

# The New Tourist Model for the Elbląg Canal

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**Elbląg Canal - short characteristic**



How to make tourists going along the canal want to stop and venture inland  
taking advantage of the local cultural and natural offer

field research

bibliografic studies

comparative studies

gaining and exchanging knowledge during various canal conferences



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studying the influence of culture, landscape and nature on the designed forms, and at the same time  
how the designed forms affect the environment - how to achieve harmony in this field

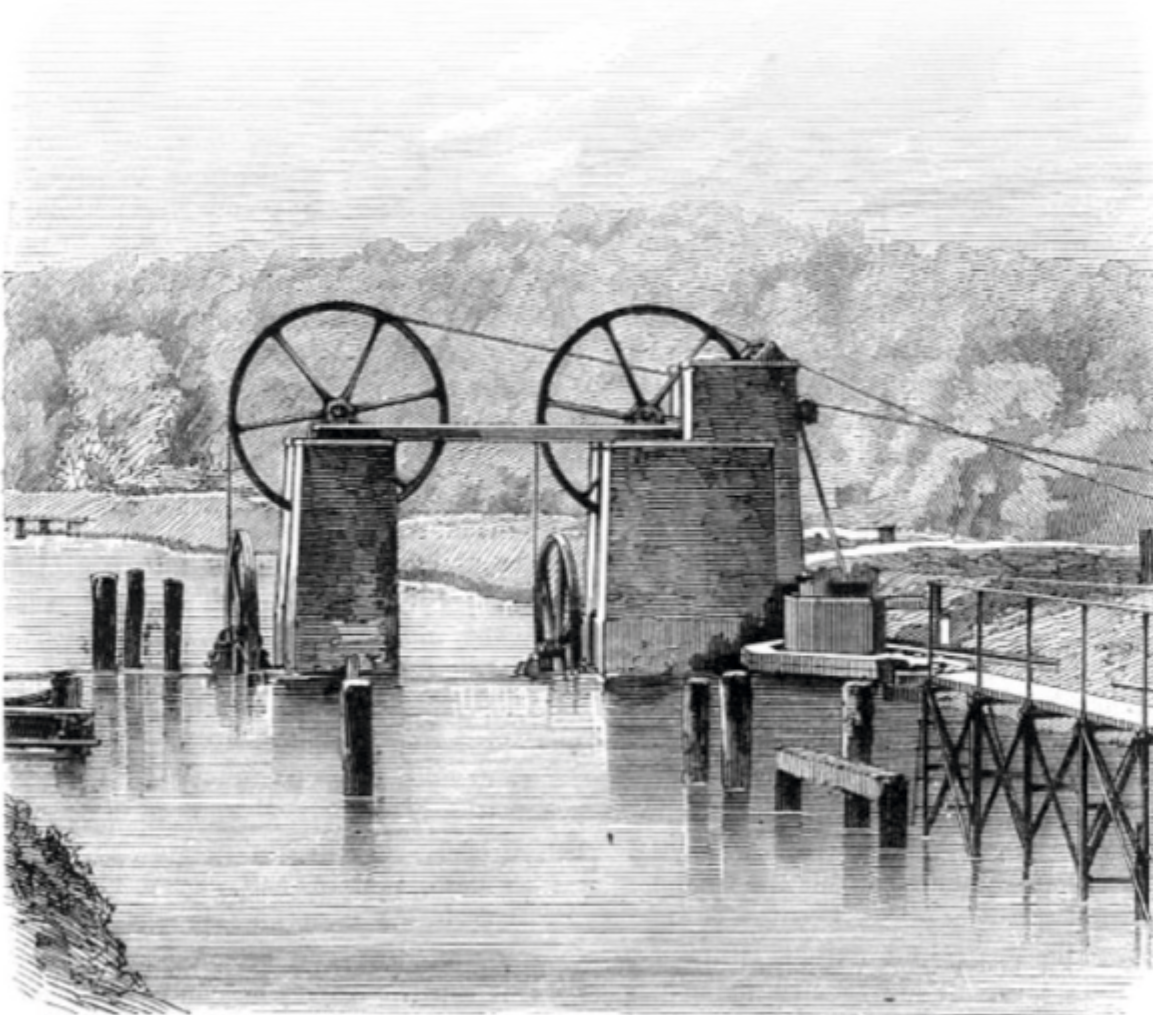


# **Analysis of the current state of the Elbląg Canal and the current tourist model**

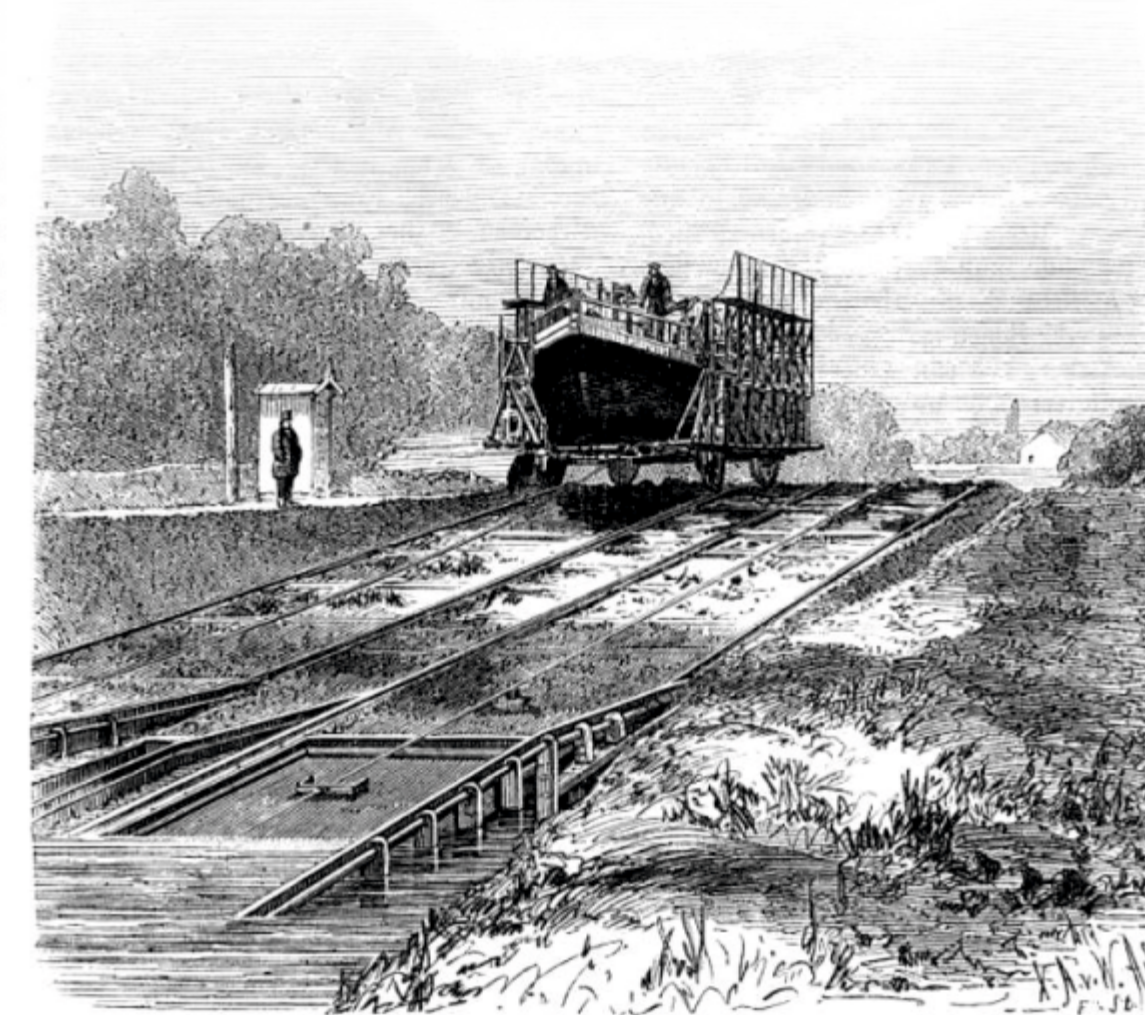
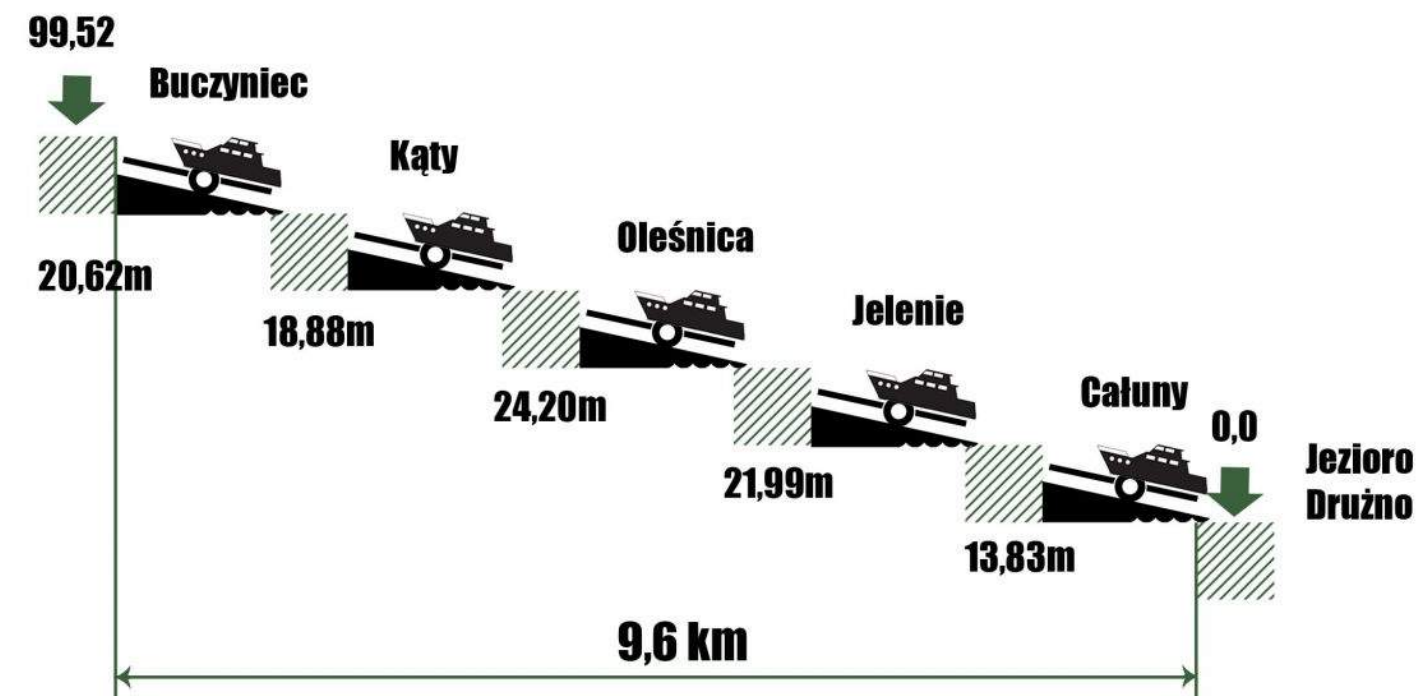


## Elbląg Canal nowadays

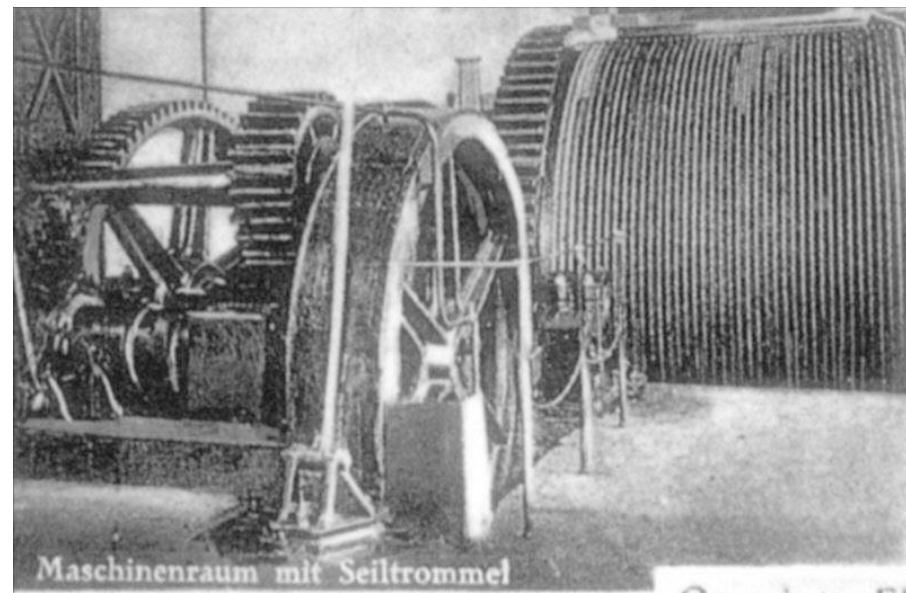
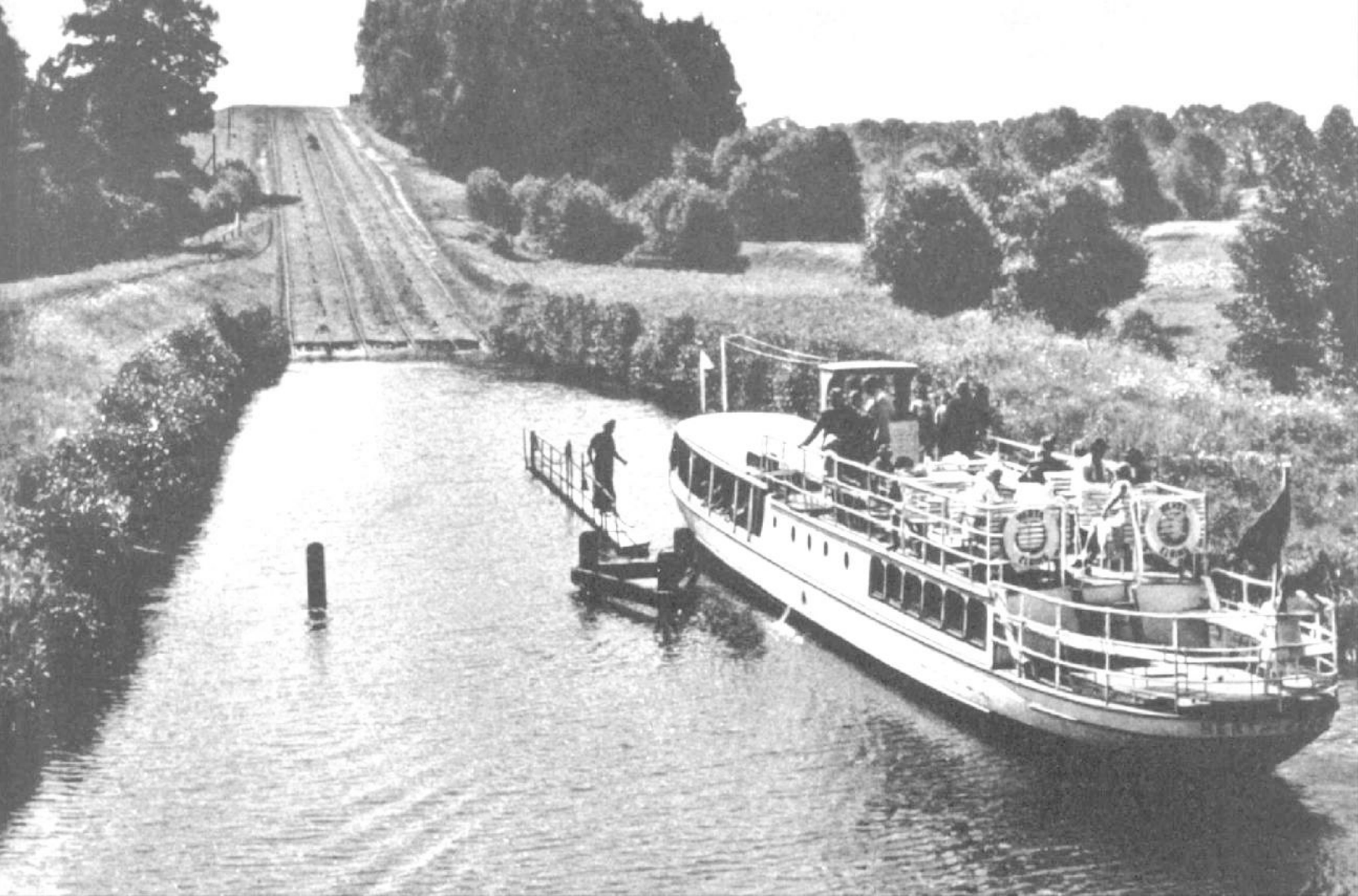
- unique Steenke's inclined plane system: (100 m difference per 10 km, driven by the gravity of water: water wheel and turbine)
- a system of trolleys moving on the tracks on the basis of a counterweight, transporting vessels on land
- by the 1930s, all the similar ones in the world were dismantled



Nr. 11. Die Seilscheiben zur Leitung des Drahtseils für den Schiffwagen.



Nr. 1. Uebergang vom Canal zur Schiffwagenbahn bei Buchwalde.

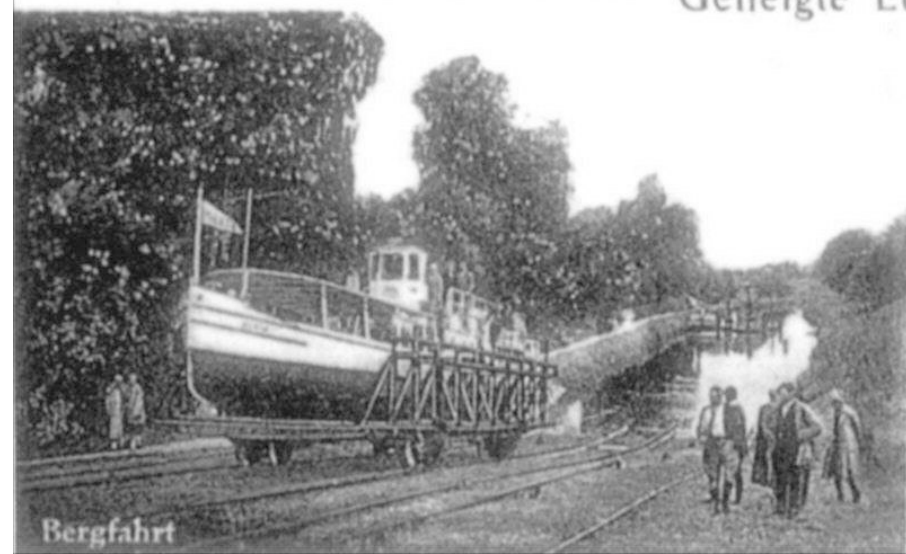


Maschinenraum mit Seiltrommel



Das große Wasserrad

Geneigte Ebene Canthen



Bergfahrt



Talfahrt

The current state of the Elbląg Canal:

- works
- partial revitalization in 2011-2014
- frequent inclined planes failures - sometimes closed for most of the season (2017)
- transit to the lakes of small vessels from the sea and the Lagoon
- under the management of the Gospodarstwo krajowe Wody Polskie - unnoticed on a national scale
- passenger fleet from the 1960s and 1970s
- failure to use many sections causes the canal to overgrow, and dredging and clearing rather damages and ruins the ecosystem



# The relief of the lands of the Elbląg Canal region

Żuławy Wiślane



Wysoczyzna Elbląska



Pojezierze Iławskie



Wzgórza Dylewskie

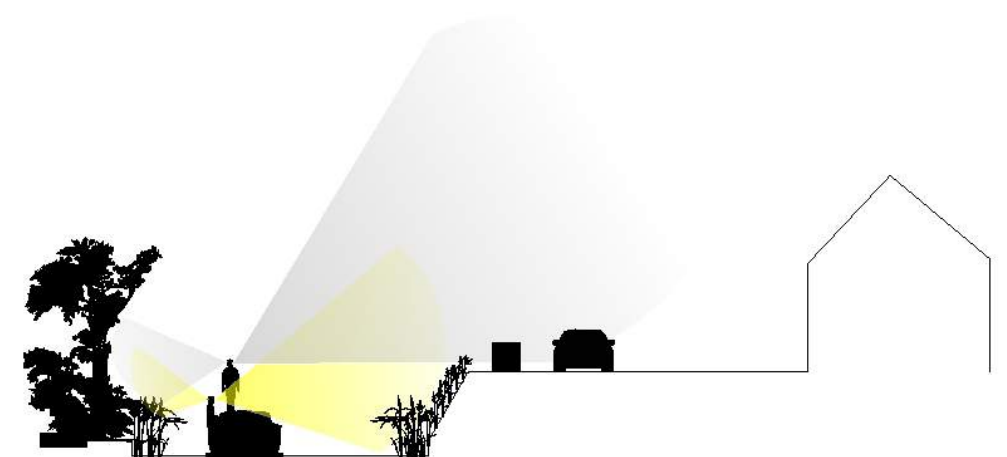
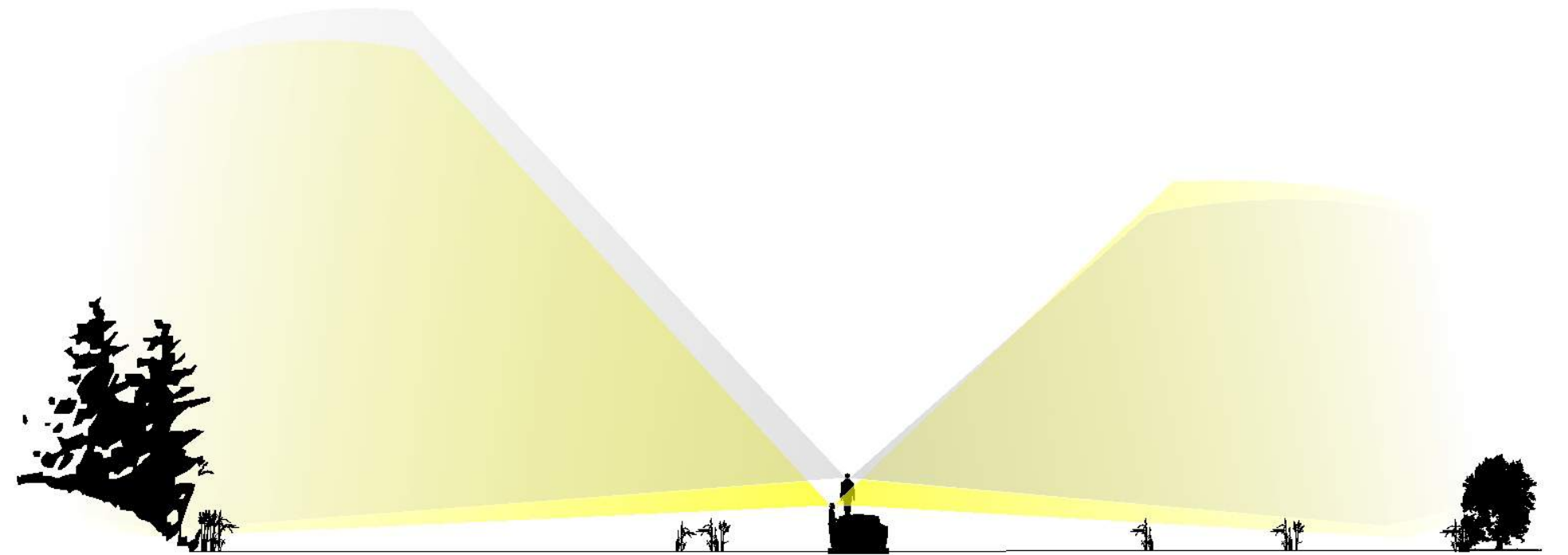


Dolina Drwęcy





# Landscape interiors



The current tourist model:

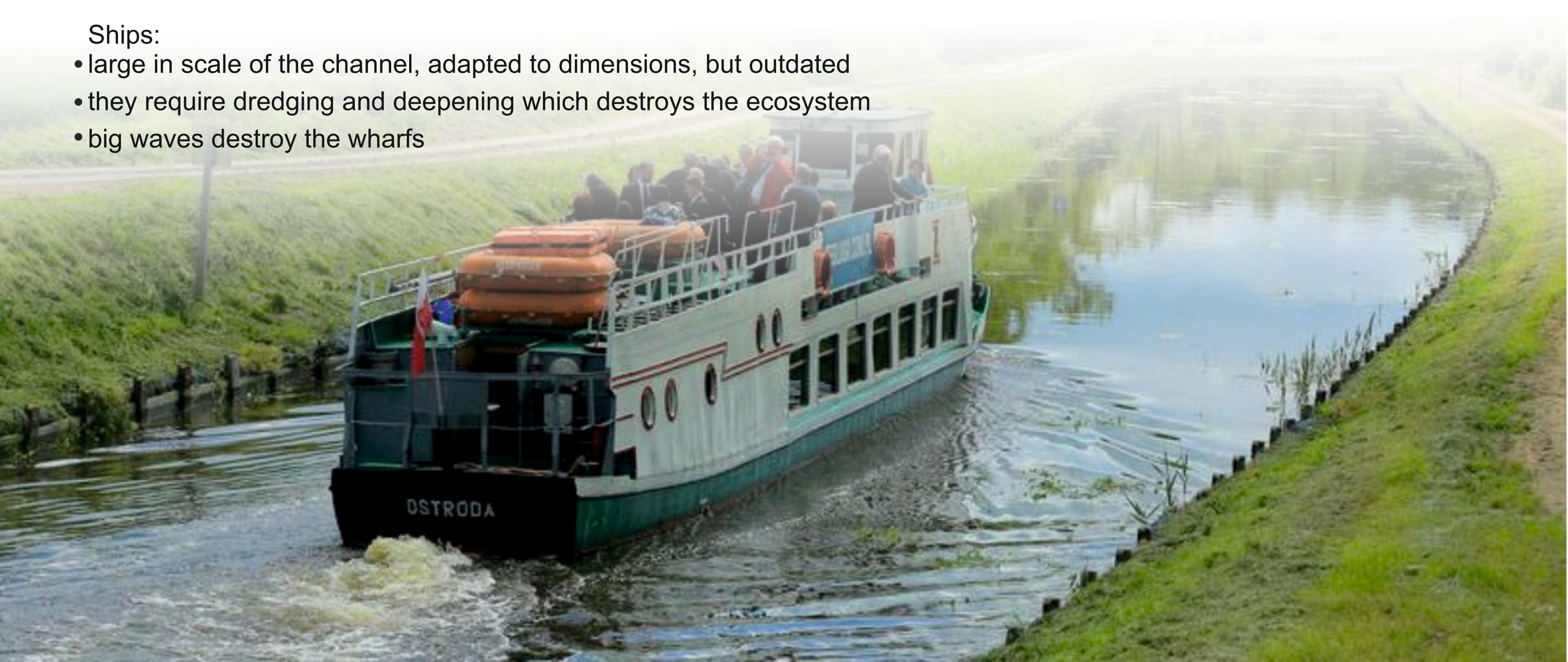
- large ships (noise, fumes), yachts, kayaks
- a crowded main deck when seated or a crush on an open deck
- limited routes of movement - mainly between inclined planes

Ships:

- large in scale of the channel, adapted to dimensions, but outdated
- they require dredging and deepening which destroys the ecosystem
- big waves destroy the wharfs

Tourism:

- mass, superficial
- does not contribute to the economic growth



## **Assumptions for a new tourist model for the Elbląg Canal**

## New tourist model:

- preservation of re-naturalized nature
- it is to serve people, but also other organisms, which are an equal element of the reservoir and its landscape
- design activities strictly thought out and adapted to natural conditions
- transformation of the landscape for the purposes of rest and recreation
- transforming the canal from a transit road into an attraction in itself - spending time on the canal, communing with nature and culture





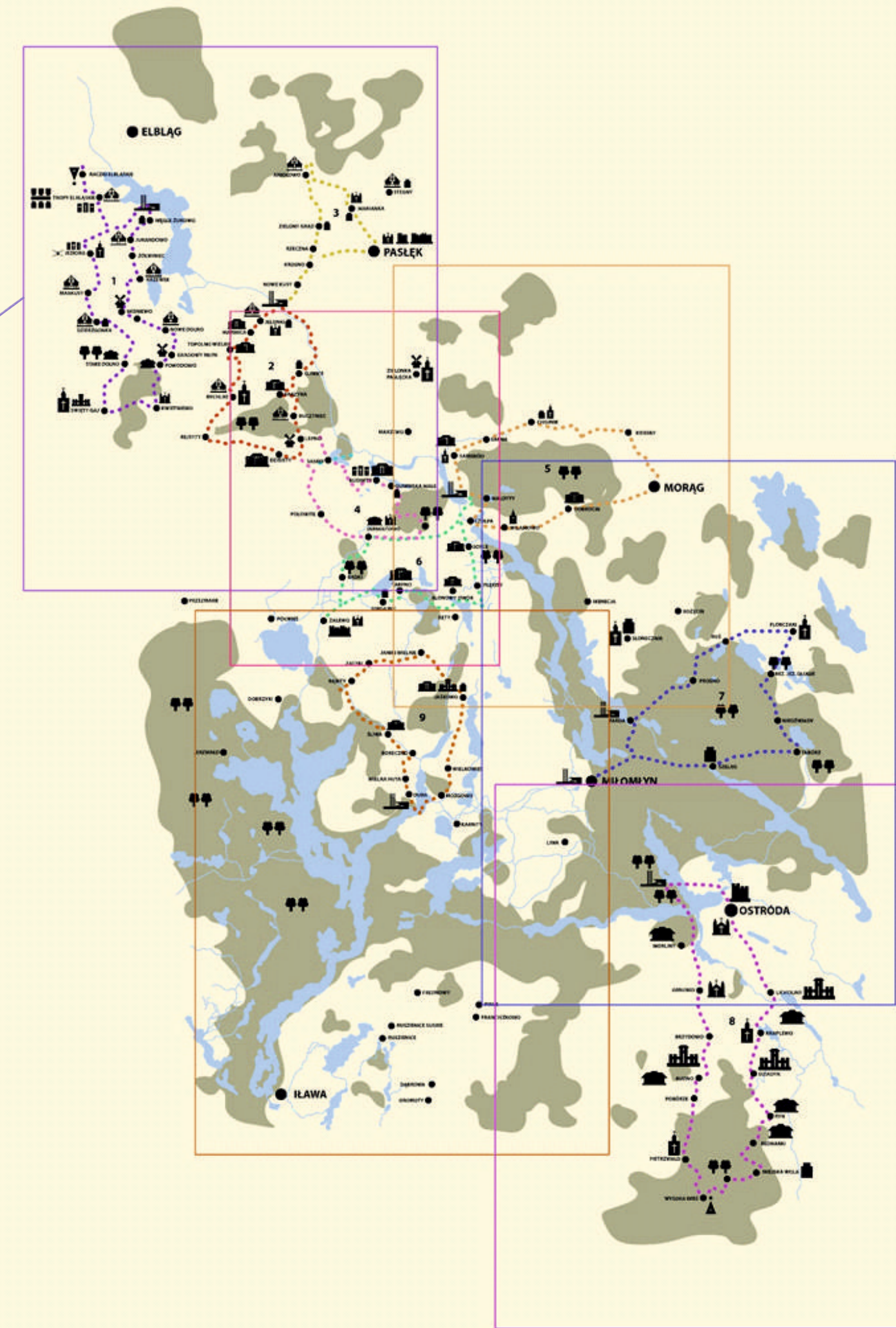
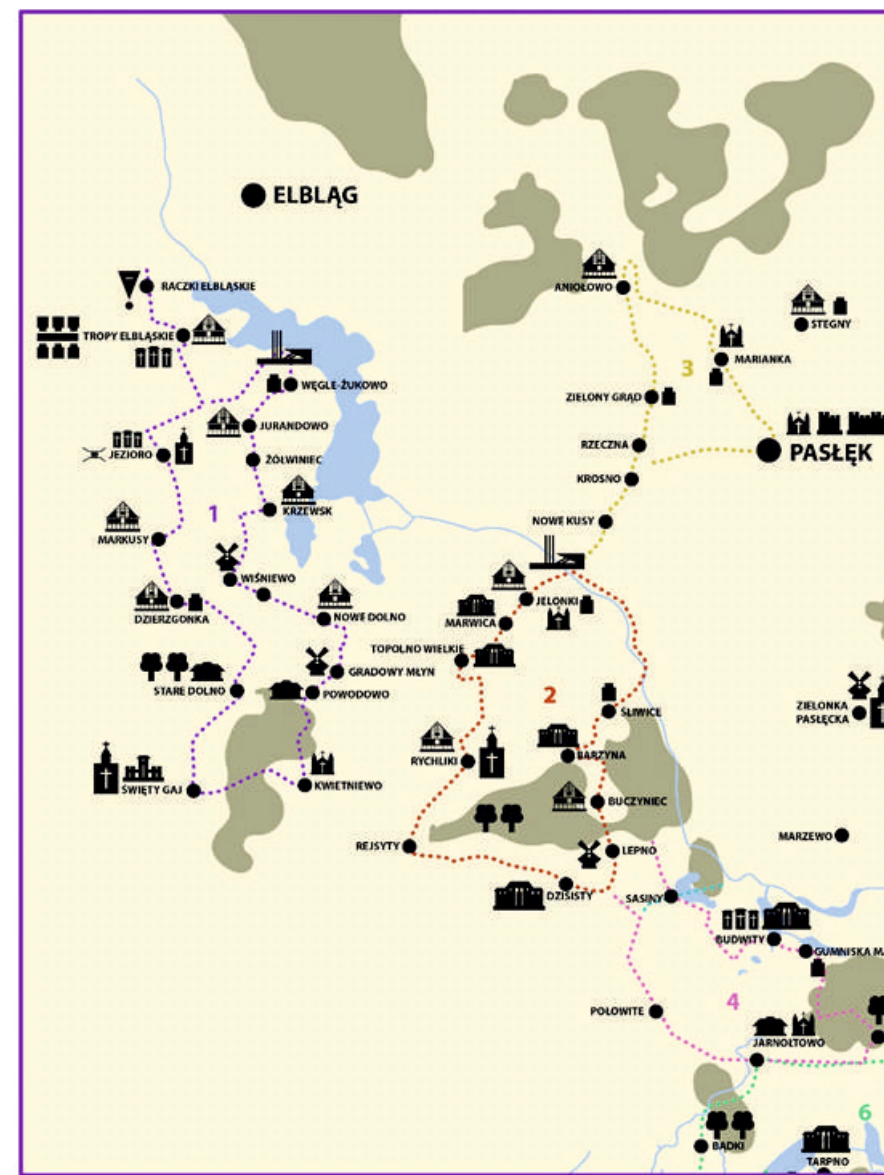
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- individual transport or smaller groups
- adjusting the offer of tourist attractions to individual preferences
- sustainable development and the least possible interference with the natural environment
- optimization of the number of tourists on individual sections of the canal
- introduction of stopping places, starting points for further venture inland



New tourist model:

- the routes partially overlap with bicycle routes
- they lead through cultural and natural heritage sites
- mooring/stopping places provide rest, toilets and accommodation



# **Watercraft design study**



design by: 



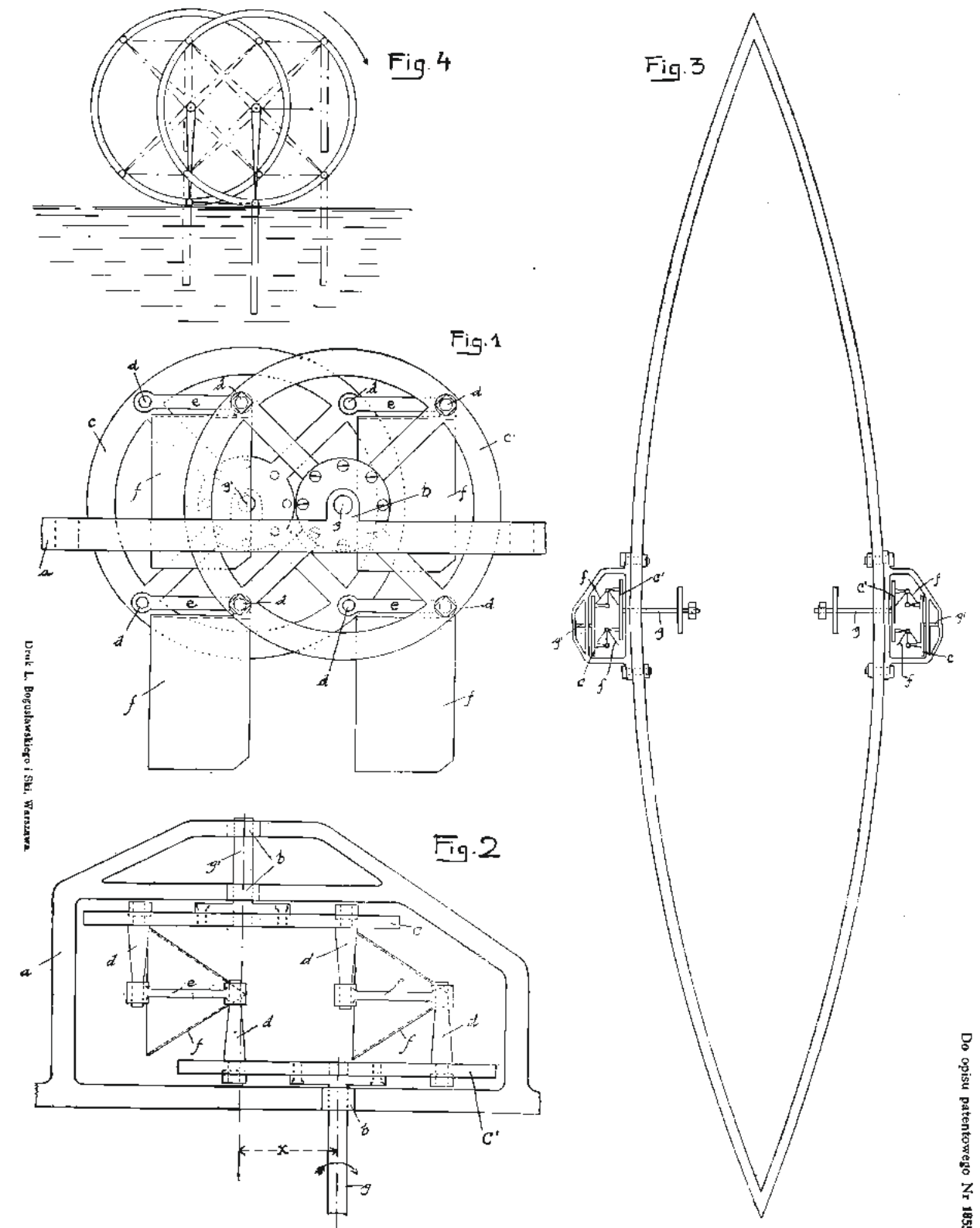


### Elbląg Canal:

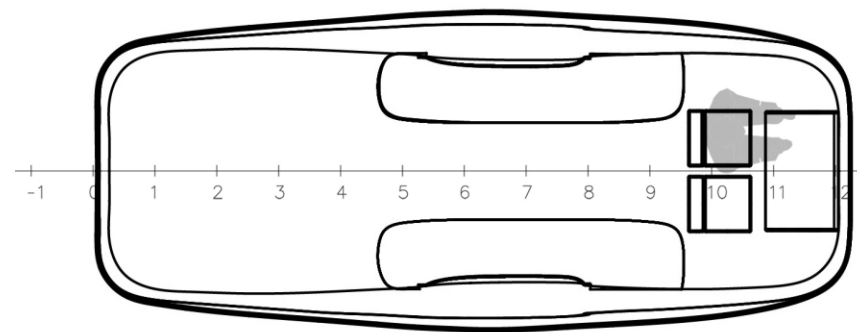
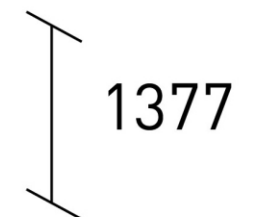
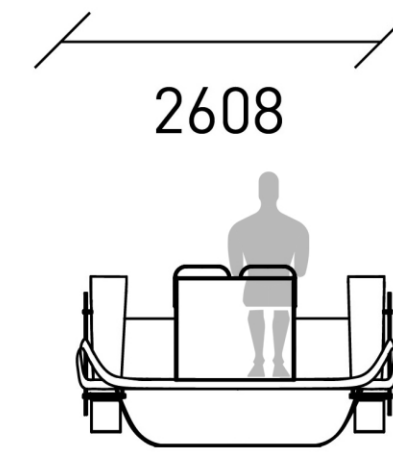
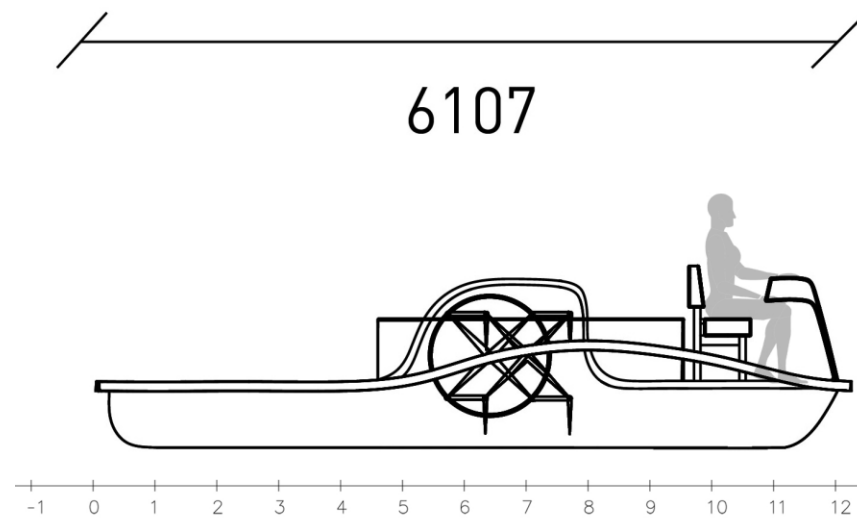
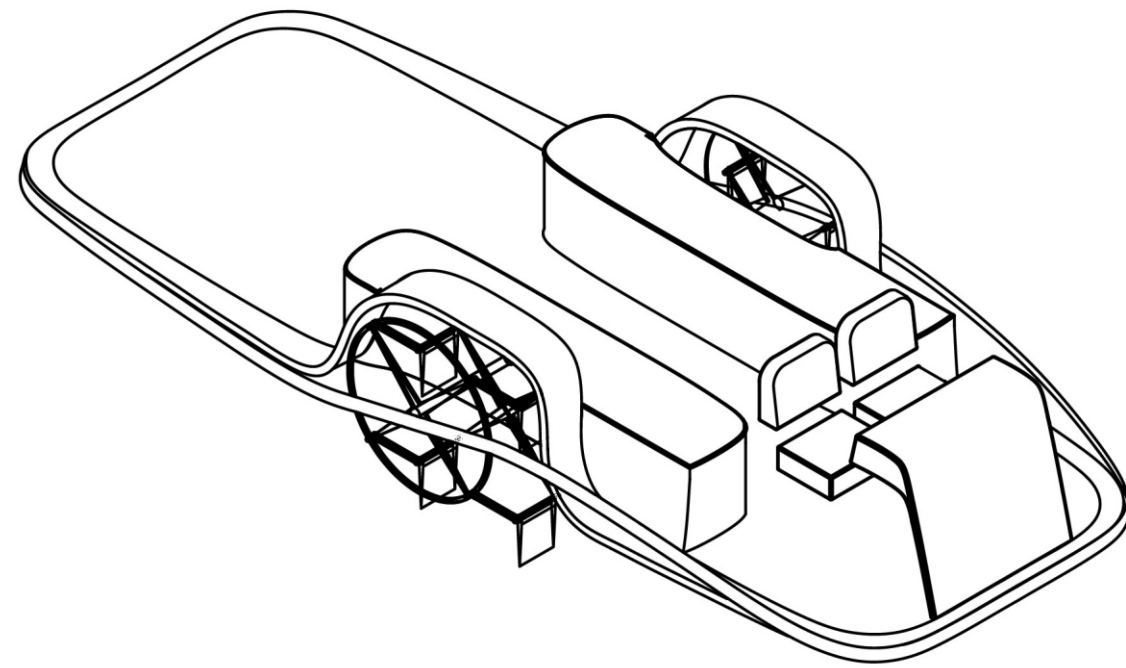
- width min. 7m, fairway up to 7m
- silting up of less frequented sections of the canal leading to shallowing
- strong overgrowing of the canal - a handicap in shipping, especially for motorised vessels with low power screws

## Vessel:

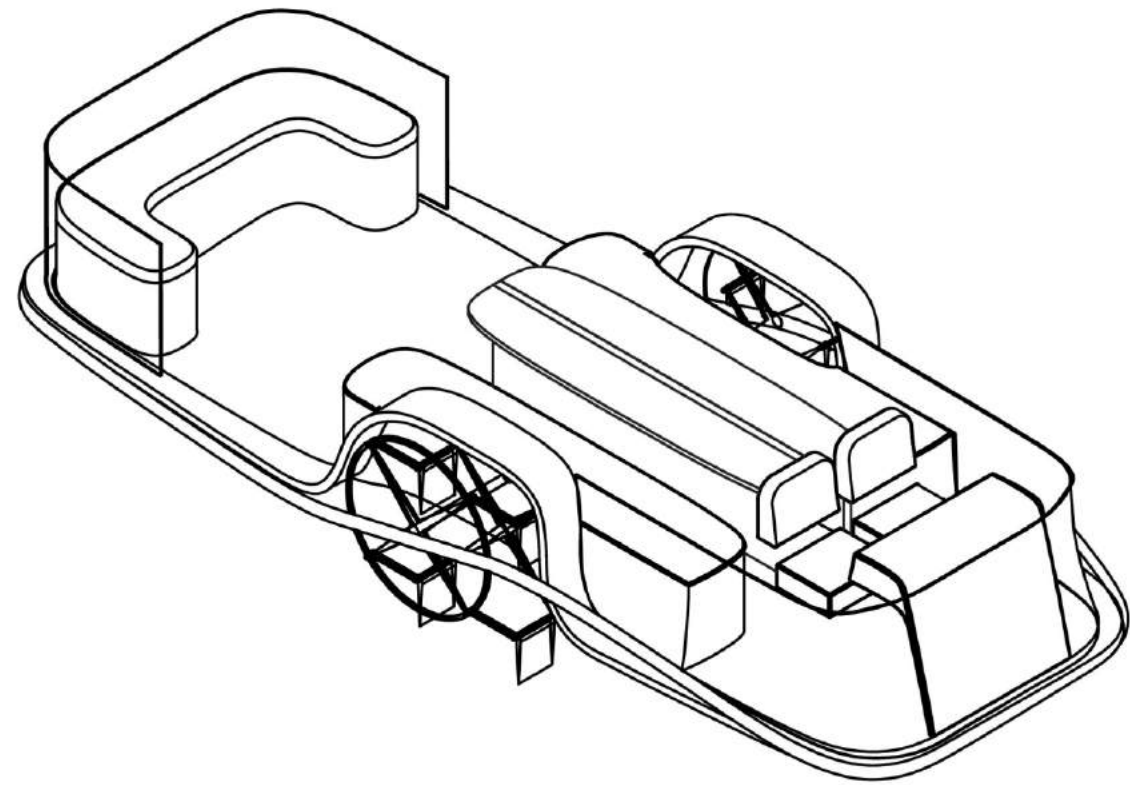
- Paddle wheel drive: easy to break through through aquatic vegetation, oxygenation of stagnant canal water, pro-environmental
- patent from 1933 - old technology presented in a modern way
- adjusting the dimensions to the limitations of the Elbląg Canal
- made of laminate - production in local shipyards
- possibility of recycling after use
- freedom in shaping
- allowing you to spend time on the canal
- allows you to navigate through all sections of the canal
- different functions depending on users' needs
- minimal form and interference with the environment
- for up to 8 people
- possibility of taking bicycles on board
- silent electric drive powered by batteries



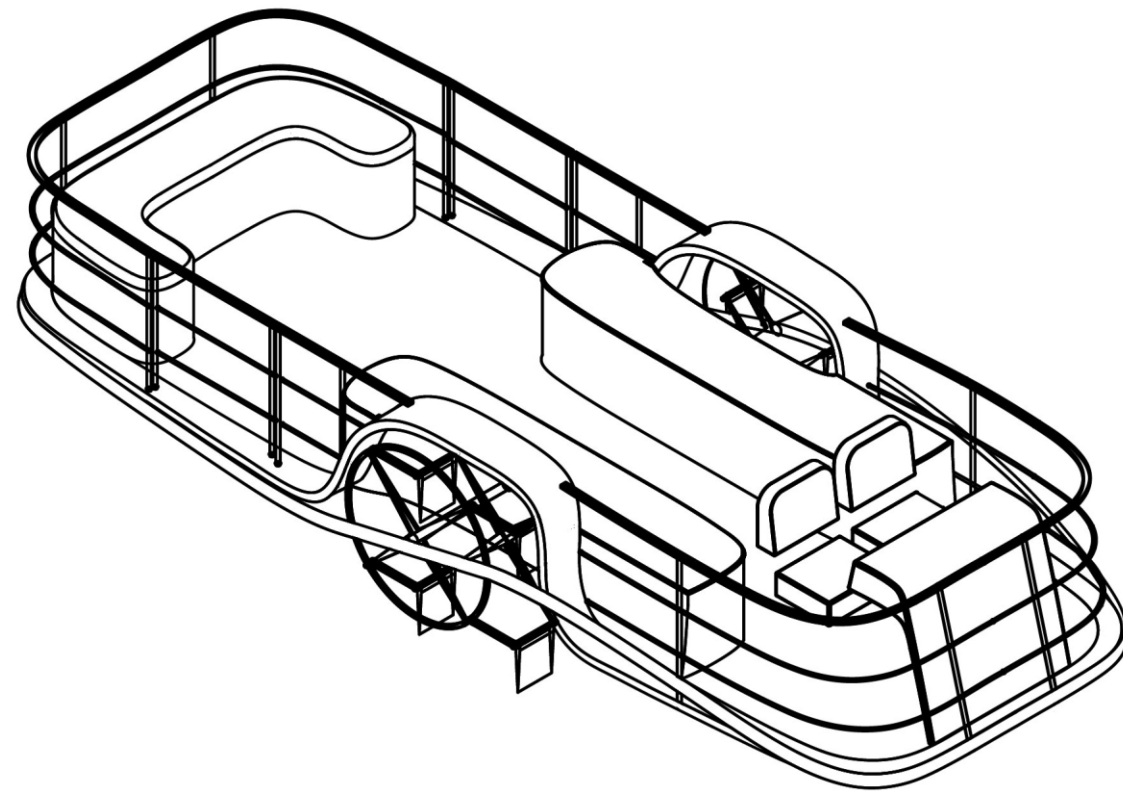
version No 1: "boat for 3 hours"



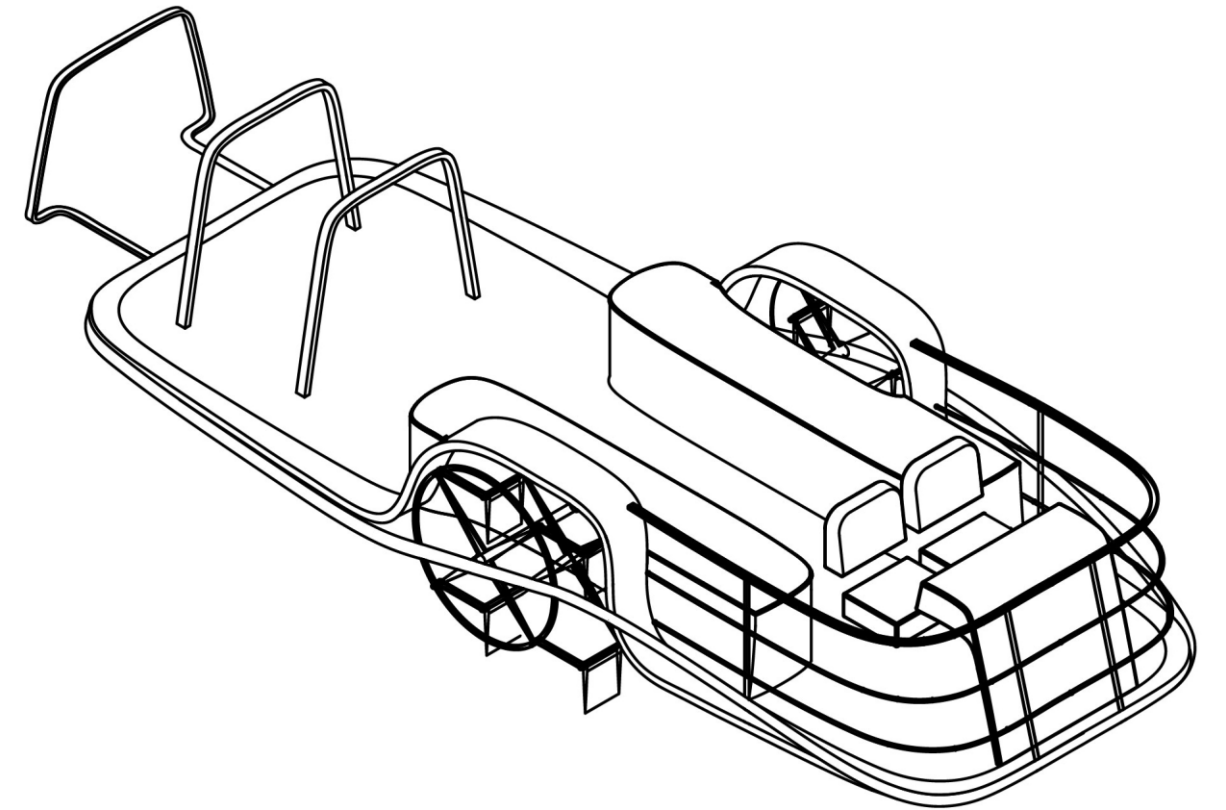
version No 2: "picnic boat"



version No 3: "child on board"

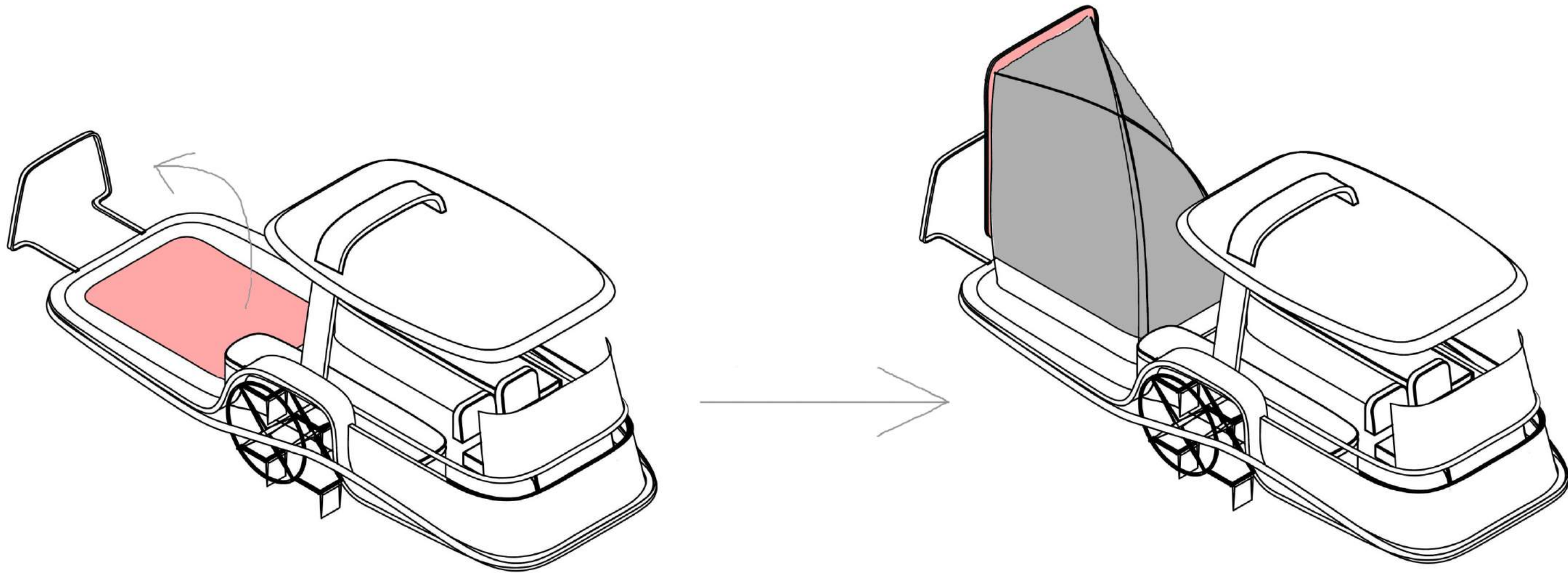


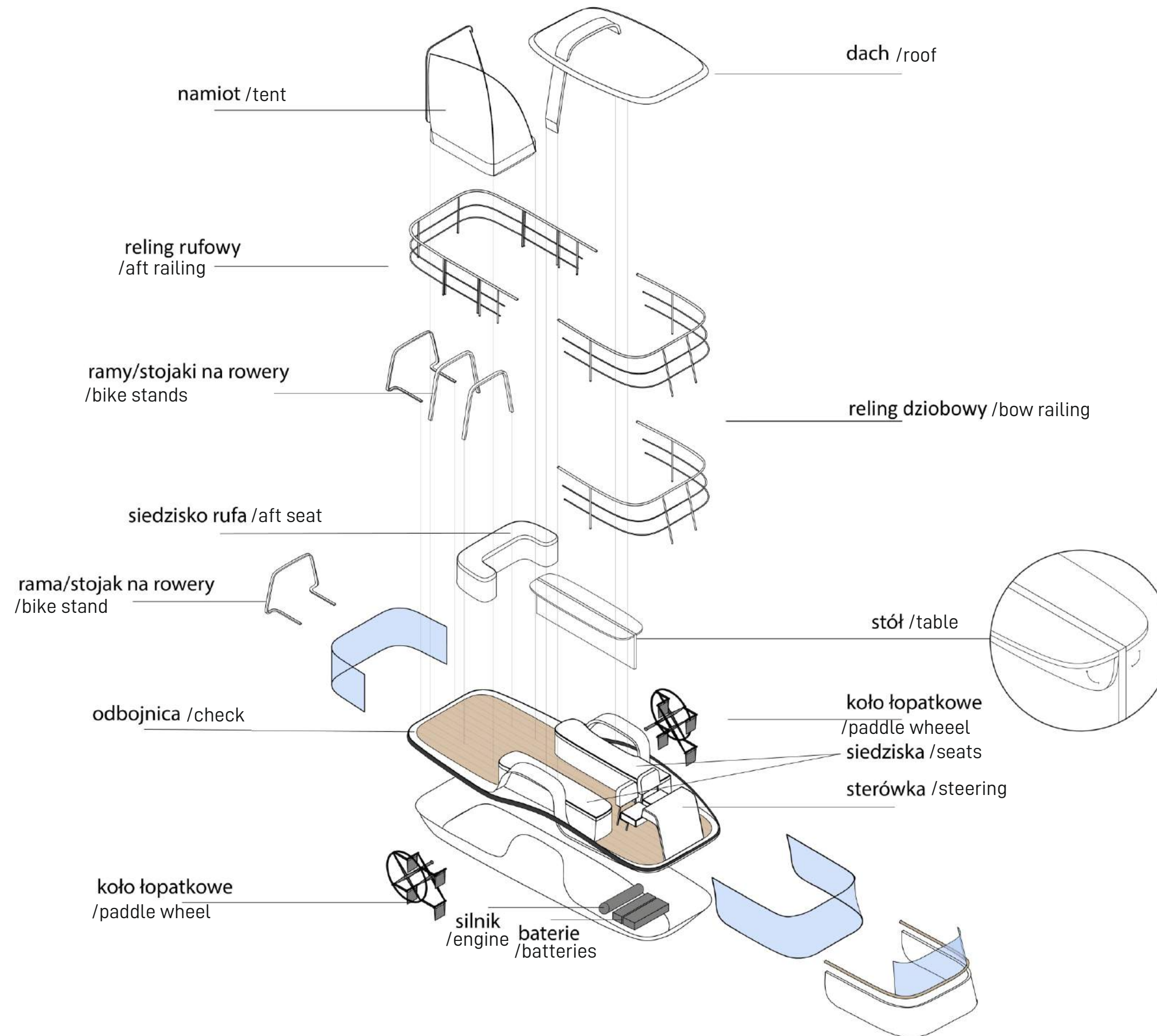
version No 4: "boat for cyclists"





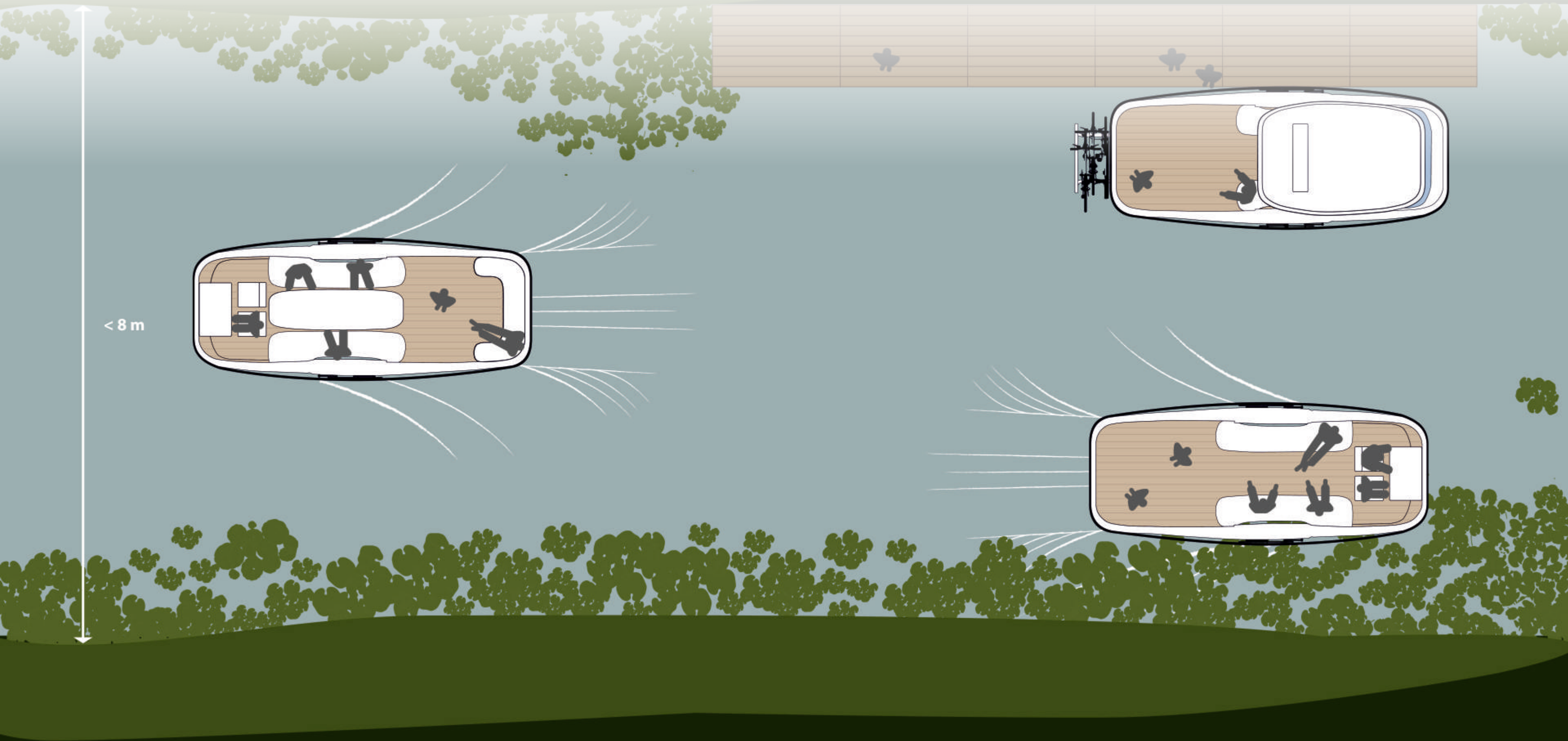
version No 5: "a boat for a longer voyage"





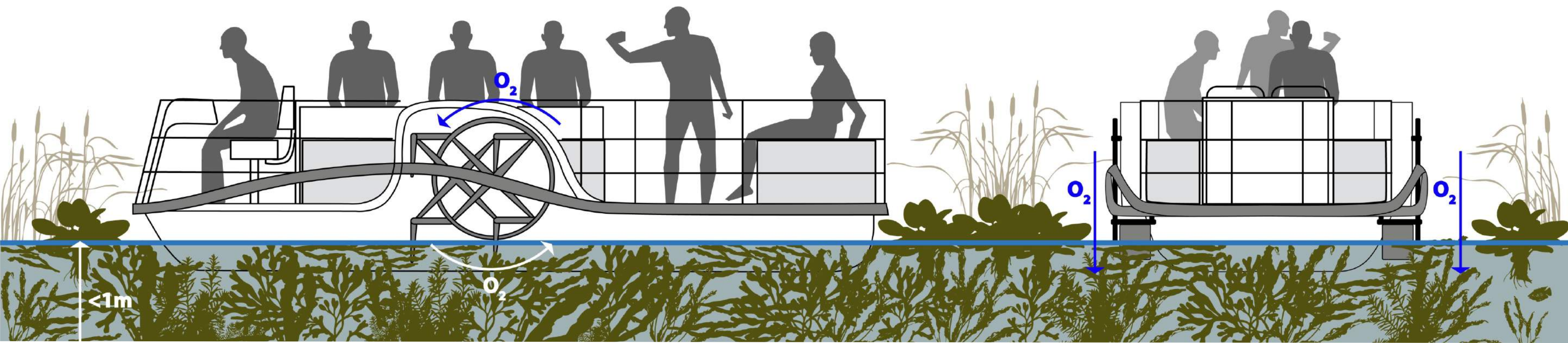
- these are only examples of combinations
- the rearrangement of individual elements and equipment allows for the creation of more versions dedicated to other utility scenarios and different needs of tourists
- the designed variants are a sort of starting point, after several years of use as a result of evolution of human needs - e.g. a change in the design of the vessel as a result of different needs

- small dimensions - does not dominate the landscape or overwhelm

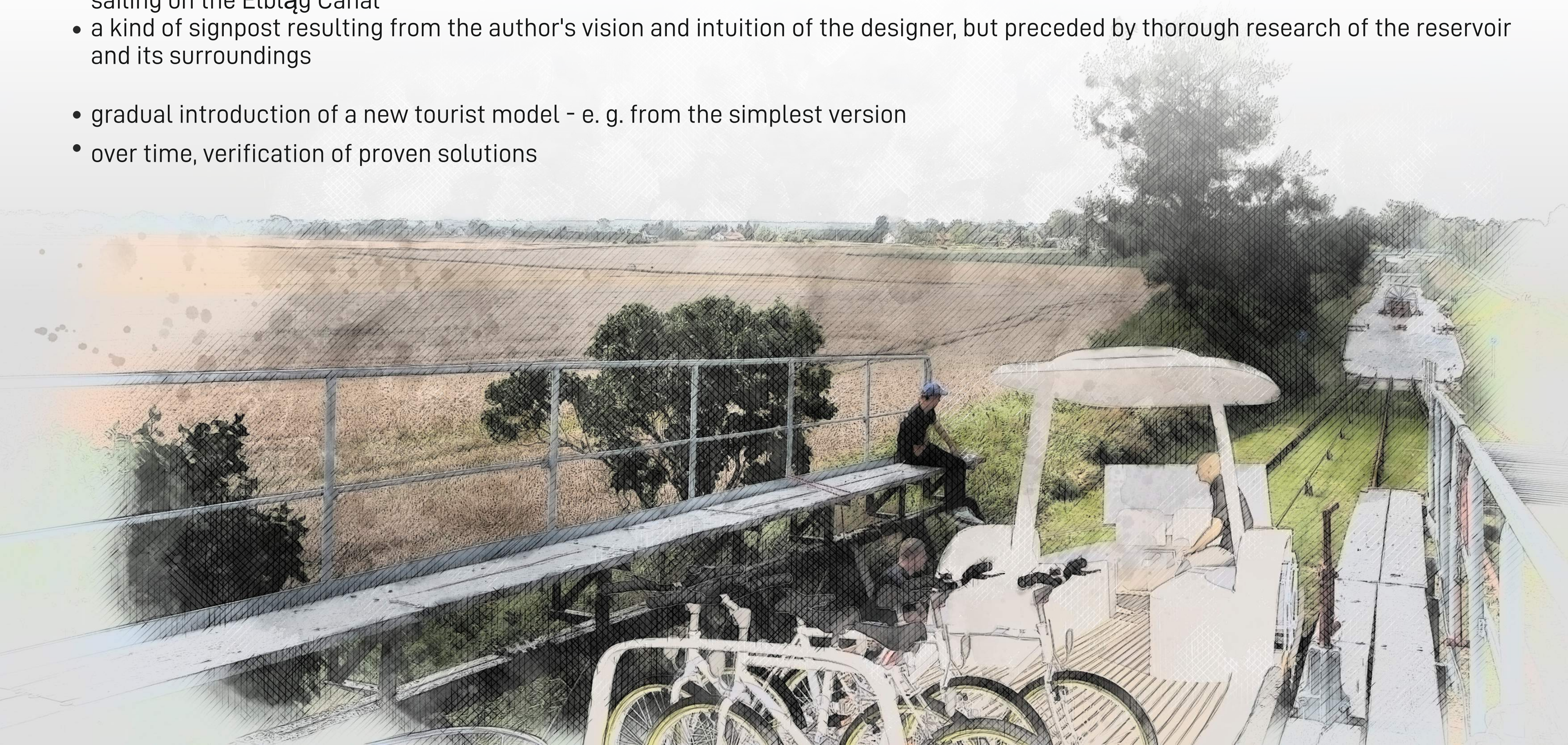




- the form of the unit itself is very simple, the form has no sharp edges, organic shapes and rounded bow - suggest the unhurried nature of shipping
- white referring to tradition, stands out from the dark waters of the canal
- a showcase of the new tourist model - it should not blend in with its surroundings
- the appearance emphasizes the image of the canal as a developing waterway, at the same time modern and deeply rooted in the old hydrotechnical tradition, and the simple form combines modernity with tradition (side wheels - like the old units, but no imitation)



- sketchiness of the concept results from the nature of the work - an indication of stylistic and functional directions for individuals sailing on the Elbląg Canal
- a kind of signpost resulting from the author's vision and intuition of the designer, but preceded by thorough research of the reservoir and its surroundings
- gradual introduction of a new tourist model - e. g. from the simplest version
- over time, verification of proven solutions



# **Design study of the micro marinas**

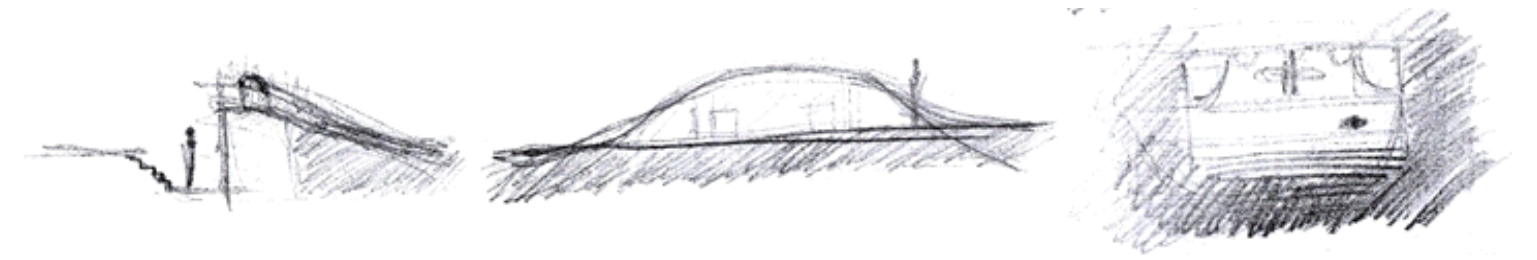




Functions:

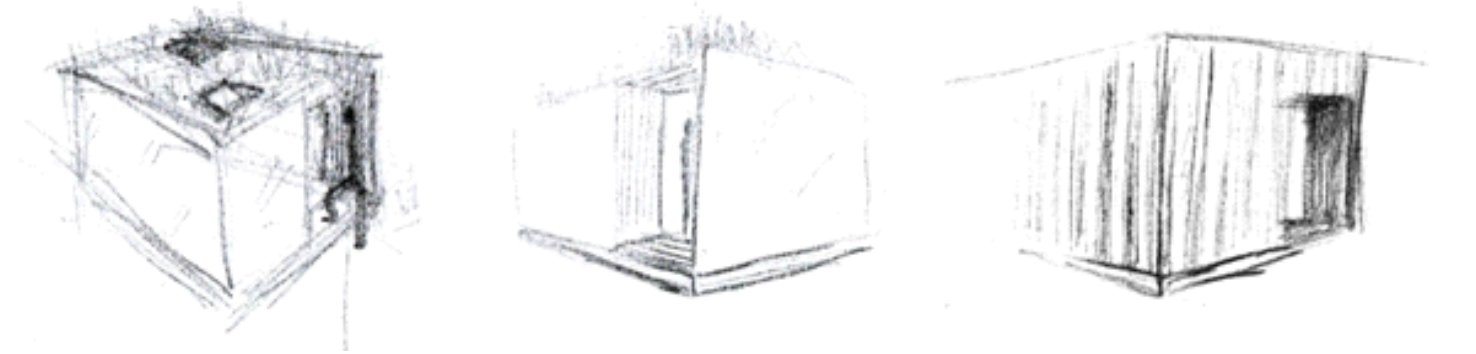
- resting place
- access to sanitary units (toilet, shower)
- camping space
- the ability to quickly charge batteries
- garbage disposal
- washing dishes under running water

## Evolution of the concept



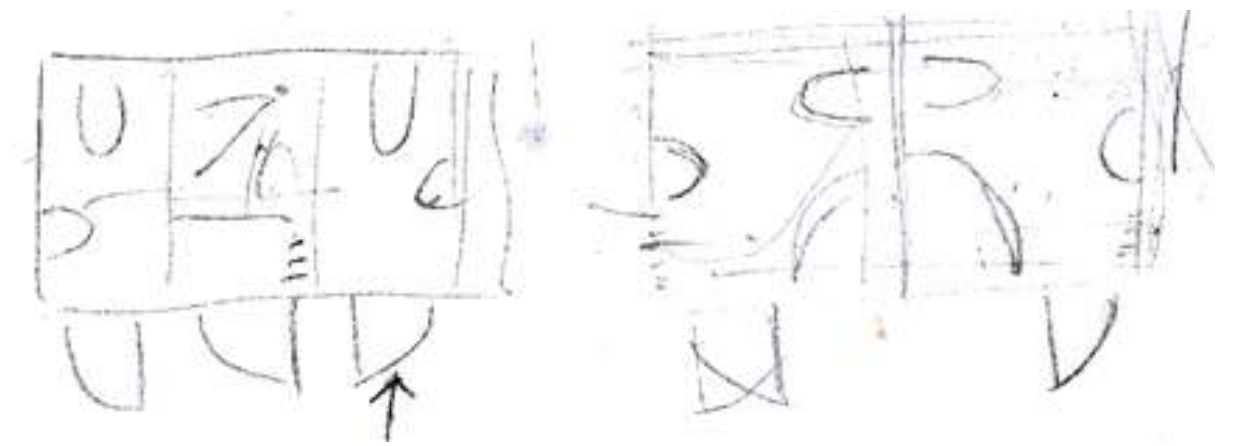
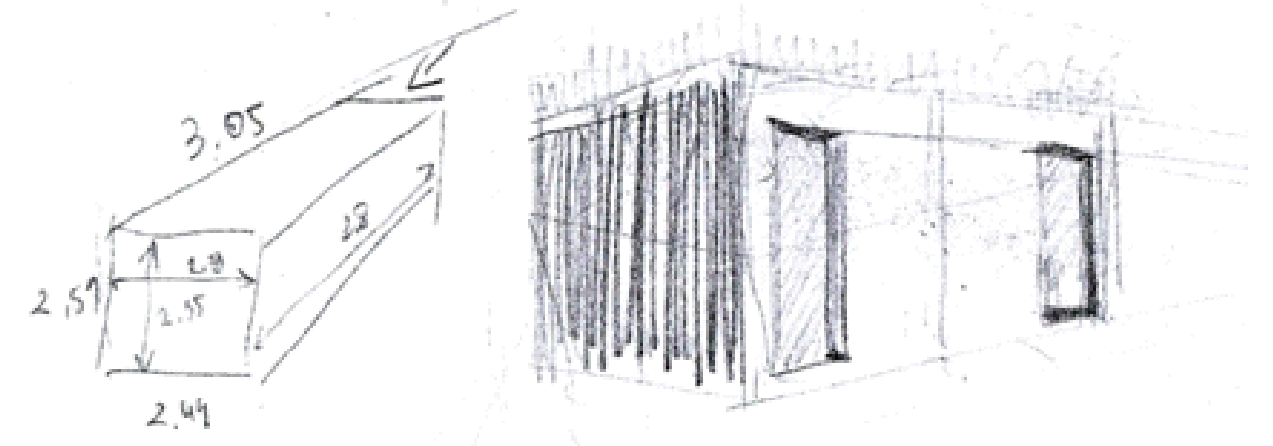
### Factors influencing the choice of form:

- harmoniously fit into the surroundings
- use of natural materials
- overall dimensions
- seasonality
- upcycling and sustainable development - shipping containers



### Selected small architecture concept:

- location with the front to the canal
- wall and roof covering
- thermal isolation
- powered by solar panels and local power grid
- water from the local network or deep well, septic tank



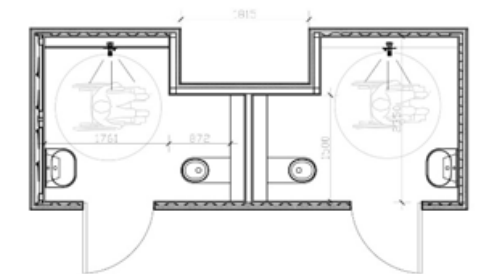
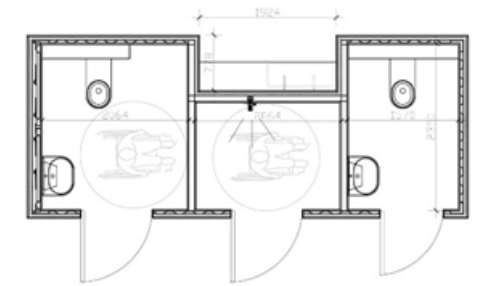
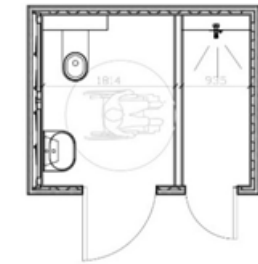
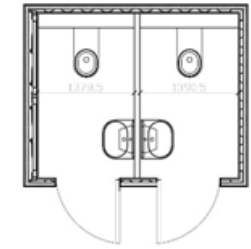
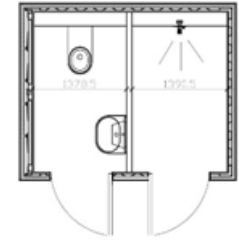


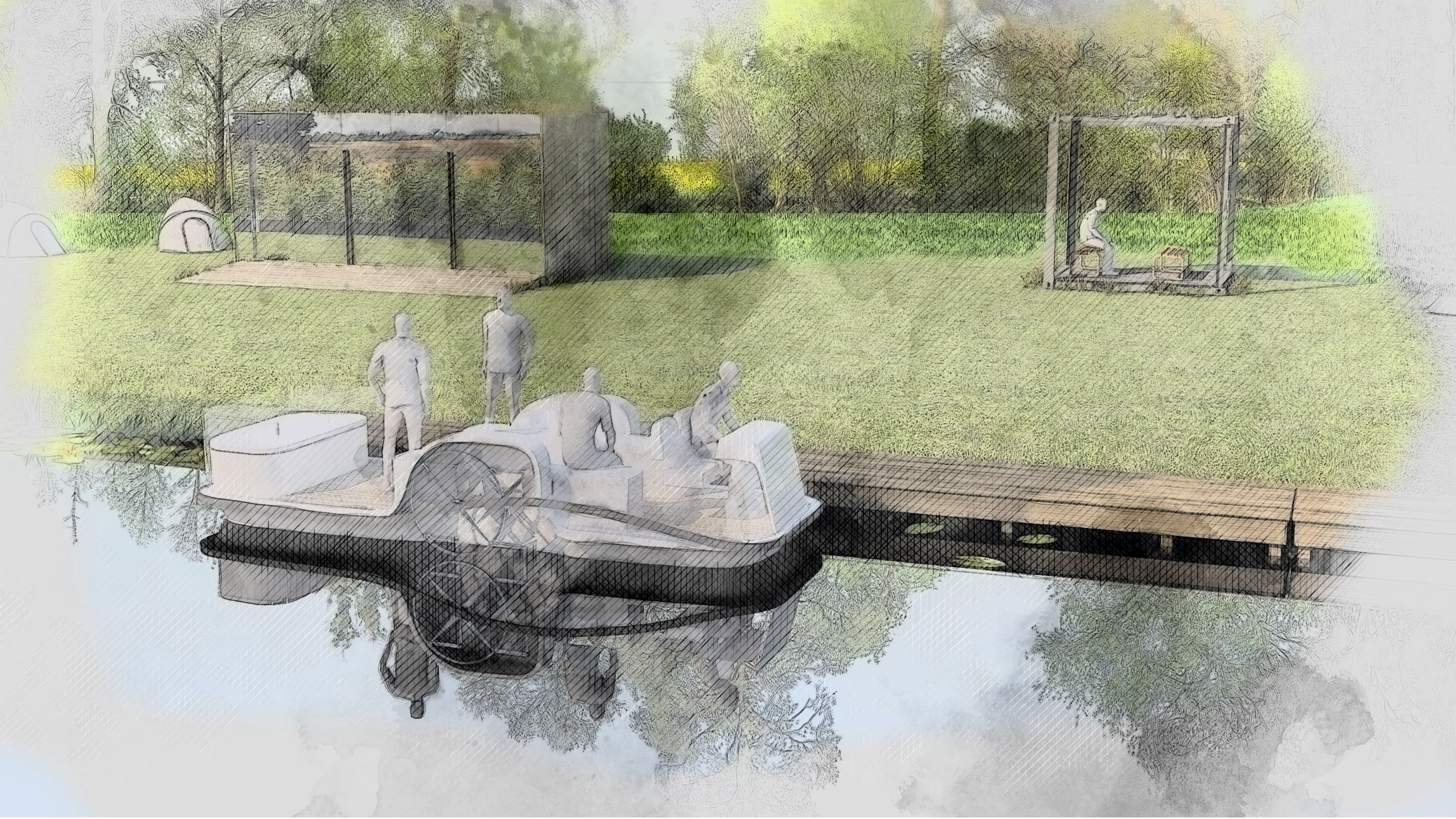
## Examples of proposed sanitary variants:

- use of 10ft (3m) and 20ft (6m) high cube containers (2.9m high)
- different types (toilet and shower or just a toilet) located in different marinas, depending on frequency of visits and popularity as a place to stay, and the size of the plot
- part of the version adapted to the use of people with disabilities

## Picnic shelters:

- the possibility of changing the cover of the canopy structure depending on preferences and in order to distinguish individual marinas







- a dissonance between the form of the unit and land objects - a showpiece of the canal, and blending into the surroundings
- in marinas, the emphasis on upcycling - the container imposed the form of the objects (box) and modularity
- covering the front with a mirror surface blurs the angularity of the block
- hiding the micro marinas in the landscape - creating the impression of uninterrupted contact with nature, enhancing an impression of the uniqueness of the place and the tourist experience



present state



proposition



- cladding the façade with wood - referring to the local architectural tradition and concealing it in a modern way  
the "container nature" of the cube and its original purpose
- reference to the latest trends in architecture
- the whole concept - unobtrusive, user-friendly, fulfills functional needs, while not disturbing close contact with nature
- it stands out from the existing solutions by being as fully harmonized with the environment as possible
- a new visual concept with the use of very simple, modest solutions, and significantly increases the recreational value and aesthetic



# Conclusion



- presented functional and stylistic proposals - summary of research and analyzes carried out in the course of doctoral studies
- deliberate framework and elementary - a set of guidelines suggesting the direction of a project's development taking into account the impact of the broadly understood landscape, as well as the intended functions
- the sketchiness of the concept expresses the overriding design idea, maintaining an open character - the possibility of supplementing e.g. for a mobile application showing trails and identifying local attractions - a task for an extensive team of specialists from many fields and industries, going beyond the scope of the doctoral dissertation

proposed design solutions:

tourist and sanitation  
infrastructure

new type of watercraft  
adapted to the specifics  
and the scale of the canal

designation of mooring spaces  
and the bike/pedestrian trails starting  
there



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- introducing small and evenly distributed objects in the area of the reservoir - they do not dominate the landscape, and they allow you to fully use the inaccessible sections of the canal, as well as draw on the heritage of the entire region



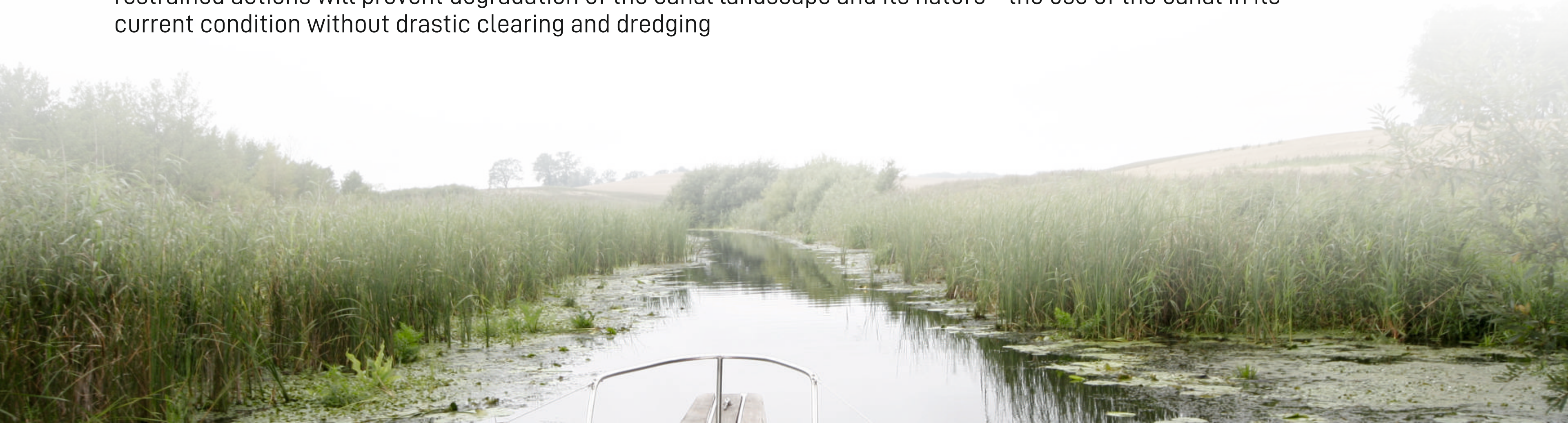
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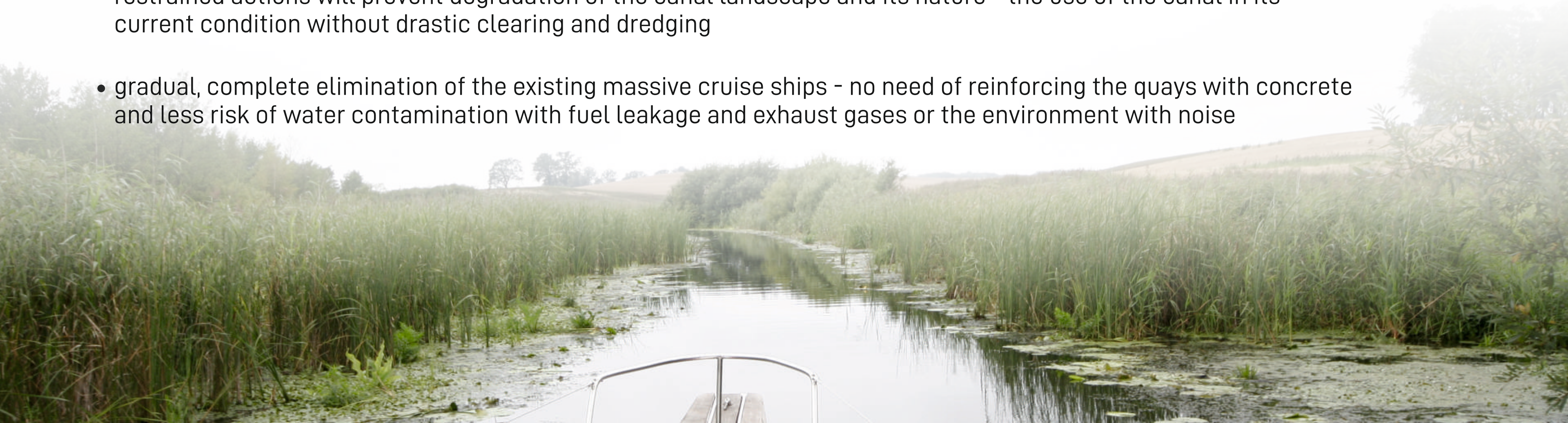
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- restrained actions will prevent degradation of the canal landscape and its nature - the use of the canal in its current condition without drastic clearing and dredging
- gradual, complete elimination of the existing massive cruise ships - no need of reinforcing the quays with concrete and less risk of water contamination with fuel leakage and exhaust gases or the environment with noise



The concept of a new tourist model for the Elbląg Canal:



The concept of a new tourist model for the Elbląg Canal:

- the result of an in-depth analysis of the phenomenon of similar navigable canals in the world - all of them are significant local and social value and require careful approach rather than drastic actions to keep their unique character
- is a revolution in thinking about this type of objects in Poland, based on global trends
- incorporation of proven solutions from around the world allows for the statement that the decisions made have a chance to achieve the intended effect - revive the region, enable it to be known to a wider audience and create a new slow tourism attraction
- the nature of the project as a whole - the result of the work of a designer combining knowledge from many different fields and disciplines (architecture, design, landscape architecture, humanistic geography, tourism)



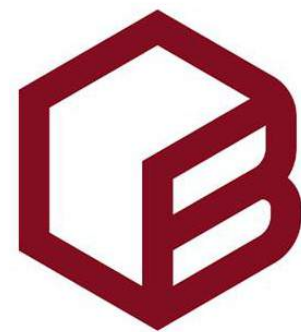


**Thank you**

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**POLITECHNIKA  
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im. Jana i Jędrzeja Śniadeckich

