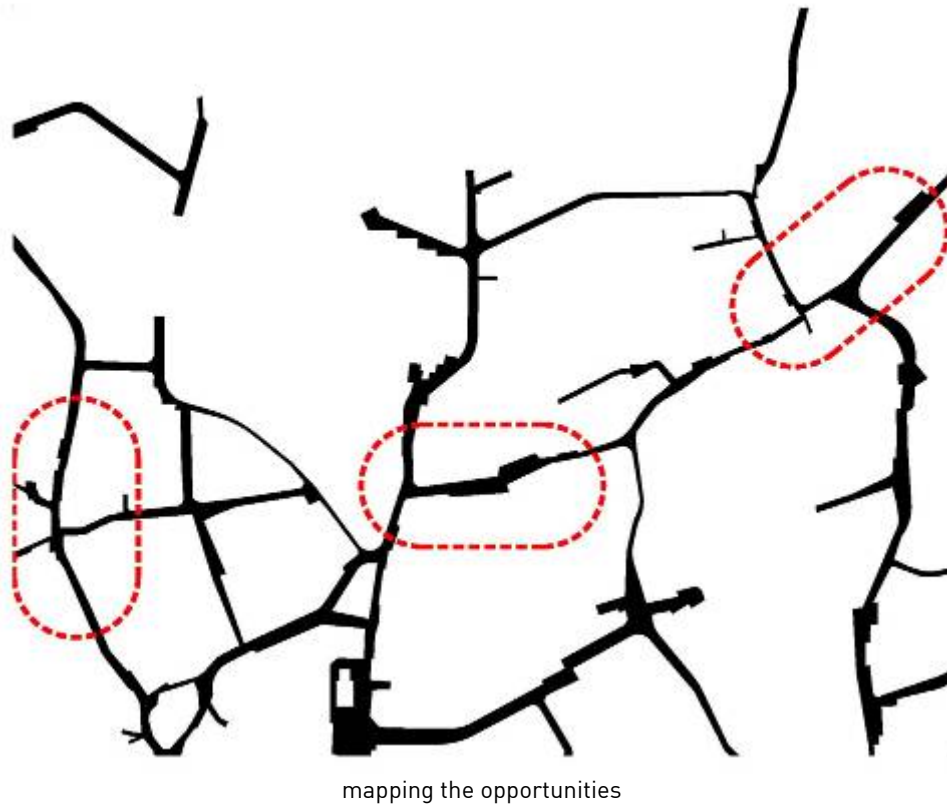


A route in Santa Maria da Feira - Portugal

## Re-thinking Borders:

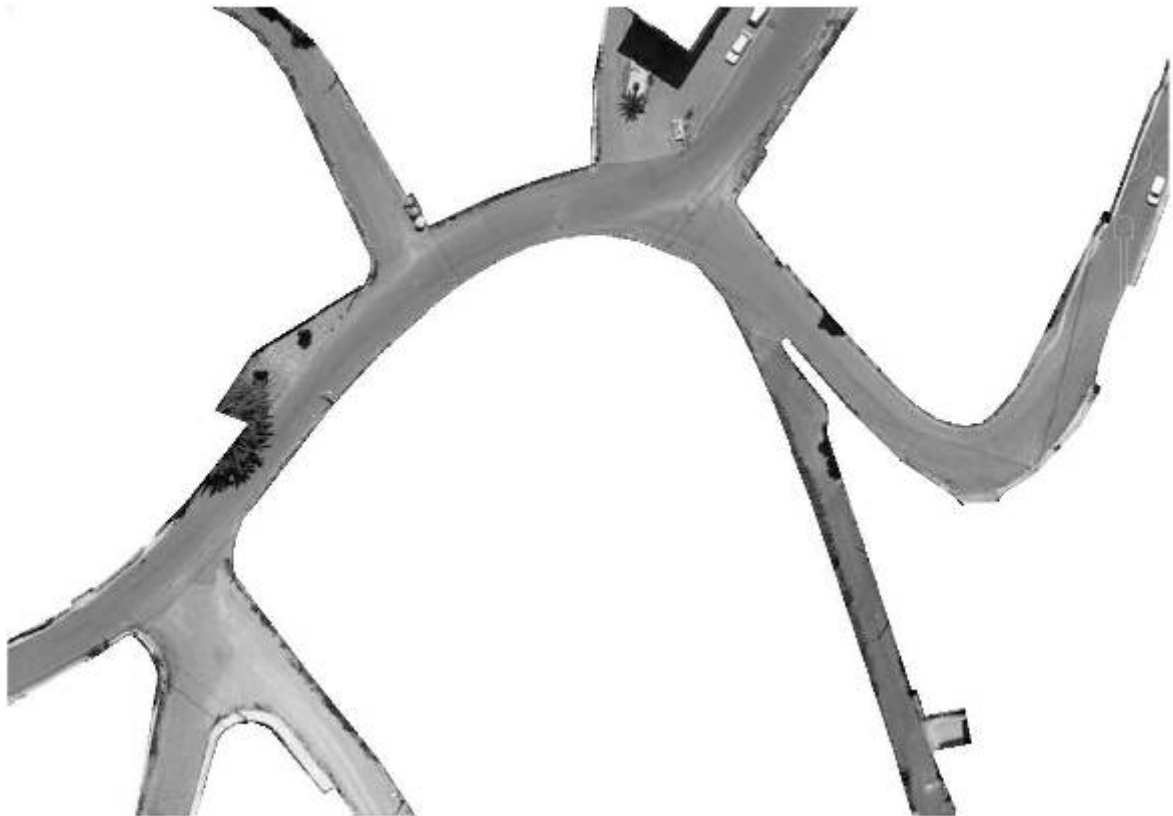
The conflict between "generic" and "possible" space of infrastructure



This research is part of a doctorate on the theme of “The common place of contemporariness: proposals based on the reinvention of the infrastructure”, which defines specific themes of the contemporary territory’s reality capable of shaping Architecture positively.

The route chosen , in Santa Maria da Feira, between the Portuguese cities of Porto and Aveiro, dispenses with the linear space of the main crossings, and concentrates on the more “interior” spaces of a territory where the urban structure, like the themes that shape it, don’t have a hierarchical organisation. The route does not have an identity or perceptible spatial autonomy; the objective is to decode some of the spatialities where the day-to-day life of the inhabitants takes place and identify and characterise the themes that shape its spatiality.

The images are opportunities that will shape a project that is not intended to be a model capable of systematically responding to the problem but is rather a methodological strategy that explores circumstance and which contributes to the reinvention of places that spring up erratically.



space of indetermination

For each opportunities the design is an essential tool for the deconstruction of the commonplace and the identification of answers that deal with:

- the organisational nature of the social/economic structure,
- the expressiveness and materiality of the place;
- a daily routine filled with unforeseen circumstances **IMPREVISSIBILIDADE**;
- the rationality and determination of the infrastructure
- the challenge of infrastructural autonomy.

Decoding and triage of some of the themes of these places will reveal their disconcerting simplicity and make it easier to imagine their transformation. Such transformations rely just as often on a design that establishes solutions as they rely on a clever design to deal with indetermination.



surface of the main spaces on the route

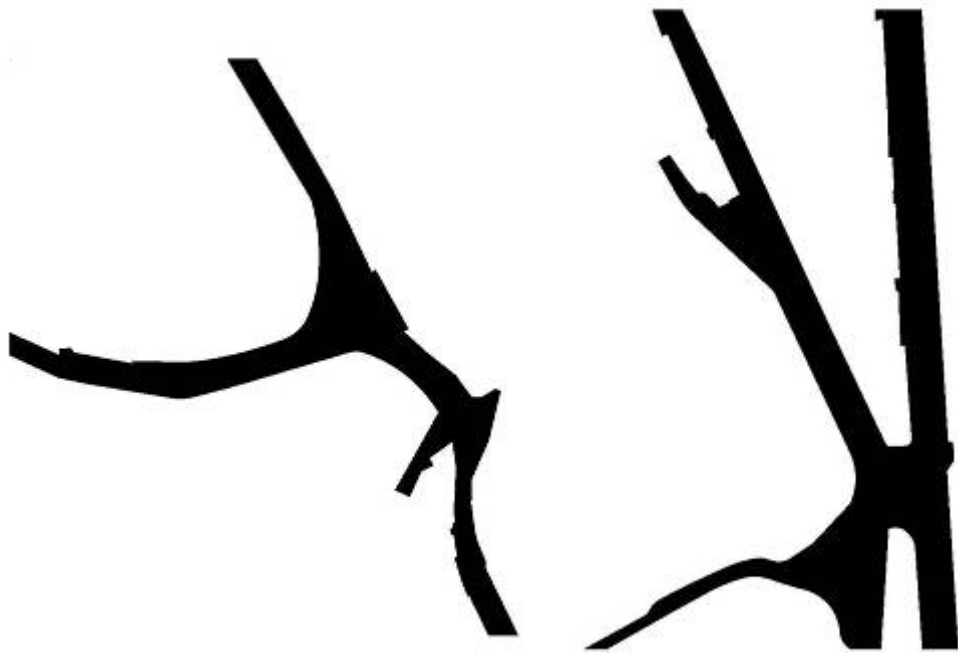
Pictures of common places, identified on the route, in which we cannot see a single sign of erudite design or of greater rationality. There are spaces with extremely simplified surface treatment which, due to its low cost and easy application, seems to respond to the main themes that shape a vast territory.

The ground is a continuous and homogenous surface which includes the road, parking spaces, the pavement, the verge and the different underground systems. This surface is capable of responding to the variations in intensity of use of each one of these throughout the day or days.



Infrastructure does not contribute to the improvement of spatial quality

The networks accompany this surface and guarantee its flexibility without, however, contributing to improvements in the environmental quality of the spaces they pass through.



disparity in dimension, which contradicts economic effectiveness

There is often disparity in dimension, which contradicts economic effectiveness. In this territory, the road may, in a short space of time, be reduced to half or be trebled; it may intercept other roads in strangely dimensioned spaces. The space now is the result of the confrontation between the different measures used in the past and the generic models of the present, the information arising from the decoding of these places may contribute positively to the definition of transformation proposals aimed at precise circumstances.



complex infrastructural network allowed generalised territorial occupation

The picture reveal heavily built-up spaces which bear witness to the transformation which has taken place over the last two decades and some of the hierarchical organisation strategies conceived by the municipality. But the indiscriminate action in the building up of a complex infrastructural network (with European financing) allowed generalised territorial occupation in a non-hierarchical manner.

The infrastructure became the main support for the development of a “dependent urbanisation where *parcelling follows the cadastre and where, when necessary, small development operations are carried out*”



complex infrastructural network allowed generalised territorial occupation

The municipality now had an extensive territory, with infrastructures, at its disposal, where hierarchical organisation strategies were attenuated by the abundance of urbanised land, giving rise to a territory with structure and spatialities far removed from the reference models.

On any part of this route, we are or may be startled by the introduction of an element with an important territorial role. In such places, the short-term may bring with it a factory with 2000 employees, a TGV line, a new telecommunications provider occupying the road, a new collective transport line, a new development and many commercial spaces. The porous nature of the decision mechanisms and the existing infrastructural network mean that this kind of transformation can occur anywhere. Such transformations affect the day-to-day life of the inhabitants and are redesigned, with particular intensity, at the mercy of vicissitudes and of opportunities.





“passage to street layout” is done in fragments, revealing the intrusive nature of the infrastructure

The pictures show how the built-up area is “hanging on” to the infrastructure, according to the guidelines of the Municipal Master Plan; it is clear that this should arise from the project to reconvert into a “street layout”: alteration of the profile; distancing; parking; the introduction of lighting appliances; waste collection systems; pedestrian protection systems.

Over the last 20 years, the road, and particularly its profile, gradually translated these guidelines and embraced the natural reconfiguration of the systems and their dimensioning. The reading of “passage to street layout” is done in fragments, revealing the intrusive nature of the infrastructure. Despite all new construction modelling the street layout, it seems evident that definitive reconversion will not take place. Once more, expectations, outlined on a large scale and deposited in the construction of hierarchies or identities, seem to have been in vain.

The old road verge, is giving way to a rigid space which contrasts with the indetermination .



"passage to street layout" is done in fragments, revealing the intrusive nature of the infrastructure

In an abstract context, the reference dimensions for each one of these elements are defined; when confronted with the reality and complexity of the situations, a process is begun that removes their meaning, giving rise to a forced simulation of other realities. In the generic model, the pavement should be three metres from the centre of the road and should have a minimum width of two metres; there should be trees at regular intervals, contributing to the environmental quality of places. In reality, the road has an excessively variable profile. There are successive junctions, crossroads and accesses to private property, numerous commercial spaces with private parking in front and traffic management solutions which originated on routes with other characteristics.



“passage to street layout” is done in fragments, revealing the intrusive nature of the infrastructure

Confronting the generic model with reality may lead to “ridicularisation and the removal of meaning from each one of the elements. On the plans, a pavement may be reduced to a guide and alternate between 0 and 15cm in cutaway, between the verge and the pavement, sometimes dipping to allow for existing accesses and interventions, sometimes rising to a height that will grant it autonomy.



New developments are marked by the construction of "closed" spatialities

The picture present new project opportunitie proposed by the public or by private enterprise. The spatialities that these urban operations comprise, when linked to the rest of the territory, governed by the generic law associated with development operations or the general law for Urban Construction, reveal a wide variety of idiosyncrasies. In Portugal, urbanisation instruments are generic and have ignored, and even contributed to, the construction of a territory of extensive and disconnected occupation.



New developments are marked by the construction of “closed” spatialities

In new developments, the intrusive nature of the infrastructures is particularly obvious when it comes to linking them to existing structures, to the topographic reality and to cadastres of complex geometry. There is a recurrence of violent topographic links, interstices and unviable compromises, disconnected public space proposals and landscape solutions that are poorly dimensioned and onerous in terms of materiality.

The spatialities proposed for these circumstances remain bound to fantasy, of an urban or rural routine, far removed from this reality.

The active role that the municipality would be expected to take in the negotiation and design of spaces that it will itself be managing, is replaced by a generic standard/system purchase by the general law for Urban Construction, which has no links to the specificities of the environment.



Hypothesis for the design of the indeterminate space



Transformation proposals suggest a rigid profile which usually restricts uses



Find a suggestive system where all elements make their contribution towards the affirmation of an identity



Permit the simulation of continuities / Transforming impossibilities into mere problems

The architectural proposal may extend places in time, reveal meanings, shape decisions normally made on a different scale, reinventing traditional limits.

For places with such an organisational use matrix, the transformation proposals suggest a rigid model which usually restricts and organises uses.

We can imagine solutions that alter uses or attenuate some of the themes that are determining factors for the application of the model.

It seems that design solutions which aim at preserving the majority of the themes, have not been the subject of much study. Just as we can identify moments when the pavement has been widened, to measurements that may even exceed those of the road itself, it is also necessary to optimise solutions for inverse spaces where the passageway is minimal.

It is in challenging the limits of each one of the elements that clues for their preservation can be identified.

Simulation of continuities between public and private space, or ones that seek to overlap uses by questioning the limits, by transforming impossibilities into mere problems.



suggestive system where all infrastructural systems make their contribution towards the affirmation of an identity

Could a profile, the intricacies of which are based on past circumstances, give way to a profile responding to present-day measures? Next to the factory, 50 parking spaces; near the school, a bus stop, with its own lane; near a more consolidated front, the pavement; the remaining spaces should “announce” the space for the infrequent pedestrian; near the abandoned factory, the road area could make way for vegetation (which revises the scale of the place). The design of each one of these spaces may not arise from the imposition of a physical barrier or of permanent elements and may be done through lighting, materiality (colour, texture and reflection), vegetation, water collection systems or virtual networks. Preserving the coherency of solutions may cause some infrastructural networks to disappear or to metamorphose: A water supply network may use a wastewater network; an electricity network may transmit data; lighting may be focused on the road, on pedestrians or on buildings; a line of trees may become a small grove of trees. The capacity to overturn and reinvent these systems may contribute to the affirmation of an identity.





*After all, everything is fine and there's no problem at all!*

## CONCLUSION

By mapping the opportunities, it is my intention, above all, to establish the idea that research can bring to light viable strategies capable of going against the ongoing tendency of starting from scratch or of transferring the problem. It is common to opt early on to abandon a space, to impose rules, restrictions and specialisation of uses without having confirmed and exhausted all hypotheses for conciliation.

The organisational nature of the spatialities of these territories and their separation from previous models are the basis on which reinvention must take place. I defend a suggestive practice, accommodating solutions based on the case value and scale of the context and which, over a long period of time, seeks to give meaning to these places.

*Can traditional project instruments, design in particular, be useful in finding innovative solutions? Can the architect's capacity for synthesis still generate precalculations for the landscape which are not authoritarian and which resist the amplification of the scale of action? Are there valid architectural devices for neutralising the negative determining factors of these territories? Or could it be that, after all, everything is fine and there's no problem at all?"ALC*