

Ecology of Autarky: Transformation Is Not in Grand Strategies but in Daily Tactics

Susanna Pisciella

IUAV University, Venice 30135, Italy

Abstract: Autarky, so often evoked in contexts of energy and geopolitical crises, has always coincided with architecture itself, up to the great processes of de-territorialisation and the construction of the distribution network in the Second Industrial Revolution. In this article, autarky is investigated in its complex and remote roots, to be offered as a device for authentic ecological and social transformation. It is an antidote to a centralised, coercive and panoptic vision—the European Green Deal—which, by working with standards, ends up contradicting the very principles underlying ecology and the intrinsic value of heritage. Autarky is in fact based on the principle of the singularity of the relationship between the subject and the territory and, precisely in this collusion, has constructed the specificity of places, in spite of the homogeneous and neutral space of the top-down vision of technological capitalism. The research is interested in making the home not the finished product of ecological capitalism, but the starting point, the activator of a new process of connivance between inhabitant and habitat in which the subject is called upon to realise himself as *artifex*, recovering skills that redeem him from the current diminutio of *homo consumens*. The status of *homo faber* is a way of defusing this process, an attempt to suspend the uniformity of capitalist technical thinking, now deeply absorbed as something natural. That suspension of the obvious is a form of self-sufficiency, of regaining singularity.

Key words: Autarky, heritage, de-territorialisation, self-sufficiency, European Green Deal.

1. Which Is the Reason of Talking about Autarky Today?

Autarky is one of the cornerstones of Western traditions of dwelling. Social and architectural organisations are a function of its dialectic; one could reinterpret the entire history of architecture by focusing on the relationship between civilisation and territory in terms of energy, water and food self-sufficiency [1]. The concept of autarky was extensively developed in ancient Greece, and then remained undisputed for centuries because it was deeply absorbed as an implicit part of the built landscape, in the need for domestic self-production, whose differential spectrum is as rich as the territorial differential. The natural continuity of autarky began to break down with Enlightenment Rationalism [2]. The Second Industrial Revolution, with the creation of the large distribution network and the consolidation of capitalism along the flows of that

network, marked a real watershed in the history of construction.

It was only at the beginning of the 20th century that the notion of autarky suddenly re-emerged, coinciding with the first major systemic crises of the new global and interconnected economy. This was the case with the Great Depression, to which protectionist, autarkic responses were found through Roosevelt's New Deal in the United States; similar responses were found in England and Australia in the agricultural sectors. It reappeared again during the United Nations sanctions against Italian imperialism under the fascist regime, which institutionalized autarky as the only possible principle of domestic economy, in analogy with the Nazi regime. It was evoked once again following the 1973 oil crisis, giving rise to a vast body of architectural literature [3, 4] that attempted to reconnect with local resources through passive systems

Corresponding author: Susanna Pisciella, architect and PhD, senior lecturer, research fields: cultural roots of architecture.

that advanced the first off-grid hypotheses. Some segments of literature from that period, promising in terms of the mechanical physics of the natural environment [5, 6], were nevertheless more incomplete with regard to the architectural heritage they address, and were soon supplanted by the technological materials market.

This knowledge had been interrupted, and here we are attempting to recover it by building a new connection with the unique features of the built historical heritage, which already used similar spontaneous and self-built systems before the network was created.

The Green Deal itself is born today in the myth of self-sufficiency, in a geopolitical situation of great vulnerability, with a twofold objective: on the one hand, to make the entire European Community potentially self-sufficient in terms of energy, and on the other, to use technological capitalism as a tool for its further enhancement. This is the gap from which the project starts, in the knowledge that it is impossible to achieve any real resilience; in the knowledge that autarky—i.e. self-sufficiency—and capitalism are two antithetical, irreconcilable models.

2. Historical Retrospective of Autarky

The forms of autarky evoked from the early 20th century to the present day share a distortion of the principle underlying autarky itself, which contributes to their failure: the betrayal of the singularity of the subject. Both the human subject and the territorial subject. From the fascist experience to that of the European Green Deal, autarky is not a choice made by the subject, but a coercion imposed from above. Coercion operates within the de-territorialized mesh of global technological capitalism [7], under the illusion that it can be freed from it simply by replacing segments of energy sources. The Green Deal itself looks to climate neutrality by promising not to change consumer habits. But in this way, as the language adopted by the European

Green Deal shows, what will be achieved at the end of the enormous investment in built heritage will not be a permanent *transformation* at all, but only a *transition*. After all, the principles underlying autarky and the market are opposed. Whereas the former seeks the durability and reparability of manufactured objects, i.e. autonomy, the latter feeds on disposability and ever-increasing dependence on the market; where one is based on frugality, the other on the continuous production of consumer desires; on the one hand, the singularity of making, its unique link with the cultural and material resources of the moment; on the other, homogeneous de-territorialization, standardization. If systemic detachment from the network seems impossible, because we have now been deprived of the skills and conditions necessary to procure our own means of subsistence, autarky in its original form, in the indispensability of a unique relationship between subject and territory, can now offer to push ecological ambition beyond the objectives of the Green Deal, acting as an antidote to new forms of housing and knowledge poverty.

In this sense, it is useful to retrace some of the steps that led the original Greek concept of autarky to confront very different territorial and cultural models from the 18th century onwards, producing the distortions of the 20th century and, today, that of the European Green Deal.

It was 1966 when the *Lunar Orbiter* satellite took the first photograph of Earth from space. The image showed Earth as nothing more than a small marble surrounded by the darkness of the universe, representing a sort of visual Copernican Revolution. It was nothing like the boundless vastness perceived from the ground. The literature that emerged in the wake of American counterculture and the first experiences of major environmental disasters linked to human interference in environmental processes (the US Dust Bowls, the Great Smog of London, etc.) led to a new awareness of the limits of productive growth¹. It also

¹ The birth of environmentalism, Green parties and major environmental protection organisations—WWF, UNESCO

Environment, Friends of the Earth—the Club of Rome's report on the limits of growth, etc.

led, after more than a century and a half of industrial consumerism euphoria, to extensive attempts to recover forms of self-sufficiency through the rediscovery of forgotten skills, from building one's own tools to repairing them oneself, accompanied by publishing projects such as the *Whole World Catalogue* which, on the fine line between self-sufficiency and an early form of internet-style commercial compendium, ended up adhering to the latter, allowing the network to once again prevail in the dialectic between autarky and networking.

Autarky, from the Greek *autós-arkéo*, means self-sufficiency. It echoes the term *arca*, a closed structure used as a shelter, in which to treasure what one has, so that it matures fully and multiplies. There is a dual action here: on the one hand, autonomy that is resistant to the social and urban context, such as the iconic image of Diogenes of Sinope, the forefather of the idea of autarky, mild and patient in his barrel, free from any desire for things or power over others, striving for the highest degree of adherence to nature, growth and the realization of his own uniqueness. The anecdote of him sitting or lying down is famous, because autarky is an icon of non-aggression and non-violence, precisely because it is rooted in one's own potential and not greedy for anything else. It is an idea of frugality [8], sobriety and moderation that goes far beyond the notions of degrowth or sustainability with which it is associated today. A paradigmatic episode is when Diogenes, faced with the offer of Alexander the Great, *imperator maximus*, to give him anything he needed, "What can I do for you, Diogenes?", Diogenes replied emphatically, "Get out of my sunlight!". With this response, Diogenes wanted to show that he had nothing to envy of the great emperor, who, in his desire for power, was no longer able to perceive the benefits of the sun, the center of meaning and life [9].

The same concept evoked by Aristotle [10] for any Athenian citizen, *Polites*, who finds in the polis the most suitable habitat for his material and cultural fulfilment. The polis itself is autarchic in that it is an

independent and self-sufficient community [10], capable of self-government, as suggested by the further root that resonates in autarky, *archè*, which also gives meaning and direction to *archi-ecture*, attributing a reflexive function to *téchne*. Whereas today, technology is instead the instrument and purpose of all activity, including architecture.

Autarky, Aristotle explains more precisely [11], is the happiness that comes from one's own fulfilment, from not having to depend in any way on anything or anyone other than oneself. This condition of inner imperturbability was already explored by Socrates, and then by Stoicism in the form of wisdom as *ataraxia*, detachment from earthly needs, which became an authentic rejection of the social structure with Cynicism. Epicurean joy comes from frugality. Forms often in contrast with the system of social interdependencies structure the polis, almost unimaginable compared to the current model of total dependence on the network.

3. How the Network Came into Being

The process that led to the disintegration of the territory into de-territorialization and then into a network began at the end of the 17th century, on the basis of what can be called a Cartesian revolution of knowledge [12], when, with the formation of modern states, cartography abandoned its exploratory vocation and took on a military-strategic role, one of territorial conquest and social propaganda, which slowly led the subject of living to identify with that of the state; Cicero's *humanitas* to coincide with an abstract collectivity, a device for the progress of Enlightenment Rationalism. It is significant to compare the definition of "city" in the *Encyclopédie* with Aristotle's definition of "polis". In the *Encyclopédie*, the human subject who inhabits the city disappears [13] and only the skeleton of the built environment remains, from which the *Ville* is a "union of houses, a group of numerous dwellings arranged along streets and enclosed by a common fence, normally made of walls and moats (...)."

In 1647, Descartes declared the end of the value of

experience and perception of reality, and he did so by having Jan B. Weenincks paint him holding autographed pages bearing the words *Mundus est Fabula*, “the world is a fable.” According to Descartes, what we see is only valid if it has been tested by *cogito*, more *geometricum*, which is mathematical verification [14]. The world as it appears to us is pure illusion; it needs to be substantiated. This is the claim of modern thought and technology, which creates an ever-widening gap between the subject and the territory. Cartography is one of the most immediate litmus tests of this change in perspective and, with it, the territory itself. There is, in fact, a close one-to-one relationship between map representation and constructed reality, a phenomenon similar to what Baudrillard calls “precession of the simulacrum” [15]. Design depends on the map as a tool, but in turn, the map itself is a project of representation, so the way it describes places becomes, in turn, the way they will be imagined and constructed [16].

The representation of the territory undergoes a major transformation: the introduction of the metric scale. The criterion of measurability began to determine the existence or non-existence of things, whether or not they ended up on the map. This transformation was accompanied by another: a shift in perspective. No longer tangential, bird’s-eye view, exploratory, but zenithal, planimetric, of military control and domination [17, 18]. This shift revolutionises the way we look, think and plan. While myth familiarises the subject with the environment, making the project a device for connection, technology, on the contrary, suspends the environment, observing it remotely, *in vitro* [12]. All the evocative content that characterises representations until then disappears from cartography. From the medieval model of location, *locus*, the singularity of places, we move to the modern model of the extension of space, *res extensa*, where space, *stadium*, nothing more than an abstract, mathematical, infinitely repeatable metric unit. The process of de-

territorialisation culminates with the creation, following the Second Industrial Revolution, of the infrastructure and distribution network; dislocation, a system of graphs and flows that no longer have anything to do with the real morphology of the territory and indeed suspend and neutralize it [9].

4. How the Network Has Contributed to Erasing Singularity in Architecture

The creation of the network represents a major milestone in the history of building and living. Buildings predating the network are naturally conceived as *hortus conclusus*, centres of self-production, and can count on a thousand years of construction expertise, ranging from the skilful arrangement of windows, porticoes, wall thicknesses, orientation, plaster colours, etc., at the scale of the individual dwelling, to the curvature of the roads, compactness of the buildings, exposure, etc. at the scale of the entire settlement [19].

This difference is what has allowed the history of architecture to evolve, finding its specific form for every human need, craft and context; everything has its own measure. Over the centuries, difference has built the uniqueness of buildings, each one different from the other, the great minor heritage, a coefficient of value of the built landscape that today contributes to making a continent like Europe 10% of GDP thanks to tourism alone. Before Enlightenment Rationalism, the concept of typology as we understand it today in its functional and standardised nature did not exist, because it is a practice that became institutionalised with the surveys of ancient Rome, the rational collections of floor plans by J. N. L. Durand within the systemic and cataloguing culture of the 18th century; Linnaean classification applied to architecture. Thus, when the Fascist regime in the 1930s attempted to identify “the” perfect reference typology for the self-sufficient rural house with integrated vegetable garden and livestock, for the new settlements² under the banner of Fascist Autarky,

² *Fertilia, Aprilia, Arborea*, etc., or rather, the more than one hundred garden cities that he built from scratch in reclaimed and

unreclaimed areas to relocate former farmers and unemployed people during the Fascist Autarky regime.

those it identified and replicated ended up being nothing more than schematic abstractions of the rural houses of a particular village, exported to the entire surrounding area. This was inevitable because, as Giuseppe discovered in 1936 at the Milan Triennale with the exhibition *Italian Rural Architecture* [20], there was still no single model, but rather each person had their own home.

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Fig. 1 Pagano and Guarniero, *Italian Rural Architecture*, 1936, on the singularity of Italian dwellings in the tradition. A journey back in time through the origins of building types and their form-environment variables in Italian rural architecture.

of multiple personal, environmental and productive variables. Also important in this sense was Bernard Rudofsky's 1964 exhibition at MoMA (Museum of Modern Art) [22] on the enhancement of the uniqueness of building compared to the great homogenising wave of the International Style.

The continuous flow of supply guaranteed by the network leads to the loss of all the construction expertise that preceded the network. Furthermore, industrialisation has deprived the home of all those crafts that had built the most complex formal aspects of living. The capillary flows of energy, water and consumer products distribution level living to the lowest common denominator of a mere dormitory, uniformly the same everywhere. Everywhere increasingly disconnected from the territory in which it is located. The construction standards implemented by technical procedures promote the same construction solutions, offering technological capitalism a new market, that of compensatory plant engineering, which allows buildings to be constructed in steel and glass in Helsinki as well as in Palermo, without distinction. The standards currently in use in the EPBD (Energy Performance of Buildings Directive) merely homogenise ever larger portions of territory, assimilating the Green Deal in terms of scope and urgency to post-war reconstruction, which was massive, panoptic, rapid and led to the dissolution of cities, contributing to the disintegration of the landscape and the disintegration of the human community, leaving individuals increasingly alone and exposed.

5. From Homo Consumens to Homo Faber, the Backward Path Triggered by Self-sufficiency

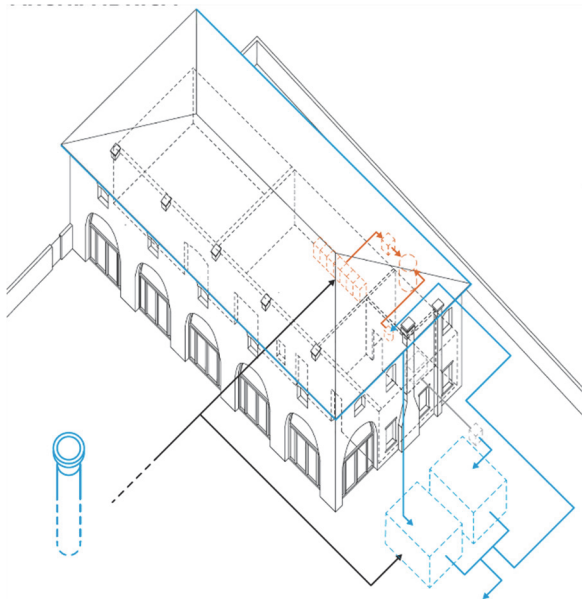
The "Autarchia dell'abitare" (Autarchy of Living) project is an attempt to reverse the process of abstraction induced by the network, to push ecological objectives beyond the ambitions of the Green Deal, so that the energy efficiency of the built heritage is not reduced to a mere technological operation at the

expense of the landscape value of individual places, but rather becomes an important opportunity to enhance the unique thermophysical qualities of historic buildings in different areas and an opportunity for redemption for residential buildings constructed after the Second World War, often characterised by architectural and thermophysical poverty, as they are permanently powered by the grid. Nevertheless, the project's ambition is also directed at human heritage, to recover skills that have been rendered useless by the lengthening of production chains and which have thus been lost, but which are fundamental, because there is no resilience without a minimum degree of self-sufficiency in terms of one's means of subsistence. In less than two centuries, the grid has reduced the artifex, homo faber, to one of the many elements in the market chain, to a mere consumer, homo consumens [23], sanctioning the transition from autonomy to dependence on production structures, but above all the loss of cultural heritage.

In addition to ecological purposes, self-production serves to reconnect individuals with the territory, activating a renewed awareness of energy sources and their limitations. In these terms, the home is no longer the end product of the ecological transition chain envisaged by the Green Deal and the EPBD but, on the contrary, is the starting point of the process. The home is no longer a passive refuge or dormitory but an active place of care, a hortus conclusus, and the production of some segments of one's own means of subsistence, forcing the reversal from homo consumens to homo faber. To regain skills and therefore freedom, according to an old Chinese adage applied to many developing economies, "give a man a fish and you feed him for a day; teach him to fish and you feed him for a lifetime." While the Green Deal focuses on energy resilience, the research project pushes ambitions further, looking also at water resilience, through devices for collecting and filtering rainwater, and food resilience, through the horticultural conversion of green areas belonging to the home, not only because water is already becoming a

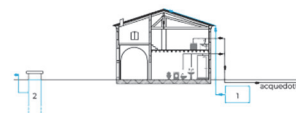


(a)



(b)

CIRCUITO ACQUE BIANCHE



1. CISTERNA ACQUA PIOVANA
Coefficiente di deflusso = 0,8
Pioggia media annua = 1.000 mm/anno
Superficie captante = 310,86 m²
Acqua piovana captata = 248 m³/anno

Mese più piovoso = 10% della precipitazione
annua totale = 24,8 m³/anno
Volume cisterna acque bianche = 24 m³
Dimensioni cisterna = 2m x 3m x 4m

2. POZZO
Acqua per uso irriguo

CIRCUITO ACQUE GRIGIE



3. CISTERNA ACQUE GRIGIE
Circuito acque grigie pro capite/giorno
= 100 l
Acque grigie filtrate = 24 m³/mese
Volume cisterna acque grigie filtrate
= 24 m³

4. FILTRO A MEMBRANA E TRATTAMENTO
OZONO

CIRCUITO ACQUE NERE



5. DEGRASSATORE
Da cucina e lavastoviglie a fossa Imhoff

6. FOSSA IMHOFF
Da WC e degrassatore a dispersione nel
terreno

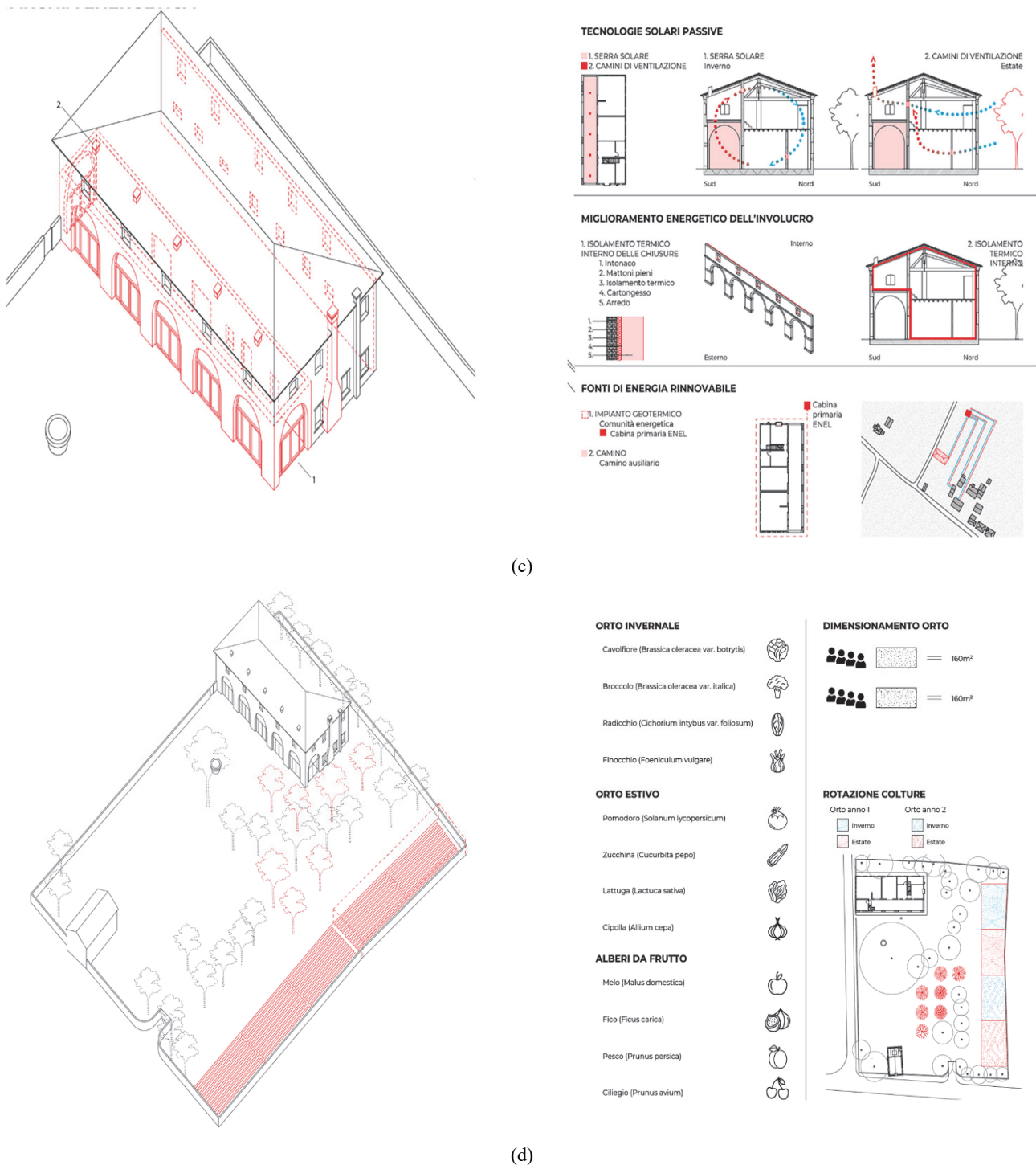


Fig. 2a-2d Draft project for energy, water and food efficiency in a rural residential building in the North East. Workshop “Off-grid Living” by Profs. S. Pisciella, F. Trovò, E. Giacomello, A. Mozzato, IUAV University, Venice, 23-27 September 2024.

major emergency even in European latitudes and food, as a result, an emergency that could arise in the near future, but because it is precisely through self-production that important skills can be regained, without which there can be no resilience in the

economic system and no social well-being. Homo consumens fuels a growing dependence on a market based on the continuous production of desires that are never completely satisfied and feed inexhaustible markets and social discrimination based on the

purchasing power of those goods [23]. The status of homo faber is a way of defusing this process, an attempt to suspend the uniformity of capitalist technical thinking, now deeply absorbed as something natural. This suspension of the obvious is a form of self-sufficiency, of regaining singularity.

6. Self-sufficiency in Housing in North-Eastern Italy

The research focuses on north-eastern Italy, concentrating on residential buildings, which account for 85% of the entire building stock and almost 40% of emissions and energy consumption when considering the entire life cycle of a building and its use. Particular attention is paid to single dwellings due to their greater exposure on all fronts from a thermal point of view and in terms of numbers, with 875,769 out of 1,648,498 being residential units. Furthermore, single-family homes have a natural propensity for autonomy, as recently evidenced by the increased access to building bonuses that incentivise self-production of electricity (see data from the National Energy Agency-Enea). Even during the years of massive urbanisation and industrialisation that characterised the post-war period, the North-East maintained a polycentric, widespread development, and a semi-agricultural vocation survived in single-family homes through the phenomenon of metal-mezzadria, a tradition of domestic food production that for decades accompanied factory work, maintaining close contact with the land. In the Po Valley, the largest floodplain in southern Europe, for centuries agricultural activity has coincided with the daily struggle to reclaim land from the water, establishing a very close bond with the territory. Here more than elsewhere, the sensitivity towards self-sufficiency is also evident in the numbers. In fact, in the Po Valley area alone, 198,181 energy efficiency measures have been carried out since 2021, out of a national total of 245,133. The North-East is characterised by a rich variety of renewable energy

resources, especially hydroelectric power in the rainy Alpine arc [24], while, despite being sunny, it is not a particularly favourable area for photovoltaic panels as it is polluted and characterised by haze. However, the directives seem to favour photovoltaics everywhere, regardless of local resources. For this reason, descriptions of the energy potential linked to each resource, solar, hydro, wind and geothermal, have been produced.

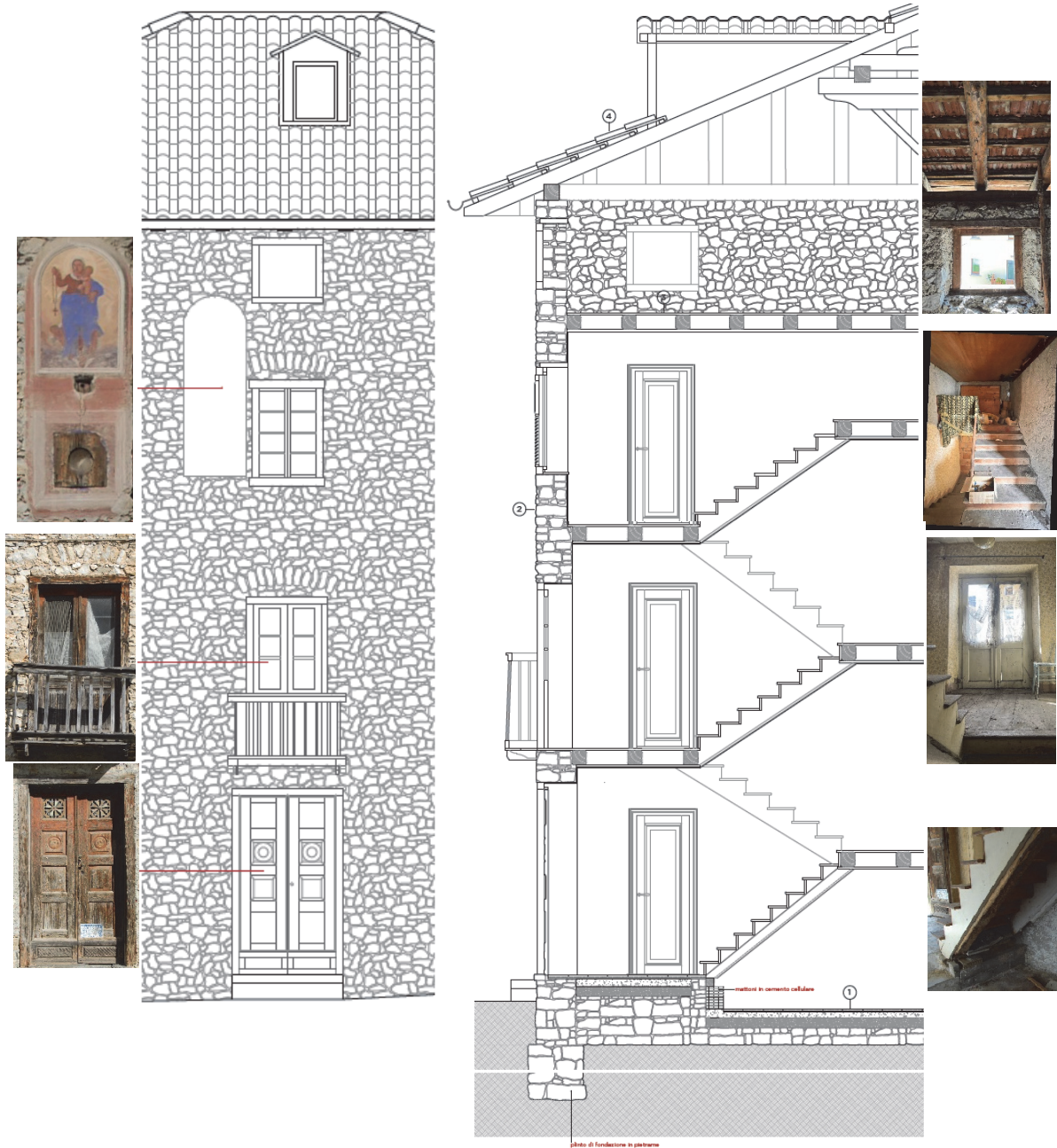
Italy's built heritage cannot be viewed solely from the perspective of European directives on energy performance, unless we are prepared to accept a significant devaluation of its value, given that over 90% of buildings are in energy classes F-G³. Among these, those built before 1945 use ingenious heating systems that are certainly not compatible with current standards of comfort and performance. However, they represent important assets from which to start, if only to fully understand the climatic history of an environment, because these minor architectural works are the result of centuries of observations, gathered through that "sense of the foot", as Hölderlin would say, which we have now lost, along with the sense of place, in the indistinct neutrality of space. After all, the North-East boasts an important historical tradition of dual-structure residences, with one part for living and the other for production. The so-called "Venetian villas", including those designed by Palladio, were always located along waterways such as the Brenta, Sile and Piave rivers and their tributaries. Inside the barchesse (barns), all agricultural activities were carried out, including wool processing, milling and pressing, using water mills [25], of which there were still a couple of thousand in the Veneto region alone in the mid-19th century. After all, until a couple of centuries ago, there were few types of buildings other than residential ones, which absorbed the entire productive spectrum necessary for the community. Starting with the Roman domus, monasteries, castles, villages, municipalities

³ The calculation is based on buildings constructed before 2005, the year in which the EPBD I directive came into force in

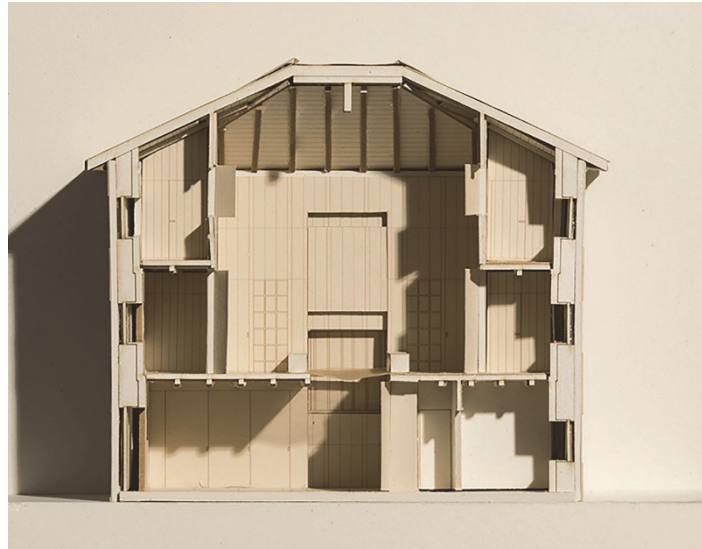
Italy, with a predominantly G energy class. The percentage is taken from the 2022 building stock provided by Cresme.

and lordships constituted perfectly autonomous systems. The socialist utopias of C. Fourier's Phalansteries and the 19th-century Familisteries, the first form of rebellion against the alienation of the capitalist system, partly draw on this historical tradition. This is because the network is not only an infrastructure

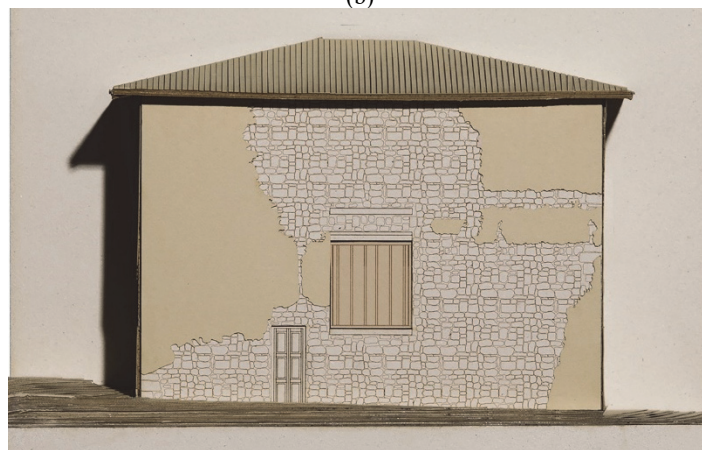
for the distribution of fossil resources, but above all a model of thought that progressively isolates and homogenises living, removing the connection with the environment through the introduction of increasingly long supply chains, which make the relationship between living and the territory increasingly mediated and remote.



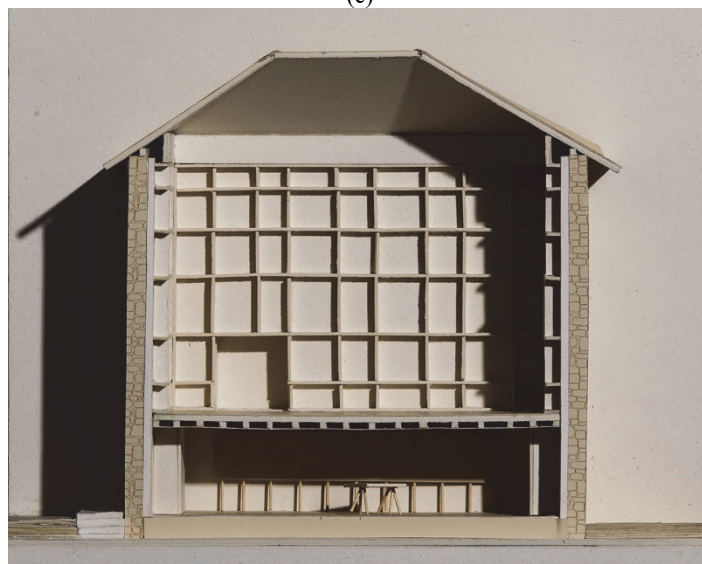
(a)



(b)

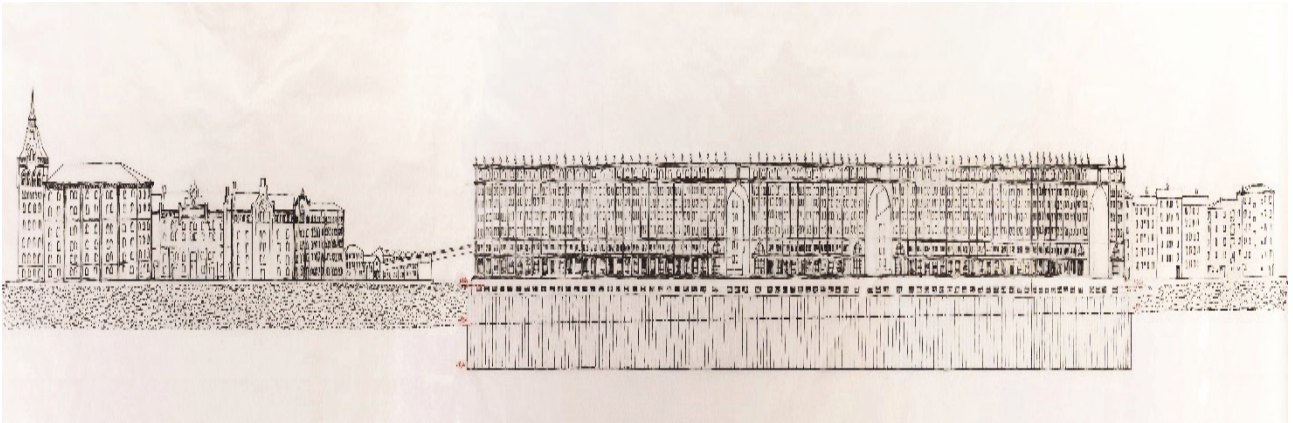


(c)

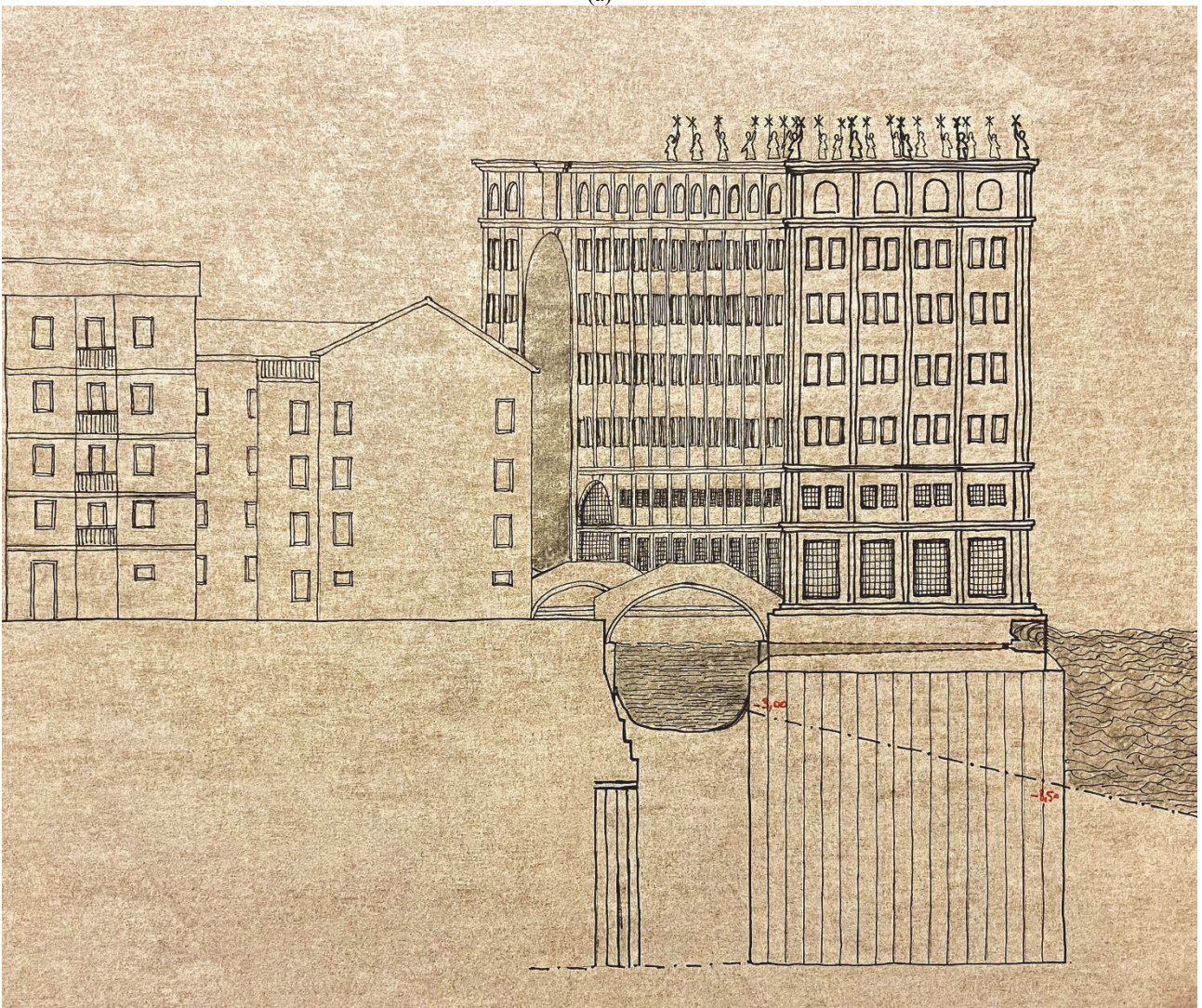


(d)

Fig. 3a-3d Laggio di Cadore, Belluno Dolomites, Italy, nineteenth-century stone “rifabbrico” (refurbishment). Restoration project involving internal wooden cladding, in keeping with ancient Dolomite tradition, and rainwater collection project for water self-sufficiency; conversion into a vegetable garden [26]. Workshop 1, Master’s degree, IUAV, Venice, Prof. S. Pisciella.



(a)



(b)

Fig. 4a-4b Proposal for a residential building in Venice alongside the Giudecca Canal, in order to complete the urban scenography that was interrupted at the beginning of the 20th century. The building exploits the kinetic energy of the small breaking waves of the lagoon along the Giudecca Canal, linking itself in a very specific way to the territory. The draft project is on display at the Italian Pavilion of the Biennale of Architecture “Intelligens”, Venice, 2025. Project: S. Piscicella. Collaborators: A. Mozzato, G. Antonioli, M. Renzi.

7. Conclusions

The Green Deal's integration into the logic of technological capitalism makes it incapable of bringing about any ecological transformation. Replacing all fossil fuel-powered devices with differently powered ones will only serve to strengthen technological capitalism itself, while the huge disposal costs of the previous production sector will weigh entirely on the environment. Only by combining the Green Deal with a new daily routine for individuals can we move towards ecological transformation, where oikos-logos implies a necessary care for the environmental habitat, a renewed connivance with the environment, irreconcilable with the nature of technology, which, on the contrary, promotes progressive alienation from the territory and isolation. In this new perspective, it is the territory itself that inspires ways of living, the daily habitus. This process is the opposite of the panoptic and coercive nature of directives that are imposed indiscriminately throughout the territory. Here, everything starts from the individual place, its resources and its vulnerabilities. This is a reversal that looks far ahead to the territorial revolution that has manifested itself in the ways we map and perceive the territory. An invention of everyday life [27] which is not informed by a priori standards, by "strategies" imposed from above, but which, on the contrary, continuously generates its own "tactics", functions the constantly changing conditions of everyday life, different in every place, different for every inhabitant.

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