topic - CHBL Proposal
Architecture is believed to be something rigid that is distinguishable from its physical environment.
Similarly, the architectural details, such as connections between different building parts and the facade as well as the connection of the building with the ground, are traditionally standard rigid
connections. However, they can vary in their aesthetical values (see image above left and middle), and, the implementation of the seal concrete building sections have shifted from the continuous to the discrete. Thus, the connections between different parts of a building brick or concrete is the point of vulnerability we now use as standard building practice.
Thus, we propose to explore the potential of a more fluid
thinking inspired from technologies such as:
- 3D printing, which can lay down continuous flow of materials with different properties,
- CN scanning, which now lets us record material details, colors and textures to a micro scale,
- or the images produced through machine learning networks with their inherent organic and blur-ness,
we can now begin to imagine new architectural details and joints. Instead of optimized to the point connections that focus on the property of stiffness, a seamless differentiation can now perhaps allow for material transitions and flexible, transformable structures. Attributes such as 'imperfection', 'blur', 'organic', 'flowing' 'non-homogeneous, more sustainable solutions and a new aesthetic of the joint.
The Tortoise Shell is made of layers of overlapping scales.
Where it evolves, it starts by growing the gutter , A lining tissue
underneath the shell, and then it grows external ribs. The gaps between the ribs are filled
in by the shell and will become the
shell. The Shell is in a way that each
ribs holds one piece
Production Industry
Materially options


Design Exploration
Design Development
Fabrication Design
Where Can HRI / Phygital Tools can Have A Significant Impact?
What can be the feedback Loop?
How Can we PhysicalDigital Tool impact on the Design exploration processes.
SHAPE FINDING
FORM FINDING (?)
Manual Digitization
Manual - Protocol - Parameters
Manual Fabrication
Digital Fabrication
Physical Model
Digital Model
What do You Interpret "Phygital" Means in the designer's opinion?
What is the Digital Approx?


Descriptions of Architecture/Design Process
Human
Control
Physical
Computation
Digital
Interaction Between Physical Phygital
Shape Finding Vs. Form Finding:
Tools and Methods
How can Physical Design tools Integrate Shape And Form Finding
Robotics: State of Human Robot Collaboration for Shape Exploration
4 Categories of HRC. By Jeffery ,Ryan and Axel
Augmented Fabrication (Man Held Tool - Digital Guidences)
Reactive Robotic Fabrication (Man Held Tool - Robotic Reaction)
Full Interactive - Man Robot Shared Environment
Design Exploration
Development Design
Physical Model
Digital Model
How can integrate the Processes of physical model making and model digitization to single workflow
Design Iteration

Augmented Fabrication (Man Held Tool - Digital Guidences)
Reactive Robotic Fabrication (Man Held Tool - Robotic Reaction)
Full Interactive - Man Robot Shared Environment