

LAND SETTLEMENT DYNAMICS IN THE TRANSITION FROM A RURAL TO URBAN SOCIETY

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ABSTRACT

In developed countries, about 5% of jobs are in the agro-forestry sector. In the 60s, this sector employed about 30% of Portugal's workforce, which has now decreased to 11%. In developing countries, agricultural activities are split into two distinct socio-economic scenarios:

- Family-run farms based on traditional rural techniques, low productivity and low dependence on commercial competition since their products are meant for self-consumption and local markets;
- Corporate-like farming operations face broader competition in a globalised market. Their survival depends on sophisticated technology and their capacity to join mass distribution chains to obtain compensatory prices.

The transition from rural agriculture to modern agriculture has had a profound impact on population distribution and on the landscape. Whereas rural society is based on a positive and proven culture which knows how to build and maintain the agro-forestry landscape, urban society has an abstract knowledge devoid of soil management practices. Urban society is also restrained by legal directives not arising from a land-management culture but, rather, from instrumental beliefs about an imaginary and mystified nature. This void must be filled through studies about the rural setting's authentic values and its heritage of architecture, landscape and traditional know-how. Without this knowledge, urban development and engineering techniques come into conflict with the pre-existing territorial arrangement at a time when a harmonious coexistence is desirable.

The dynamic forces shaping land occupation, soil uses and employment distribution among services, industry and agro-forestry activities are unlikely to be controlled by land planning. Moreover, the very plans do not always provide satisfactory solutions. This situation calls for a critical analysis of urban development concepts viewed as an integrated discipline of land management as a whole, since planning without plans is no longer acceptable.

PRESENTATION

In the 60s, agriculture still employed over 30% of Portugal's workforce living in villages surrounded by farm fields and outlying forests. Furthermore, a significant percentage of this population dwelled in villages featuring pragmatic organic architecture and design. In this nearly closed economy, agricultural production was mainly for subsistence purposes and the rural population, although sustained mainly by crops, was also involved in traditional industrial activities.



Butélo. These photographs inspire urban dwellers to fantasise about a tender rural felicity, whilst also being able to distance themselves from and even remain almost indifferent to this condition of unbearable poverty.

This beautiful photograph from the 50s is part of the book *Arquitetura Popular em Portugal*, published by the National Association of Architects in 1961.

It is essential to understand that a rural setting is much more than mere agriculture; rather, it consists of a hierarchic structure of farming, forestry, industrial and service activities and whose institutions are based on customary law and a local economy.

A modern society's developed economy has, on average, 4% to 6% of its workforce dedicated to agricultural activities. These figures may lead to a rash conclusion on the need to quickly plan the relocation of rural dwellers. However, these rural residents cannot adapt to urban centres that, additionally, are not prepared to accommodate them. Prudent measures must be created for a progressive and passive transition for resident populations accustomed to rural life. Simultaneously, it is also necessary to suitably educate new generations that must migrate to an urban setting to work in industrial and service sectors. Moreover, the very urban scenario must also be gradually restructured to optimise the public services network in order

to meet, not only the needs of urban dwellers, but also the needs of those who live in the countryside, particularly those working in the agro-forestry sector.

Although these migrations are difficult to plan, there are a number of principles which must be taken into account:

1. The agricultural sector's diminishing workforce must correspond to an agrarian restructuring process whereby farming operations are more productive and profitable;
2. In order to develop the agricultural sector, it is also necessary to optimise the land property structure, that is, increase operations' net farming area, reduce the number of small plots and join these plots to improve farming operations' transport efficiency;
3. Older farmers who wish to continue their traditional farming activities, even with a low productivity, must be supervised and assisted such that they may continue to live with an acceptable level of comfort and well-being. Abstract technocratic criteria blind to an individual community's specific socio-economic setting must not be applied arbitrarily. A country does not necessarily have a problem when a high percentage of its workforce is dedicated to agriculture, provided such is part of a reform policy that, through education and natural development, enables new generations to gradually switch to other sectors. This switch is not a dramatic procedure since, on the contrary, it fulfils the desires of these younger generations;
4. Education and training prepare new generations from rural areas to obtain employment in an urban setting. Otherwise, youths face the distress of having to leave their rural homes, which no longer meet their needs and expectations, and migrating to cities which are also not prepared to accommodate them;
5. Rural communities traditionally struggled to survive during lean years, whereas harvests and times of plenty were a matter of chance and a reason to celebrate. In the case of a modern agrarian economy, one of the main problems is excess production which cannot be distributed in an increasingly

globalised market. In a rural agricultural setting there was a natural capacity for self-regulation which cannot be compared with the current logic of the Common Agricultural Policy (CAP), whereby regulations have been transferred to the legal and financial domain of a system of guarantees and subsidies.



This photograph, taken in Europe, reveals a shocking aspect of the Common Agricultural Policy (CAP) whereby, to sustain the prices on the market of agricultural products, surpluses are destroyed, in this case fruits and vegetables (*Actuel* n.º 74).

Within the context of rural agriculture, "surpluses" were left in the orchards and vegetable fields, provided food for wild avifauna and became part of the normal lifecycle.

Many countries have distinct and coexisting economic, financial and cultural systems whose differences may degenerate into serious injustices and even conflicts that challenge land management policies;

6. Migrations arising from a rural setting transformation must be monitored such that fields, irrigation systems, drainage, accesses, support buildings, retaining walls, wind screens, treed areas and other factors comprising the rural landscape do not deteriorate and lose their purpose. Whenever possible, those structures must be integrated and used in the new and modern agro-forestry system. Preventing the abandonment of fields and of the countryside in general is an essential and delicate political challenge which affects the country's image.



Gerês. Modelling of farm fields, their design, the building of terraces, the linking ramps and their stabilisation using surface drainage systems to prevent erosion and to convey water to sluices, to drainage ditches and, lastly, to natural waterways, attain an exemplary balance and perfection.

Rural architectural heritage may be safeguarded only within the context of a sophisticated and stable urban economy able to understand and invest in knowledge and in a financially sustainable occupation of rural areas;



Gerês (in the 70s). Traditional farming techniques, which still relied on animals to do heavy work. This intensive agriculture with high labour investment provided family subsistence. However, their standard of living did not meet the expectations of younger generations.

7. The agro-forestry sector has been greatly undermined by deficient land market regulations. Without rules applicable to land segmentation and utilisation, land may reach unsustainable prices. Farmers cannot compete with adventitious and speculative demand for urban expansion. This conflict of interests regarding land uses can be avoided only by a law based on a rational and constructive

planning system so that agricultural and forestry land cannot be disputed and acquired for other purposes.

As of the 60s, and particularly following the first oil crisis which, to some extent, led to chronic inflation until Portugal joined the euro currency, there was an intense demand for investment properties. During this period, many rural buildings were purchased as holiday homes by urban dwellers who also purchased land as a sort of passive hoarding whilst leaving the said properties abandoned. Within this scenario in Portugal, we may validly raise the issue about the availability of land for farmers who will maintain the property's utility by using it as a resource for agricultural and forestry production purposes.

Setting fair price parameters within the real estate market is a legal and government obligation. The fair price must be viewed as a reference to moderate or even slow down speculative activities and also to sustain correct values in situations of deflated prices. That is why the "market value" concept, a highly proclaimed virtue in past decades of dazzling liberalism, must be challenged by the concept of "fair value." Within a "fair value" perspective, land is a basic necessity and plays a social role rising above the very right to private property. And the said fair price is stipulated through the state's powers to declare it a public utility, always in compliance with the right to expropriation through a fair indemnity.

Whenever possible, it is worth preserving rural villages by maintaining their original structure that inspires new interpretations by the English School of Landscape, as a gesture of creating landscapes and of providing an aesthetic meaning to land planning. The preconceived construction of urban space through an integrated vision of social life and of architectural aesthetics was particularly well expressed in the poetics of Ebenezer Howard's garden city concept and in the "City Beautiful Movement." That absolute focus on urban beauty is today threatened by real estate speculation supported by abstract legal regulations, optimised traffic flows and dazzling marketing of complexes with a high media impact.



Vale de Cambra. Dispersed housing, with farming operations in fields bordered by trellised green-wine vines.

The buildings are of an uncharacteristic architecture dissonant with the landscape, especially due to their excessive volume.

Contemporary urban development cannot be restricted to designing and building cities. It is necessary to view the territory as a whole, combining urban utilisation plans with agricultural and forestry uses, thereby safeguarding and valorising ecosystemic values properly identified in "areas classified as unique." This orthodox and professionalised urban planning contrasts with the empirical and traditional knowledge of rural society which evolved through the centuries. There is no reason why the pragmatic construction of popular architecture, according to proven and matured knowledge, should be ignored by erudite architecture. University graduates in this field would have much to gain from examples of techniques that are learnt only through a nearly manual practice and by on-site observation of the direct results of ideas put into practice.

The growing gap between formal and abstract planning and the respective reality is a real danger, aggravated by obstacles to timely and clear-sighted criticism. Little has been said about conceptual planning errors and about poor plans, assigning them an intrinsic virtue which they do not have and presupposing a rationale that is rarely present. That's why comparisons (conveniently in a simplistic and anachronous manner) are often made between the exemplary harmony of some rural structures with the gross and grotesque features of some pre-conceived urban developments.



Marialva. The cluster of houses maintains a neighbourhood setting endowing the village with a sense of community. The space's organic compartmentalisation and the relation between the edifices, walled gardens and open farm fields reveal a subtle design and composition forming the basis of a solid architectonic language of rural standards.

In Arquitectura Popular em Portugal, National Association of Architects, 1961.

A compilation of knowledge about the territory presupposes a multidisciplinary approach ensuring the urban developer's capacity of analysis and comprehension. An urban developer is responsible for ensuring relative and moderate actions by specialised interventions. Harmony of the whole implies a de-optimisation of the parts, safeguarding their right to liberty, affirmation and development, but always subordinating them to an optimum whole.

The land plan viewed by a modern state is based on the power to classify land and assign it uses, in addition to authorising and licensing changes in uses and construction rights. The administrative procedures of this power to determine land uses and its dynamics are one of the main issues covered by contemporary Urban Development Law. This power to classify land uses has not yet been properly handled in regard to legal aspects. This is why this power has been atypically dispersed throughout government and municipal administrative apparatuses, thereby choking the political power's ability to make decisions, compromising private property rights, interfering in an unclear manner in the corporate sector and in the financial sector and, lastly, increasing contextual costs and the price of final products which depend on the territorial basis.

The power of decision underlying land-planning processes must be legally proceduralized and independent of technical opinions and of bureaucratic-administrative power routines. It is especially important to separate the sphere of political power and its legal framework from technical-administrative powers that, in

themselves, must not be assigned powers to the extent whereby they compete with the political sphere.

The power to classify land uses is a key issue of Urban Development Law, and this power must not be lost in the backstage of technocracy or be performed arbitrarily by the political power. The decision power is lacking a procedural process somewhat similar to what is applied for issuing currency, since the classification operation always involves large capital gains and capital losses.

The current global financial crisis originated partly because of the real estate market's obscure transactions and the inflated prices of land and edifices, which led to toxic mortgage loans based on inflated asset evaluations.

To properly understand the logical structure of land uses, it is necessary to structure the taxonomy of land uses which, at the most collective level, covers the protection of natural resources, particularly in **areas classified as unique**, the supervision of **wild forestry and sylvo-pastoral areas**, the management of land assigned to **agricultural purposes**, structured into economically feasible operations and, lastly, the management of the **urban system**, structured as a network of cities and towns, serving the whole population, including people living outside urban perimeters.

Disciplining urban development is based on the capacity to infrastructurally distinguish between rural and urban areas, maintaining the need to control the right to urbanise and the right to build in a proceduralized manner, with economic transparency, such that it will be possible to regulate the real estate market in general and land prices in particular.

The functional, architectonic and landscape components of plans lack a close link with the land market segmentation according to authorised and established utilisation rights, otherwise land use classification acts and the very plans may deteriorate into instruments fostering a disorganised territory and real estate speculation.

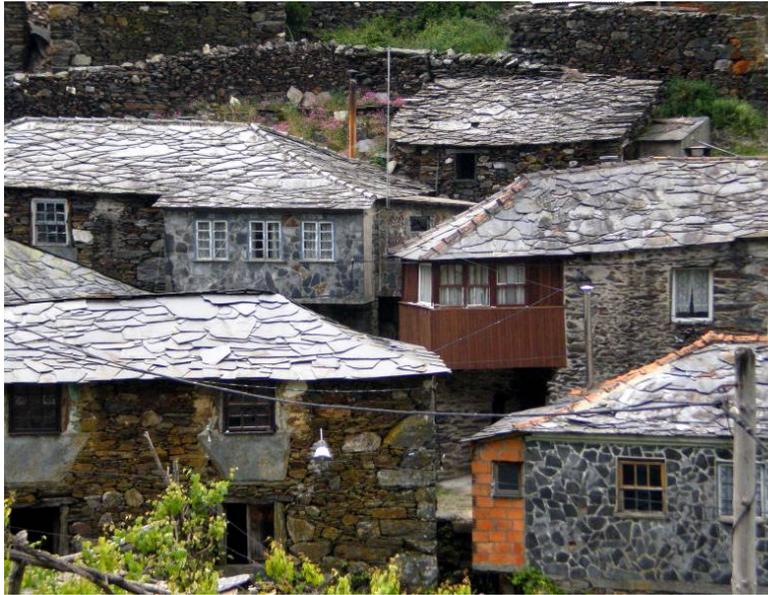
As of the 50s in Portugal, consequent to a policy to boost industry and services and to overcome hardships in rural areas, people began to migrate from the countryside to cities, and hundreds of villages were left nearly deserted.



Gerês. Dispersed housing leads to isolation and difficult access to infrastructure networks. These aspects have a profound impact on the quality of life of the farmers and their families, creating situations of poverty whose causes cannot be camouflaged by the landscape's beauty.

On evolving from a rural society (with a settlement structure based on a network of many small villages) to an urban society (where the population tends to be concentrated in medium and large cities), it is only natural that a substantial part of villages no longer make sense and will be depleted of residents. Some may be recovered as farming centres for modern farming operations, others may diversify their activities, such as industry, tourism and other services, and evolve into sustainable urban centres. Nevertheless, the reality is that not all original rural villages can be maintained, since the very dynamics of an agrarian economy imply a structural alteration to the settlement's geography. Moreover, economically evolved countries tend to have a lower birth rate and, therefore, the population stabilises or even decreases.

This is the framework from which we must draft policies to safeguard and valorise rural heritage, where clusters of homes, barns and other edifices, although more visible, are not more important than the structure of the fields and all their manmade improvements.



São Pedro do Sul. Restoration of edifices must take into account and work toward a harmonious architectonic setting as a whole, which implies, not only a careful selection of materials, but also respect for traditional construction techniques.



Serra da Freita. The poverty of the farmers and the dysfunctional spaces inevitably leads to deterioration of the architectonic structures. Owners who emigrated could afford to make alterations that, at times, negatively contrast with the authenticity of the pre-existing pragmatic architecture.

Villages must be planned by teams representing the persons and companies to be affected by the plan's corresponding content and decisions, which must follow guidelines to meet the resident population's overall needs and pre-existing heritage values. Justified public interests and the fair interest and rights of private property must be always combined through proven economic and financial sustainability.

Rurality values may survive only if knowingly valorised and integrated in an advanced urban culture which accepts and understands the simplicity, aesthetic remains and the pragmatic functionality of rural landscape. This integration calls for

an architectonic awareness able to find solutions for adapting spaces to new requirements for amenities. Automobile access and basic infrastructures (energy, water supply and waste collection and treatment) are requirements that cannot be overlooked. Making a rural village habitable implies endowing it with all the networks, involving costs that are affordable only through an economy of scale. Therefore, villages cannot be recovered through very restrictive programmes applicable to the restoration and expansion of existing buildings or the construction of new buildings for new activities and functions.



Gerês. Corn Silo. Ventilated structure used to store corn cobs. These structures of rural architecture have a very expressive presence.

Today, they have merely archaeological and museological value. Their original purposes no longer make sense since, today, cereals are stored using technologically more advanced means.

Safeguarding and valorising these sites is matter of preserving architectonic and landscape features. Moreover, there are also various doctrines and perspectives: some more culturalist and conservative which freeze heritage in time and reject the natural evolution of techniques and architectures; others more modernist and iconoclastic which defend development open to creativity and whose selection is based more on a critical casuistic evaluation of works free of pre-concepts. The former may be accused of a museological perspective of the rural world and of desiring to halt time; the latter may err by losing control over situations to the extent of de-characterising the scenario and even of gratuitous destruction of historic patrimony. The ideal solution likely lies in a third perspective based on the study and knowledge of underlying values and in the full merit of intervention projects and plans. This option opportunely rejects kitsch ingenuity, the artifice of pastiche,

remakes and, in reality, a lack of culture concealed by an anachronistically conservative discourse which has the potential to wipe out the past through abusive destruction of memories of sites and through mediocre claims about a failed modernity.



There are particularly fascinating rural roads which may be used only as walking trails and which are still very restricted due to their insufficient width and surface characteristics that, as an integral part of their features, are uncomfortable and somewhat dangerous due to their bumpy nature. This situation must be compensated with carefully conceived alternative accesses.

The planning model deemed rational for contemporary society corresponds to concentrating the population in a balanced network of medium-size cities whose area of influence consist of agricultural areas surrounding villages where farmers may comfortably live whilst having access to nearby facilities and services. These regions' socio-territorial cohesion depends on the village network's accessibility to the central city/town, taking into account the actual distance, travel time and availability of public transport.

In the past, rural communities, subject to a chronic lack of food products and restricted to the geometry of nearly-closed economies, were sustained by very well designed and carefully maintained territorial structures where the agro-sylvo-pastoral production value of land prevailed. In the last fifty years, urban culture and the economy have been subject to the prevailing speculative value of land transactions. In this scenario, farming operations have been subject to prices determined by a globalised market controlled by the wholesale distribution sector to

the extent that a significant part of agriculture is left dependant on state subsidy policies.

Planning the physical structure of agricultural areas, including territorial units of rural villages, must also include and take into account the effects of land property policies and policies applicable to prices of agricultural products, within a very complex national and international system.

Portugal traversed a bumpy path and the results are not encouraging due to the following reasons:

- It was not understood on time or assumed that modernising agriculture would not create more jobs in this sector but, instead, significantly reduce its workforce;
- Without restructuring the land property structure and without reorganising agricultural companies, national production decreased and most of the fields were abandoned;
- With a non-regulated and highly speculative real estate market, housing prices in the main cities increased to the extent that the economically more vulnerable families chose to build single-family homes outside urban perimeters. As such, they rejected the speculative prices of collective housing and chose single-family dwellings with the associated agricultural space, but then suffered from the lack of infrastructures and transport;
- Nearly all rural villages suffered an sharp population loss and the large infrastructure investments in recent years, supported by European Union subsidies, were not sufficient to halt the steady decline of village populations;
- Some villages have been recovered through successful tourism investment programmes, although these cases are rare;
- Real estate speculation, which dominated the market in the last forty years, created the conviction that land values would continue to rise at a fast pace, to the extent that it was abusively and abundantly used as collateral for inflated

financial assets. It is not known to what point rural land (especially that classified as suitable for urban development) is involved in this financial game.

In any case, this is a situation which disrupts the availability of land for agro-forestry use and challenges the bases and methods of preparing land management plans. These plans did not safeguard transparent and rational information about the value of the land that those very plans classified and parameterised. Realistically, the territorial plans in the Portuguese model helped to legitimise the creation of inflated assets, thereby creating serious problems in the financial system.

Orderly land occupation is based on a careful strategy of locating economic activities that, in themselves, require a disciplined and restrained distribution and expansion of urban land, making it available to families and companies at reasonable prices. The prosperity of economic activities depends on their link with transport and communications networks combined with a network of urban centres capable of rendering specialised services and with a reasonable consumption capacity to sustain socio-economic development. In order for regions to evolve and prosper, they must be endowed with infrastructures, facilities and services and have a reasonable consumption capacity. It is noted, however, that in the case of regions dominated by sylvan spaces, whether they be protected areas or outlying areas of forestry production, these regions can be nearly free of population, which is an advantage and immensely stabilises the utilisation of sylvan areas. Moreover, a diminishing population in this scenario is not a sign of underdevelopment. It is important to distinguish and analyse the structural relation between settlement and land uses.

The price of rural land must always be related with a land rent viable for its normal utilisation by a modern agricultural or forestry company. Classifying and preserving the territorial structure greatly depends on controlling land prices according to the land area's size, location and utilisation. Additionally, it is also necessary to ensure that agricultural operations are based on a suitable land property configuration to enhance their technological development and capacity to penetrate and compete in a global market. These are the foundations necessary for optimising

social networks and cohesion to support a settlement's structure and its bordering units.

These urban development and land management principles transcend the state's strictly administrative role and are attainable and consequential only when arising from a cultural awareness assumed by communities.

Rural architecture, whether buildings or campestrial landscape, does not need to assert its novelty or to display creativity; it is resolutely committed to the utilitarian purpose of objects.



Redondo (Alentejo). The subtleness and harmony of the organic composition of forms and evolving volumes.

The freedom to work on differences is an important lesson for contemporary architecture which is unnecessarily enslaved to repetition.



Rural society has little tendency for spiritual meanderings in search of a purely aesthetic sense. All things are made with survival in mind, an ongoing endeavour to produce food, to build shelters and to fabricate all artefacts necessary in a very frugal economy. These circumstances were felt by rural populations in stark contrast to what we currently experience whilst analysing the physical structure of that cultural heritage.

What we find surprising and exciting about "rural art" is its transcendental minimalism, its pragmatic rationale, the unpretentious harmony and the functional rigor of its design. perhaps, the splendour of rural architecture and the main lesson it teaches us lies in the absolute conciliation between functions and forms, without semblances, shaped with a

profound liberty of adaptation to sites in a discourse highlighted by the nearly non-repetitive differences.



Serra da Estrela. The valley's agricultural fields contrast with the forested hillsides, forming a delicate and harmonious organic landscape.

In the rural world, nothing is irrelevant. That's why its force arises from a relation with proven needs without reservations. In a rural world, all effort conciliates and integrates, although restricted to a scenario of domestic production. This is how rurality stands out and comes into irreconcilable conflict with the hostility of wild spaces in their real and symbolic dimension.

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