

Chelas Zone J revisited:

Urban morphology and change in a recovering neighbourhood

João Cunha Borges¹, Teresa Marat-Mendes², Sara Silva Lopes³

^{1,2,3}Instituto Universitário de Lisboa, ISCTE-IUL, Dinâmias Cet, Lisbon, Portugal

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Abstract

Among new council housing areas from 1960s Lisbon is the Chelas Valley, by then overwhelmingly agrarian. Although an integral urbanization plan - the Plano de Urbanização de Chelas (PUC) - was prepared until 1964, the area was divided into six zones, urbanized in different periods, with great deviances from the original plan.

Upon construction, Chelas was challenged by social problems. One of the zones, Zone J, has been particularly associated with this negative image. The architectural designs by Tomás Taveira and Victor Consiglieri introduced changes to the urban plan by Francisco Silva Dias and José Lobo de Carvalho. After construction, several municipal initiatives tried to improve living conditions in Zone J, ranging from façade changes to demolitions. All along, it has been accepted that the urban form of Zone J was a determinant factor of its failure as an habitat.

Here, we revisit the original Zone J Plan. How was it implemented, and how has it changed since? What has been the input of the residents in the territory they inhabit? Can it contribute to make Lisbon a more sustainable city? This presentation aims to answer these questions, while trying to identify parallels with other urban areas in crisis which share morphological characteristics with Chelas Zone J.

Introduction

For over forty years in Portugal, Chelas – Zone J has been synonymous with social housing gone wrong. Throughout the 1990s it was often on the news for poverty, violence and drug-trafficking. A feature film by Leonel Vieira, 'Zona J' (1998), portrayed those anathemas. Today, the situation has improved, and the neighbourhood is recovering.

Here, we highlight the conceptual roots and design of Chelas and of Zone J, disclosing the principles underlying the original plans, i.e., their 'ground-rules', as well as the transformations verified so far, establishing if and how they have been accommodated. For 'ground-rules' we mean rules governing physical elements of urban form, including grids, streets, squares, blocks, lots, buildings and façades (Marat-Mendes, 2002). This methodology is inspired by Marat-Mendes' (2002) research on sustainable urban form, and was elsewhere (Borges and Marat-Mendes, 2019) applied to first zone of Chelas, Zone I.

We also seek to promote new approaches to the territory responding to contemporary societal needs, such as housing demand and environmental concerns, which the project SPLACH -Spatial Planning for Change is researching, to improve urban food systems and contribute to de-carbonization.

Urban paradigms

In the early 20th century, Portugal was ruled by the New State (1933-1974), a conservative dictatorship. Its council housing programmes for Portuguese cities were initially low-density Garden City-inspired neighbourhoods. In 1930s and 1940s Lisbon, this proved insufficient, and slumlands continued growing (Teixeira, 1992).

Although urban planning efforts were only beginning – and only in larger settlements – the Lisbon Masterplan (1938-1948) by Étienne de Gröer was rejected by the Central State. Finished in 1959, a second plan was rejected by the municipality itself, leaving the growth of the capital city – particularly at its suburban areas – without a general framework for over 40 years.

In 1955, the Gabinete Técnico de Habitação (GTH), or 'Housing Technical Office' was created in Lisbon, comprising architects, urbanists, engineers and sociologists, and tasked with urbanizing the Lisbon Eastern end in three plans whose key goal was council housing: Olivais Norte (1955-1958), Olivais Sul (1955-1960) and Chelas (1960-1964).

This marks the transition to modernist paradigms, especially as defined in CIAM (Congrès Internationaux d'Architecture Moderne). The Olivais plans take the Chartre d'Athènes as a model for high-density housing (Gonçalves et al, 2016), justified by pressures from the construction industry and the need to eliminate slums.

However, modernist paradigms would soon meet criticism within CIAM, particularly from Team 10, a group of younger radical architects who valued context and particular conditions instead of universal solutions (Borges, 2017). But critiques also emerged outside this circle. The 1953 International Union of Architects (UIA) Congress in Lisbon privileged debates on architectural modernity and tradition. In the late 1950s, the typological and historical researches of Italian architect Saverio Muratori, beyond contributing to modern urban morphology, informed the planning of State-led urbanization. In the 1960s, 'utopian' designs like those of Hungarian architect Yona Friedman, the collectives Archigram and Superstudio radicalize modern aspirations, depicting a world in transformations in mobility, construction technology, politics and economics. In the early 1970s, the environmental impact of such changes questioned the limits of urban growth (Moorcroft, 1972).

The Portuguese context was, in the early 1960s, deeply changed by the publication of 'Inquérito à Arquitectura Popular Portuguesa', a survey on autochthonous architecture (mostly rural), which prompted a Portuguese revision of modernism. This can be observed in the Portuguese participation at CIAM X, at Dubrovnik 1956 (organized by Team 10), with a project for a rural housing estate but also in the Zone I of Chelas (Borges and Marat-Mendes, 2019).

The following decades saw a duality emerge between a modernity that dialogued with vernacular tradition, as in the work of Álvaro Siza, and a rising postmodernism influenced by internationalization, consumerism and pop culture, as in the work of Tomás Taveira,

the architect of Zone J buildings (Consiglieri and Lopes, 1986). In the latter, new radical ideas would emerge, echoing foreign ideas, particularly after the 1974 Revolution, as is the case with Zone J.

The 'Plano de Urbanização de Chelas'

Until the 1960s, the Chelas area was a rural area with several agricultural fields, a system of valleys unattractive for the private sector as a development site. In 1959 the 'Plano de Urbanização de Chelas' (PUC) was allowed by the State. In 1960, José Rafael Botelho, chief-planner of Olivais Sul, joins Francisco Silva Dias and João Reis Machado to start the urbanization plan, following that of Olivais Sul: a cellular organization with housing areas on ridgetops, separated by green areas, and a service area on the centre (GTH, 1965).

However, two years later, these 'ground rules' are revised, and a new plan is started, now coordinated by Silva Dias, with Reis Machado, Alfredo Silva Gomes, Luís Vassalo Rosa and Carlos Worm. The Definitive Plan is finished in 1964 (Figure 1). Its 'ground-rules' are: linear distribution of equipment in ramified urban-life strips across housing areas; association of activities instead of zoning; and linked but detached motorways and walkways (GTH, 1965). The urban-life strips have 'ground-rules' of their own, namely high-density housing; commerce along pedestrian walkways; equipment for culture; points for nightlife; and services to provide links to the city (GTH, 1965).

The Definitive Plan also divided the territory of the Chelas Valley in six zones: I, J, L, M, N and O, each to be the object of detailed plans. As it was originally conceived (1960-1964), the PUC echoes other large-scale urban plans, including those critical of pre-WW2 CIAM. A sort of New Town in town (Heitor, 2001), Chelas was conceived similarly to Cluster City, close to Alison and Peter Smithson's (unbuilt) Golden Lane Cluster City (1953) and Hambourg Steilshoop (1961), Leslie Hugh Wilson's plan for Cumbernauld New Town (1957-1958) or Candilis-Josic-Wood's masterplan for Toulouse-Le-Mirail (1963-1973).

Unlike the earlier GTH plans, whose key reference had thirty years of development abroad, Chelas runs parallel to projects still under development and thus contains an experimental value highly surprising during a conservative and nationalist dictatorship. Despite radical social values they encapsulated, GTH plans were approved and implemented, most likely because authorities had little understanding of urbanism (Dias, 2019).

Zone J – from plan to construction

The detailed plan for Zone J was originally published in 1970 (Dias and Carvalho, 1970), but a rectified version was published 4 years later (Dias and Carvalho, 1974). Signed by Francisco Silva Dias and José A. Lobo de Carvalho, it was consciously planned as a city-building, i.e. an aggregation of different buildings with different functions within a unified structure (Dias, 2019). As a specific project, it echoes the radical architecture Reyner Banham (1976) would later synthesize as 'megastructure'. Among the canonic features Banham takes from Ralph Wilcoxon is that a megastructure is a 'structural framework into which smaller structural units (for example, rooms, houses, or small buildings of other sorts) can be built—or even "plugged-in" or "clipped-on" after having been prefabricated elsewhere' (Banham, 1976, p.8)

Indeed, Zone J could be described with Banham's (1976, p.168) idea of concentration in a megastructure, 'the heaping up in one place of all the social facilities of a city, and all the commercial ones as well'. The 'annus mirabilis' of megastructure was 1964 (Banham, 1976, p.70), which seems to have created enough precedents for this concept to be of interest for Portuguese planners. The 'stem' experience in Toulouse-Le-Mirail (1963-1973), a continuous structure with public activities linking housing slabs (Borges and Marat-Mendes, 2019), was also important (Dias, 2019).

The detailed plan revised the indications of the PUC, towards greater capacity, achieving 2028 flats for 9126 people (Dias and Carvalho, 1974, p.8). The 'ground-rules' of Zone J (Figure 2) are: the zone is structured by a 'linear zone of intense urban life' formed by motorways and a continuous plateau concentrating equipment and services and

defining the morphology of the zone (Dias and Carvalho, 1974, p.9); from the centre to the periphery, buildings with lower density ramify (Dias and Carvalho, 1974, p.10); the whole system is linked by continuous decks, smaller on the periphery and larger in the centre and with equipment on the cusps (Dias and Carvalho, 1974, p.10); interior equipment within the central plateau which widens when descending to future Zone O to include a cinema, a parking silo and supermarkets (Dias and Carvalho, 1974; p.11).

The central plateau, extending over the ridgetop, defines the central street and two structuring squares and includes offices, services, commerce and flats for larger families. On top of these, slabs with deck-access flats are placed, and around each of the two squares is a set of towers (six on the north and three on the south). Despite the topographical conditions, all the elements are arranged either in orthogonal relation to one another, or under a 45-degree glitch, repeated throughout the megastructure.

Even conceptually, this resonates with the canonical definition of megastructure preferred by Banham, in the juxtaposition and 'plugging' of different pieces in a symbolically unified structure. It is very significant that the 'ground rules' of the GTH plan (and corresponding rules for the architectural competition) included deck-accesses, meant to allow pedestrian circulation throughout the whole megastructure.

The winning architectural proposal was led by architect Tomás Taveira with Victor Consiglieri, Madalena Peres and Antónia Pimenta. It confirmed the 'ground-rules' of the GTH but introduced changes (Figure 3). Taveira rejects the plateau, creates instead a double-slab (Figure 4) for the central block, with mixed-use larger slabs on the main street and parallel three storey slabs behind them, assuring the transition to the residential-only peripheral areas. This 'interior street' was expected to function as a meeting place for the community.

With the disappearance of the central plateau, the towers become only visually linked with the slabs. They have their own entrances and interior U-shaped decks are disconnected from outside elements.

Instead of integrating decks in the façades of the slabs, Taveira sometimes detaches them and thus gives them great visual weight in the façade design. Furthermore, both rectangular and circular windows are used (Figure 5), the latter reminding one of James Stirling's Southgate Estate (1967-1977) in Runcorn.

Many peripheral housing slabs by architect Victor Consiglieri, despite using some similar elements to Taveira's, are tower-blocks functionally detached from the megastructure.

Another independent tower-block in the southern area was afterwards designed by architect Aires Mateus. In the same area, a fourth tower by another architect was added. Both schools predicted in the plan were constructed, although the hospital in the northern area was not. The set of slabs designed by Taveira to articulate Zone J with the centre of the Chelas Valley (future Zone O) also remained unbuilt.

All the buildings were originally painted white (Figure 5), conceived as such by the GTH (Dias, 2019) for continuity with the earlier Zone I (north of Zone J), whose buildings were predominantly white (Borges and Marat-Mendes, 2019).

In 1998, invited by the municipality, Taveira designed a complex color-scheme of brash psychedelic colors, taking heed of façade elements (Figure 6). However, in 2003 this was interrupted and all towers and some slabs were repainted white. While many residents disliked Taveira's scheme, few wanted the buildings white again, preferring softer colors instead (Batista, 2003). Currently, Zone J presents a mix of all these color schemes: some are white (Figure 5), others have brash colors and others have soft pastel colors (Figure 7). Although in the past graffiti was regarded as vandalism, it has been reframed as a positive grassroots intervention, and many examples of urban art – some sanctioned by institutions – now mark Zone J public spaces.

In 2009, the municipality demolished 8 three-storey lots from the central interior street (Figure 8) known as 'death row', frequently used for drug-trade. Three years later, the space left open was filled with one small garden, one gymnastics circuit and the rest with parking space.

Changes in Zone J

The PUC was revised in the early 1980s and its 'ground-rules' deeply changed. Further zones would have conventional solutions – parallel streets with massive tower-blocks. This PUC revision also influenced interventions in zones already built.

From the start, Zone J was aggressively associated with problems related to poverty, unsafety and criminality, often associated with drug-commerce. Heitor (2001) in the late 1990s points out problems of vandalism. This prompted physical change, but a key aspect seldom mentioned is that, although Chelas was designed with a strong focus on social housing, it aimed at mixed communities. However, the first two neighbourhoods, Zone I and Zone J, were occupied after the 1974 Revolution by squatters from surrounding slums, from different ethnic origins and generally poor. Although the State eventually legitimized their housing situation, little efforts were mobilized towards integration in the general Lisbon social fabric. Spatial and physical changes often hoped to solve problems which despite having spatial and physical expression were of a fundamentally social nature.

Buildings designed by architects other than Taveira rejected the continuous deck-accesses becoming isolated from centre, but ensuring precise public-private separations. With the criminality problems spreading in the neighbourhood, many decks were enclosed, sometimes with gates at different access-points. Furthermore, deck-facing windows were added ironwork. Some balconies in towers and slabs were turned into marquees, while occasionally circular windows were replaced by rectangular windows. In some slabs, the parapet grid has been turned into a monolithic plan.

In the late 1980s and early 1990s the municipality sought to improve public spaces, mostly through tree plantation and pavement inception (DCH, 1994). The southern square had a plan by landscape-architect Maria João Ferreira (DCH, 1995). New tower-blocks were constructed, by the private-sector, in the western fringe of the neighbourhood.

In the mid-1990s, to fight social exclusion, the Lisbon Council replaced the Zone designation of Chelas neighbourhoods. Zone J became the Condado Neighbourhood (DCH, 1995), although many residents still use the old name.

More recently, architecture researchers have proposed solutions to make Zone J more similar with the 'conventional city' functioning, and to reduce management-costs for the municipality (Silva et al, 2011). These include demolition of staircases and partition of continuous decks, as well as a clear-cut segregation between housing and other functions, especially if above the ground-floor.

In 2019, the municipality demolished another of the lower slabs to eliminate a 'death row'-like situation in the northern area.

The northern area of Zone J was to receive a local hospital, never built. However, the idea was revived in 2008, now as the University Hospital, and a design by Pritzker laureate Eduardo Souto de Moura was ordered. The massive building (a contemporary megastructure?) ignores the morphological features of Zones J and I (standing between them) and proposes a new scale, morphology and aesthetic. It is a generic armored structure on the ground-floor (as if defending from the council estates) with several rectilinear slabs above it. It bears no relationship with the Chelas territory or its neighbourhoods and in a sense it confirms the worst expectations about megastructures, namely that are 'the perfect symbol of liberal-capitalist oppression' (Banham, 1976, p.209).

The vacant hospital plot had been appropriated by the community for informal agricultural gardens. These extend to adjacent lots, with productive plots of several dimensions around ruins of rural buildings. On the southern end, where housing slabs were not completed, vacant space also became agricultural space. In 2019, the council has cleared the hospital lots, and most of the agricultural gardens are gone or be soon. However, in the southern area, they show great fertility (Figure 9), mobilizing residents to clean and treat the land, ensuring its basic quality. At a time when sustainability concerns point out the many advantages of urban agriculture (Viljoen and Bohn, 2014), this grassroots appropriation is wise and requires legitimation and encouragement in the future.

The future of Zone J – a discussion

Considering the very distinct outlook proposed by the upcoming University Hospital, a serious consideration of the future of Zone J is in order. Must it eventually come down? Or should this neighbourhood be refurbished and valued?

Researchers have so far been unfavorable of its urban and architectural features (e.g. Heitor, 2001; Lopes, 2011; Silva et al, 2011; Silva, 2019). Here, they are hardly alone. Internationally, morphological solutions like those of Zone J have long been objects of contempt and even demolition, especially with social housing. However, there has been a recent shift in appreciation for precisely these architectural and urban solutions (e.g. Powers, 2010; Hatherley, 2010; Taylor, 2010; Boughton, 2018). This revision exposes the spatial determinism sometimes implicit in negative views of these neighbourhoods, ignoring the social and cultural conditions under which degradation emerged.

A 2015-2016 survey on Lisbon parishes reveals worrisome numbers about Marvila – the parish mostly constituted by the Chelas neighbourhoods, which according to the last Censos (2011) is:

- a) the parish with more people who cannot read nor write (2.371 people, followed by Olivais with 1.383) and less people with complete College degrees (RSL, 2016, p.32);
- b) the sixth parish with more school drop-outs (2,01% against the average 1,8%) (RSL, 2016, p.45);
- c) the second parish with more 'neither-not' youngsters, i.e. people between the age of 20 and 30 who do not work nor study, 26,73% (against the average 18,21) (RSL, 2016, p.46);

As of 2014 Marvila was the Lisbon parish with higher unemployment – 2525 people – and the second one with more people on social benefits (8%, double the Lisbon average) (RSL, 2016).

Zones urbanized prior to the Plan revision are morphologically different from the conventional city. But with extremely deprived social circumstances, must one expect a middle-class ambience? The enclosure of decks, for instance, expressing people's sense of unsafety, will probably better solved through a serious approach to the social reproduction of poverty than with their elimination or further enclosure.

Beyond dereliction, Zone J is a great example of experimental architecture. It may not please everyone, but that does not mean it is good for no one. Its unconventional urban solutions can withstand the reappraisal its international peers are undergoing, and its design has a concern for community that, while unfavorable to the market (Silva et al, 2010) may prove favorable for other housing options, highly urgent considering the current Lisbon housing crisis, due not to shortage, but precisely to the market (Cocola-Gant, 2018).

Zone J is significant as a megastructure. Despite the worst fears of post-1968 politics, megastructures have different meanings in different contexts. True, they may symbolize 'liberal-capitalist oppression', as with the forthcoming University Hospital, but may also symbolize a breakaway from conventional morphologies which, providing clear-cut separations, do not challenge the ways in which, in spatial terms, we live our lives and relate to our community. The Zone J 'city-building' was to have cinema and supermarkets, at a time when conventional neighbourhoods had only churches and schools. It offered what the New State withheld and what democracy never delivered – at least to these communities.

Despite its complex and detailed architectural design, Zone J has accommodated change and neither façade changes nor the 'death-row' demolition eliminated the neighbourhood's coherence. Although the psychedelic color-scheme did not please residents 20 years ago, its remains are now sometimes celebrated as a pop aesthetic, for instance in the videoclip Blaya's "Faz gostoso" (2018), a widely popular song (nearly 36 000 000 YouTube views) recently covered by Madonna.

However, the flexibility displayed by the Zone J morphologu may continue to accommodate changes, which, in spatial terms, must be negotiated with the living community while also being sensible to architectural features whose historical importance is yet to be understood. Further changes would mostly benefit from considering the

territory, instead of focusing on architectural details. This would allow political power to negotiate with grassroots initiative. A robust strategy for promoting urban agriculture could improve the quality of soil and public space, create labour and contribute to the sustainability of Chelas and of Lisbon in general, improving living conditions in Zone J not by destruction but through a constructive approach.

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Figure 1. Definitive PUC in Lisbon context. Source: adapted from GTH, 1965.

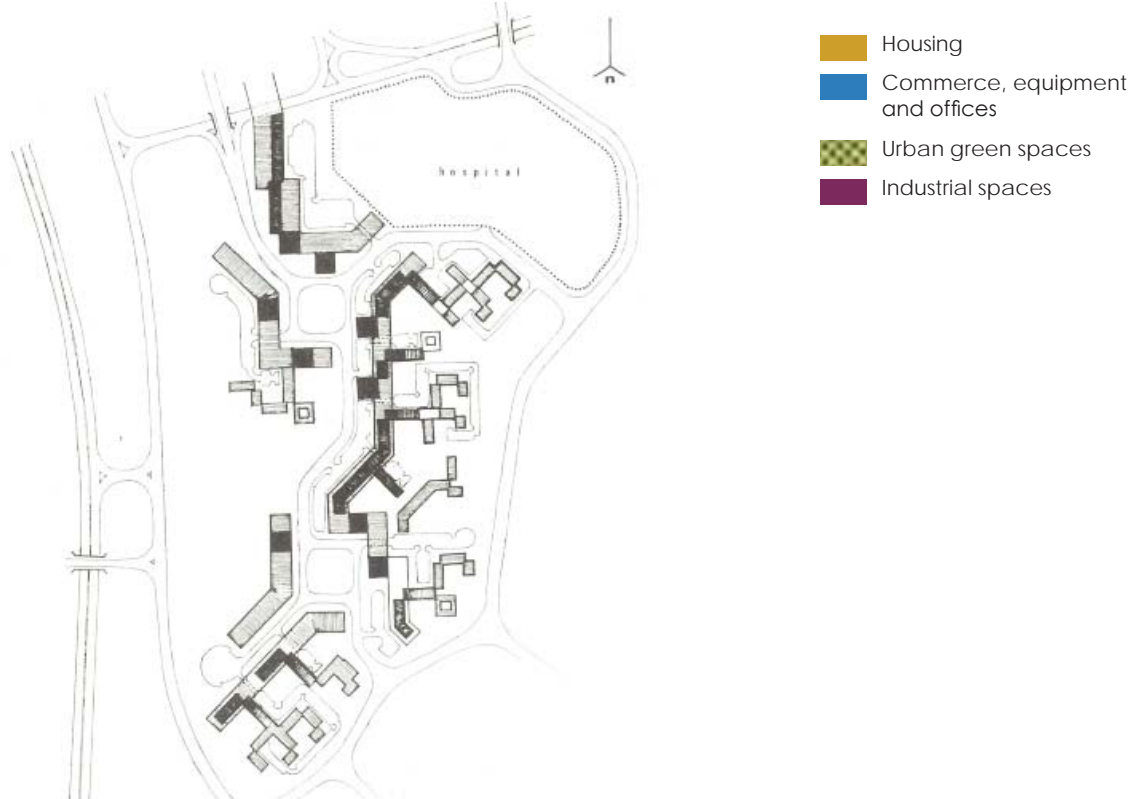


Figure 2. Zone J urban plan. Source: Dias and Carvalho, 1974, p.12.



Slabs and towers
 Central plateau
 Structuring squares
 Secondary public places
 Roads

Figure 3. Changes from urban to architectural design. Source: authors.

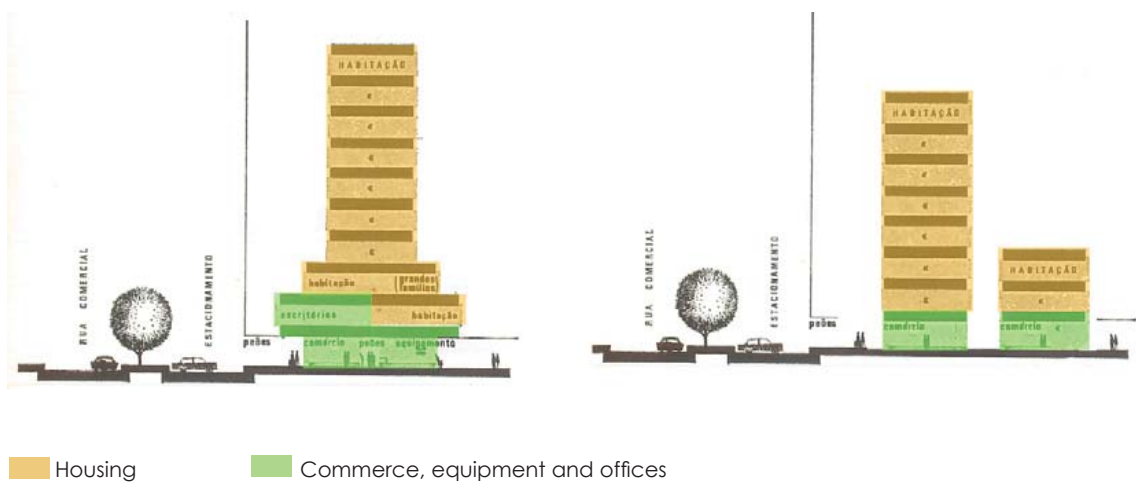


Figure 4. Central axis in the urban plan vs. the architectural design. Source: adapted from Dias and Carvalho, 197.



Figure 5. Zone J slab. Photo source: JCB; Figure 6. New color-scheme. Source: PT DGPC: SIPA FOTO. 00899169, Ferreira, T., 2010.



Figure 7. Most recent slab color-scheme. Photo source: JCB.



Figure 8. 'Death-row'. Photo source: <https://vivermarvila.blogs.sapo.pt/3735.html>; Figure 9. Southern agricultural allotments. Photo source: JCB.

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