

As a developing site we took the part of a dike between isle Kotlin (Kronshtadt) and the big land of Saint Petersburg at the Gulf of Finland not far from Sestroretsk. We prefer this special place for its own inside conflict. First of all it is located on the open sea-water space near the greatest cultural and historic center of Russia, second – it is connected with defensive constructions, which influence and change the environmental ecosystem, third - it is interesting by its climate with four absolutely different seasons. All these features make place suitable for designing of new self-sufficient housing.

As we said our site is a fragment of dike which main functions are to protect the city from permanent flood and to be a land-transport arterial road. The actuality of the place is in fact that there are all necessary natural resources as sun-light, strong wind and water to provide comfortable self-sufficient economy housing. We propose to use all this conditions to make new dwelling modules which could rival with traditional municipal buildings depending on the expensive centralized power grid.

We have designed an overall plan envisaging water supply and sewerage system laying, filtration and recycling of technical water from the Baltic Sea and drinking subsoil waters, providing an independent provision of energy from sun batteries and wind turbines. As well we are going to build a monorail along the dike and to use ferries as a water transport for people who will live in this settlement.

An overall plan is build up from separate circular movable pontoon blocks of housing with private moorages. Each block consists of movable pontoon segment with dwelling module, garage, slipway and it has its own road, circled water supply system, filters in the center, sewerage system connected with general sewer tank helping to protect Gulf of Finland from the pollution. All segments is centered around the small court with circular road. Each segment can be movable with the help of steam tug. In that case this type of dwelling could be constructed in different ways in some other places with the common conditions. Each brunch of an overall plan is ended by platforms with water turbines. The basement of it

works as breakwater. Between platforms and dwelling we offer to place controllers and accumulators which will transform energy of wind.

We tried to design comfortable spacious house with double sloped roof. This form helps to protect the site from strong wind from Baltic Sea. One of the slopes is covered with sun batteries. All houses will be provided with double system of power supply (personal by sun batteries and general by wind turbines). We offer to light roads and courts with the system of sun accumulating lamps.

Each dwelling will look as a two-storied cottage with the entrance space on the underground floor (the level of road and garage). The ground floor will include a kitchen with a dining room, living room, sitting and a spacious hall; the first floor will accommodate three bedrooms. Each floor has a bathroom.

Our design is based on the last technology of Russian and European companies, which made some very economical and rational alternative system of using and transformation of natural energy.

We hope that our proposal will help to solve not only economical problems and to attract the tourism to Kronshtadt, but to normalize the environmental ecosystem and make this part of Gulf of Finland cleaner. And we think that this kind of self-sufficient housing would be interesting and helpful to some other places with the same geographical conditions (such as Finland, Karelia, Lithuania, Latvia, Estonia).

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