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Four places by the roadside A contribution to (re)designing the top of Monte da Arrábida (Porto)

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QUATRO LUGARES À BEIRA DA ESTRADA

Resumo

Em 1833, as “Memórias da Campanha do Senhor Pedro de Alcântara Ex-Imperador do Brasil do Reino de Portugal” incluem o mapa da Cidade do Porto que, nas palavras dos seus editores, passa por mais exato. Este mapa, especialmente rigoroso na observância dos aspetos locativos e dos elementos que compõe o Porto, representa o alto do Monte da Arrábida ordenado com especial critério no conjunto território da cidade.

Este artigo propõe uma hipótese de releitura da atual forma urbana do Alto da Arrábida, a partir da reconstrução do sistema de parcelamento rural que aquele mapa representa.

Rebatendo-o sobre a cartografia atual, com o apoio de investigação de arquivo, descobre-se que, na parte pertencente ao Couto de Cedofeita, o cadastro do Alto da Arrábida se funda na estrada que liga cidade amuralhada ao mar, paralela ao Douro à cota alta, e no conjunto de padrões que a demarcam. Estes são indexados a uma métrica de submúltiplos da medida padrão “légua”. As linhas cadastrais traçam-se a dividir o espaço entre padrões num número inteiro e igual de partes, perpendiculares à estrada e prolongam-se tanto quanto a topografia permite, a acomodar vestígios de parcelamento mais antigo e acidentes naturais.

A interseção desta leitura com o conhecimento do “tempo longo” da transformação urbana do Alto da Arrábida permite concluir que os espaços e ambientes referenciais do seu cadastro rural, em processo de contínua transformação, alcançam os nossos dias impressos no território. Eles são quatro lugares antropológicos, identitários, históricos e relacionais muito antigos, fundamentais para compreender, atribuir sentido e preencher com conteúdo a cartografia atual do Alto Arrábida; são indelévels ao seu projeto contemporâneo.

Abstract

In 1833, the “Memórias da Campanha do Senhor Pedro de Alcântara Ex-Imperador do Brasil do Reino de Portugal” included, in the words of its editors, the most accurate map of the city of Porto. This map, especially rigorous in noting aspects of the locations and elements that compose Porto, represents the top of Monte da Arrábida carefully organized regarding the city's overall territory.

This article proposes a hypothesis to reinterpret the current urban form of the top of Monte Arrábida, based on the reconstruction of the rural parcel system that map represents.

Projecting over the current cartography, with the support of archival research, we discover that, in the area belonging to Couto de Cedofeita, the cadastre of Alto da Arrábida is based on the road

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connecting the walled city to the sea, running parallel to the Douro River at a high elevation, and on the group of demarcating *padrões*. These are indexed to a metric of sub-multiples of the standard measure, the *légua*. The cadastral boundaries are drawn by dividing the space between *padrões* into a whole and equal number of parts, perpendicular to the road and extended as far as allowed by the topography, accommodating traces of the older parcelling system and the natural features.

The intersection of this interpretation with “long term” knowledge of the urban transformation of Alto da Arrábida suggests that the referential spaces and environments of its rural cadastre underwent a process of continuous transformation and reached our time imprinted in the territory. They are four very old, anthropological, identifying, historical and relational places, essential to understand, assign meaning and provide content to the current cartography of Alto da Arrábida; they are indelible to its contemporary project.

Keywords: territory, cadastre, *légua* (league), *padrão* (milestone), road

Since the last decade of the 20th century, we have witnessed the development of several studies and projects related to the urban organization of Porto that involve the territory at the top of Monte da Arrábida [Mount Arrábida]¹. Given their persistent approach of this area, these works suggest that a significant new stage is imminent in its long and slow process of urban metamorphosis.

In present day Porto, Monte da Arrábida is located adjacent to the Douro river, west of the traditional city centre. The plateau atop the mount is south west of the Rotunda da Boavista [Boavista Roundabout] and north-east of the mouth of Ponte da Arrábida [Arrábida Bridge]. It is occupied by the Agramonte cemetery and Pole 3 of University of Porto, contained by the Via de Cintura Interna [Internal Beltway] and structured by Rua do Campo Alegre, a segment of the old Estrada para S. João da Foz e Matosinhos (Road to S. João da Foz and Matosinhos), with slight trajectory adjustments.

The top of Monte da Arrábida is an old territory of urban glory that reached our time, apparently, full of discontinuities². The “long term” study of the area suggests that one hypothesis for the Urban Project to generate and structure its contemporary reorganization – adding an updated layer of meaning and use that projects it into the future – is based on remembering the main indelible events of its urban form, rarely recalled as valuable. While these urban events may have gone through occasional moments of obscurity and oblivion during the long and slow process of organization of the territory, nothing was able to effectively destroy or erase them from memory.

The recognition of the current urban form of Monte da Arrábida and the discovery of its rural parcel structure – indexed to one of its oldest stages of urban transformation – is illuminating, as maximal metaphors for the territory’s condensed time: the Estrada para S. João da Foz e Matosinhos and, along its course, the places of Vilar and Lordelo, at the foot of the mount, and the places of Padrão Quebrado and Campo Alegre, on the hilltop. These are among the oldest urban events on Monte da Arrábida, which cross time and reach the present imprinted upon the territory’s form. These events’ ability to resist time and its vicissitudes is directly proportional to the top of Monte da Arrábida’s capacity to return to its state of urban equilibrium, after the unbalancing disturbances since the late 19th century.

Thus, recalling these urban events and transforming them into project themes is the basis for one possible Urban Project concerned with highlighting the contours of the top of Monte da Arrábida in the present-day.

The rural parcel structure of Monte da Arrábida is revealed, first hand, over more than three centuries of history.

The regressive interpretation of a selection of archival documents, supported by an extensive operation of (re) interpretation, allows the identification of this parcel structure, with a high level of confidence and relative degree of rigour².

A number of drawings, from the fields of architecture and urbanism, complemented by auxiliary data from the fields of geography, geology and toponymy, allow us to go back in time and follow the several urban forms and historical epochs that constitute Monte da Arrábida.

Architectural design, as an autonomous discipline, exact in its unique synthesis, is recognized as the most efficient practice, not only for the management of a large amount of complex data, of varying periods and nature, invoked by this regression in time, but also for the design of original thematic cartographies that present a new interpretation of the territory's urban metamorphosis.

Projecting data over an updated map implies a simultaneous interpretation, in order to overcome the impossibility of its direct superimposition over reality. This work clarifies the nature, meaning and relation of various represented elements and identifies points of coincidence between them and the reality that serves as reference. This action inevitably poses problems of rigour, which do not however compromise new readings, as they are based, above all, on the observation and identification of relations among elements and between them and the territory, and not on the exhaustive comparison of their measures or their exact position.

In the "long-term" study of Monte da Arrábida, the "Carta Topográfica da Cidade do Porto" [Topographic Map of the City of Porto]⁴, published in 1892, as the first detailed record of the city elaborated with scientific rigour, is a reference and starting point to head back in time.

This map represents Monte da Arrábida recently integrated in the city's administration, its rural condition pressured by uneven urban expansion, from east to west (from the city to the coast), but polarized, concentrated in certain points as opposed to others, associated with specific social types, building typologies and programs.

One can go back in time from 1892, by means of cartography, based on a set of maps related to the military episode of the Siege of Porto (1832-33) and a selection of studies and projects from the municipal department of the Carta da Cidade do Porto [Map of the City of Porto] (1821-57).

The maps relating to the period when the liberal troops of D. Pedro were besieged by the absolutist forces, faithful to D. Miguel, as part of a broad protective policy, depict not only Porto's most

urbanized area, but also the surrounding territory with its most significant features. Thus, they include Monte da Arrábida, partially represented within the line of "batteries" protecting the territory, a projection of the old city wall.

The studies and projects of the Carta da Cidade – part of a framework of urban "improvements", by rectifying, aligning and widening the profile of existing arterials, by opening new roads or relocating infrastructures – represent not only the projected works, but also the territory's situation, occupation and organization, prior to the intervention. In particular, they record in detail the toponymy, unique elements that punctuate the public space, and land ownership, together with their cadastre, buildings and pavements in the parcel's unbuilt space.

Among the maps related to the Siege of Porto, particularly interesting is the map "O Porto e Arraballes. Linhas de D. Pedro e Posições do Exército de D. Miguel" [Porto and Outskirts. D. Pedro's Lines and D. Miguel's Army Positions], included in "Memórias da Campanha do Senhor Pedro de Alcântara Ex-Imperador do Brasil do Reino de Portugal" [Memoirs of the Campaign of Pedro de Alcântara Ex-emperor of Brazil of the Kingdom of Portugal], of 1835⁵.

The book "Plantas Antigas da Cidade do Porto" [Ancient Maps of the City of Porto] notes that, in the words of the editors of these "Memoirs", this map is the "most accurate" available. As it is not a scientific topographic survey, considering the lack of an elevation reference system⁶, the map's precision resides in observing aspects of location and of elements that compose Porto, namely in the representation of the cadastral situation in its suburbs.

In the case of Monte da Arrábida, the cadastre's representation is organized with special attention to the territory surrounding the city, specially the part of the territory corresponding to the Couto da Colegiada de S. Martinho de Cedofeita.

To date, Monte da Arrábida is outside and far from the walled city. It is located on the limit of Termo do Porto [outskirts of Porto], integrating the Couto da Colegiada de S. Martinho de Cedofeita [land chartered to the canons of S. Martinho de Cedofeita], on its eastern slope, and the Julgado de Bouças [Jurisdiction of Bouças], on its western slope⁷. Crossing the mount, in an east-west direction and parallel to the Douro River, is the only road that, to date, connects the city of Porto with the towns of São João da Foz and Matosinhos on the coast, in safe conditions.

The road descends from up high to the lower level of the river through a set of paths that connect with the major towns on the margins of the Douro: Massarelos and Ouro. The road junctions with these paths most likely constitute places of greater traffic, intensive centres to which and from which the population travels, sites of concentration and condensation of life.

The new map resulting from drawing data from the map "O Porto e Arraballes. Linhas de D. Pedro e Posições do Exército

de D. Miguel" upon the most updated digital cartography puts into evidence the logical principle organizing the parcelling of Monte da Arrábida, in the area belonging to Couto da Colegiada de S. Martinho de Cedofeita.

This regulatory system uses the ancient structuring elements of the territory as reference: the road crossing the Monte da Arrábida, its intersections with the paths communicating with the major riverside towns, and the administrative border between Termo do Porto and the Julgado de Bouças.

The cadastral metric is determined by dividing the space between these intersections into a whole and equal number of parts, of similar length, facing the road. Between intersections, there are three parcelling lines perpendicular to the road, with relative continuity on both sides.

Beyond the road, the cadastral lines extend as long as the territory's morphological characteristics allow. To the south, on the border between the plateau and its slope, the cadastral lines run parallel to the Douro. The combined network of this road and these lines establishes a lattice of plots. To the north, one path circumvents the Agramonte elevation and closes the cadastral lines. The space surrounded by this path tends to be parcelled radially.

Projecting any of these cadastral lines upon the territory draws special attention to its characteristic topography and geology, as well as to cadastral and floral elements persisting from previous periods. In particular, the aforementioned lattice is projected with reference to ridgelines, thalwegs and saddle points that characterize the territory; is deformed to surround small elevations and depressions in the territory, rock massifs or exceptional wooded areas; and integrates the ancient "via crucis" of Nossa Senhora da Boa Viagem (Our Lady of Good Voyage) and the associated cadastral circumstance around the town of Massarelos⁸. [Figure 1]

A set of studies and projects selected from the municipal department Carta da Cidade do Porto – preparing the extension, widening and rectification of the old Estrada para S. João da Foz e Matosinhos and intersecting paths – add to the previous map the toponyms attributed to the referential road crossings for the outline of several rural plots identified in Arrábida. These coincide with the "lugares de padão" [locations of the stone pillars]. At the level of the foothills, the road's intersection with the road heading directly to Massarelos is designated Lugar do Padrão de Vilar. At the same level, the road's intersection with the path heading directly to Ouro is called Lugar do Padrão de Lordelo. At the high level, the toponym Padrão Quebrado designates the road's intersection with the path descending to Massarelos by way of Boa Viagem⁹.

In addition to the toponymic suggestions, the same set of studies and projects also show at least two of these three named locations as punctuated by a *cruzeiro* [large stone cross]. The urban arrangement associated with each of these crosses and their state of conservation

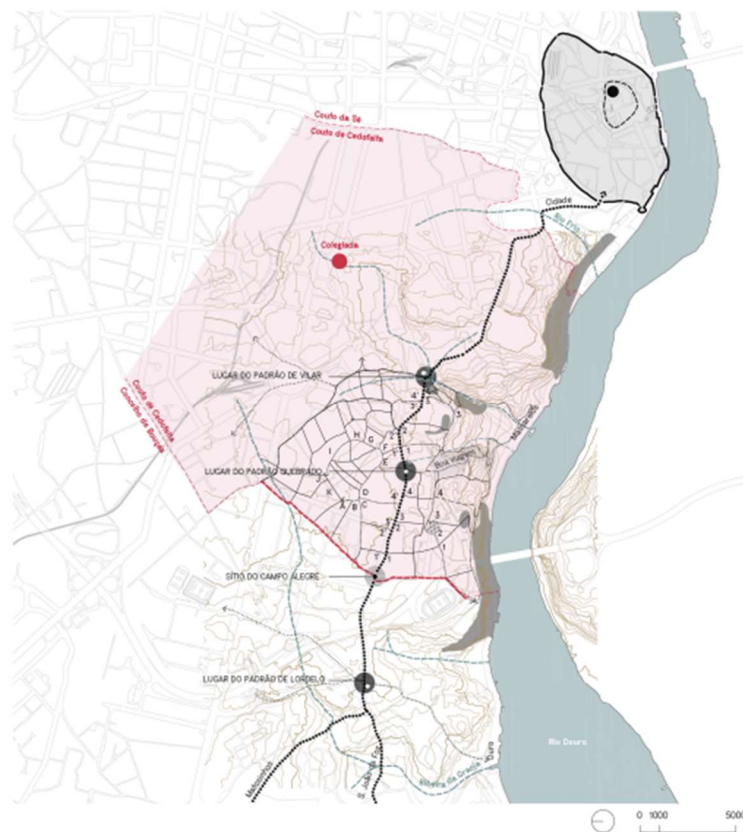


Figure 1
Map of the regulatory system organizing the rural parcelling of Arrábida Mount, in the area belonging to Couto da Colegiada de S. Martinho de Cedofeita (2017-2020, Sílvia Ramos©, drawing by Sílvia Ramos).

suggests a hierarchy of intersections, perhaps dependent on the intersecting directions. The Lugar do Padrão de Lordelo, established as a public square with the stone cross marking one of this corners, surpasses the qualification and, surely, the urban relevance of Lugar do Padrão Quebrado, which is not associated with any noteworthy public space and whose cross is damaged.

In addition to these *padrão* locations, the projects and studies of the Carta da Cidade also reference a site along the road to S. João da Foz and Matosinhos, by way of Arrábida. Where the road intersects the administrative limit of Termo do Porto, in 1384, and half way between the sites of Padrão de Lordelo and Padrão Quebrado, they locate and name the Sítio do Campo Alegre¹⁰ [Site of the Joyful Field].

The missing project, to improve the Estrada para S. João da Foz e Matosinhos in 1855¹¹, would surely confirm the existence of a *padrão* (cross or *cruzeiro*) marking the Sítio do Campo Alegre, as occurs in the sites of Vilar, Padrão Quebrado and Lordelo. However, despite the different urban significance of Sítio do Campo Alegre compared to other *padrão* locations – as it does not correspond to the intersection of significant roads in the city's extramural territory – the existence of a *padrão* there is worthy of consideration.

All together, the three locations and the site, mapped and named by the city along the Estrada para S. João da Foz e Matosinhos, divide the ascending and descending path to Monte da Arrábida into three equivalent segments and, consequently, of approximate journey time.

The distance between locations/sites is approximately equal to 500–600m, about 1/10 of the standard-measure *légua* [league] (5800–6000m), length known as the reference in demarcating the main roads crossing the Portuguese territory using *padrões* (milestones)¹².

This finding raises the hypothesis that Lugar do Padrão de Vilar, Lugar do Padrão Quebrado, Sítio do Campo Alegre and Lugar do Padrão de Lordelo, in Monte da Arrábida and along the Estrada para S. João da Foz e Matosinhos, more than marking intersections, indicated distances, integrating a scale of intermediate graduation of the main roads crossing the extramural territory of Porto¹³. [Figure 2]

II

Progressing from the 1830s onwards, we find the Padrão Quebrado and the Sítio de Campo Alegre, atop the Monte da Arrábida, as centres of irradiation of urban places of particular identity, structure and meaning.

The urban expression of each of these urban locations and site is determined by their relative position along the road, regarding

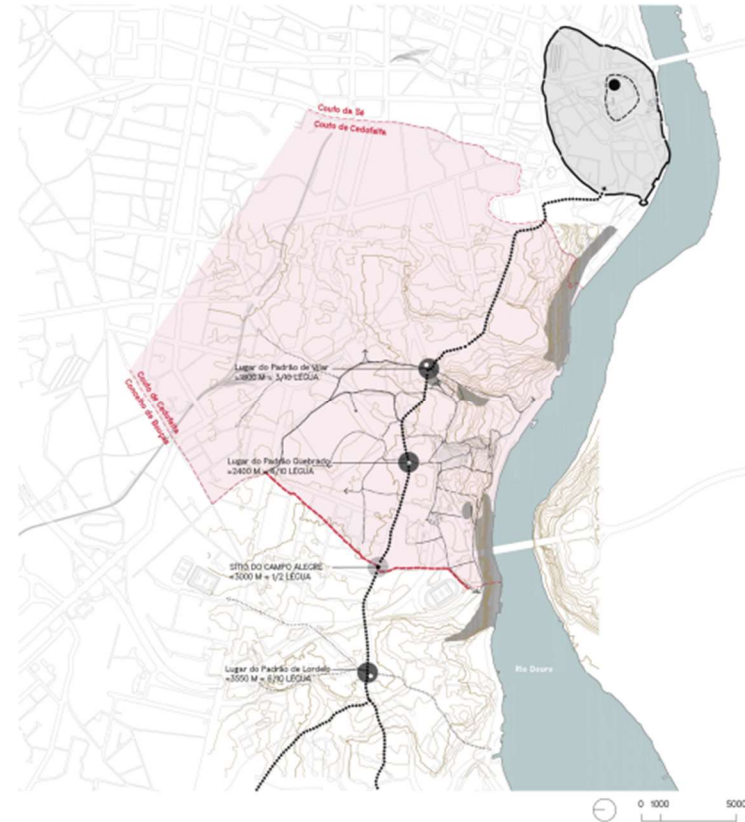


Figure 2
Map of the regulatory system organizing the rural parcelling of Arrábida Mount, in the area belonging to Couto da Colegiada de S. Martinho de Cedofeita (2017–2020, Sílvia Ramos©, drawing by Sílvia Ramos).

the city, and by the specific circumstance of the territories they communicate with. Their essential and distinctive characteristics are explicitly expressed in the urban models and typologies of building they absorb. Each location's urban expression outlines an imaginary, permeable and flexible border between them.

The urban location of Padrão Quebrado, in Alto da Arrábida [Top of Arrábida], closer to the city and on the road to the important river town of Massarelos, is transformed, throughout time, in line with city's eastern continuum, with its more common, undistinguished and banal characteristics.

Since the early 19th century, in Lugar do Padrão Quebrado, the fronts of the old agricultural plots facing the Estrada para S. João da Foz e Matosinhos are used for street housing, for sale or rental. For this purpose, the agricultural parcels are divided into long and narrow plots, usually with a single front. The plots are considered individually or associated in groups and built as single pieces or subdivided into smaller units. Invariably, the building rises near the road. The buildings present one or two floors, and can increase in floors over time. Access to the interior of the building takes place directly from the public space, except those buildings on slightly larger plots, with lateral access directly to the courtyard. The building façades are characterized by a door opening on the ground level, and windows on the upper floors, all with regular proportions and rigorously vertical¹⁴.

Progressively, the residential condition of Lugar do Padrão Quebrado was intersected by industrial and commercial dimensions.

Residential buildings were joined by small manufacturing units – such as workshops and warehouses – and the compartments adjacent to the public space are transformed into commercial establishments – such as pharmacies¹⁵.

The only large factory atop the Monte da Arrábida, although designated Fábrica de Fiação e Tecidos do Campo Alegre [Spinning and Fabrics Factory of Campo Alegre], was established in Padrão Quebrado, introducing a new urban dynamic in the site, determined by the entry and exit of workers at the beginning and end of the shift, the reception of raw materials and equipment, and the shipping of products for distribution¹⁶.

The Lugar do Padrão Quebrado receives worker/popular housing, with different typologies, for those working atop the Monte da Arrábida and those working in the surrounding area. Several private courtyards are used to build “ilhas”, with a variable number of single-storey houses or, occasionally, two-storey houses, of reduced area and with diverse organizations, always without expression upon the public space. Vila Rodrigo¹⁷ is organized as small plots with a narrow front facing the public street, and Bairro José Passos¹⁸ with buildings on the street. The Bairro Operário de Entre Campos and the Bairro da Arrábida¹⁹ were built with preferential access through Lugar do Padrão Quebrado.

This type of urbanization of Lugar do Padrão Quebrado determines a high population and building density as its fundamental landscape characteristics, and therefore the presence of nature loses prominence.

In turn, the Sítio de Campo Alegre – 550–600m from Lugar do Padrão Quebrado in the direction of the sea, opposite the city, and giving way to the inhospitable ridge of the Arrábida rock – was developed as “another city” with characteristics of a romantic worldview.

From the mid-19th century, in the city's surrounding territory, the Sítio do Campo Alegre presented itself as an alternative. In contrast with the dense and compact, dangerous and unhealthy city, Campo Alegre with its fields and some leisure farms on its steep slope facing the Douro, offers the enchantment of wild topographies, of natural and the rural environment, the possibility of living with pure air and clean water, in a landscape of wide views, a safe space to establish a family that is simultaneously near the sites of social, cultural, leisure and business life, which continue to only be possible in the city.

In these conditions, the Sítio do Campo Alegre aroused the interest of the more economically and culturally favoured class of Porto's society, which elected this as one of its favourite locations to establish a home. The families that settled in Campo Alegre were mainly foreigners, from the so-called “English colony” of Porto, or the inhabitants of Porto who coexisted with them. In Campo Alegre, these families not only found an alternative to living in the city, but also the possibility of realizing their cultural understanding of habitat, characterized by the values of domesticity, privacy and comfort, with roots in the countryside and, simultaneously, in contact with the urbanity involved in a specific concept of city²⁰.

Independently of when the houses in Campo Alegre were built, or the dimension of the plots intended for construction, or the type of urbanization guiding that construction, the “house of Campo Alegre” is unquestionably urban, composed by the fundamental elements of a single-family house and a garden, in close relationship. The residential house arises, without exception, detached from the plot's limit, often isolated inside the property, refusing a direct connection with the public space. However, the house is positioned according to the layout of the street that provides access. A transparent fence, which replaces the tall and opaque walls of the old agricultural fields, filters the house's contact with the public space. The gardens are updated in their concept. In general, their design is based on a picturesque concept, which gains expression, on the one hand, by the diversification of planted species, exotic trees and the selection of plants for the flowerbeds, and on the other hand, by a diversified set of recreational equipment, including small lakes, fountains, arbours, greenhouses and gazebos²¹.

Even when, already in the 1930s, townhouses were built for rental in Campo Alegre, these are placed far from the street. The transition between the plot's interior space and the exterior public space consists of a low, partially transparent wall, and the area between the wall and the house's interior is used for small gardens that prolong the plot's rear area²².

This type of urbanization in Sítio do Campo Alegre determines a landscape of low population and building density, and consequently a significant presence of natural elements in their varied forms.

The urban landscapes of the Lugar do Padrão Quebrado and Sítio do Campo Alegre are composed, therefore, by differentiated and contrasting values. In the early 20th century, travelling along the Estrada para S. João da Foz e Matosinhos in the direction of the sea, passing through Alto da Arrábida, one would find, when reaching the top of the hill, a banal, factory/worker city and nearing the descent, an exotic residential city, cultured/wealthy, painted with a lush green.

In the imaginary transition between the two environments, the street houses are larger and gain a front yard and grating in the transition to the public space, when the old Estrada para S. João da Foz e Matosinhos is aligned and widened²³.

III

The 20th century brings a tendency to generalize an interpretation of Estrada de S. João da Foz e Matosinhos, passing through Monte da Arrábida, which does not admit its profile as composed by a set of locations and sites of contrasting forms and environments.

This is indicated, in the end of the previous century, by the choice of the toponym Campo Alegre to name that section of road that, improved in its profile (widened and aligned), is accepted as "street", an urban element that, as a rule, is associated with a continuous longitudinal profile and a repetitive transverse profile. This choice erases the location and site from the toponym associated with the road/street, and casts the Padrão Quebrado to the condition of a memory²⁴. As the memory of the Padrão Quebrado fades and the aura of the exotic Campo Alegre garners the city's enthusiasm, the contrasting forms and environments that characterize the profile of the Rua do Campo Alegre lose understanding and potential for their qualification.

The tendency for oblivion or obscurity of the old Lugar do Padrão Quebrado and Sítio do Campo Alegre by the city's cartography in characterizing the homonymous street and adjacent territory is confirmed by the sequence of five partial urbanization plans, developed between the 1930s and 1970s, for the Alto da Arrábida²⁵.

These plans share a decision to homogenize the landscape of Rua do Campo Alegre by extending the exotic environment, which gives it its name, to the old Lugar do Padrão Quebrado and its area of influence. In all proposals, the green wooded surfaces dominate over built surface, on the south side of the street. In all of them, the southern elevation of the streets is a continuous green curtain, through which one can see architectural elements of diverse types²⁶. This character is expected to contaminate the design on the opposite side of the street, as is already occurring²⁷.

This option is independent of the degree of integration with Alto da Arrábida, of the architects/urbanists who authored the plans, and of the conceptual model these architects/urbanists invoked to guide the design, always aligned with the most recent experiences of international urban design²⁸. It seems to result, only, from a certain impossibility of deepening the knowledge about the process of urban transformation of Alto da Arrábida. This would suggest a design based on a notion of thickness and depth of overlapping strata in time, which, in the present inhabited space, would confirm its evident continuities and clarify its apparent discontinuities, by deciphering the elements that constitute its fundamental characters.

However, in the late 20th century, the polarized identity of Rua do Campo Alegre, in Lugar do Padrão Quebrado and Sítio do Campo Alegre, is interpreted and projected in contemporaneity. Due to various circumstances, none of the partial urbanization plans developed for Alto da Arrábida are fully implemented, especially regarding the revision of the street's urban landscape, which continues to reveal traces of the Lugar do Padrão Quebrado and Sítio do Campo Alegre.

In the 1970-90s, this set of plans is followed by Pole 3 of the University of Porto²⁹. The first formal phase of this plan suggests an invocation of Lugar do Padrão Quebrado, stressing its identity with a layer of contemporary use and meaning. The Padrão Quebrado is projected as the Pole's area of greater density of buildings and concentration of a larger number of common services, especially open to the community; and is associated with an urban dynamic of singular intensity³⁰.

The University's action along the Rua do Campo Alegre is not limited, however, to the Lugar do Padrão Quebrado. The institution has been established in Sítio do Campo Alegre for some time, and has been concerned and taken action to preserve a fundamental part of the natural and built heritage that is most significant to the preservation of its identity³¹.

The possibility, explored in the late 20th century, after a period of oblivion or obscurity, to continue to rethink the territory atop the Monte da Arrábida by investing in Rua do Campo Alegre (segment of the old Estrada para S. João da Foz e Matosinhos) and the Lugar do Padrão Quebrado and Sítio do Campo Alegre, is the basis for any contemporary Urban Project that seeks to design

the territory, not by establishing a new network superimposed upon a pre-existing reality, disregarding its specificities, but by consolidating or re-inventing the old “practiced locations”, promoting them to “places of memory”³².

Without the Lugar do Padrão Quebrado and the Sítio do Campo Alegre, associated with the Lugar de Vilar and the Lugar de Lordelo, the image of disorder that, upon first reading, characterizes present-day Rua do Campo Alegre and the adjacent territory atop the Monte da Arrábida will never be unravelled. Clearly it is merely a mysterious expression of a territory that is, as many others, in need of meaning and content to project itself into the future.

Notas

QUATRO LUGARES À BEIRA DA ESTRADA

1. 1995, “Plano da Marginal do Douro: Setor de Massarelos”, Manuel Fernandes de Sá and Francisco Barata; 2001, “Requalificação dos Caminhos do Romântico”, Graça Nieto Guimarães; 2003, “Ponte do Gólgota”, António Adão da Fonseca and Álvaro Siza Vieira; 2008–2020, Plano da Linha do Metro.
2. Alves Costa, Carvalho, 1995, p.44–47.
3. Conviction about this study’s feasibility was corroborated by several previous reflections, in particular Verhulst, 1995 and Jong, Voordt, 2005.
4. “Planta topográfica da Cidade do Porto”, [1877–92] (AHMP D-CDT/A4–51).
5. *Plantas antigas da cidade: século XVIII e a primeira metade do século XIX*, 1943 (planta original em MNSR Inv 93 Lit.).
6. Tavares, 2011, no page number.
7. Ramos, 1994, p.166.
8. The attempt to identify the origin of this planimetry, regarding both its dating and promoters, is inconclusive. Although a Roman military lookout point is known to have existed in Alto da Arrábida, and the map “Porto e Arrabalde, linhas de D. Pedro e Posições do Exército de D. Miguel”, of 1833, suggests characterizing its rural landscape as a cadastre recalling Roman centuriations, the area is actually very different from that identified, for example, in the territory under direct influence of the city of Braga or Italian and French cities, such as Pavie, Cesena or Orange. The structure of the rural landscape rebuilt in Alto da Arrábida may eventually correspond to medieval cadastre, accommodating previous periods, derived from the actions of the Colegiada de Cedofeita during the Christian Reconquest.
9. Padrão de Lordelo: “Planta topográfica de uma parte da estrada de Matosinhos no sítio do padrão de Lordelo (...) para alargamento e melhoramento da mesma estrada”, 1869 (AHMP, D-CDT/A3–436). Padrão Quebrado: “Plano que mostra (...) alguns prédios, e caminhos públicos, (...) entre a igreja da Boa Viagem e a estrada de Matosinhos, como a direcção e extensão de uma mina (...)”, 1842 (AHMP, D-CDT/A5–15). Padrão de Vilar: “Plano topográfico levantado na precisa extensão de norte a sul, desde o sítio do padrão de Vilar, até à alameda e cais de Massarelos (...)”, 1824 (AHMP, D-CDT/A3–45).
10. “Plano traçado para sobre ele se estabelecer o alinhamento da estrada de Matosinhos, (...) seguindo como linha de pavimento o mesmo perfil da estrada actual”, 1859 (AHMP D-CMP/3/155).
11. “Salavert: compra, transação e permutação entre a Câmara e diversos de uns terrenos no sítio de Salavert, freguesia de Lordelo do Ouro”, 1855 (AHMP A-PUB/600, p.11).
12. The practice of demarcation with *padrões* separated by a league along some main roads in the Portuguese territory is well known (Almeida, 1968, p.94–96; Bragança, 2014, p.143–160). The practice dates to the late 16th century or later, as part of the church’s extensive project to mark the territory, integrated in a program of rechristianization of the rural community and as a reaction to the new churches in the context of the Catholic Renaissance, the Counter-Reform, and/or the program of *crusades or milestones* by Francisco de Holanda in “Da Fábrica que Falece à Cidade de Lisboa”, from approximately the same date (Holanda, 1879, p.17–18).
13. Attempting to continue the demarcation of the road of S. João da Foz and Matosinhos eastward to Padrão de Vilar, considering the measurement standard of 550–600m, we conclude that from that site to Porta do Olival, on the Ferdinandine wall, is three units, about 1650–1800m. This means that, with reference to Porta do Olival, the road to S. João da Foz and Matosinhos crossed the eastern limit of Couto da Colegiada de S. Marinho de Cedofeita at about 1/10 of a league and its western limit at about 5/10, that is, half league away. This had been, until 1384, the dimension of Termo do Porto, after its expansion (RAMOS, 1994, p.166).
14. Series of requests for construction license (LO) presented to the City Hall of Porto, since 1841 (AHMP).
15. LO 791/1910, AHMP D-CMP/9/52, p.442–445; LO 1294/1922, AHMP D-CMP/9/354, p.418–424; S/nome, 1934, AHMP D-CMP/9/743, p.606–623; LO 1279/1935, AHMP D-CMP/9/743; LO 1087/1938, AHMP D-CMP/9/964; LO 461/1923, AHMP D-CMP/9/374, p.292–297; LO 1394/1912, AHMP D-CMP/9/138, p.439–445; LO 929/1910, AHMP D-CMP/9/55, p.122–126; LO 172/1908, 1907, AHMP D-CMP/7/206, p. 183–185.
16. The urban importance the Fábrica de Flação e Tecidos do Campo Alegre acquired in time is expressed in the sequence of requests for construction licences from the Town Hall of Porto: LO 52/1907, D-CMP/7/189, p.257–259; LO 555/1907, D-CMP/7/197, p.251–256; LO

161/1908, D-CMP/7(209), p.314-319; LO 652/1910, D-CMP/9(50), p.244-250; LO 377/1913, D-CMP/9(149), p.321-323. LO 775/1921.

D-CMP/9(317), p.344-346; LO 413/1921, D-CMP/9(310), p.57-60; LO 1328/1923, D-CMP/9(390), p.155-162; LO 508/1923, D-CMP/9(375), p.31-41; LO 530/1924, D-CMP/9(417), p.153-159; LO 928/1925, D-CMP/9(458), p.107-110; LO 1280/1938, D-CMP/9(980), p.563-577.

17. LO 1045/1908, AHMP D-CMP/7(218), p. 210-218.

18. "Planta Topográfica da Cidade do Porto", 1892, AHMP D-CDT/A4-51.

19. Bairro Operário de Entre Campos, 1914-1917: "Bairro Operário de Entre Campos. Projeto de um grupo de quatro casas", s/data (AHMP Guia 0019-2003.0085); "Vila de Entrecampos e Vila da Arrábida: projeto de bairros operários", 1915 (AHMP D-CMP/17(17)); "Vila de Entre Campos: projeto de alargamento nesta vila para a construção de um bairro operário: expropriação", 1915 (AHMP D-CMP/20(40)); "Rua central da Colónia Viterbo de Campos", 1923 (AHMP D-CMP/12(37)). Bairro da Arrábida, 1918-20/1922-23: IHRU PT DGEMN: DREM-081; IHRU DES.00882480 (e seguintes).

20. In Sítio do Campo Alegre, these families constituted a close neighbourhood, a unit of close relationships, which reproduced itself socially through marriage and business. They shared different cultures, languages and religious confessions; converged in their mode of life, namely, their taste for the arts, gardening and sport; they integrated the city's business and leisure life. Evidence of the presence of these families in Campo Alegre, the Oporto Cricket Club was founded about 1904 and definitely established in this area. This club was joined, between 1928 and 1938, by the Kadoorie Mekor Haïm synagogue, the Parish Church of the Blessed Sacrament, between 1924 and 1927, and the German School (first installations inaugurated in 1932).

21. Reference to the group of houses, first, in Sítio do Campo Alegre on Estrada para S. João da Foz e Matosinhos (namely the houses of João Henrique Andresen, Gustavo A. Burmester and Pedro Maria Fonseca de Araújo), then on António Cardoso and Guerra Junqueiro streets (namely, the houses of the Allen, Lehman, and Cassels families) and finally the set of streets opened among them by initiative of a group

of local property owners, led by António de Bessa Leite (AHM A-PUB/689, p.12).

22. LO 998/1934, AHMP D-CMP/9(700), p.678-694; LO 1619/1935, AHMP D-CMP/9(754); LO 1941/1937, LO 1167/1938 AHMP D-CMP/9(970), p. 368-387; LO 1078/1937, AHMP D-CMP/9(875), p.155-158; AHMP D-CMP/9(909), p.377-400; LO 1078/1937, AHMP D-CMP/9(875), p.153-178.

23. In particular, the houses of Jorge Reid and Anna Murat, about 1910 (AHMP LO 451/1910, d-CMP / 9 (46), p. 282 and LO 258/1910, d-CMP / 9 (42), p.255).

24. "Planta topográfica da Cidade do Porto", 1877-92 (AHMP D-CDT/A4-51).

25. O "Plano Regulador da Zona do Campo Alegre", Giovanni Muzio, 1939-43; "Plano Parcial de Urbanização do Campo Alegre - Nova entrada na Cidade pela Ponte da Arrábida", Januário Godinho, 1949-55; "Plano Parcial do Campo Alegre", (Robert Auzelle), 1956-66; "Plano de Urbanização da Zona do Campo Alegre e Estudo de Pormenor do Setor da Arrábida", Fernando Távora, 1968-74.

26. The purest expression of this idea was attempted by Januário Godinho with the design of Parque Sul da Cidade for Alto da Arrábida: a public park, with sports, recreational and cultural equipment offering the environment of Campo Alegre to the city.

27. Studies by Arménio Losa and Cassiano Barbosa (1959-63) for a set of plots on the northern face of Rua do Campo Alegre, integrated in Januário Godinho's plan.

28. Giovanni Muzio, Italian, designed the new area of residential expansion with a civic centre, according to the classic understanding of making a city, influenced by a modern urbanism affiliated in the Athens Charter; Fernando Távora, in designing the civic centre of Arrábida is affiliated with Le Corbusier and Josep Lluís Sert, namely in the discussions "The Heart of the City" and "A New Monumentality"; Januário Godinho's proposal recalls passages from "County of London Plan", by Sir Patrick Abercrombie; the civic, commercial and religious centre, with housing, of the "Plano Diretor da Cidade", was designed given the experience of Robert Auzelle; Fernando Távora studied the "Centro Direcional" of Campo Alegre in light of the experiences with the concepts of "single building" and "macro-building", the latter associated with the concepts of "megaestrutura" and

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"groundscraper".

29. "Plano Geral do Polo 3", Nuno Tasso de Sousa, 1978-94.

30. "Plano Geral do Polo 3", Nuno Tasso de Sousa, 1983.

31. Prior to the implementation of Polo 3 in Alto da Arrábida, the installation of the University of Porto in Sítio do Campo Alegre occurred in the following order: in 1937, the University manifests an interest in installing in Campo Alegre; in 1949, the Portuguese State bought the Andresen House, which would be given to the University; in 1951, the Botanical Gardens are established in the former Andresen House; in 1953, the University Stadium is inaugurated in the old Andresen House; in 1956, the Burmester House is given to the University, following expropriation of land in the Botanical Garden and University Stadium / "Programa das novas instalações da Universidade do Porto na zona do Campo Alegre" - "Centro Desportivo da UIP" (University's expansion program); in 1977, the House of Pedro Maria da Fonseca Araújo is integrated within the University.

32. Alves Costa, 2012.

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