

Intersecting Landscapes: New Spatial Visions for the Cross-Border Region of the Prespa Lakes

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Abstract - *This article presents a research-by-design contribution for the Prespa–Ohrid lake region, with a focus on Pustec Municipality (Albania). It integrates three inseparable components—method, diagnostics, and design hypothesis—into a single narrative. Methodologically, it advances a “sensitive exploration” that manages attention and meaning through planning by walking and by reading the area as a living, trans-scalar system. Diagnostically, it reframes the region as a planetary-scale “witness territory;” identifies five strategic understandings (ten-million-years system; secret geography; trans-scalar articulator; three horizons—many strings; and the fiord-like coastline), and proposes an epistemic transition away from mobility-led, growth-first templates toward ecosystemic logics and cross-border cooperation. The design hypothesis translates this stance into two scales of action: (1) a cross-border strategy articulated through three national sequences and time-phased goals; and (2) a local prototype in Pustec—the Agro-field as connector of landscapes and biotopes—linking knowledge facilities, buffer landscapes, water management, and productive planting into a shared civic and ecological infrastructure. The proposal aligns with a broader vision-making approach that treats future-making as a care-oriented, adaptive process rather than a fixed blueprint.*

Keywords - Cross-Border Connectivity, Landscape Segmentation, Sustainable Tourism

Method: A Sensitive Exploration (Managing Attention and Meaning)

Epistemological premise

The premise is simple yet demanding: to plan, one must first learn how to observe. The Ohrid–Prespa system is not a neutral support awaiting programs; it is an ancient, living milieu whose long memory requires a different kind of attention. The method begins with a sensitive exploration, a protocol that slows perception, suspends routine categories, and allows the territory to emerge as an intelligible whole. Attention is organized as a sequence, attention-intention-action, and expanded across time, space, and authorship through iterative feedback, multiple viewpoints, and inter-actor dialogue.

Planning by walking—exploring the horizon in our minds

Fieldwork adopted planning by walking to inhabit, rather than merely visit, the area. Pathways, strings, loops, and lines function simultaneously

as physical traces and cognitive devices structuring memories, encounters, and perspectives. Walking generates a layered atlas of images: from wide lacustrine horizons to compressed coves and inlets; from the agricultural plain’s repetitive grid to intimate micro-habitats along buffer ecotones. This image-walk acts as a diagnostic instrument that registers rhythms of speed and slowness, reveals how topography and vegetation curate perception, and identifies where the region is already stitched together by use rather than infrastructure.

From project to process: vision-making as care

In fragile, high-value milieus, conventional project-based approaches risk triggering self-fulfilling growth dynamics. Design is therefore interpreted as territorial curatorship: selecting, preserving, and enhancing existing qualities; strengthening co-evolutionary relations among human and

more-than-human communities; and sequencing actions so that learning and doing evolve together. This stance reflects a shift from machine logics to systems logics, and from growth to robustness through adaptation and cooperation.

Diagnostics: Five Strategic Understandings and a New Strategic Gaze

This diagnostic section reframes the Prespa-Ohrid region not as a peripheral borderland but as a strategic landscape whose value derives from deep time, ecological integrity, and relational capacity. The five understandings outlined below function simultaneously as analytical lenses and as projective constraints: they describe what the territory is, what it can become, and what it must not lose.

The Ohrid-Prespa lake system constitutes what can be defined as an Earth's witness territory: a rare landscape where water has persisted continuously for approximately ten million years, generating an exceptional degree of endemism, stratified ecological memory, and evolutionary depth. In planetary terms, such territories are not renewable assets but irreproducible archives of life processes. Their value lies not only in biodiversity counts but in the integrity of long-duration interactions between geology, hydrology, climate, and living species. This deep-time perspective demands a radical shift in planning logic. The lakes, their catchments, wetlands, agricultural plains, and downstream river systems form a single hydrological ecological continuum. Interventions whether infrastructural, agricultural, or urban cannot be assessed locally or sectorally, but must be evaluated in relation to systemic thresholds: nutrient loading, water

balance, habitat fragmentation, and cumulative effects across borders and generations. In this sense, the ten-million-year system establishes non-negotiable limits for transformation, within which any form of development must be inscribed.

A secret geography, Eden for escape

The Prespa-Ohrid region has been unintentionally preserved by a combination of topography, historical marginality, and political borders. Major mobility infrastructures bypass the basin, tracing faster regional loops while leaving the inner territory relatively insulated. This condition has produced what can be described as a "secret geography": a landscape of retreat, refuge, and delayed exposure to mass development.

Rather than interpreting this isolation as a deficit to be corrected, the diagnostic reframes it as a strategic asset. In an era of acceleration and overexposure, the capacity to remain slow, selective, and experiential becomes a form of territorial capital. Connectivity here is not measured by throughput or speed, but by encounter: encounters between people and landscapes, between seasonal rhythms and daily practices, between visitors and resident communities. Prespa-Ohrid thus emerges as a slow territory, where ecological, social, and psychological values of slowness attention, care, learning, and duration, are central to both quality of life and long-term resilience.

Ecological systems operate across scales that systematically exceed administrative jurisdictions. Water flows, nutrient cycles, species migration, and climatic processes connect villages to lakes, lakes to plains, and plains to distant downstream systems. In Prespa-Ohrid, local agricultural practices affect lake ecology; lake health influences regional biodiversity; and regional dynamics

From development clusters - to “Blu Albania”



From mobility to...



Fig 1 / From the mechanics of the performance to the environment driven cooperations

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resonate at national and international levels. This condition positions the region as a transscalar articulator: a territory where local decisions acquire supra-local consequences and where governance must align with ecological logic rather than political convenience. The diagnostic identifies a critical opportunity to construct a shared regional identity grounded in environmental valorisation and collective stewardship. Such an identity would not erase national differences, but coordinate them around a common object the lake system as a shared commons capable of fostering cross-border cooperation in policy, monitoring, maintenance, and cultural representation.

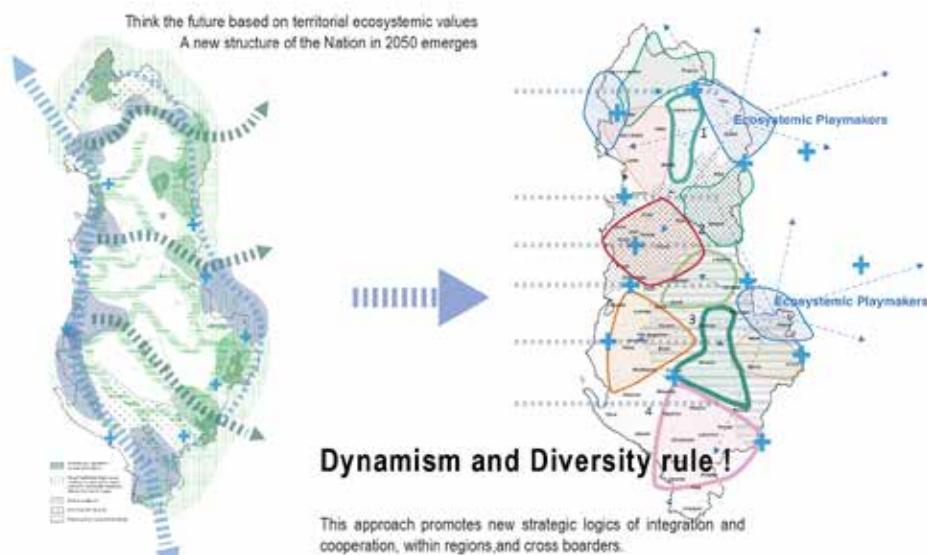
Perceptually and functionally, the region is structured by three dominant flat horizons: Lake Prespa, Lake Ohrid, and the Korça agricultural plain. Each constitutes a humid landscape with its own microclimate, agricultural repertoire, settlement pattern, and cultural itineraries. Prespa's enclosed basin supports mosaic agriculture and intimate shoreline ecologies; Ohrid's larger expanse hosts more established cultural routes; the Korça plain operates as a productive "third lake," defined by irrigation grids and seasonal labour.

These horizons are not isolated surfaces but components of a single landscape system, interconnected by multiple "strings": shaded pedestrian and cycling paths, hedgerows, water channels, field margins, and knowledge trails. These linear elements weave together everyday life, seasonal work, ecological processes, and slow discovery. The diagnostic thus shifts attention from nodes and centres to connective tissues, recognising that territorial coherence emerges less from monumental infrastructures than from the cumulative density of small, continuous links.



Integrated Ecosystems and buffer areas

Driven growth - to local territorial valorization



source/ authors (2023)

A trans-scalar articulator

The territory is at a cross-road of culture and natural Ecologies. Its nature is protected by multiple tools that operate partially cross-border. The natural systems are, by definition trans-scalar meaning that the protection of local natural capitals will be key for a much wider territory. The opportunity is that of building a regional identity through the existing and future tools of environmental valorization.

A secret geography - Eden for Escape

Natural topography, as well as political boundaries have protected lake Prespa and its coasts from the flows of man-made mobility. A wider mobility loop keeps the inner area reserved for a different quality of speed and time appreciation. The lake's region will be a slow, inner-bond territory, in which connectivity is not meant as a performative capacity concerning car infrastructures, but as a deeper, social, ecological, and psychological opportunity to encounter nature and other living communities.

**10 Million Years of history
1 integrated system**

Witness of History of earth, here the water presence dates 10 million years. We can count approx. 20 other places on earth with similar geological and naturalistic features. This makes the area a unique pearl at planetary scale. The system is the head of a blue-natural axis that connects not only the two lakes but also the incisive water courses reaching Skodra. As such it is key to protect the area from environmental danger - a damaging action here impacts the system as a whole.

Three Horizons - many strings

Lake Prespa, Lake Ohrid and the agricultural bonified Plain of Korça represent three plain horizons. Three humid Environments which can be understood as a landscape system combining different kinds of agricultures, different typology of pedestrian and bike cultural pathways. Each offers a specific perception of mountain chains and of the horizon.

**A Fiord ? An attractor !
Neverending panoramas**

The coast/line of lake Prespa is an articulated geometry, this determines a variety of setting and perspectives that make it impossible to grasp the whole coast line at once. This is a great opportunity, since each setting represent a different image of the lake, multiplying its image and identities. Only moving through the lake we can understand it visually. This experience resemplies the exploration of a fiord.

source/ authors (2023)

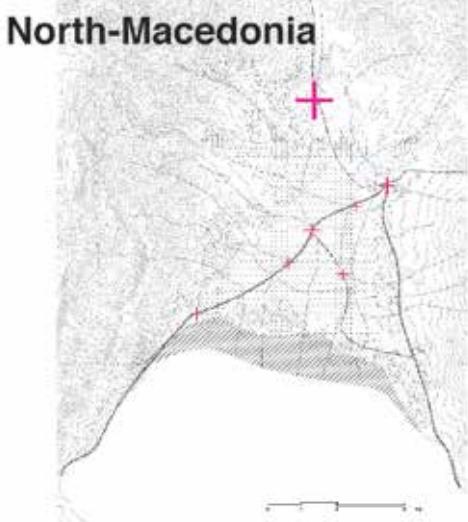


Fig 3 / Three sequences, three agendas
source/ authors (2023)

A fiord-like coastline as attractor

Prespa's shoreline is characterized by an articulated geometry of inlets, promontories, shelves, and coves that resists panoramic mastery. Unlike linear or uniform lake edges, this fiord-like morphology requires movement to be understood. Perception unfolds sequentially, through walking, boating, and cycling, producing a series of spatial "rooms," each with its own atmosphere, scale, and ecological specificity. This kinesthetic condition transforms the coastline into a didactic landscape. The act of moving along the shore becomes a mode of learning: visitors and residents alike are invited to read ecological transitions, seasonal variations, and human traces through embodied experience. As an attractor, the coastline does not rely on spectacle or concentration, but on duration, repetition, and care qualities aligned with low-impact tourism, environmental education, and everyday stewardship.

At the national scale, Albania's planning frameworks remain largely shaped by a mobility-first, growth-oriented paradigm. Polycentric development models privilege networks of growth poles connected by high-performance infrastructure, while environmental systems are often treated as constraints to be mitigated rather than as structuring principles. The Prespa–Ohrid diagnostic calls for an epistemic transition toward what is here termed Blu Albania: a water-centric, ecosystem-based territorial vision in which lakes, rivers, valleys, and catchments organize spatial strategy. In this model, diversity and dynamism arise from endogenous assets landscape quality, agricultural knowledge, cultural practices, and ecological integrity rather than from infrastructural expansion. Such a shift aligns national planning with post-growth perspectives and creates the conditions for genuine cross-border coordination grounded in shared ecological responsibility.

Design Hypothesis: From Cross-Border Strategy to Pustec Prototyping

From Cross-Border Strategy to Pustec Prototyping

If diagnostics define what the Prespa–Ohrid territory is and what it cannot afford to lose, the design hypothesis articulates how action can occur within those limits. Design is not conceived as the projection of a final form, but as a structured process of care, learning, and coordination across scales. The hypothesis operates through two interlocked arenas: a cross-border strategic framework for the lake system as a whole, and a local prototype in Pustec that translates strategy into spatial, ecological, and civic practice.

Cross-border strategy: three sequences, specific agendas, three temporalities

The Prespa–Ohrid region is shared by Albania, North Macedonia, and Greece, three national contexts with different institutional capacities, planning cultures, and stages of environmental management. Rather than seeking uniform solutions, the strategy is built

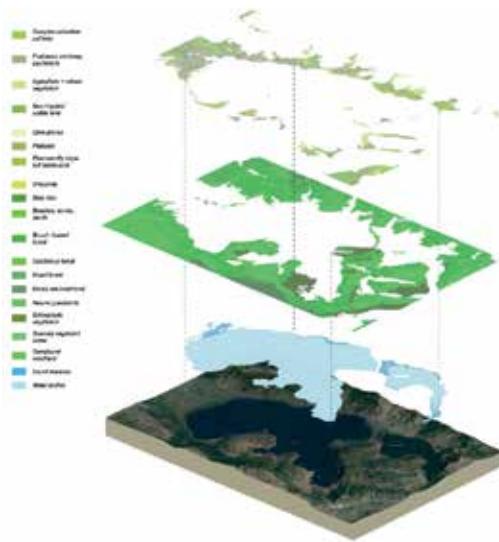


Fig 4 / Integrated eco-systems and buffer areas

source/ authors (2023)

on the principle of complementarity. Each national sequence is understood as operating within a specific temporal horizon short, medium, and long term, while contributing to a synchronized regional trajectory.

Albania: constellation of communities and self-sustaining cultures

In the Albanian sector, the design hypothesis prioritizes village-scale autonomy and landscape-led development. In the short term, the agro-field is reframed as a multi-service public landscape: a connective tissue that frames settlement edges, hosts slow mobility, captures and treats rainwater, and supports diversified agro-ecological practices. In the medium term, this landscape infrastructure becomes the support for knowledge facilities, field laboratories, agro-didactic hubs, and small university clusters capable of anchoring learning-based economies related to health, care, and agro-biodiversity. In the long term, the same agro-

infrastructure functions as a growth-regulating device, guiding and limiting urban expansion while stabilizing a high-quality rural–lacustrine public realm.

North Macedonia: linear development and ecological repair

In North Macedonia, where agricultural intensification and linear settlement patterns exert pressure on water quality, the strategy focuses on ecological repair and spatial rewiring. In the short term, agricultural grids are transformed into green public space through hedgerows, windbreaks, infiltration swales, and shaded paths that connect villages while filtering runoff. In the medium term, a shift toward bio-agriculture is supported by certification systems, micro-processing facilities, and joint branding that monetizes ecosystem stewardship. In the long term, inner parks and the generous coastline are connected through continuous biodiversity corridors that double as cultural and educational itineraries.

Greece: care, communication, and inspiration

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In the Greek sector, where protection and valorisation practices are comparatively advanced, the design hypothesis emphasizes communication and cultural leadership. In the short term, ecological processes are made legible through narrative landmarks, interpretation centres, and curated event horizons. In the medium term, monitoring systems, research infrastructures, and soft mobility networks are harmonized with neighbouring countries through shared datasets and protocols. In the long term, the trinational region is positioned as a European exemplar of lacustrine stewardship, experiential learning, and care-oriented territorial governance. Taken together, these three sequences replace competition with playmaking. The lake system acts as an environmental backbone that distributes opportunities, synchronizes tempos, and increases systemic robustness across borders rather than

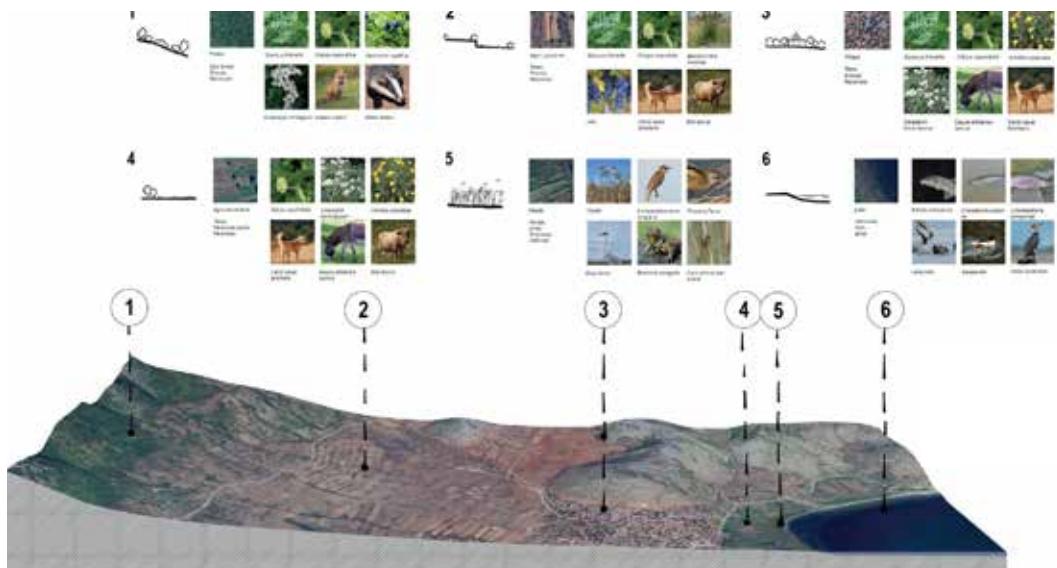


Fig 5 / Connecting communities and non/human intelligences

source/ authors (2023)

concentrating growth in isolated nodes

Local prototype, Pustec: the agro-field as civic and ecological infrastructure

While cross-border strategy provides coherence, the local scale is where learning, testing, and adjustment occur. In Pustec, the design hypothesis is materialized through a landscape-first prototype: the agro-field as connector of landscapes, biotopes, and communities. This agro-field is not a residual agricultural zone but a multifunctional civic infrastructure operating simultaneously as

public space, ecological buffer, water management system, and economic incubator.

Spatial supports: framing continuity and limits

The public agro-field forms a continuous, walkable, workable belt that binds villages to the lake edge and to one another. By aggregating public and private open spaces, courtyards, orchards, common meadows it produces a legible spatial system at eye level. Planting grids and hedgerow frames operate as a multi-scalar scaffold: shading paths, structuring microclimates, prefiguring future

Knowledge Facilities

- . Knowledge Economy .experimental ground for bio/cultivation
- . Local empowerment and educational spaces. University clusters .
- . Flexible activity incubator for the communities and temporary visitors.

Spatial supports

- . The agrofield as a public space connected to the public/private open spaces of the villages.
- . New cultivations for a new local economy of health, experience, and learning in nature.
- . Experimental fields for nomads and healing minds. Caring for landscapes of care.

The Agro-field as a connector of communities and competencies

Ideas for Pustec / Agro.connection

Valorizing buffer areas

- . On the basis of topography, and along the lake, where one ecosystem encounters the others, the buffer area shall be qualitatively treated, as a deeply meaningful space.

Water management

- . Expanding rain water retention, treatment and stock can help authonomize the villages from the usage of the lake's water and fight against climate change.

Framing / scales of plantations axis

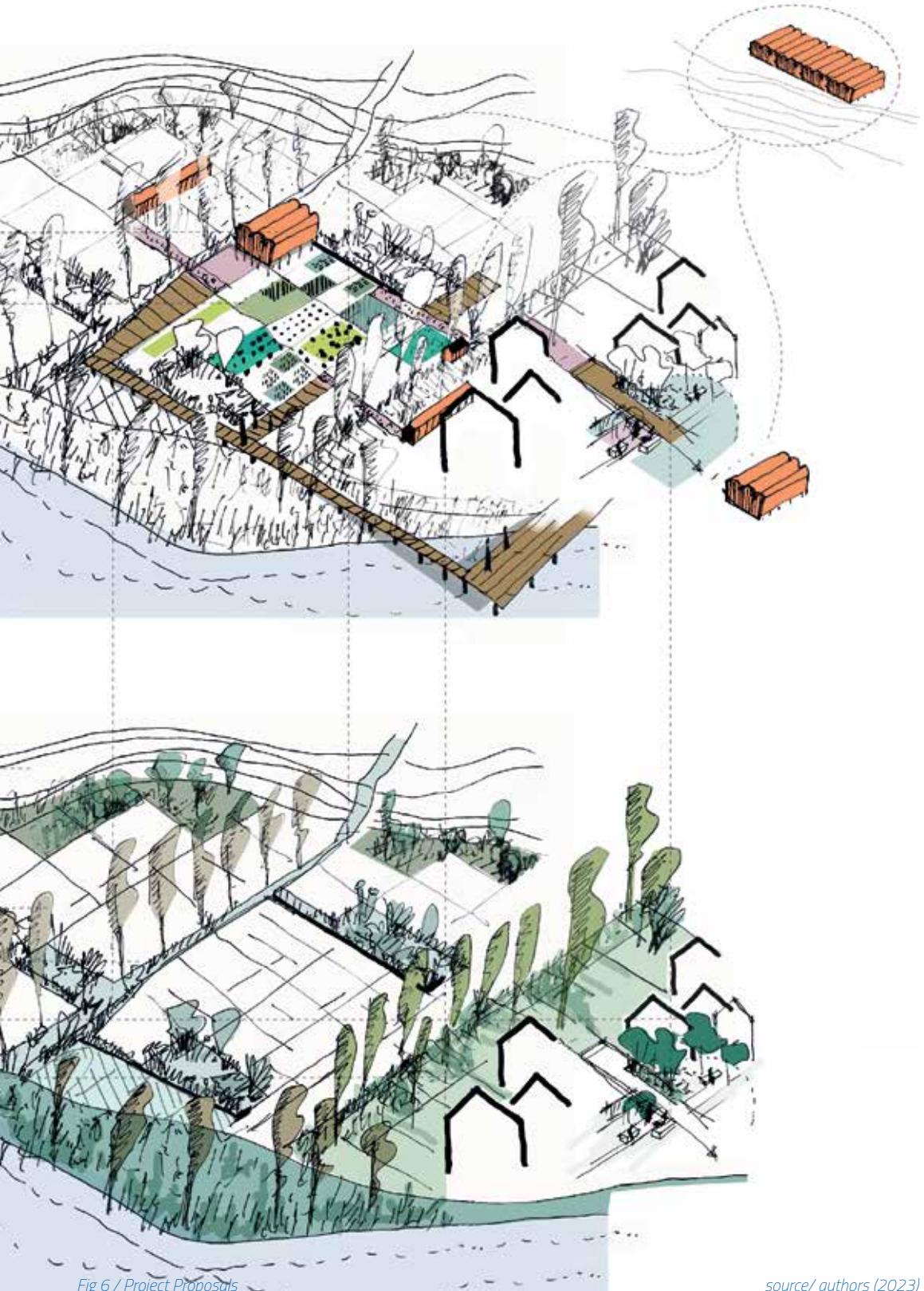
- . framing urban growth and qualifying intermediate spaces through landscape allows to prepare and treat future urban evolutions, setting a limit to land consumption while valorizing space.

The Agro-field as a connector of landscapes and biotopes

growth limits, and creating habitat continuity for pollinators, birds, and small mammals. At ecological transitions, buffer landscapes are thickened into places of meaning, hosting micro-wetlands, reedbeds, observation hides, and didactic decks. The agro-field supports an economy grounded in knowledge rather than extraction. Agro-didactic fields host trials in bio-cultivation, seed conservation, and soil regeneration. Local empowerment hubs seasonal classrooms, maker-sheds, and small processing labs enable value addition, digital storytelling, and community-led

entrepreneurship. Satellite university clusters and field stations attract students and researchers in ecology, landscape architecture, agro-forestry, and mental health, transforming Pustec into a learning destination rather than a peripheral settlement. Experimental fields for therapeutic horticulture and nature-based learning further expand the territory's role as a landscape of care.

Water management is integrated into the spatial structure of the agro-field. Rainwater retention basins, swales, and soil-sponges reduce pressure on lake waters while supporting seasonal irrigation.



Reedbed polishing systems and distributed micro-infrastructure, roof water capture, permeable tracks, infiltration ditches increase village water autonomy and climate resilience. Rather than hidden technical installations, these elements are designed as visible, didactic components of the public landscape.

Productive planting strategies prioritize diversification and resilience. Agro-forestry alleys, heritage grains, legumes, and medicinal plants reduce dependence on single commodities and enhance soil health. Planting lines and micro-orchard belts prefigure settlement evolution, converting intermediate voids into qualitative spaces rather than residual lots. Biodiversity corridors link riparian habitats to inland mosaics, forming a continuous multi-species infrastructure that supports both ecological and social connectivity.

The Pustec prototype generates a shared public realm legible through paths, hedges, and water edges, fostering everyday encounters and stewardship. New livelihoods emerge around care eco-guiding, field schools, processing micro-enterprises reducing pressure for speculative construction. Crucially, the agro-field functions as a scalable module: as practices stabilize locally, similar systems can be negotiated across borders, transforming agricultural grids into a trinational network of inhabited connective ecosystems.

The Pustec agro-field operationalizes the cross-border strategy by embodying systemic intelligence. In strategic terms, the prototype demonstrates how cooperation can outperform competition and how robustness can replace throughput as the primary measure of territorial success.

Conclusions

This research has deliberately refused to separate method, diagnostics, and design into autonomous domains. Instead, it has treated them as one continuous process in which observation, interpretation, and spatial action recursively inform one another. By doing so, Intersecting Landscapes positions design not as a terminal solution but as an epistemic practice: a way of knowing, testing, and caring for territory over time. The Prespa–Ohrid lake system has been framed as a living, integrated “witness territory,” whose value derives from deep ecological time, trans-boundary continuity, and accumulated cultural practices. Recognizing this condition fundamentally alters the planning horizon. Development can no longer be justified through short-term growth metrics or sectoral optimization, but must be evaluated against systemic thresholds and long-duration resilience. In this sense, the region operates simultaneously as a local habitat and as planetary capital, demanding forms of stewardship that exceed administrative borders and political cycles. The design hypothesis articulated through cross-border strategy and the Pustec prototype demonstrates that an alternative territorial logic is both possible and operative. By privileging environmental systems, agro-landscapes, and

knowledge-based economies, the proposal shifts the focus from mobility-led expansion toward care-oriented connectivity. Slowness, encounter, and learning are reframed as strategic resources rather than residual conditions, capable of generating social cohesion, ecological robustness, and diversified livelihoods without triggering speculative dynamics. At the local scale, the agro-field in Pustec exemplifies how landscape can function as civic infrastructure. Acting simultaneously as public space, ecological buffer, water-management device, and economic incubator, it embodies a systemic intelligence in which single interventions generate multiple benefits. Importantly, this prototype is not conceived as a site-specific exception but as a scalable module, capable of informing a trinational network of inhabited connective ecosystems. From a governance perspective, the research advances a playmaker model of cross-border cooperation. Rather than competing for growth or visibility, Albania, North Macedonia, and Greece are invited to synchronize their distinct capacities around a shared environmental backbone—the lake system as a commons. Such an approach replaces uniformity with complementarity and replaces throughput with robustness as the primary measure of territorial success. Ultimately, Intersecting Landscapes argues for a shift in how futures are made in fragile, high-value territories. Vision-making is understood as a form of care: adaptive, iterative, and collective. Landscape becomes both the medium and the teacher, guiding action through its limits, rhythms, and affordances. In this sense, the Prespa–Ohrid region is not presented as a blueprint to be replicated, but as a parliament of places walked, cultivated, observed, and negotiated capable of renewing itself over time through shared stewardship and cross-border imagination.

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