



Design of Future Inuit Settlements



Country / City Harbin / China
 University / School Harbin Institute of Technology
 Academic year 2019-2020
 Title of the project Design of Future Inuit Settlements
 Authors Song Tianning, Zhou Longyan



TECHNICAL DOSSIER

Title of the project Design of Future Inuit Settlements
 Authors Song Tianning, Zhou Longyan
 Title of the course Research Design Studio
 Academic year 2019-2020
 Teaching Staff Zhu Xun, Zhao Wei
 Department/Section/Program of belonging Landscape Architecture Department
 University/School Harbin Institute of Technology



Written statement, short description of the project in English, no more than 250 words

Under the background of global warming, Inuit are facing the traditional culture gap and food crisis. Baffin Island is an important residential area for Inuit people. Therefore, combined with the ever-changing environment, we should establish the cultural display route and traditional activity route, and integrate and connect the existing cultural resources. Through the determination of many hunting sites and routes, the establishment of a safe and stable network of food acquisition, fresh water supply and migration in Baffin Island is an important means to ensure the food supply and the continuation of tradition in the whole region.

The new type of settlement is based on geometric hexagon, and the modular design is now concentrated in replication and scale expansion. A wooden frame structure that can be carried by snowmobiles; There are 28 units in a settlement, which can accommodate about 60 families and 200 people. Different types of public Spaces are designed to facilitate community communication and cultural cohesion. Usually as a temporary hunting stop, disaster is a safe shelter.

For further information
 Máster d'Arquitectura del Paisatge -DUOT - UPC
 T: +34 93 401 64 11 / +34 93 552 0842
 Contact via email at: biennal.paisatge@upc.edu

Máster d'Arquitectura del Paisatge -DUOT - UPC
 ETSAB - Escola Tècnica Superior d'Arquitectura de Barcelona
 Avenida Diagonal, 649 piso 5
 08028 Barcelona-Spain

CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona
 Barcelona September 2020
 SCHOOL PRIZE



Design description

Under the background of global warming, Inuit are facing the traditional culture gap and food crisis. Baffin Island is an important residential area for Inuit people. Therefore, combined with the ever-changing environment, we should establish the cultural display route and traditional activity route, and integrate and connect the existing cultural resources. Through the determination of many hunting sites and routes, the establishment of a safe and stable

Technological Process

处理流程	方法	目的
1. 确定选址	查找资料, 准备数据, 实地勘察	为后续分析做准备
2. 初步成本分析	采用GIS进行地形高程分析, 海拔分析, 日照分析, 食物情况	分析选址的可行性, 日照条件, 食物情况
3. 适宜区域确定	利用GIS进行地形高程分析, 海拔分析, 日照分析, 食物情况	通过成本分析, 初步确定适宜建设分布的区域
4. 规划建筑形态	通过GIS分析地形高程, 日照分析, 食物情况	对建设区域进行初步规划, 提出不同等级的建筑形态
5. 具体规划设计	建筑形态模块化, 包含因应地形和建筑文化空间	模块化建筑, 提出适应气候变化的建筑形态

Location

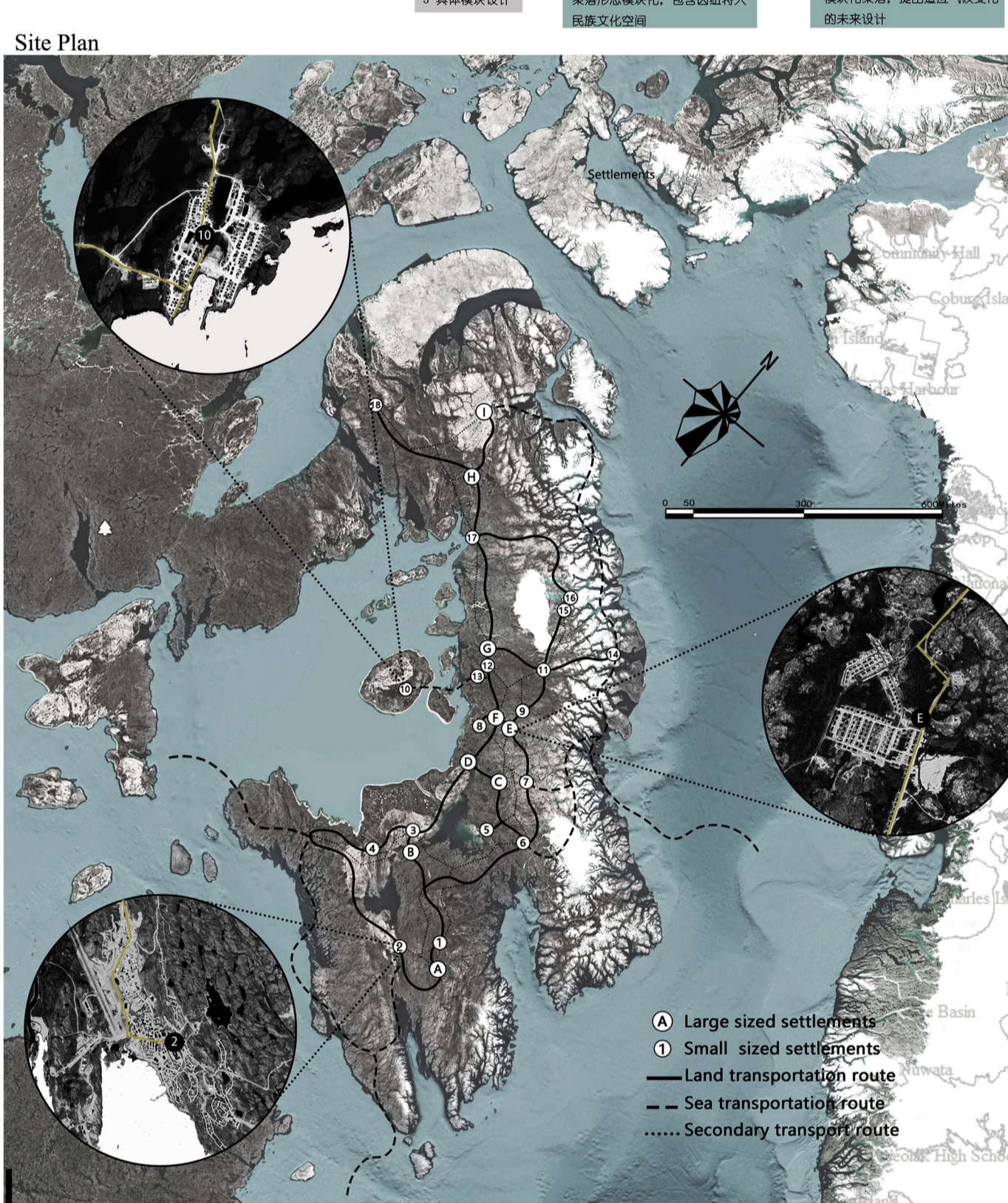


Residential area

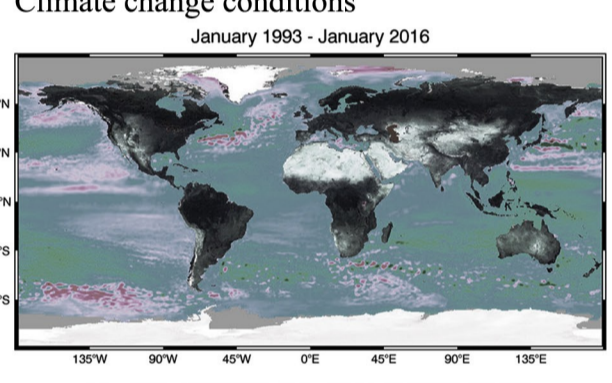


Sea level rise

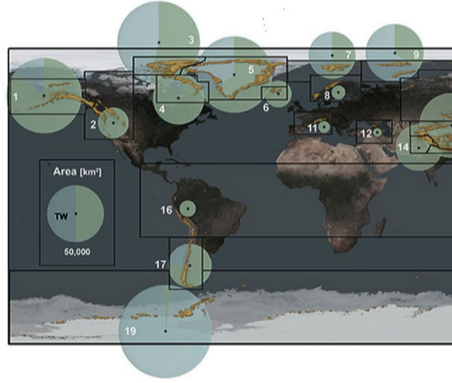
When sea level rises to 1 meter, the protection park can be used as a place to provide hunting, and the land to the north is an important source of food, and the future planning site is based on these migration areas.



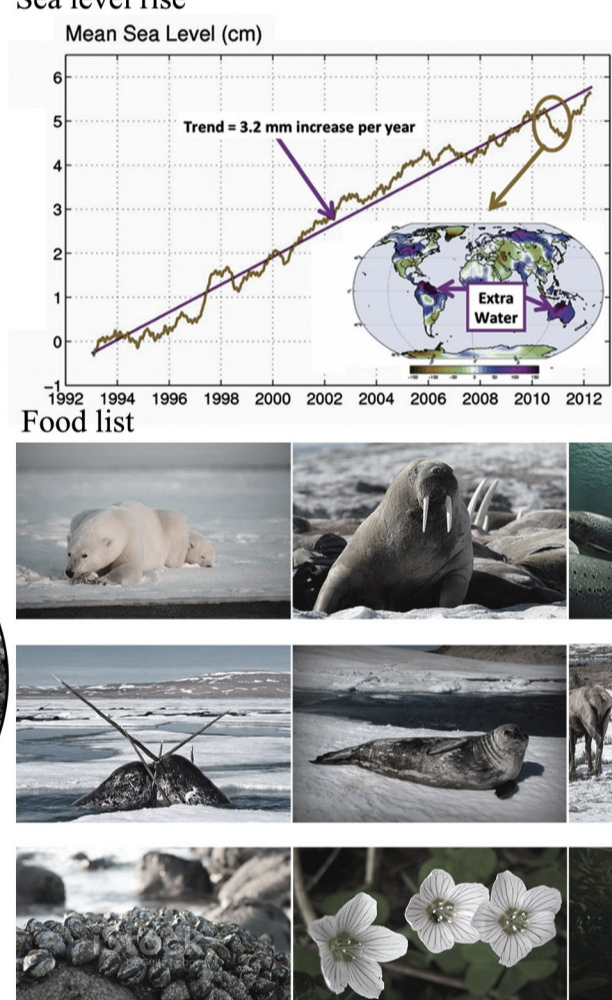
Climate change conditions



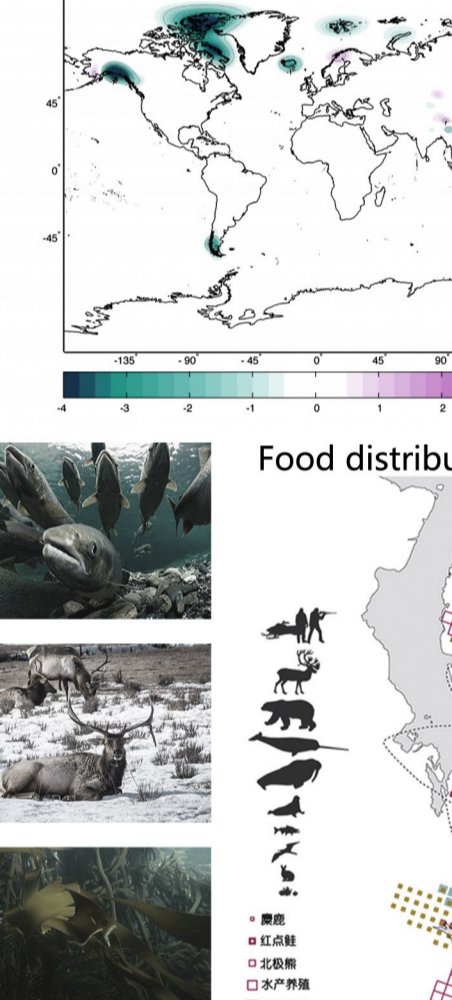
Sea level rise



Food list



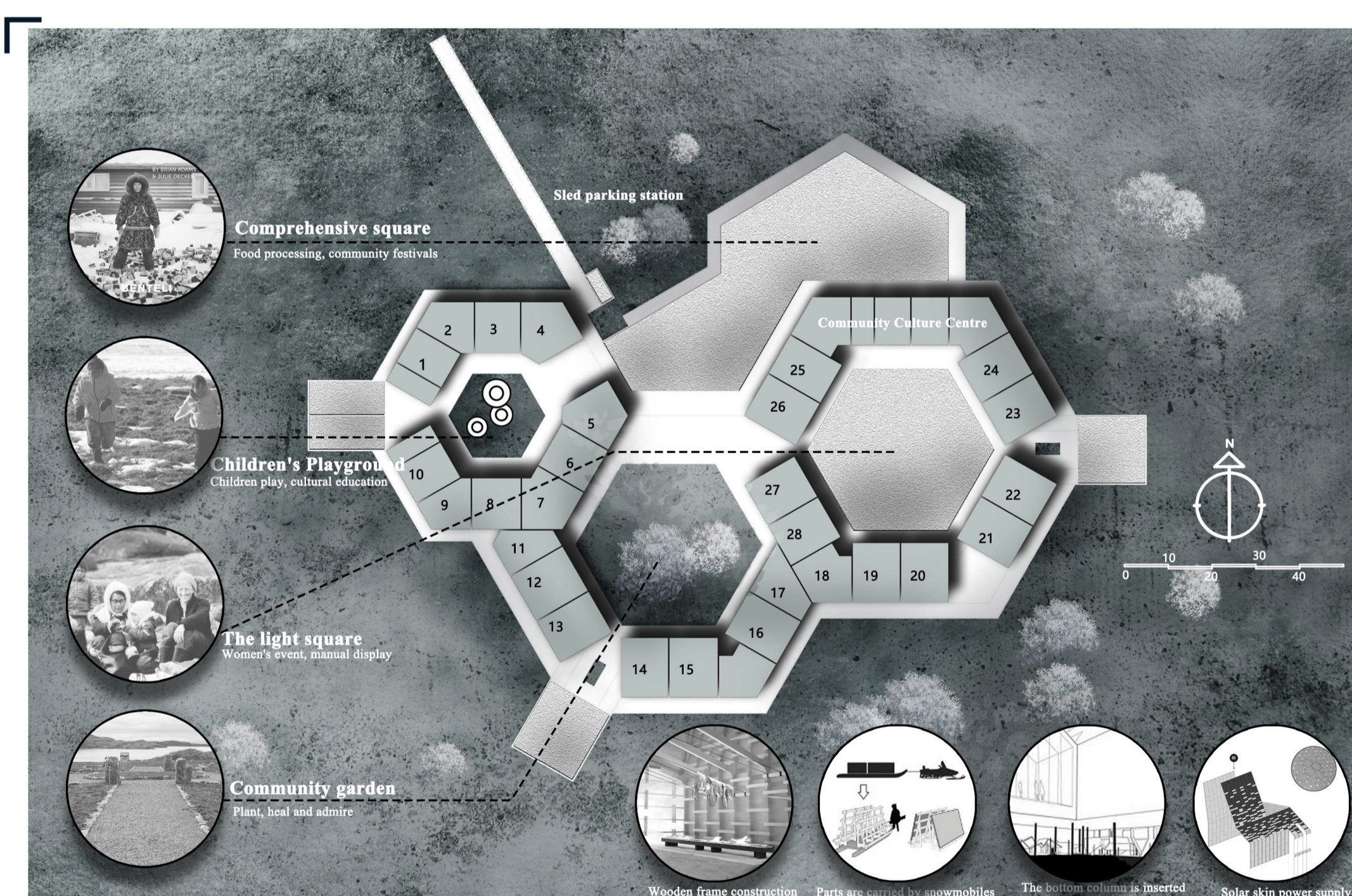
Food distribution



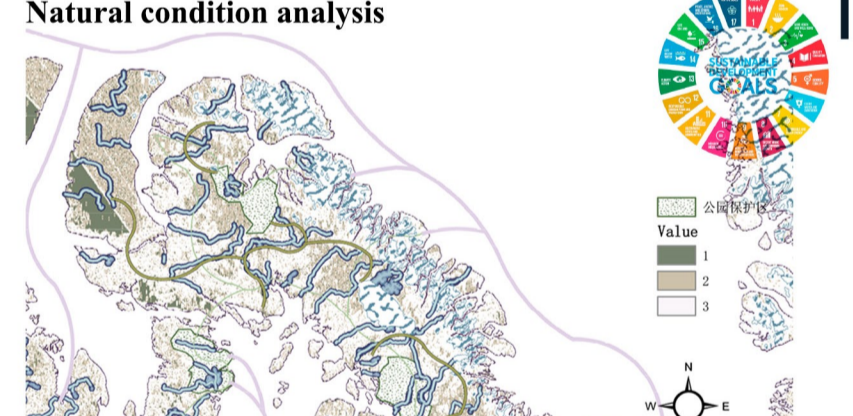
Glacier situation



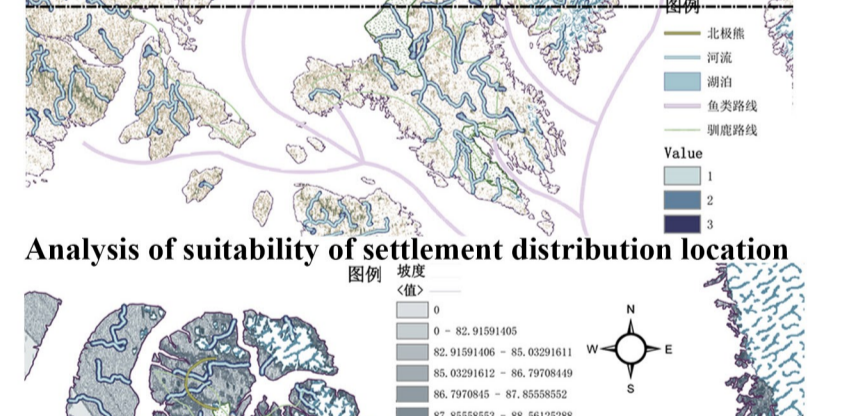
Type of shipping



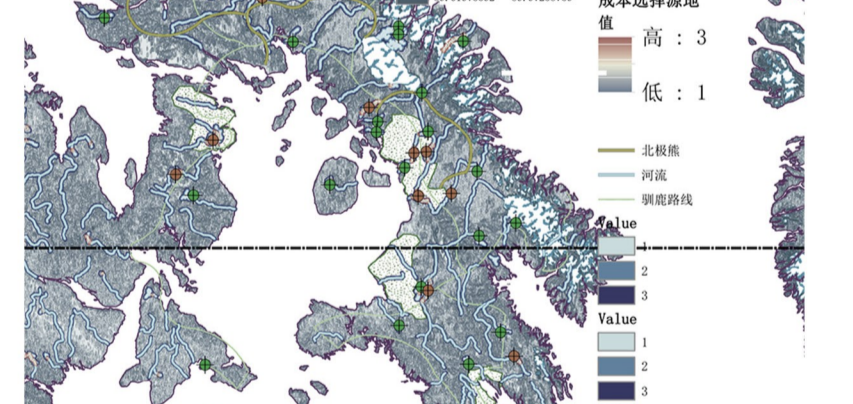
Natural condition analysis



Analysis of suitability of settlement distribution location



Settlement classification and location determination



Design description:

Global warming, melting glaciers, short ice age, thin ice, the Inuit hunting migration is facing great challenges, survival is increasingly difficult. The new type of settlement is based on geometric hexagon, and the modular design is now concentrated in replication and scale expansion. A wooden frame structure that can be carried by snowmobiles; There are 28 units in a settlement, which can accommodate about 60 families and 200 people. Different types of public Spaces are designed to facilitate community communication and cultural cohesion. Usually as a temporary hunting stop, disaster is a safe shelter.

Extraction of architectural elements



Architectural concept design



elevation of Culture Centre



Local elevation of the residential area

