

Modern rural-scape and contemporary ideology: The case of the Pontine Plain

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Abstract. The Pontine Plain exemplifies the controversial shift from the Modernist radical attempt to reshape the landscape and the likewise radical return to bare nature of recent decades. The wildest European landscape extended very close to Rome for many centuries, until the Fascist *Swamps Battle* invented the Agro Pontino. Recently, marshy places have been recreated as plant-based sewage-treatment facilities, mimicking natural plots, into the Thirties' grid. So, while the Fascist remediation deleted the swamp's ecological thickness, lately no less doctrinal positions plead for the atonement of its ecocide. Today the Plain is a huge agricultural area undergoing changes: wetlands sometimes emerge through the grid of roads and Eucalyptus-lines, side by side the agricultural fields, dotted with industrial plants and weekend-home resorts, while local people use canals and floodable areas for leisure time, suggesting unpredictable new rural/urban/wild public spaces. How can we deal with this dynamic landscape and combine rural fruitfulness, historical heritage, ecological culture and new ways of living? We propose a general strategy, inspired by the Italian ancient agricultural practice of the *marcite*, and introduce productive wetlands, combining the bold 1930s' layout with wetlands wig-wag; the farm production with new social behaviour; the historical identity with ecological processes. The aim is to overcome the cliché of dualistic opposition (water/land, marshes/farming, settlements/wilderness) in favour of coexistence, overlapping, simultaneity, negotiation.

Introduction: Becoming the Agro Pontino

For many centuries, the wildest European landscape extended very close to Rome. It was the Pontine Plain, a 310 square mile marsh in central Italy, facing the Tyrrhenian sea – between the *Colli Albani* volcanic hills and the *Circeo* headland – soaked by many streams unable to find outlets to the sea because of impeding dunes extending for 28 miles along the shore. Until the early decades of the 20th century only nomadic communities inhabited the Plain: charcoal-burners, hunters, frog-pickers, buffalo herders, who spent the good season there, retreating back to the *Lepini* mountains in the winter. They were the ones daring venture into the large, swampy, malaria-ridden

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land, that popes and kings tried in vain to tame with centuries-long efforts. It was the Fascist *Battle of the Swamps* (1928-1939) that finally turned marshes into farmlands, removing any ambiguity between water and land, nature and production, wilderness and civilization. A forceful grid of fields, roads, canals and tree-lines overlaid the swamps. Five new towns² and many villages rose up in less than ten years, while lots of farmhouses, mostly assigned to Northern Italian colonists, dotted the plain. *La conquista della terra*³ was the unmistakable title of the magazine (1930-1943) which expressly aimed to celebrate the endeavour, this self-declared *epic*.

Converting wild nature into productive land was crucial for Fascist propaganda:

Fascist authorities perceived the undisciplined and unproductive nature of the 'death inducing swamps' as something that had to be extinguished from the face of Italy, to make way for an ideal fascist nature that would nurture ideal fascist subjects. (...) the Fascist regime used an extensive propaganda machinery to promote the programme not as the outcome of economic necessity, but as a heroic quest for producing an 'ideal' fascist landscape, within which the 'ideal' fascist man/woman could live and thrive. (...) the project can be seen as a window into a wider, complex struggle against an untamed nature that mobilized state institutions, the Fascist propaganda apparatus, professional classes (...), and the most recent advances in modern technology [1: 613-614 & 618].

However, we would be wrong if we looked at the fight against wetland just as a trait of Fascist ideology. For instance, Garibaldi argued that the continued existence of the marshes was indisputable evidence of the historical corruption of Pre-Unitarian governments, linking the reclamation from stagnant water with the struggle for Italian national unity [2]. The ideology of integral reclamation of wetlands was also at the same time widespread in Europe, exemplified by the *Zuiderzee* dyke project in Holland (1920-1932), the Swiss *Linth* valley hydro engineering scheme (1807-1823), the Marathon dam project in Greece (1926-1929) and other cases. It was only with the 1971 Ramsar Convention that Europe finally recognized the ecological, economic and social relevance of wetlands.

From the Thirties' onwards, the Plain had a new name: the Agro⁴ Pontino. It is a lively landscape, with modern cities and almost 500,000 inhabitants. It is among the most intensive farming areas in the country, making Italy, for instance, the world's leading producer of kiwi fruit, just behind China⁵. Almost 11% of workers are employed in the agricultural sector⁶, one of the highest percentages in Italy. Farms are by far the main elements of a layered landscape, dotted with industrial plants and weekend home resorts, some of which replace the original ONC⁷ pale blue farmhouses. Meanwhile, the urban footprint is also spreading out. According to the most recent ISPRA⁸ report on land consumption in Italy, in 2016 the Latina province lost the 10% of its land [3]. This trend, added to the changing climate conditions, affects the local water resources, while the whole range of agricultural and industrial activities cause water pollution with high concentrations of nitrates and phosphates, which in turn infects the land and dumps

² Littoria (1932), Sabaudia (1934), Pontinia (1935), Aprilia (1936), Pomezia (1939).

³ *The Conquest of the Land*.

⁴ Agro, from Latin *ager*, is an Italian word to say farmland.

⁵ Data are taken from FAO statistics, available at <http://www.fao.org/statistics/en/>

⁶ According with 2016 data of ISTAT, Italian National Institute of Statistics.

⁷ *Opera Nazionale Combattenti*, National Soldiers Association, established in 1917 and active until 1977.

⁸ *Istituto Superiore per la Protezione e la Ricerca Ambientale*, Superior Institute for Environmental Protection and Research.

poison into the Mediterranean Sea. Due to the very poor quality of surface water, irrigation has to resort to deep groundwater extraction, contributing to saline seepage and soil alteration, especially along the coast. The outcomes are serious, both for ecosystems and for crops, with a strong negative impact on tourism as well. Besides water quality, the almost 10,000 miles of drainage canals currently crossing the Plain need constant and expensive monitoring, to be dredged and repaired. Some sections today are absorbed by urban growth, making maintenance even harder. In the farmlands, the dense grid of lesser canals is often unofficially deputed to good-will individuals, mostly owners of little family-run agricultural business. As a result, weeds obstruct long sections and the Eucalyptus-lines, formerly planted to drain the soil and reinforce the canal slopes, are today increasingly full of gaps. These are all symptoms of a very fragile rural landscape, still drained by the six pumps put in place in 1934 by Mussolini, every day discharging up to 9,500 gallons a second into the sea. According to the Pontine Marsh Consortium, the entire Plain would return to marshland in seven days if the pumps were turned off⁹.

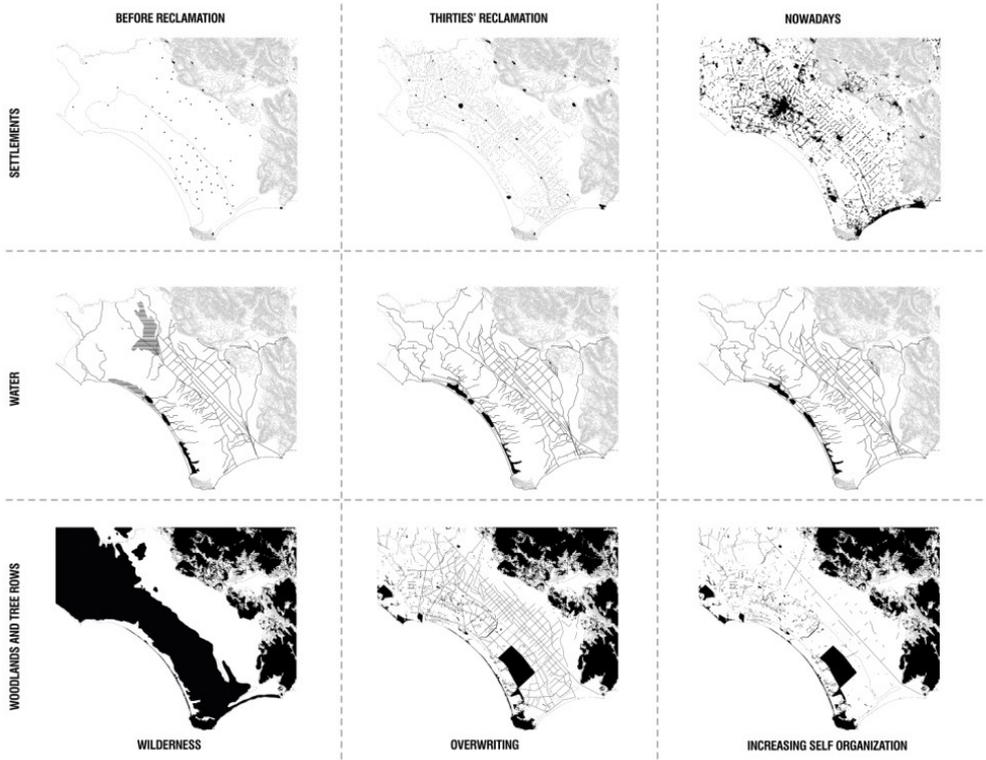


Figure 1. The Pontine Plain passing through time. Mapping to investigate and reveal a processing landscape. Source: A. Metta, D. Onorati, 2016.

Ideology feeds design, again

A radically new thinking about the management of this landscape came with Alan Berger's 2007-2008 Fellowship at the American Academy in Rome. Focusing his research on the Plain, Berger designed a nearly 500-acre site, about 4 miles from Latina, as a gigantic *Wetland Machine*, to filter the polluted water in the *Acque Alte* Canal, to spur biodiversity,

⁹ Carlo Cervellin, the Pontine Marsh Consortium, quoted in [4].

and to provide open space for recreation. Even though the proposal was never implemented, it was crucial to stimulate a new perspective on the Plain. Asked about the distance between his approach and the one generally advocated by established environmental groups, Berger said: “The difference between me and W.W.F. is that when I look at this place, I never think about going back. The solution has to be as artificial as the place. We are trying to invent an ecosystem in the midst of an entirely engineered, polluted landscape” [4]. Two years later, the European Union founded the *Rewetland* project: a collaborative team of scholars from the Pontine Marsh Consortium, the Circeo National Park, the Municipality of Latina and the engineering company U-Space, all coordinated by the Province of Latina, joined together with the main goal of demonstrating how plant-based sewage-treatment facilities could effectively work for the sustainable management of water resources by reducing pollutant loads. They carried out four Pilot Projects in as many Agro Pontino typical sites¹⁰. For instance, the Pilot Project 2 – the Marina di Latina Urban Park – is in a former farm-field and “(...) is designed to integrate the function of phyto-purification with recreation, adopting systems, techniques and materials for minimizing environmental impact” [5]. The result is a peri-urban park where clay-grounded paths cross green areas with native trees and shrubs. The plant-based cleaning system covers almost 4,000 square yards: two flow basins and two surface runoffs – sealed to prevent the contamination of the groundwater and planted with marsh straw, reed mace, rush and water lilies – collect polluted water from the *Colmata Canal* and give back the treated water into the *Mastropietro Canal*. Their layout introduced unlikely curvy ponds into the rectilinear 1930s grid, mimicking the shape of natural pools, and water is forced in the phyto-remediation system by powered hydraulic machine. The shape they give to ponds has nothing to do with the actual process of water management, being outsourced to pumps. The result is a fake-landscape, looking like without being at all natural. This is a completely new fact in the long history of this place: both the original marshes and the 1930’s reclamation – albeit opposite – were informed by an intrinsic coherence, where form and function, appearance and process were consistent and the consequent landscape was unified. This project has nothing to do with Berger’s new vision for this landscape based both on stating the futility and lameness of going back to nature and on declaring through design the conformity between landscape as image and landscape as process.



Figure 2. One of the pilot projects conceived and realized by the Environmental Restoration Programme *Rewetland*, co-founded by the LIFE+08 programme of the European Commission. On the right, one of the machines used for water management in this plot. Source: A. Metta, D. Onorati, 2016. Progetto Pilota 2, Marina di Latina, Latina, 2013

¹⁰ Started in January 2010, *Rewetland* ended in June 2014. The four designed and implemented pilot interventions were: Pilot 1 - Filter ecosystem in the Circeo National Park; Pilot 2 - Linear Park of the Latina Marina; Pilot 3 - Buffer strips along the drainage channels; Pilot 4 - Good practices for water management on the farm.

In its very short – less than one century-long – modern history, the Pontine Plain presented very different landscape design postures. After millennia being a no-man's-land, all traces of wild nature were erased all of a sudden by Fascist reclamation, which established a brand-new rural landscape. Latterly, under the pressure of water pollution, design and policy proposes to restore small tracts of the original wetland, clumsily emulating natural sites and overriding the Fascist rural geography. So, we dare to say that a new ideology has landed on the Plain: while the Fascist remediation deleted the ecological and cultural thickness of the swamp, today no less doctrinal positions propose to expiate that ecocide.



Figure 3. The Pontine Plain: collages from a processing landscape.
 Source: A. Metta, D. Onorati, 2016.

As found, designing coexistence

The Pontine Plain urgently needs a different perspective, far from any ideology, to testify to its current exciting condition. The cliché of opposition – water vs land, marshes vs farmed fields, settlements vs wilderness – is outdated by an actual new geography of associated parts. Combining geography with people’s behaviour and ecological performance with crop production, we could portray the Plain as a powerful, dynamic, contradictory landscape, one that does not need nostalgic approaches of once-for-all control, nor comforting solutions derived from bare ecology. It needs the deep approach of landscape architecture, able to combine powerful aesthetic and cultural purposes with ecological management skills and sustainable agriculture tasks, to feed an interactive, responsive and living habitat. The first step is to recognize the Plain as a platform of change, movement, and activities, where a myriad of signs, by human as

well non-human beings, are inextricably and vividly entangled. We suggest to keep together its different layers, starting from the stringent observation of what is going on, according to a new engaging arrangement of two sets of conflicts.

1. *Ground + water*. The stereotype of dualism between mutually resistant figures leaves place to negotiation between complicit matters. Also for disuse, today wetlands sometimes emerge hither and yon through the Fascist grid and new early stage swamps appear side by side with cultivated fields. It is a new living geography where intermittent soaking and drying regimes interact with the exact design of the allotments, where wetland and farmland come together. It reveals the possible combination of the re-emerging previous drainage pattern and the regular texture of cultivation, as well the coexistence between the inconstant balance of water cycle and the steady structure of the 1930's layout. According to this issue, we can recognize a new performing landscape, in functional as well aesthetic terms, finding clues for new forms of agricultural productivity as well as new principles of beauty. Indeterminacy, inclusiveness, overlap, simultaneity, eventuality, instability, association and collision are some of the words to describe a fertile landscape, calling us to update our vocabulary about the coupled economy-nature, formal-informal, tamed-wild, as blindly transposed from tradition in terms of redemption, reclamation and remediation.



Figure 4. A. Metta, D. Onorati, 2016. The actual processing geography of the Plain. Water takes many forms and suggest different uses and behaviours.

2. *Sites + behaviours*. The Plain is still an eminent working place, the destiny for which it has been redeemed. Most of the farmworkers currently come from afar; they are mostly Indian and their community is becoming more and more numerous¹¹. But nowadays the Agro is also home for new forms of leisure time, albeit in places not designed for and variously connected with water. The canals, the seasonal riverbeds, the same abandoned and then flooded fields – usually marginal landscapes, in cultural as well topological sense – are today inhabited by people spending their free time in unpredictable ways, suggesting a joyful empathy with seemingly inhospitable new kinds of public space, comfortable for unusual social practices, not yet codified, renewing the European tradition of commons [8]. All around lie cultivated fields. Leisure time/space intertwine with production time/space, describing a new *chronotopia*. It is an interesting trend, displaying the existence of unpredictable new categories of common space still unutterable, ephemeral and clandestine, of indefinite experimental potential. The continuous slipping among urban, rural and wild areas, in a never ending transition, takes the register of a contradictory elegy, where the mythical encounter between man and nature is evoked or re-established.

¹¹ Sikhs who live in the area are the largest hidden community of Sikh migrant workers in Italy. Almost all of them work in degrading conditions, subject to the illegal recruitment practice named “*caporalato*”, associated with exploitation, employment of migrant workers, low pay, minimal workplace security, and tends to be linked with criminal organizations. See [6, 7].

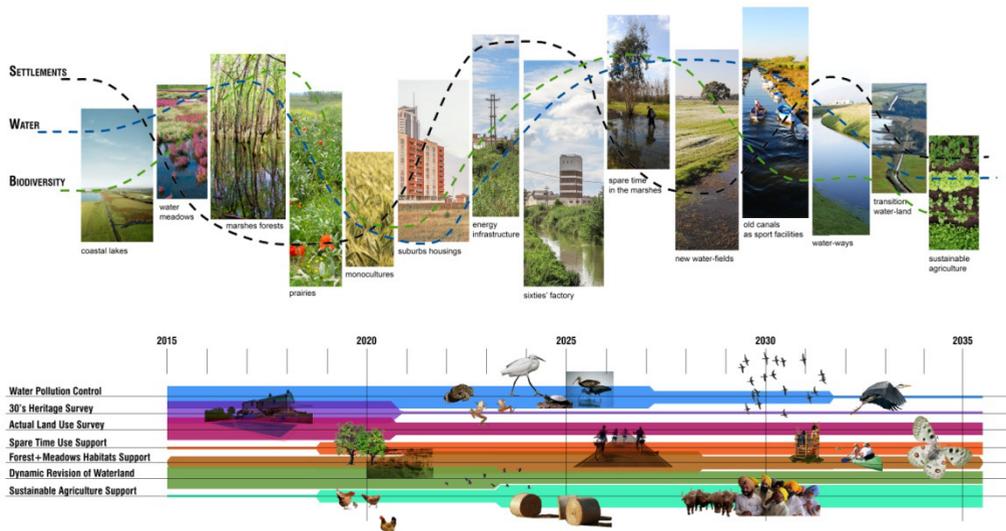


Figure 5. Envisioning a future waterscape, with a monitor and an adaptive management model.
 Source: A. Metta, D. Onorati, 2016.

Assuming the *ground + water* and *sites + behaviours* sets of topics, we propose to gradually turn some fields into water-farming plots, combining the bold design of 1930s reclamation with wetland materials; farm production with ecological process; the historical identity with current landscape culture. The aim is to learn from what is already going on and to reintroduce wetland inside the reclamation pattern. So, the impressive layout of the grid-shaped drainage canals and the original nature of this soaked land can actually be combined. The ancient Italian agricultural practice of *marcite* is the reference, a kind of stable irrigated grassland, carried on to increase the number of fresh grass crops than those of traditional lawns. It can be successfully used in sites rich in springs, as indeed is the Agro Pontino, because of the numerous sources at the foot of the Lepini mountains. *Marcite* differ from ordinary irrigated cultivation because the ground is kept continuously moist, if not continuously covered with water. Water-meadows – to not be confused with flood-meadows, the ones naturally affected by seasonal rivers flooding – are under continuous and slowly running water, and this prevents any fall-out connected with stagnation. The water flow can be easily controlled through sluice gates and earth ridges to adapt the drainage pattern, in order to provide a variable irrigation supply for different sections of the Agro.

According to a shared farming programme for the whole Agro, to carry on with the involvement of the farm workers' consortia, the soaked fields can provide cereals, edible herbs and forage, so as to widen range of traditional crops of the Plain. Some of the fields can also support plants able to clean polluted water, the same proposed by the bio-remediation projects, so they can also usefully work for purging poison from surface water. In addition, alternating wet-farming, with weeding and traditional farming can also enhance soil fertility. Similar to what is happening in many cities, where vacant private lots are managed by the public administration as temporary shared facilities, the abandoned fields where swamps are emerging could be managed by the Pontine Marsh Consortium as new commons, counterbalancing the total eradication of commons by the Fascist land reallocation that basically imposed the absence of non-strictly productive land and thus of available space for the necessary ecologically-supportive landscape infrastructure. This could easily help to bypass the obstacle to environmental

empowerment represented today by private land ownership. The result is a peculiar ecosystem, relevant at a very big scale, where the combination of wet and dry ground could produce particularly high biodiversity. For instance, above all during the winter, water-meadows can be home and feeding sources for many migratory birds typical of wetlands. Then, the main green and blue lines crossing the Plain could be reinforced, as both ecological and recreational infrastructures: new trees could fill the blanks in the Eucalyptus lines, making them continuous and recognizable once more, while small boats could navigate the largest canals. Water and trees lines could be the backbone for ecological continuity and the backdrop for many social rituals, such as fishing competitions, boating, or riding on the embankments. Finally, the Agro would be endorsed as a multifunctional landscape platform, able to give back food, beauty, ecology, health and leisure.

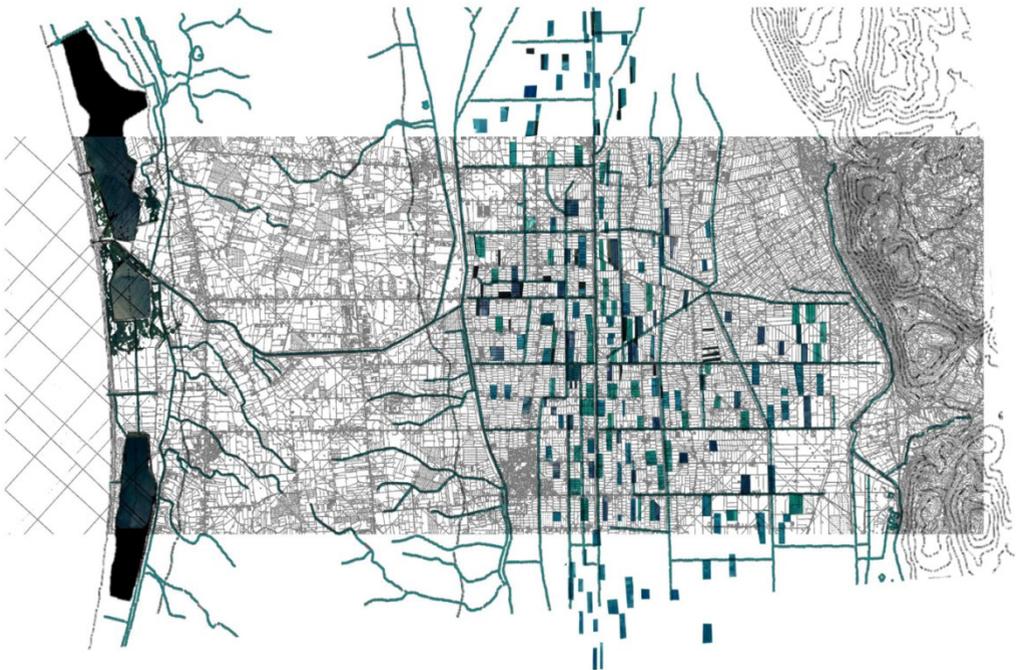


Figure 6. The new pattern of water-meadows and water-lines.
Source: A. Metta, D. Onorati, 2016

Open advancement

The Pontine Plain exemplifies a recurrent stance in the contemporary debate in landscape architecture for multifunctional rural sites, focusing on the balance among design, production and ecology, even more delicate when dealing with historic sites, inherited by a controversial modernity. What makes this proposal close to that of Alan Berger is, of course, the will to look for a contemporary landscape in the Pontine Plain, without any nostalgia, neither for a primeval virginity of nature nor for the modern legacy of the 20th century. On the contrary, what signals a distance is our suggestion that this contemporary landscape does not necessarily come from the nth overwriting of these sites, but can easily emerge from finding out what is really going on and from emphasizing the current mixing of even conflicting signs, behaviours and necessities all condensed together. More than a palimpsest, this landscape seems to be closer to a

decollage, where layers do not lie down one on the other, concealing the previous one and lasting before the next will arrive, but they coexist, offering more and more opportunities of new progression and open advancement.

Heidi Hohmann and Joern Langhorst, from 2004, in their *Apocalyptic Manifesto*, observed that landscape architecture, having lost in the 1970s its cultural content and corresponding expressive means, often found in ecology a shelter of reassuring objectivity, in terms of mission as well of method [9]. Disarmed in the face of the new challenges of modernity – landscapes of production, mobility, widespread urbanization, environmental disaster or fragility – it found comfort in the idea that design could retrieve sense as a remedy or compensation to the pressures of modern life. Unable to find codes to decipher and imagine the contemporary realm, landscape architecture often opted for the unlikely survival of contemplative, pictorial and literary approaches or, alternatively, for anaesthetic adhesion to technical solutions derived from objective and pragmatic ecology. The two options have ended up in nostalgic, conservative or rehabilitative landscape projects, nurtured by a widespread and shared cult for the defence of nature. Yet before Hohmann and Langhorst, James Corner highlighted the need for rethinking the relationship between landscape and environmentalism in design terms, focusing in particular on the affinity between ecology and creativity, stating the intrinsically procedural character of both. Ecology can work as an extraordinary agent of creativity, as long as we are able to work out operational models where it intertwines with imagination. Corner calls it “eco-imaginative landscape architecture”, able to reveal and enhance the various biological and cultural experiences condensed in the site [10].

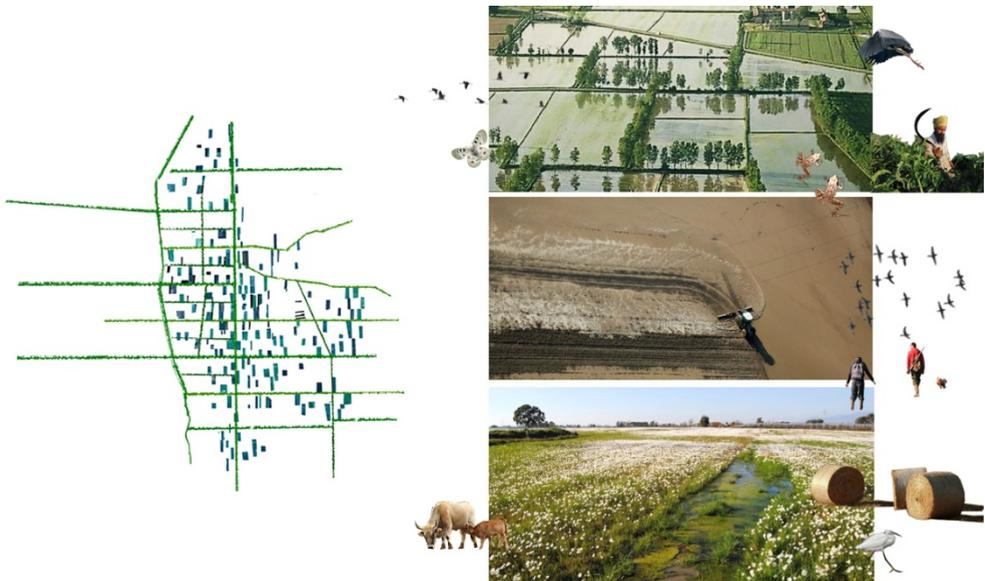


Figure 7. The new pattern of water-meadows and water-lines. The blue lines will be reinforced also by enhancing the wind-breaking Eucalyptus lines. Source: A. Metta, D. Onorati, 2016.

Historical rural landscapes add another layer to this entanglement: managing a heritage often imbued with debated ideological meanings – as the Pontine Plain, indeed – with the difficult and ambiguous task of preserving the material substance of places, while blaming the culture which implemented them. This requires an understanding of how places work, in the interplay of many different layers of matter and meaning, and what they are going to become, revealing both problems and opportunities. This issue is always and everywhere true and relevant, because every single plot of land is under

incessant transformation, cyclic as well evolutionary, physical as well symbolic. But it is more and more flagrant in rural landscapes, because it is fatally connected with productivity and economy. The pressure of economical balance and the need to enhance the quality of crops to satisfy national and international market competition seems very ruthless, but it is really the key to avoid any epidemic as well ideological approach, often based, especially in Italy, on the obsession for preserving ancient heritage, giving back embalmed dead landscapes. Rural landscape need active and constant care, in a collective task where history, ecology and economy finally come together to build the ground for welcoming the ethical, aesthetic and social expectations of the current community involved in this really *epic* endeavour: a more fertile and inclusive concept of artificial and sustainable modernity.

Short resumes

Annalisa Metta (1977), architect, PhD in *Parks and Gardens Design and Regional Planning*, Associate Professor in Landscape Architecture at the Roma Tre University, where she teaches theory and practice of open space design and is faculty member of the PhD program in *Landscape of Contemporary City*. 2016-2017 Italian Fellow in Architecture / Landscape Architecture of the American Academy in Rome, where currently she serves as Advisor. Founding partner of the design office Osa architettura e paesaggio. Among her recent books: *Southward. When Rome will have gone to Tunis* (2018); *Compresenze. Corpi, azioni e spazi ibridi nella città contemporanea* (2017).

Davide Onorati (1989), architect, graduated with honors in Urban Design at the Roma Tre University. He practices photography, as an investigation tool, to measure and understand landscape and ways of living. His first solo exhibition *Supervisions, palimpsest of a Pontine territory* (Latina and Rome, 2015) was dedicated to the Pontine Plain changing landscape.

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