Reimagining Shrinking Villages

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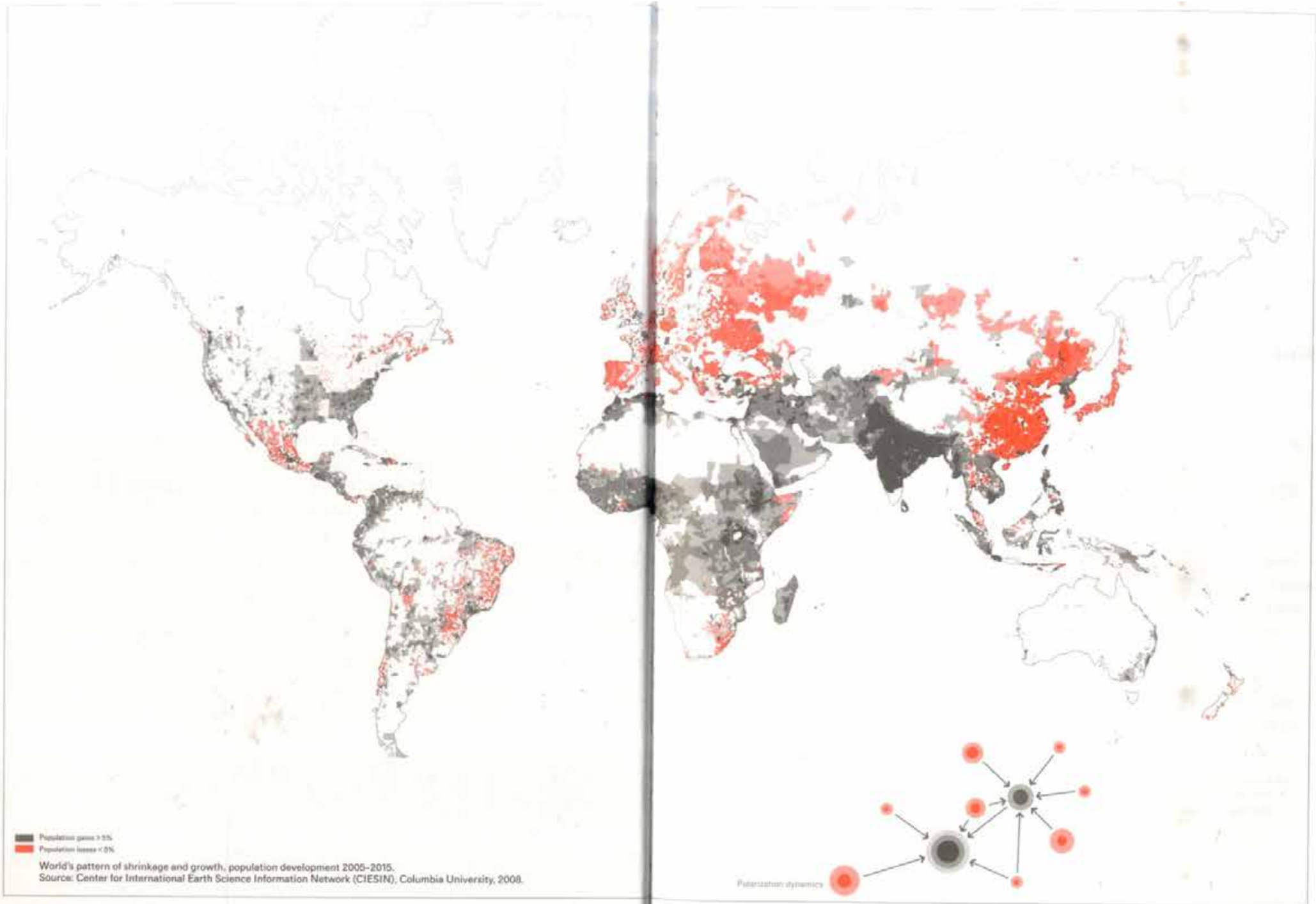
In absolute terms, the human population on the planet is growing. In relative terms, this global growth is often experienced locally as regional population loss, as previously tenable lifestyles and livelihoods are rendered archaic by a more interconnected socioeconomic culture. Moreover, regions do not simply grow or shrink: in most cases, they are rather polarizing, as some well-defined points attract people from broader areas that in turn cede their residents.

While additive philosophies that can be applied to growth and development exist in abundance, there are few conceptual frameworks for subtraction beyond moribund teleologies of decay and abandonment. Not even the paradoxical argument of so-called sustainable development applies: "development" has become synonymous with "growth," yet any process that considers growth the only strategy for improvement cannot be sustainable. Today the image of growth is so firmly anchored that any shrinkage can only be interpreted as a loss rather than an opportunity.

Architecture has also been operating within the assumption of limitless growth over the last two centuries. However, as Philipp Oswalt and Tim Rieniets have noted, after a projected zenith in 2100, processes of growth and shrinkage will reach a balance, and decline will become as common as it was before industrialization began.[1] If the premises of the discipline are still rooted in growth patterns that will progressively become less and less applicable, architecture as such risks its relevance.

1
Philipp Oswalt and Tim Rieniets, introduction to *Atlas of Shrinking Cities*, ed. Philipp Oswalt and Tim Rieniets (Ostfildern: Hatje Cantz, 2006), 6.

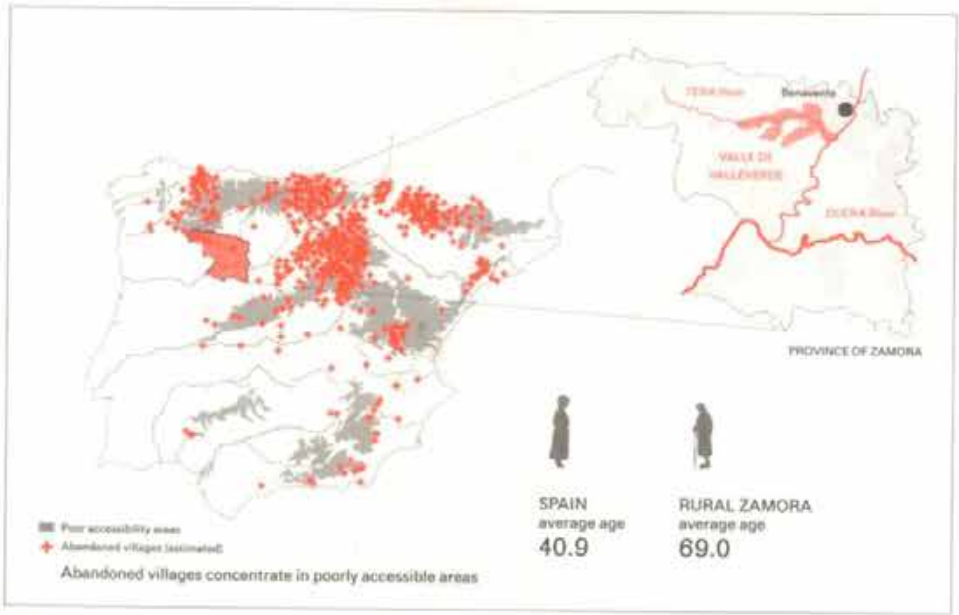


World's pattern of shrinkage and growth, population development 2005–2015.
Source: Center for International Earth Science Information Network (CIESIN), Columbia University, 2008.

In Spain, 2,600 villages across 8,100 municipalities had already been abandoned as of 2010, despite policies that have focused on retaining the rural population.[2] The policies have been ineffectual because they are rooted in economic and social studies developed under the general rubric of "growth," and they dismiss the essential and intimate psychogeographic bind existing in rural societies.

Rural flight in Spain has occurred steadily since the industrialization projects of the 1960s under the regime of Francisco Franco. The average age in rural areas such as Valle de Valverde, in the northwest, is 69 years, as opposed to 40.9 years in the country overall. Recent policies of territorial consolidation have merely accelerated the abandonment of arable land.

In the context of this unavoidable future, we propose that Spain's shrinking rural population can be treated as a field for a different kind of architectural performance.



Abandoned villages concentrate in poorly accessible areas

2
Information compiled from Instituto Nacional de Estadística, accessed June 2010, http://www.ine.es, and from *Pueblos Abandonados*, accessed March 2009, www.pueblosabandonados.es.

VALLE DE VALVERDE: A CASE STUDY

Located in the province of Zamora, Valle de Valverde is organized along the Tera River and situated close to an important regional center. The valley's villages were never formally laid out; they cobbled themselves together in fits and starts after they were founded during the Christian reconquest of 722 to 1492. Each village covers an area of approximately 24 square kilometers, and its boundary nodes roughly correspond to the crossings of ancient paths.

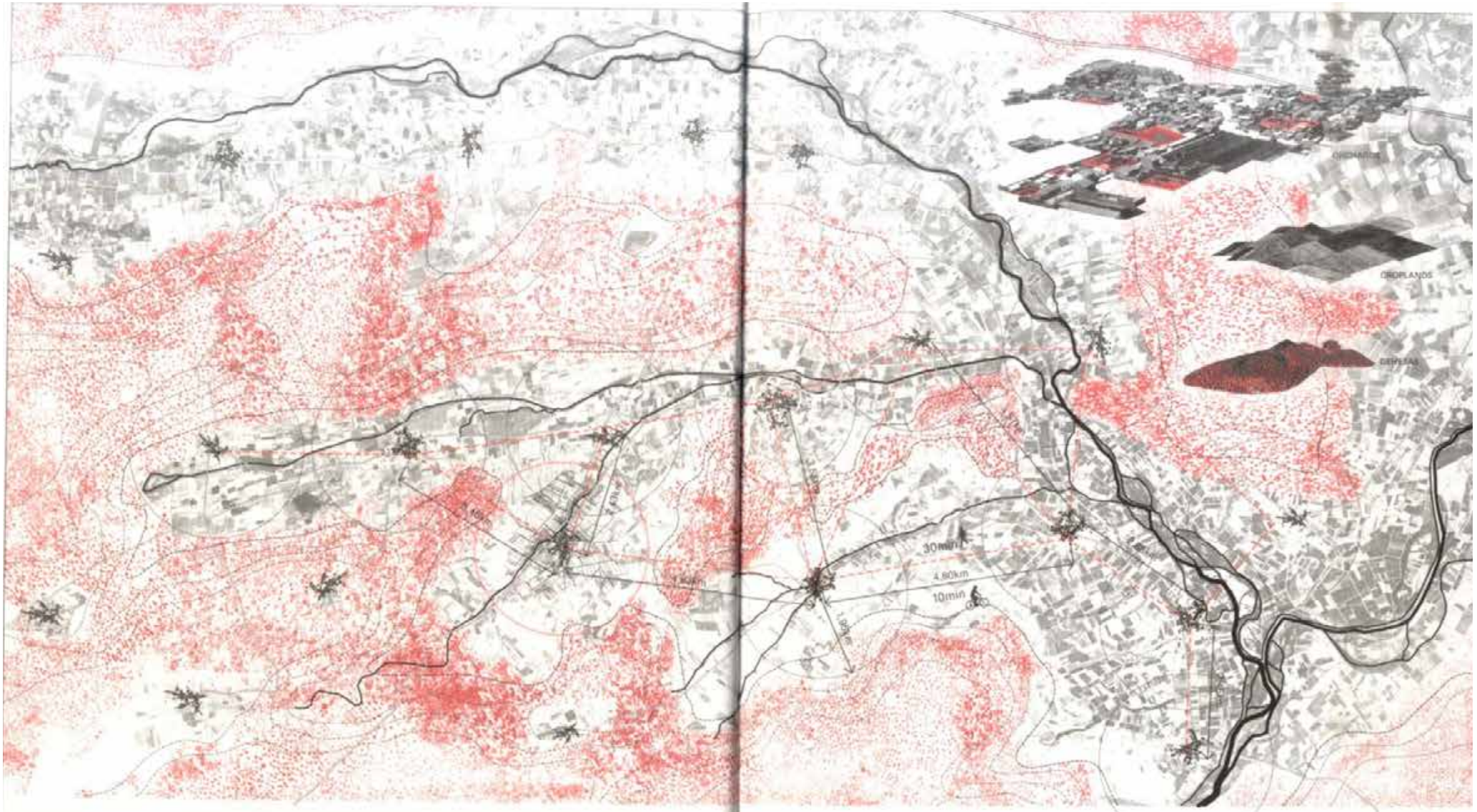
Self-sufficient settlements like Valverde's villages evolved around agricultural production. Today, villages closer to fertile areas are able to maintain their productive status, while those in higher, less accessible, and more arid lands struggle to survive. Some infrastructural and agricultural elements appear repeatedly in the landscape and have progressively helped to shape built and social patterns.

Historically, three different productive landscapes can be identified across the Valle de Valverde:

The *dehesas* are the wooded pasturelands usually located on higher rises between villages with limited agricultural value due to poor soil and a higher exposure to wind and rain. *Dehesas* usually belong to the municipality, though residents may forage non-timber forest crops.

The croplands are areas around and between villages that have traditionally been shaped for large agricultural production. These landscapes are for the most part located in lowlands, sometimes associated with a watercourse, and are easily accessible from villages.

The orchards are located adjacent to and sometimes within the built edge of the villages. They are small plots, usually tended by women, which produce seasonal fresh food for self-consumption and trade with neighboring villages.



VALLE DE VALVERDE: A CASE STUDY

VALLE DE VALVERDE'S EVOLUTION, 1950 TO TODAY TO 2025

During the postwar period of the 1940s and '50s, landscape cultivation was based on a model of self-sufficiency: large families provided plenty of labor, supported by livestock and independently excavated wells. Subsequent legacies and inheritance traditions divided these large properties into smaller parcels with each generation, successively impoverishing established families.

Over the 1960s and '70s, this atomization combined with processes of late modernization to produce a general rural flight into the emergent service-cities. The concurrent industrialization of both agricultural production and regional infrastructure favored the model of farm cooperatives. This change was also promoted by new consolidation policies, implemented from 1952 to 1982, that aimed to merge and redistribute agricultural holdings to increase production.

At the beginning of the twenty-first century, the rural population continues to dwindle and age, prompting the abandonment of farms and villages and accelerating soil erosion and other effects of lessening land maintenance. However, these phenomena also give rise to new opportunities for those who decide to stay and rent adjacent fields, fostering small-scale land ownership possibilities. In this context, depopulation and scalar shifts can become important components in reimagining Spain's agricultural landscapes.

In the future, a second wave of property consolidation could regroup the croplands into larger and more productive plots. Smaller properties and orchards closer to the villages or within their limits could remain for leisure gardening and community interaction.

Villages could keep their morphology, but spaces of production could be dissociated from dwellings. New patterns of land ownership could be introduced to eschew the failed model of large, self-sufficient agricultural families. Collective private ownership could exploit the land, attracting a seasonal and rotating workforce, while abandoned and undesirable plots could be purchased and reforested by the government. Other vacant plots could be more affordably valued and thus easily purchased or rented by enterprises which are less dependent on soil quality and more able

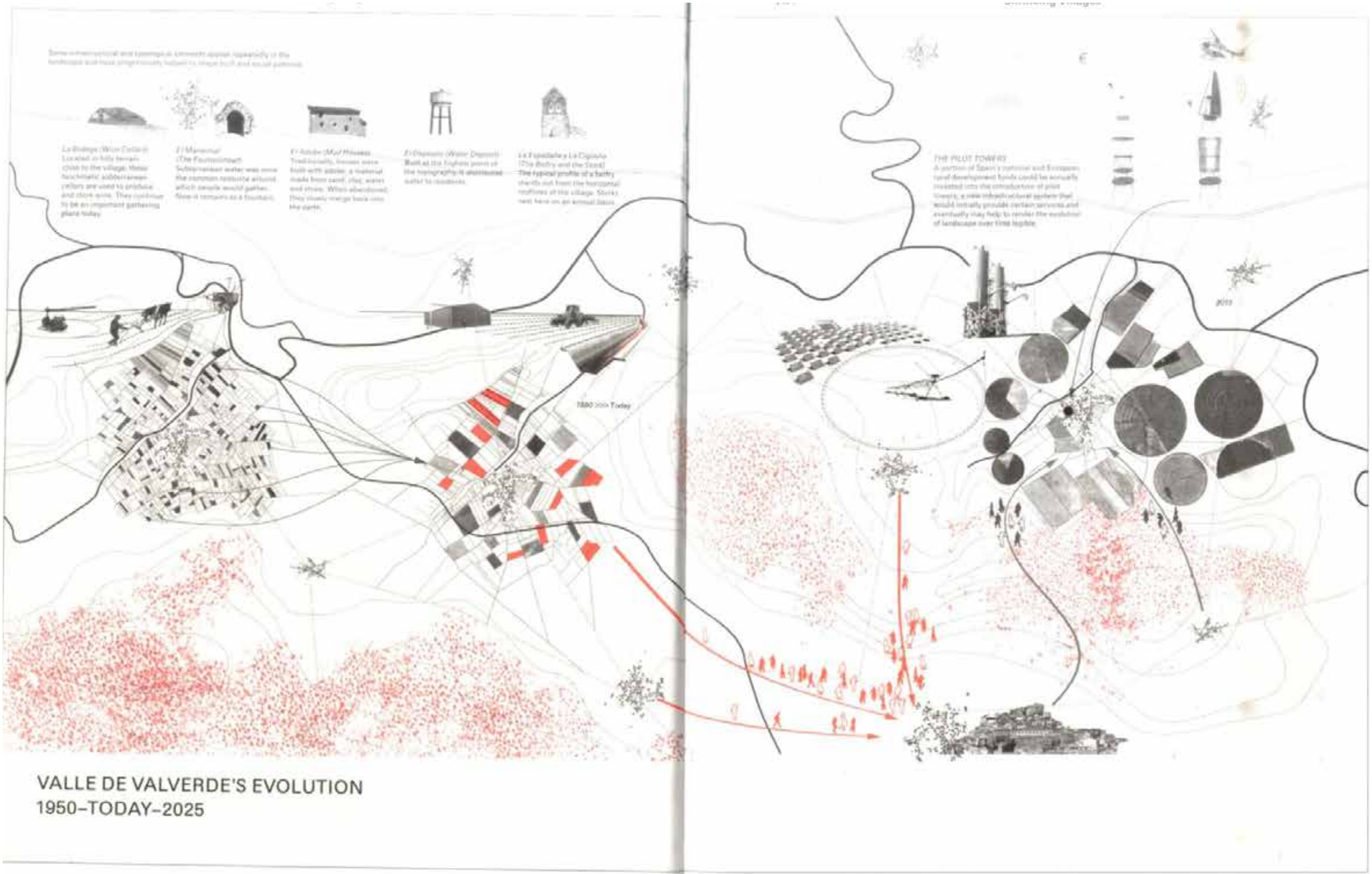
to propose agrarian alternatives, such as greenhouse growing or aquaponics systems.

In addition to these land-use changes, we propose that a portion of Spain's national and European rural development funds[3] could be annually invested into the introduction of towers for this pilot project, a new infrastructural system that would initially provide certain services and eventually help to render the evolution of the landscape legible.

At the outset, these towers might host hubs for farmers' markets and remote irrigation controls that would break the spatial bind between owners and land: one could live in a larger town, for instance, and still irrigate one's crops at a remove. No longer limited to roads or water paths, infrastructure could extend to virtual network connectivity: Wi-Fi hubs located on the towers would alleviate isolation, allowing rural communities to access urban services and providing the possibility for rural residents to connect to remote jobs in the city.

3
The Common Agricultural Policy (CAP) is the current system of European Union agricultural subsidies and programs. Since 2000, there has been a Rural Development Policy, which aims to stimulate the economic, social and environmental develop-

the total EU budget, is today allocated along three main areas: improvement of the competitiveness o the farm and forestry sector, improvement of the environment and the countryside through support for land management, and improvement of the quality of life in rural areas, encouraging diversific



VALLE DE VALVERDE'S EVOLUTION
1950–TODAY–2025

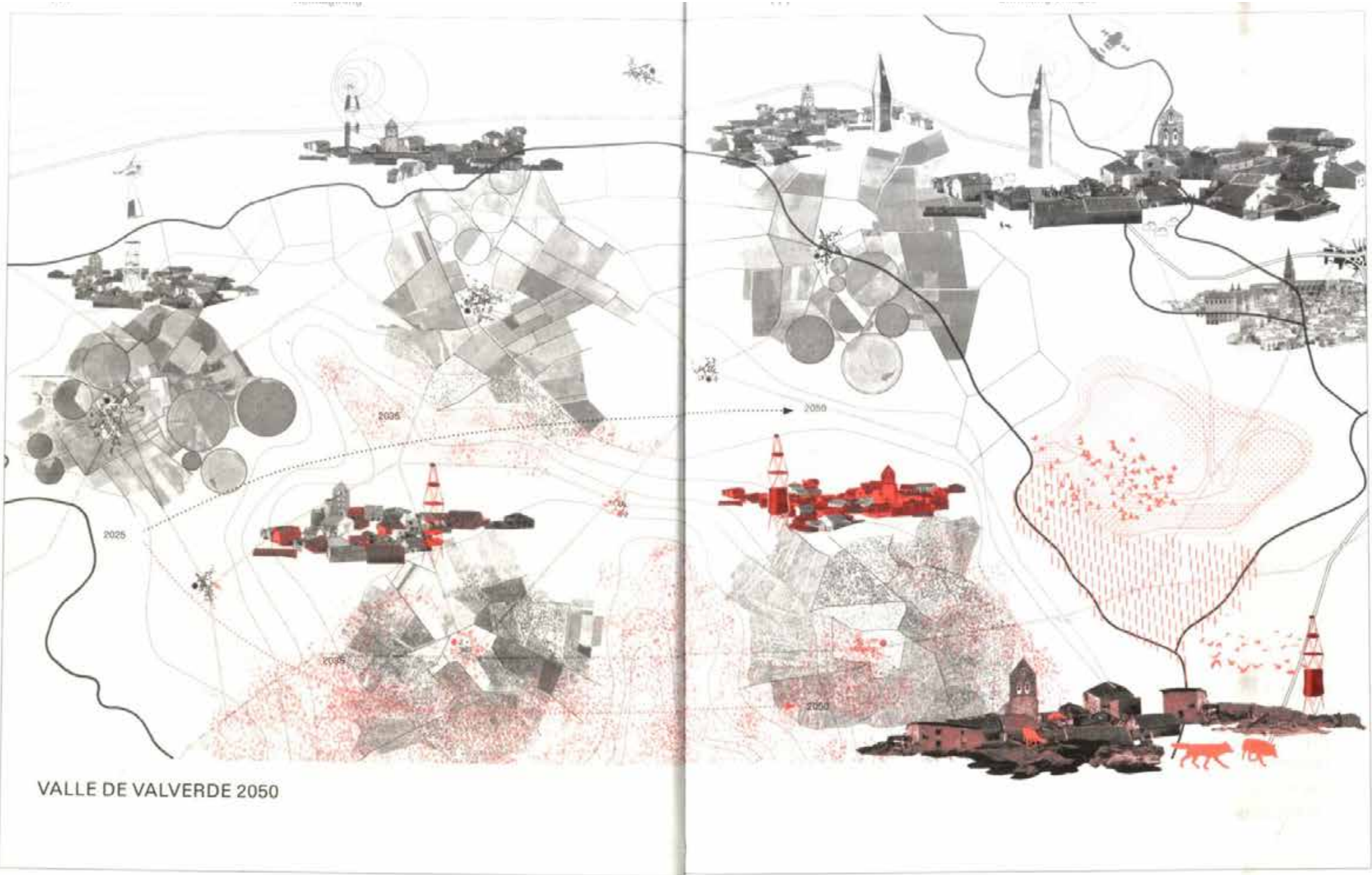
VALLE DE VALVERDE 2050

Rural development programs may try to bring new populations to the countryside, but they make communities dependent on subsidies. Towers could ultimately help to accelerate what we might think of as a new form of "natural selection," forcing an even more unequal evolutionary future for different villages across the territory.

Over time, some communities may manage to reinvest government subsidies by gradually adding expanded capabilities to the towers such as satellite infrastructure, windmill power generation, electric car recharging stations, and so forth, fostering population and technological growth around them. The towers could become landmarks in a rural landscape that is being redefined in the information era.

On the other hand, weaker communities may not have the same advantages: villages that have not invested in using and improving their infrastructure may continue to disappear. The towers may even accelerate the abandonment of such terrain as these villages confront their inability to coalesce around new opportunities. In the wake of this depopulation, abandoned villages could provide space for new *dehesas*, areas of reforestation and ecological reserves.

In the face of population decline, the towers' geographically privileged network could allow them to evolve into alternate forms of ecological infrastructure: they could become mechanisms for registering climate change and surveying the landscape. Towers could also serve as seed and water storage units, refuges, and animal observation towers, fostering scientific research and resource conservation while contributing to the creation of a visual identity in the landscape.



VALLE DE VALVERDE 2050

VALLE DE VALVERDE 2100

Division and individualism threaten shrinking villages, which could benefit from stronger social connections.

An infrastructural long-term investment in high-speed trains may serve as a trigger for regional population redistribution. Re-Link 2055, a holistic plan for restructuring rural Spanish territory, could be implemented in parallel with the existing and underutilized high-speed railway network and its future expansion. The plan could ask villages to describe their agendas and advocate for the changes that would be most material to their goals. Ideas from citizens, architects, planners and associations could be solicited to foster a national conversation about the programmatic transitions taking place in exhausted agricultural regions. Instead of focusing on the survival of existing rural systems, this effort could focus on new and hybrid programs.

A pan-municipal funding structure, distributed by the national Re-Link 2055 program, would allow platforms for farmers' markets, local wineries, rural tourism, summer camp associations, solar energy fields, reforestation areas and wildlife reserves in various municipalities to emerge as an amalgamated region.

A long-term investment in technology may trigger new social networks, which would enable villages to circulate information on prices, market areas, new ventures and pan-municipal programs. Virtual platforms for selling produce and livestock would reduce operational costs and overhead, allowing freelance professionals to work from rural environments.

Patterned "skins" for the towers could act as regional markers for the Re-Link 2055 plan. These changeable surfaces could communicate the unique programmatic agendas of each village to passersby and other settlements from a distance.

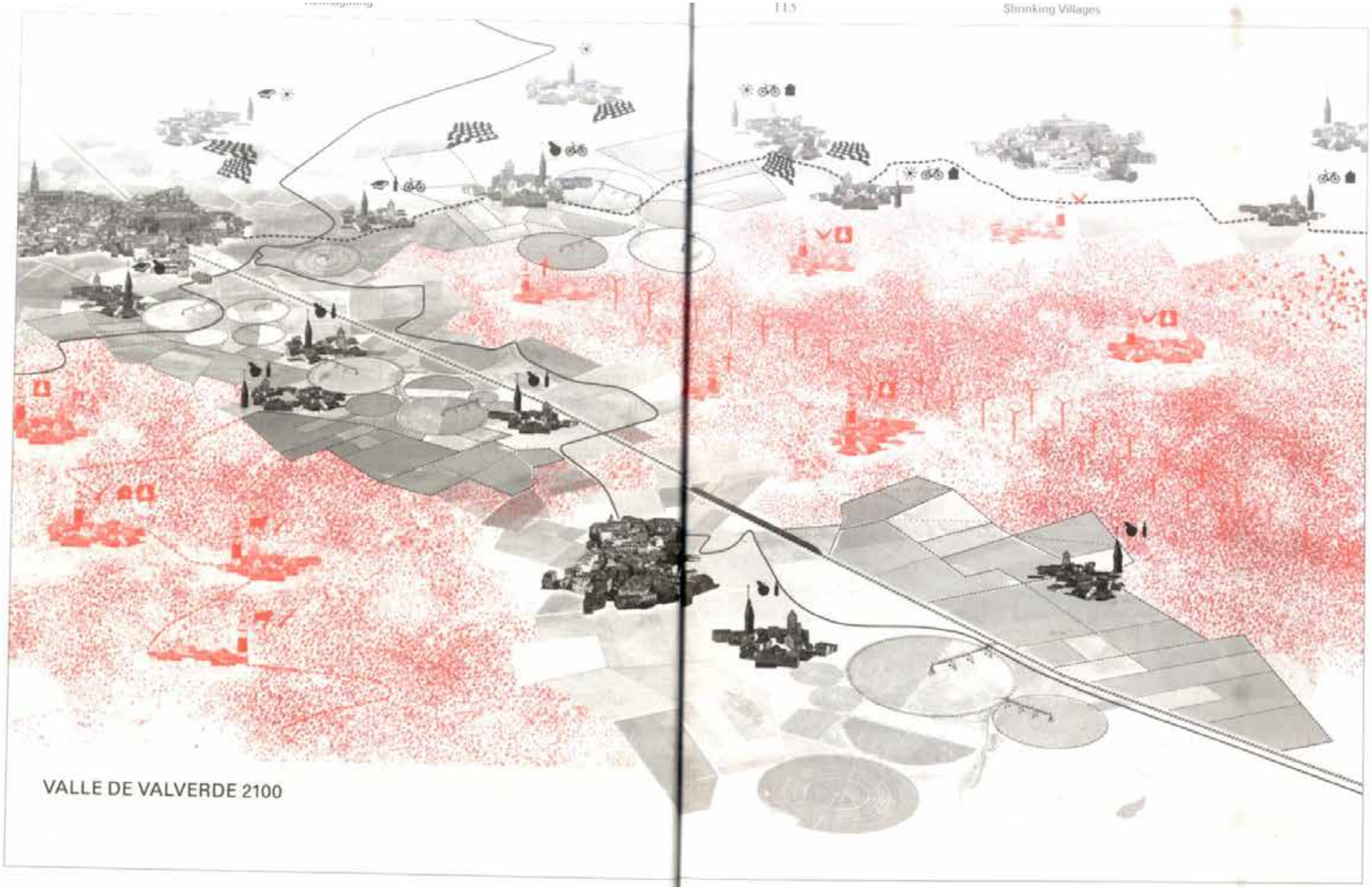
Towers in depopulated villages swallowed by reforestation and wildlife repopulation would take on new uses. Existing as cabins, seed storage units, or bird-watching towers in large expanses of *dehesas*, they would belong to a new ecological cycle.

Adapting to a variety of needs, the towers could be continually repurposed to facilitate programmatic strategies for the landscapes of Valverde, even after their human usefulness has altered beyond recognition.

REIMAGINING VALLE DE VALVERDE

Shrinkage creates spatial opportunities. From a homogeneously treated territorial panorama, it is possible to envision a meaningfully polarized country where villages and towns are no longer fighting the inevitable but rather embracing the new. By accepting shrinkage as part of our thinking process, we can imagine human-depopulated areas where diverse communities of flora and fauna have established themselves together with compact villages that have moved past a total dependence on agriculture for their survival. Different scales of intervention can respect the intimate attachment of inhabitants to their land while projecting a long-term planning strategy.

Whether shrinking villages remain inhabited or are abandoned, they offer potential to support both the programmatic performance and cultural value of emergent ecologies and future social orders.



VALLE DE VALVERDE 2100

VALLE DE VALVERDE 2100