

Faculty of Design

2020

Synergetic Landscapes Unit: The Multispecies Biodigital Community Codesign

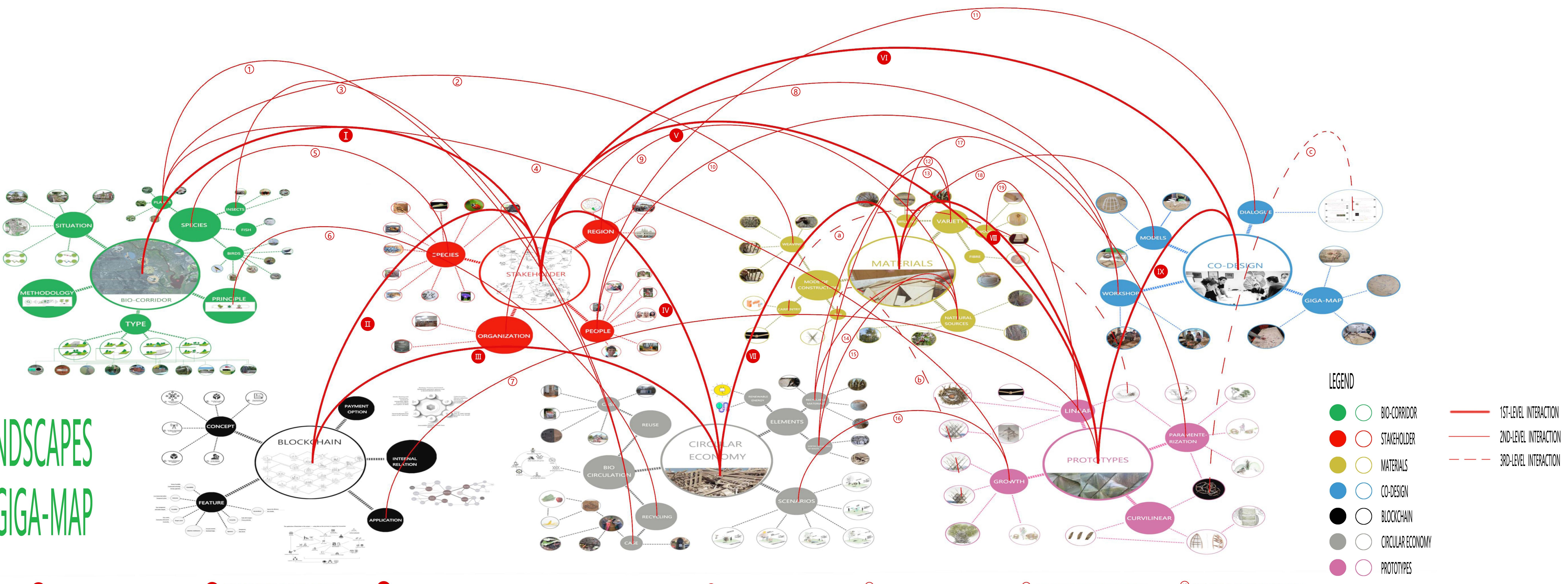
Feng, Yutao, Meng, Huicong, Wang, Danjian, Wang, Meihui, Wang, Yuchen and Zhao, Yuan

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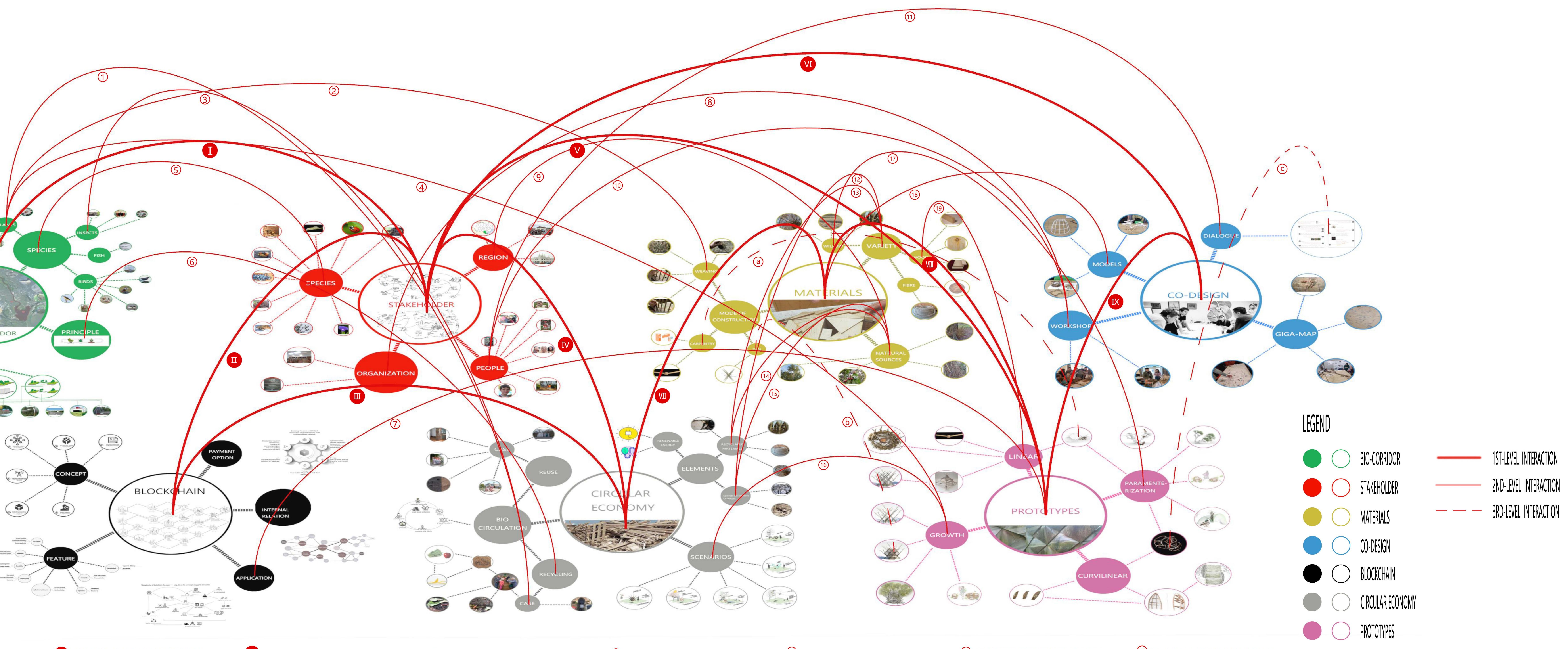
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CARDIFF UNIVERSITY MAAD YUAN ZHAO



| THERE ARE SEVEN MAIN COLLECTION IN THIS GIGA-MAP |
|--|
| WHICH ARE |

INLLUSTRATE AS FOLLOW:

- 1.BIO-CORRIDOR;
- 2.STAKEHOLDER;
- 3.MATERIALS;
- 4.CO-DESIGN;
- 5.BLOCKCHAIN;
- 6.CIRCULAR ECONOMY;
- 7.PROTOTYPES.

THIS GIGA-MAP AIMES TO FIND AS MANY INTERACTIONS AS WE CAN TO HELP THE DESIGNERS DEEPENING THE UNDERSTANDING OF THE SYSTEM.



BIO CORRIDOR IS SPECIAL CHANNEL FOR DIFFERENT SPECIES TO PASS THROW THEURBAN AREA. THOSE SPECIES WILL BETHE KEY STAKEHOLDER TO THIS PROJECT

BLOCKCHAIN IS A DECENTRALIZED CLEARING METHOD WHICH INVOLVES A LOT OF PEOPLE PARTICIPANT IN THE DEAL. BLOCHCHAIN GENERATES TOKENS THAT CAN BE REWARDS TO PEOPLE WHO PAY LABOUR TO THIS PROJECT. IN THIS WAY, PARTICIPANTS ARE INVOLVED IN A ECONOMICAL SYSTEM AND BECOMES STAKEHOLDERS. BLOCKCHAIN IS A DECENTRALIZED TRADING SYSTEM. WHEN COMPARED WITH TRADITIONAL TRADING METHOD WHICH IS BUILT ON CREDIT, BLOCKCHAIN HAS CERTAIN ADVANTAGES WHICH CAN REDUCE PAYMENT COST/EXTEND TRADING SCENARIOS/SPEED UP CAPITAL FLOW. THOSE SPECIALTIES CAN HELPUS BUILD BETTER INTERNATIONAL TRADING SYSTEM OF WASTE AND MATERIALS/KEEP ALL THE ECONOMICAL ELEMENTS

FLOW IN THE ECONOMICAL CYCLE WHICH COULD

REDUCE WASTE TO THE MAXIMUM EXTENT.



THERE IS TWO PRINCIPLE ABOUT CIRCULAR ECONOMY

1. "Keep material and product in use";

2. "Regenerate natural system".

IN SOME CASES SOME STAKEHOLDERS WOULD BECOME MATERIALS AND IN OTHER CASES THEY WOULD PLAY A DIFFERENT ROLE IN THE REMODELING NATURAL

PROTOTYPES MUST CREATE INTERACTIONS WITH ALL THE RELATED STAKEHOLDERS. IN THE DESIGN PROCESS DESIGNERS MUST MAKE SCENARIOS TO INLLUSTRATE THE FUTURE FULL LIFE CIRCLE.

STAKEHOLDERS CAN BE SOMEONE WHO DIRECTLY PARTICIPANT IN THE PROCESS OF CO-DESIGN, LIKE LOCAL CITIZENS WHO WILL BE THE USER AND MAINTAINER OF PROTOTYPES. AND ALSO TOGETHER WITH LOCAL CITIZENS DESIGNERS AS US SHOULD MAKE SCENARIOS TO PREDICT HOW OTHER STAKEHOLDERS LIKE ANIMALS WOULD INTERACT WITH PROTOTYPES.



1." Design out of waste and pollution";

2." Keep material and product in use".

ALL THESE TWO PRINCIPLES DEFINE THE RELATIONSHIP BETWEEN CIRCULAR ECONOMY AND MATERIALS. PROTOTYPES MUST HAVE THE PHYSICAL FORM. IN ORDER TO DO THAT THE DESIGNERS MUST DISCUSS ACTUAL MATERIALS TO FIND OUT WHICH PARTICULAR MATERIAL WILL BE THE ONE THAT FIT THE MOST.



THE IMPORTANCE OF CO-DESIGN IS TO FIND OUT ABOUT TWO THINGS:

1.WHAT ARE THE REAL NEEDS OF LOCAL PEOPLE;

2.HOW TO ORGANIZE LOCAL PEOPLE TO DO THE DIY .

- (1) PREVIOUS STAKEHOLDER BECOMES CRUCIAL PART OF REGENERATE THE NATURAL SYSTEM OF WORM HOUSE.
- (2) SOME PLANTS CAN ALSO BE THE MATERIALS FOR WEAVING FOR ONE PROTOTYPEAS WELL AS BE THE STAKEHOLDER TO THE OTHERS' PROTOTYPE.
- **3** INSECTS CAN PERFORM AS ONE CRUCIAL STAKE-HOLDER IN URBAN CIRCULAR ECONOMY SUCH AS WHAT THEY CAN DO IN THE WORM-HOUSE TO EAT UP THE LEFTOVERS OF THE CITIZENS.
- 4 PLANTS CAN ALSO ADD THE CONCEPT OF "GROWTH. SOME PARTS OF THE PLANTS HAVE ENOUGH STRENGTH AND ALSO WHEN PUT THEM INTO THE SOIL THEY CAN GROW AS TIME GOES BY.
- (5) BIO-CORRIDOR IS BUILT FOR CERTAIN SPECIES AND IF THEY CAN TRAVEL THROUGH CITY SAFELY THEN THEY CAN PERFORM AS THE STAKEHOLDER TO THE SYSTEM.
- SOME RECYCLING STATION IN THE URBAN AREA ARE IN CONFORMITY WITH THE PRINCIPLE OF BIO-CORRIDOR SO THEYCAN PERFORM AS BIO-CORRIDOR IN THE URBAN AREA.
- 7 APPS IN BLOCKCHAIN CAN HELP THE DESIGNERS ORGANIZE DIY AND THE LATER MAINTENANCE BECAUSE THE DESIGNERS CAN PRODUCE CERTAIN INCENTIVES TO MOTIVATE LOCAL CITIZENS.
- (8) LOCAL ORGANIZATIONS AS THE CRUCIAL STAKEHOLDER ARE INTITLED TO JOIN THE WORKSHOP TO EXPRESS THEIR INTERESTS.

- (9) THE SOURCE OF OUR MATERIAL FOR PROTOTYPE MUST BE COLLECTED IN THE LOCAL REGION.
- (10) LOCAL CITIZENS AS THE CRUCIAL STAKEHOLDER ARE INTITLED TO JOIN THE WORKSHOP TO EXPRESS THEIR INTERESTS.
- (11) THE DIALOGUE BETWEEN LOCAL CITIZENS AND DESIGNERS CAN BE THE DIRECT EVINDANCE OF HOW PROTOTYPES EVOLVE THIS WAY.
- (12) AFTER THE ENDING OF THE SERVING LIFE OF CERTAIN MATERIAL, IT CAN DEFINATELY BE ADD INTO THE CIRCULAR ECONOMY MODEL.
- (13) SOME MATERIALS FOR THE PROTOTYPE THEMSLVES ARE RECYCLABLE.

- (14) WHEN SELECTING SOURCE OF THE MATERIALS THE FIRST OPTION SHOULD BE RECYCLABLE ONES.
- 5) WHEN SELECTING SOURCE OF THE MATERIALS THE FIRST OPTION SHOULD BE THE ONE STHAT CANBE SORTED
- (16) DESIGNERS SHOULD MAKE SCENARIOS ABOUT HOW THEIR PROTOTYPES GROW OR HOW THE STAKEHOLDERS GROW AS TIME GOES BY.
- (17) WILLOW CAN BE USED TO FORM SOME PARAMENTERIZATION.
- (18) MATERIALS ARE NECESSARY TO BUILD SKETCH MODELS TO TEST THE CONCEPT OF PROTOTYPES .
- (19) WOOD WOULD BE THE MOST IMPORTANT MATERIAL THAT WE MAY USE TO BUILD PROTOTYPES.
- a danjian wang's prototype use the CONSTRUCTIONAL METHODS OF WOODEN CARPENTRY. YUCHEN WANG'S PROTOTYPE USE THE b conatructional methods of "tipi".
- YUAN ZHAO'S PROTOTYPE IS DIRECTLY INSPIRED BY ONE C DIALOUGE WITH A PAIR OF FATHER & DAUGHTER ABOUT THEIR PREFERENCE.

THIS GIGA MAP IS ONE STRUCTURAL FRAME WHICH IS A COLLECTION OF ALL THE OTHERS' RESPONSIBILITIES OF THEIR OWN RESEARCHES. THIS GIGA MAP CAN BE CONTINUOUSLY COMPLETE BY THE GROUP MENBERS. AND ALSO NEW ITEMS CAN BE ADDED INTO THIS STRUCTURE AND WITH THE EXPANDING OF THE EXPRESSING SPACE THIS STRUCTURE IS RENEWABLE. WE ARE PRETTY SURE THAT AS OUR PROTOTYPES DEVELOP, THIS GIGA MAP WILL DEVELOP WITH THE DEVELOPMENT OF THE PROTOTYPES.