

## Practice

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## Team

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# Fluidcity

**Fluidcity:** The ideal of the family farm, the small farmer, holds a central role in the psyche of the Irish people, so important that the Irish Constitution states, 'The State shall, in particular, direct its policy towards securing that there may be established on the land in economic security as many families as in the circumstances shall be practicable.' (1937 Constitution, Article 45.2v). Modern society has, at least superficially, changed our expectations. Our new-found economic prosperity has presented us with countless choices and opportunities which are now taken for granted. The city has dominion over these opportunities, the city seems to be the place to be, urban is upwardly mobile. Despite this lure of the city, the Irish remain fundamentally uncomfortable in the metropolis: no one wants to give up the idea of a house and garden and this gives rise to ever-increasing suburbanisation. A suburban life means that people's homes, their work, schools and shops are remote from one another. In this situation a sense of community ceases to exist. This project examines a new super-rural settlement where a 'soft infrastructure', the existing river system, affords traditionally urban advantages to a linear rural settlement. It recognises the value of a rooted stable community structure, yet understands that this can have a symbiotic relationship with contemporary, mobile and complex needs and desires. It seeks to show that a living, productive landscape is a possibility at a time when policy is dictating towards landscapes of nostalgia. I believe that the rural landscape must be intelligently transformed, not preserved as a static, framed picture postcard.

# 278

Length of the Shannon-Erne river system in kilometres

# 800

Kilometres of usable shoreline

# 400

People per kilometre of river

# 240,000

Proposed population of river complex. Current urban population, incl Limerick, Athlone and Carrick-on-Shannon is 80,000.

# 1937

Irish Constitution, Article 45.2v: 'The State shall, in particular, direct its policy towards securing that there may be established on the land in economic security as many families as in the circumstances shall be practicable.'



#### **The Shannon-Erne river system**

The waterways of Ireland—the rivers, canals and lakes, more than 1,000km in total length—are under used.

I propose a vibrant, intensive linear settlement along the banks of the Shannon-Erne system, which is 278 km long, with 800 km of useable shoreline. This grand, majestic river complex becomes a useful, sustainable infrastructure again, a population of bank-dwellers farming the river plain and using the river as a central artery for communication.

#### **Settlement**

The flood plains of the Shannon are known as the callows, from caladh, meaning river meadow. They are up to 2km wide on each side of the river. Using less than 10% of this precious natural landscape, a new responsive architecture will be made along the banks of the river and lakes. Houses will rise and fall as the river swells and floods. The unique conditions of waterside life will generate a unique new culture of settlement, based on a 500-year-old tradition of rural flood-plain settlement.

**80,000**

Population of existing towns

**160,000**

New SuperRural population

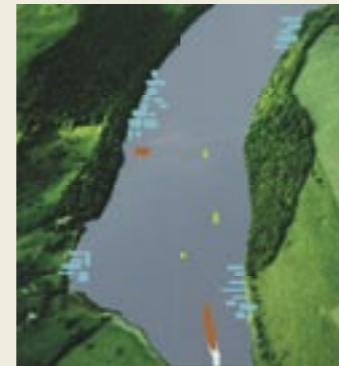




### **Mobile, nimble**

A moving city that appears overnight then vanishes quietly, departing in the mist to a new location; an ephemeral, adaptable resource, with each visit it changes size and make up, adapting organically to the desires of the inhabitants of this fluid, linear settlement.

Though a large proportion of the new dwellings would be in a fixed position, the infrastructure of servicing will be mobile. Instead of travelling to the city, the city travels to you. Cinema, bank, shop, nightclub, art gallery, museum—everything you need or enjoy—plies the river, bringing the world to your door. Electrical boats, batteries charged with wind, solar and water turbines, constantly on the move—the circus comes to town.



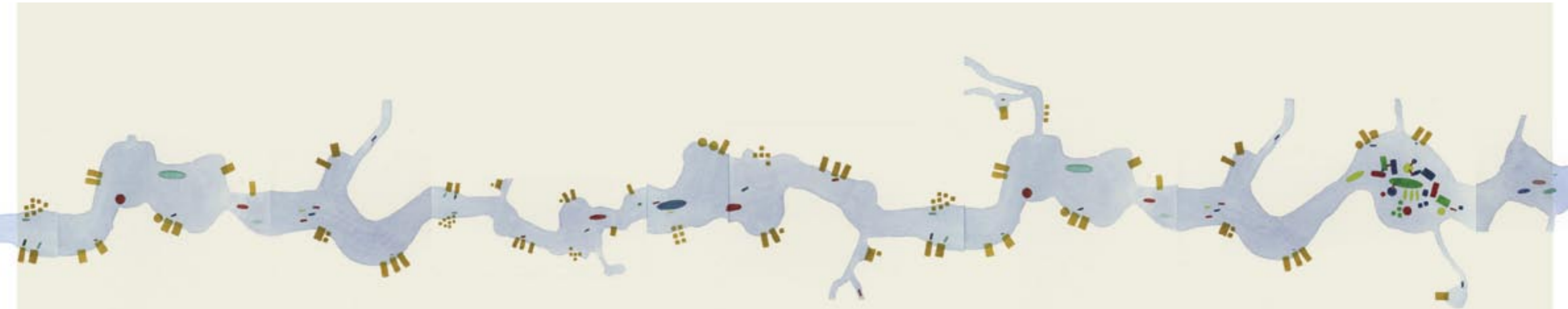
*Quiet*



*Market day*



*Mobile city*



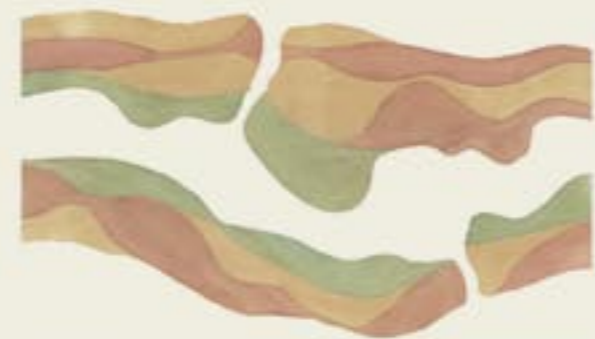
### **Food**

At present over 40% of road freight is connected to the movement of food—from the land, for export (nine out of ten cows produced in Ireland are exported), and from abroad for our supermarket shelves. This will not be necessary in the fluidcity, where enough land for local food production—300m<sup>2</sup> per person, which allows for non-intensive production and rotation of crops and livestock—will be set aside on the fertile river banks.

### **Energy**

At present, Ireland exports agricultural produce, produced uneconomically, relying on heavy fossil fuel use for machinery, fertilisers and feed production and then, with the proceeds earned from these exports, we import fossil fuel. Producing food for the global market is increasingly not viable, where food prices decrease and energy prices rise.

The new settlement will have no need for importing energy. Small-scale river turbines and windfarms will provide local electricity requirements and 900m<sup>2</sup> of woodland per person can meet heating requirements. Biodiesel for boats can similarly be produced on the fertile river bank through the propagation of biomass crops.



PRESERVED FLOOD PLAIN FOOD PRODUCTION ENERGY PRODUCTION

Land use

Land use per person

Energy: 900m<sup>2</sup>

Food: 300m<sup>2</sup>

### **Work patterns**

Repeated studies show that it is desirable to work close to your home. This brings benefits to your immediate family and to the community at large. Children gain understanding of what their parents do in the world of work, and the culture of the workplace becomes more a part of ordinary life—working as living, not just toil. A thriving local economy is supported by the day-round presence of everybody in the community.

The structure of work patterns has moved away from centralised production in the immense factory, away from the moving of paper up and down the corridors of large office buildings. All kinds of work, from the skilled to the unskilled, can happen in smaller, more personable groupings. Local working, therefore, is full of opportunity in the fluidcity connected to the world: high-value items travel quickly by internet, low-value items slowly, down the river to the offshore seaports. A mix of types of work during the day are of benefit to general well being. In the fluidcity a part of the day can be spent on food or energy production, though about five hours a week is all that would be necessary.

### **Nature and a dynamic vernacular**

This new settlement on the river sits on what is in part a sensitive natural habitat for many species of birds, wildlife and plant life. It achieves a viable density, while leaving a large proportion of the landscape untouched, a potential wilderness. It seeks to understand and work with nature, resisting our compulsive, single-minded efforts to control water through elaborate interventions, rather it will work with a dynamic relation between land, water and settlement.

The approach suggests that each geographic region can be made richer if the built is informed by the natural. This leads to a dynamic vernacular, a built environment that doesn't just co-exist with, but has a symbiotic relationship with, the natural.



#### **Density**

Along a 250m-wide strip on each side of the river, 1,200m<sup>2</sup> per person allows for food and energy. Each kilometre of shoreline supports an average of 200 people, so for the entire system which has a usable shoreline of 800 km we have a population of 160,000, just under the current population of Fingal or Dún Laoghaire-Rathdown.

#### **Prefabricated sites**

Floating sites are prefabricated by current techniques using a foam core encased in concrete as a building base. This base is fitted with a translucent roof, producing a sheltered microclimate where an outside life can be pursued out of the rain. They are towed down the river to their mooring position. Once in position, they slide up and down their fixing poles as the waters rise and fall.

#### **Clustered communities**

When these sites are fixed in position, the dwellings and workplaces will be built by the inhabitants, the act of building facilitating the formation of a happy community. These clusters would house 35 people; this is similar in size to pre-land clearance rural settlements in Ireland, and to a typical Parisian or Berlin apartment building. These clusters would include both domestic and work spaces. Each cluster is responsible for 4.2 hectares of productive land and acts as guardian of an extensive wilderness area.





#### **Critical mass**

400 people per kilometre (both sides of river) generates the critical mass needed for a vibrant community and the supply of essential services like schools, doctors and local shops. Within ten minutes in a rowing boat you have contact with 400 people, enough to support, for example, a small primary school. Within twenty minutes in a motor boat you reach 2,400 individuals, enough for a secondary school.

#### **Plugged in and having it all**

The fluidcity responds to the opportunities afforded us by electronic communication. Catering for all those people who can now find a way of working away from the traditional city, it allows them to balance that work with a bucolic life of growing food, rearing animals and chopping wood. It gives the farmer access to the excitement of the city, and the urban type the benefits of a relaxed outdoor life. In modern Ireland there exists in most of us these two, now compatible, sides.

# 400

people live per kilometer of river

# 2,400

people by motor boat in 20 minutes

# 400

people by rowing boat in 10 minutes

