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Contact Urbanism. Play as Creative Driver in Spatial Design Practice

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CONTACT URBANISM

Play as Creative Driver in
Spatial Design Practice

Petra Marguc

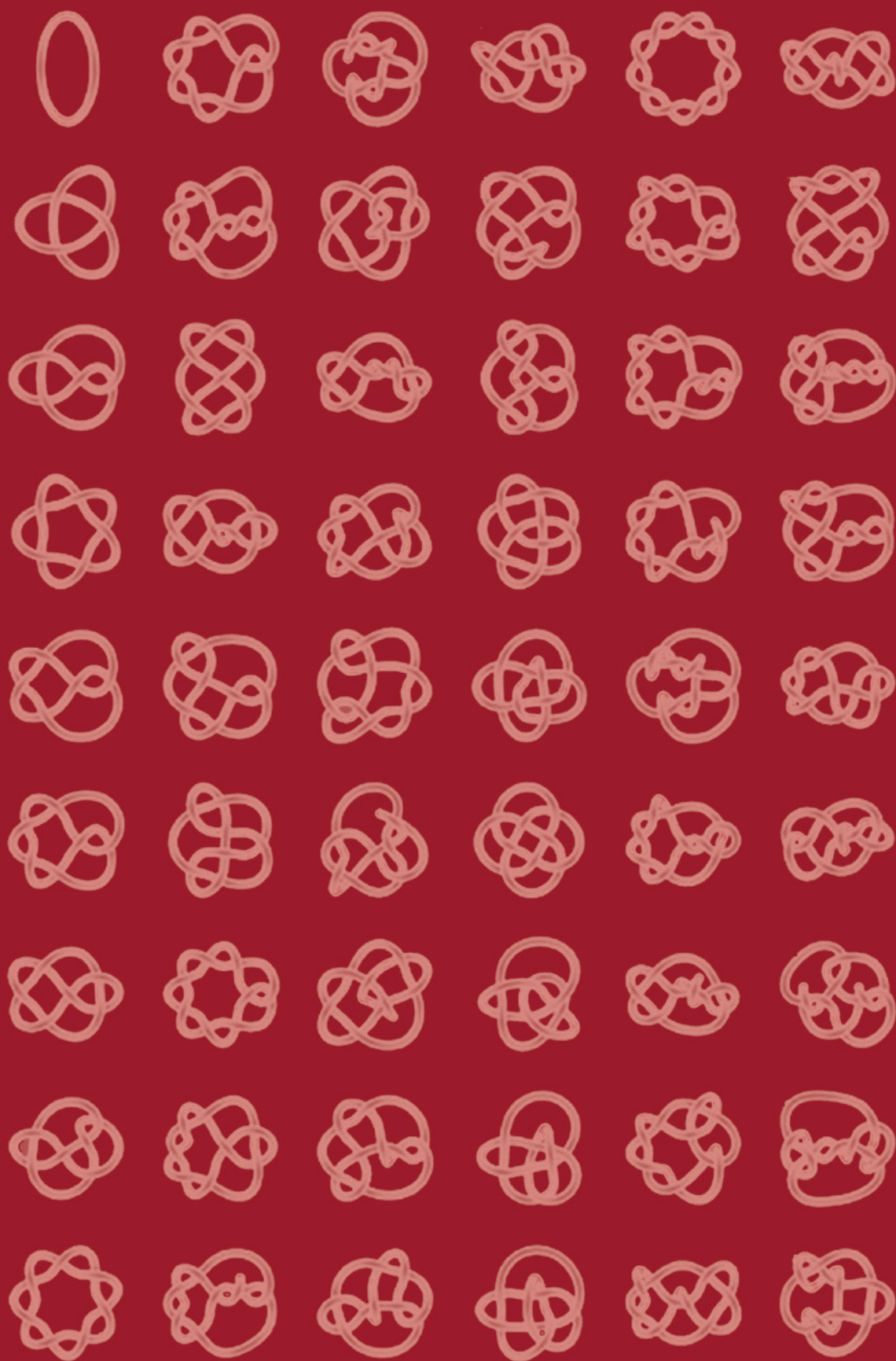
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Prof. dr. Thierry Lagrange
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CONTACT URBANISM

Play as Creative Driver in Spatial Design Practice

Joint PhD - Cooperation between KU Leuven and Nantes Université

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cover image:

Côté cour, côté tours, action 1, Polimorph, Cité Chevaleret Paris 13, 2015.

Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously in whole or in part to qualify for any academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by any third party is acknowledged; and ethics procedures and guidelines have been followed.

Petra Marguc
June 2023

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Abstract

At a time when increasingly communities are responding to the fears of an uncertain future by protection against, distancing from, and exclusion of the foreign, which at some point manifests in the organization of the territory, the built and the lived environment – this research works on the opposite hypothesis: how can the intensification of contact with unfamiliar situations, which is by nature destabilising, favourably stimulate spatial transformation and constitute a ground for nurturing a culture of urbanity? How does it lead us to reconsider the way we conceive architecture and the city? We understand urbanity as the art of exchanging, of conversing, knowing how to negotiate and balance personal and communal needs from within the places we inhabit.

This is a design driven doctoral research grounded in the complexity of real phenomena encountered as a practising architect, urban designer, and teacher over two decades. A selection of cases where play is used as a creative engine to maintain an open and inclusive design in the face of disruption are examined through an iteration of reflecting on, reflecting in, and reflecting for practice. The research focuses on the temporal dimension of designing processes, the grounded dimension of designing situations of interaction and the role that tangible things play within such spatial settings, to identify the conditions that allow or hinder a design development to pivot to a higher level of specification.

It reveals that in the liminal state of contact, giving space to play, in its different significations, enables us to apprehend divergent positions and to stimulate a profound transformation in the way we perceive and shape our living environment. Understanding

the creative potential of play to cope with disruptions and to engage in a shared environment with the other, human and non-human, leads to the development of a conceptual framework and practice of urban and architectural design that considers the transformation of space as a dynamic system of relations. The framework of dynamic spatiality intertwines situatedness, pluralistic representations and actions in time, into one irreducible entity. Specific instruments, protocols of action and relational objects and techniques of staging, rhythm and providing grip are implemented in spatial design practice to do both, engage projects while remaining sensitive to fluctuating conditions. Architecture thereby proves to be a means for creating situations from where urbanity can be practised, and transformations can occur.

Keywords:

Contact, Creativity, Design Driven Research Practice, Dynamic Space, Ecosophy, Embodiment, Enaction, Play, Relational Design, Rhythm, Situatedness, Spatial Affordances, Spatial Triad, Tacit Knowledge.

Abstract nederlands

Contact Urbanisme, Spel als creatieve drijfveer in een ruimtelijke ontwerppraktijk

In een tijd waarin steeds meer groepen en gemeenschappen reageren op de angst voor een onzekere toekomst met bescherming tegen, distantisering en uitsluiting van het vreemde, wat zich manifesteert in de organisatie van het territorium, de gebouwde en de geleefde omgeving, vertrekt dit onderzoek vanuit een tegenovergestelde gedachte. Hoe kan de intensifiëring van het contact met onbekende situaties, dat van nature destabiliserend is, ruimtelijke transformaties positief stimuleren en een voedingsbodem vormen voor een stedelijke cultuur? Hoe leidt dit tot een nieuwe inzichten over architectuur en de stad?

Dit is een ontwerpmatig doctoraatsonderzoek, gebaseerd op de complexiteit van concrete gebeurtenissen die ik als praktiserend architect, stedenbouwkundige en docent gedurende twee decennia ben tegengekomen. In een selectie van deze gevallen werd 'spel' ingezet als een creatieve motor om een open en inclusief ontwerp te realiseren. Het onderzoek stelt een reeks reflecties op die praktijk centraal. Het onderzoek richt zich op de tijdelijkheid van ontwerpprocessen, de situationele en interactieve dimensie van het ontwerpen en de rol die tastbare elementen spelen binnen dergelijke ruimtelijke situaties. Hiermee worden de voorwaarden geïdentificeerd die een specifiek ontwerpproces toelaten of dit net verhinderen.

Het toont aan dat een overgangsfase, het geven van ruimte aan spel, in zijn verschillende betekenissen, ons in staat

stelt uiteenlopende posities in te nemen en een diepgaande transformatie te stimuleren in de manier waarop we onze leefomgeving waarnemen en vormgeven. Inzichten in de potentie van het spel, als een creatieve wijze om met verstoringen om te gaan en in een gedeelde omgeving samen te werken met de ander, mens en niet-mens, met verschillende belangen, behoeften en verlangens, leidt tot de ontwikkeling van een conceptueel kader en een praktijk van stedelijk en architectonisch ontwerp. Die praktijk beschouwt de transformatie van de ruimte als een dynamisch systeem van relaties. Het kader van dynamische ruimtelijkheid verweeft het gesitueerde, de pluralistische voorstellingen en handelingen in de tijd tot één onherleidbare entiteit. Specifieke instrumenten, actieprotocollen, relationele objecten en ensceneringstechnieken, ritmiek en het bieden van houvast worden in die ruimtelijke ontwerppraktijk toegepast met als doel, projecten te engageren en tegelijkertijd gevoelig te blijven voor fluctuerende omstandigheden. Architectuur blijkt dan geschikt om situaties te creëren van waaruit stedelijkheid kan worden beoefend en transformaties kunnen plaatsvinden.

Trefwoorden:

Contact, creativiteit, ontwerpgedreven onderzoekspraktijk, dynamische ruimte, ecosofie, embodiment, enactie, spel, relationeel ontwerp, ritme, situationaliteit, spatiale affordances, spatiële triade, tacit knowledge.

Résumé français

Urbanisme de Contact, Le jeu comme moteur créatif dans la pratique de la conception spatiale

À une époque où de plus en plus de communautés humaines répondent aux craintes d'un avenir incertain par la protection, la distanciation et l'exclusion de ce qui leur est étranger, ce qui se manifeste dans l'organisation du territoire, de l'environnement bâti et vécu, cette recherche part d'une hypothèse inverse : comment l'intensification du contact avec des situations inconnues, par nature déstabilisantes, peut-elle stimuler favorablement les transformations spatiales et constituer un terreau pour une culture de l'urbanité ? Comment cela mène-t-il à de nouvelles perspectives sur l'architecture et la ville ?

Il s'agit d'une recherche doctorale par le projet, basée sur la complexité des événements concrets que j'ai rencontrés pendant deux décennies en tant qu'architecte, urbaniste et enseignante. Dans une sélection de ces cas, le « jeu » a été utilisé comme moteur créatif pour réaliser une conception ouverte et inclusive. La recherche porte sur une série de réflexions sur cette pratique. La recherche s'attache à la temporalité des processus de conception, aux situations d'interaction et au rôle que jouent les éléments tangibles dans de telles dynamiques créatives. Cela identifie les conditions qui permettent ou empêchent un processus de conception d'évoluer vers plus de spécification.

La recherche montre qu'une phase de transition, laissant place au jeu, dans ses différents sens, permet de prendre des positions différentes, d'appréhender leurs divergences et de stimuler une

transformation profonde de la façon dont nous percevons et façonnons notre cadre de vie. Comprendre le potentiel du jeu comme moyen créatif de gérer des perturbations de détourner les incohérences et de s'engager dans un environnement partagé avec l'autre, humain et non-humain, aux intérêts, besoins et désirs différents, conduit à l'élaboration d'un cadre pour la conception et la pratique de l'architecture et de l'urbanisme. Cette pratique considère la transformation de l'espace comme un système de relations dynamiques. Le cadre de la spatialité dynamique tisse le situé, les représentations pluralistes et les actions dans le temps en une seule entité irréductible. Des outils spécifiques, - des protocoles d'action, des objets relationnels et des techniques de mise en situation, le rythme et la préhension- , sont appliqués dans cette pratique de conception spatiale dans le but d'engager des projets tout en restant sensible aux circonstances fluctuantes. L'architecture s'avère alors apte à créer des situations à partir desquelles l'urbanité peut être pratiquée et des transformations peuvent se produire.

Mots-clés :

Contact, créativité, pratique de recherche par le projet, espace dynamique, écosophie, incarnation, éaction, jeu, conception relationnelle, rythme, situation, affordances spatiales, triade spatiale, connaissance tacite.

Prologue

Many years ago, I experienced a dilemma that fundamentally changed my view on architectural practice. I was working with three colleagues on a proposal for the reconstruction of the University of Sarajevo after the Yugoslav war in the 1990s. It was an international competition. As soon as my team and I arrived in Sarajevo, we understood that at that time a winning project could not be built. The means for realizing the project were far from resolved. There was no economic backup, there was no clear decision-making body that could carry such an operation, the walls on site were torn down, but the emotional barriers between people felt insurmountable. All collective effort went first into the reconstruction of basic infrastructure for survival, such as housing, water supply, and roads. And, yet, in view of rebuilding a civil society the need for reconstruction of the university was just as urgent. Disruptions abound.

But once on site, we also discovered that what looked like a dead end full of obstacles at first had, in fact, underlying transformative potential. Resources for the reconstruction of the university as an operating organization already existed, for instance in the form of equipment, knowledge, and human resources. They only had to be turned into opportunities.

Would it be possible to see beyond what looked like a *tabula rasa* at first, to step across the obstacles, and to make the existing potentials visible as well as shareable as resources? And would it be possible to weave these fragmented potentials into a fertile pattern that could activate a dynamic field out of which the university could grow?

Post-war Sarajevo is an extreme example of a kind of situation where an urgency for intervention is felt, yet a clear

response is not apparent. These kinds of wicked problems involving complexity, uncertainty, and conflict, are proliferating today. There are gaps between the material reality of phenomena encountered on the ground, personal desires, and societal means. In these situations, we know that we cannot solve the problems with the same kind of thinking that created them. Some other kind of understanding and conception need to be mobilized for eventually reaching out and formulating sensible responses.

Experiences in territories undergoing change, territories in transition, even if less extreme in its expression than Sarajevo, challenged my professional capacities since and were at the origin of my experimentally led design practice. The need to change perspective, to try to see what is there, perhaps in blind spots, in a different light, in order to be able to move, became evidence.

*Que l'essence vacille !
N'être pas assurés de l'essence des choses sera ce qui
peut arriver de mieux pour le monde et pour nous.*

*Let the essence sway!
Not being assured of the essence of things will be the
best that can happen to the world and to us.*

Barbara Cassin¹

1. Barbara Cassin, *La Nostalgie. Quand donc est-on chez soi?* (Paris: Fayard/Pluriel, 2015).

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Introduction

At a time when increasingly communities are responding to the fears of an uncertain future by protection against, distancing from, and exclusion of the foreign – behaviors that at some point manifests in the organization of the territory, the built and the lived environment – this thesis takes a radically opposite hypothesis. It posits that intensifying contact with unfamiliar situations, accelerating the unlearning of established behavioural patterns, and questioning thinking habits can provide a fertile ground for revising a culture of urbanity. We understand urbanity as the art of exchanging, of conversation, knowing how to negotiate and balance personal and communal needs from within the places we inhabit, a know-how of being well alone and of being well among others at the same time.

The outcome of getting in touch with another is uncertain, in this respect, contact is a liminal condition. Generating resistance to a movement, contact can provoke disorienting to the point of losing balance and engender shifts in two directions: increase the desire for more exchange or increase the desire for setting boundaries. Architecture, which orchestrates physical distance and proximity, can play the role of a lever in the transformation of a situation, and become a means for regulating relations. This research focuses on the creative impulse in situations of contact, on that precise moment of shift that occurs between a stimulus and a response, within the development of spatial design.

Saskia Sassen responded on the aftermath of the terrorist attacks in Paris, that “a city can never be completely controlled, unlike a business park. The best defence is to maintain diversity and to make sure that every section of the population is truly part of the city. Today cities have lost their potential to offset

conflicts civilized through trade”², to practice negotiation qualities that can outbalance adversary positions through cooperation entangled by a mutual interest. Cities impoverish in diversity. “What used to be small and public, is now large and private, the city is privatized and de-urbanized regardless of the density of buildings.”³

The 20th century modernist paradigm brought increasing specialisation entailing a practice of partitioning. Taking things apart is reflected in many aspects of present society, be it in the division of labour, in professionalization, or the organization of land and partitioning of our territories up to a point of losing the relation to one’s milieu. The disconnection from a ground, disembeddedness, and disembodiment in terms of our capacities to consider ourselves and our actions in relation to a broader system, feeds the environmental crisis we face today.⁴ The sanitary crisis we were experiencing since 2020 was putting the global community on hold. Uncertainty abounds. A crisis of urbanity is shimmering on the horizon.

What is at stake is the process of re-urbanizing the city. We need to develop the capacity to offset urban disruptions by learning to navigate and engage in the environment we share with other people and non-humans who will at times have different needs, interests, and desires, to thrive on and cherish a culture from the “violence of participation”⁵ where the dilemma is taken as a starting point.

This is a collective undertaking at the scale of neighbours, cities, and territories. However, a collective focus is not enough. It needs to go hand in hand with a personal stance, that is, learning to engage and design with disruptive interferences and inconsistencies as a given.

The current research explores how being put in contact with unhabitual situations or with a multiplicity of stakeholders

2. Saskia Sassen, “Eine Stadt kann man nie ganz kontrollieren”, *Der Standard*, 13.12.2015: www.derstandard.at/story/2000027339291/saskia-sassen-wir-muessen-die-stadt-offenhalten

3. Ibid.

4. See in this respect the beautiful experimental documentary film *Koyaanisqatsi: Life Out of Balance*, directed by Godfrey Reggio with music composed by Philip Glass, 1982.

5. Markus Miessen, *The Violence of Participation* (Berlin: Sternberg Press, 2007).

accelerate the emergence of divergences; and how not to ignore or neutralize the discrepancies between viewpoints, actions and what exists factually, in order, on the contrary, to grasp and hold on the frictions as an engine for transformation, driving creative processes, and grounding the production of space in a shared reality. For conceiving responses to urban disruptions – grouped under the heading of a “Triple Divide” of ecological, social, and cultural-spiritual disruptions⁶ – this PhD project aims to reconsider the production of space as a dynamic entity, a system of relations, where the material thing plays a performative role in a never-ending rhythm of interactions, oscillating between the physical, the imagined, and the lived dimensions of space.⁷

Could intensifying contact with unfamiliar situations, which is by nature destabilising, foster spatial transformation processes? Could interaction from within the places we inhabit foster learning processes for negotiating and balancing personal and common needs? Could architecture become a means for regulating virtuous relations knowing how to entangle our needs and aspirations across the intimate, the social and the environmental realm?

It is from the study of cases rooted in the messiness of real phenomena encountered in the field, as a practising architect, urban designer, and teacher, that the doctoral research explores another design apparatus, an approach for spatial intervention that does not take architectural construction as its aim but takes up architectural design as a means of engaging the complexity of a society in transition.

“Architecture is no longer the usual devotion to objects, but is becoming an organon, that is a means to gain knowledge, a system of inquiry, innovation and technique”⁸

6. Otto Scharmer and Katrin Kauffer, *Leading from the Emerging Future: From Ego-System to Eco-System Economies* (San Francisco: Berrett-Koehler, 2013).

7. Henri Lefebvre, *La Production de l'espace*, (Paris: Anthropos, 1974).

8. Sanford Kwinter, “Leap in the void: A new organon?” in *Anyhow*, ed. Cynthia C. Davidson (Cambridge, Mass.: MIT Press, 1998): 24-27.

Structure of the document

The dissertation is structured in six chapters complemented by three interludes and an appendix.

In the first and second chapters we set up the research context and the research methodology. We reflect on the experimentally led design practice for architecture an urbanism Polimorph, to recall the circumstances that led to its genesis and to uncover the underlying quest that runs like a red thread through the work. This section corresponds to the preliminary research to lever a practice experience onto a research level, which in turn, sets the frame of the PhD project and prompts the selection of a series of case studies to be explored further.

The third, fourth and fifth chapters unravel the research journey and elaborate on the different research steps taken to extract the tacit knowledge about how we design spatial projects in a changing environment. Through the angles of “Process”, “Pivot” and “Tangible Things”, corresponding to the chapter headings, we investigate the temporal dimension of designing processes, the grounded dimension of designing situations of interaction and the role that tangible things play within such spatial settings, to identify the conditions that allow or hinder a design development to pivot to a higher level of specification. Three interludes complement the research journey in form of counterpoints or side steps. Interlude I accounts experimentations on juggling between action goals and a framework for acting. Interlude II makes an excursion in other spatiotemporal practices for inquiring the role of artefacts in creative procedures. Interlude III looks how a spatial organisation based on the topology of knots consolidates the very potential of constant reconfiguration in a building.

The sixth and concluding chapter sums up the findings on a play of interlacing and spacing to entertain a balance of creative dynamics. It transposes the insights gained into what I would call the thesis as such, a framework for inquiring, conceiving, and practicing spatial design in a moving context. It is both, a methodological framework, because it proposes a set of tools and techniques for a spatial design practice, which are brought together under the overarching term Contact Urbanism. It is also an epistemological framework, because it proposes a conceptual

model for such a practice from the perspective of Dynamic Spatiality. In this last chapter, the insights of entangling diverse matters, and the relevance of play as a creative driver in spatial design practice are discussed in terms of possible implications for the discipline, for the role of the architect, and the questions it raises.

The appendix contains next to the table of figures and the bibliography, the project archive in the form of video and audio documentation and more detail of the raw materials used in this research.

Research Context

The raw material of this research presented in the first chapter “Designing in the Face of Disruptions” is based on my practice as an architect, urban designer and teacher for almost two decades. It outlines the backstory and transformative triggers that led to the creation of a venturesome practice⁹ called Polimorph, exploring the production of space¹⁰ in architecture and urban design. This involves experimenting with open design methods, including the development of co-design tools from within spatial design projects, and through cultural interventions for public debate on spatial and citizen issues. From our position as spatial designers, disruptions, and discrepancies in the sense of a triple divide seem to be commonplace.

Looking back at the corpus of Polimorph’s practice revealed that seeking for friction became a mode of operation. Designing in a context of what appears to be incoherent, unstable, and impermanent phenomena has become a creative driver. To stimulate the design process, a tactic within Polimorph is to deliberately create situations that bring realms and people into contact who would normally not meet and to deploy playful tactics to trigger interaction. Being immersed within the complex reality on the ground is simultaneously a bodily experience, a reflexion on spatial matters, as well as a practice of making,

9. Richard Blythe, “An Epistemology of Venturesome Practice” (2016).

10. Unless stated otherwise, the notion of Production of Space, refers in this work to Lefebvre’s definition of an interplay between the imagined, the physical and the lived space, see footnote 7.

transforming matter. Tacit knowledge occurs. But what do we actually do to make the friction between elements shift into a creative resolution and the emergence of new forms instead of generating blockages?

Research methodology

The second chapter “Framing Dynamic Fields” describes how the reflexion on past work, laying out the corpus of Polimorph’s projects leads to the setting up of design-driven doctoral research from a creative practice perspective. The research methodology used here is based on the RMIT/ADAPTr PhD model for design practitioners.¹¹ It combines a set of research perspectives – reflecting on, reflecting in, and reflecting for – with a set of inquiry lenses (i.e., case studies, communities of practice, transformative triggers, public behaviour, tacit knowledge, methods, and viva) to attain a deeper understanding of one’s design practice and to take practice experience from a design context to a research context. It allows for critical reflexion upon the nature of a field of work, for speculation on how the knowledge gained through the research will be enacted in the future, and for presenting the findings publicly. Reflecting on a practice generates first findings on the underlying quest running across most projects and leads to an increasing capacity to reformulate the research quest with more precision and mastery. The findings are then incorporated and further researched in renewed practice. Then, researching for how to share and disseminate the knowledge gained within the discipline and society at large leads to explicating methods.

Case Studies

The preliminary research leads to the selection of existing case studies which emerge as relevant for the doctoral research project: the urban game *TabulaRosa*, three participatory design commissions, *Architecture & Disability in Etrepagny*, the *Ecohamlet in Saint-Cyr-en-Arthies*, and the *Memorial Park in*

11. Marcelo Stamm and Richard Blythe, “Doctoral Training for Practitioners: ADAPTr (Architecture, Design and Art Practice Research) a European Commission Marie Curie Initial Training Network” (London: Bloomsbury Academic, 2017). <http://hdl.handle.net/10919/80949>; Leon van Schaik and Anna Johnson, *Architecture & Design, By Practice, By Invitation Design Practice Research at RMIT* (Melbourne: Onepointsixone, 2011).

Greater Paris Region, furthermore the protocols for exploring a territory and the house MMT. All are variations on strategies for play in architectural and urban design.

Insights on the regulating potential of play for the design process and design outcome, either in the form of positive displacement or as dilemma accelerator, are being further inquired in new cases produced during the PhD research: Small research experimentation, namely the Trefoil Mutations, a situ-action about spatial practice and Material Studies of Shells, the case studies La Belle Excentrique, and C'est la Pause. The reflexive constellation of specific cases wherein to observe evidence, the testing of evidence within new projects and teaching, the exchange amongst peers to discuss knowledge gained, and the looking back and forth from one situation to the next provides the social learning environment in which knowledge evolves and stabilizes as the research process unfolds, that is, whilst walking.

Research journey

The research journey of reflecting in case studies is described across three chapters and three interludes. The “Process” of a production of space as an open inclusive design is investigated in the third chapter. In the fourth chapter “Pivots” we then zoom into conditions which make the creative process bifurcate. In chapter five “Tangible Things” we inquire the role of material structures in the creative dynamics. Each chapter is organized around research steps. The research steps “Space in Motion” (RS 1), “Inclusive Design Postures” (RS 2) and “Process versus Product” (RS 3) lead to a deeper understanding on the processual nature of open inclusive design, how to set it in motion and to orchestrate it. This happens through investigating Polimorph, Architecture & Disability and the Ecohamlet, By zooming in on the pivoting moments in a design development, the research steps “Creative Dynamics in Situations of Contact” (RS 4) versus “Dissipating Dynamics in Situations of Contact” (RS 5) investigate factors which shape the creative drive, particularly present in playful interaction settings such as within the urban game TabulaRosa, and the nature of obstructions influencing the falling apart of exchange, explicated with the case study of a Memorial Parc in the Greater Paris Region. It gives insight

on learning from limits and making resistance tangible as a source of information. The research step “Material Support Structures”(RS 6) explicates the relevance of material props to get hold of change.

Three interludes complement the research journey in form of counterpoints or side steps. Interlude I accounts experimentations to tackle juggling between action goals and a framework for acting. Interlude II makes an excursion in other spatiotemporal practices for inquiring the role of artefacts in creative procedures. It will give insight on the art of handing over. Interlude III comes back to a build project, the MMT house, to look how the possibility for on-going spatial reconfiguration was realized by alternating interlacing and spacing, a spatial organization based on the relational principle of a trefoil knot.

All research steps and interludes together describe the procedures engaged for uncovering and explicating tacit knowledge gained through practice. They generate observations, findings, and new questions. It should be noted that the research steps themselves were not strictly linear. In reality, there were overlaps, feedback loops, and sidesteps. During the PhD, crucial reflexions were supplemented by additional smaller new productions to stabilise initial findings. Some research aspects were re-examined several times in ongoing projects and in design studios.¹² For simplifying the comprehension and given that these smaller research studies helped to stabilise the findings, but did not bring any major new insights, we have decided not to develop on them here. The chapters Process, Pivot and Tangible Things are presented in the order the research progressed. Looking back at the research journey that led to knowledge generation in this kind of overall configuration feels appropriate to account for the emergence of findings and their gradual affirmation.

12. Fosses (2016), La Belle Excentrique (Arcueil 2018), Le Germinator (ENSA Nantes FPC, 2018), C'est la Pause! (4 editions since 2020), Drawing Explorations with students in ENSA Mauritius and Atelier Présence ENSA Nantes (2019/20), and also small realisations during the PhD period such as the restructuring of a duplex flat (2019/2020)

Contact Urbanisms to engage in a Dynamic Spatiality

The new findings from the cases developed for this doctoral research project are transposed into a performative framework for spatial design, interlacing three relevant drivers for spatial transformation – actions, human perception, and situatedness – in one single system.¹³ Each spatial instance of the three drivers internalizes and takes on meaning through the two others.

The project Contact Urbanism proposes performative spatiality with its specific instruments and techniques to be implemented in design practice. It helps to establish an assessment of resources that integrates multiple perspectives and attempts to be comprehensive across disciplines. Within the framework of performative spatiality, disruptions on individual, social, and territorial level become performative gaps, turning troubles into transformative triggers. Architecture turns out to be a medium for designing situations from where urbanity can be practised, and transformation can occur. The outcomes are re-embedded and discussed in the context of other relevant practices and theories.

The body of work used in this research involves material that has been created, in part, in English, French and German speaking environments. Writing this thesis in English requires a degree of displacement. Moving between languages implies relentlessly translating from one to the other, comparing and discerning the gaps between them, searching for the right word, the formulation which feels just. To restrict myself to one language means groping, getting it wrong, rephrasing, and always ending up with an untranslatable part. From one language to another, one culture to another, a correct translation of a term does not evoke the same universes, does not awaken the same imaginations, and associations of ideas go in different directions. To reduce the risk of misinterpretation, certain terms

13. In line with Henri Lefebvre's spatial triad, the notion of action refers to lived space, the way we enact and behave in space, the notion of perception refers to the imagined space, the way we perceive it, the notion of situatedness refers to the physical space, the grounded tangible aspect of an environment.

used in this work are explained in footnotes and/or illustrated with examples.

CHAPTER 1

Designing in the Face of Disruption



Polimorph team, in *La Maison du Métabolisme Parisien*, public event, Paris, 2006.



1.1 Backstory and Trajectories of Displacement

Once in contact with the ground, during the site visit to start a new project for the reconstruction of the University in Sarajevo in 1997, it became obvious to our project team that our usual design tools could not lead to the realization of the university building. The professional conflict was experienced as a gap. My team and I found ourselves in a deadlock until we realized that our professional tools were mismatched with the situation encountered on the ground. The problem was neither architectural, technical, or constructive, nor really a problem of resources. Doing fieldwork and exchanging with the people we met, we could see that the resources themselves were there, unlike the image one might have of a city wiped out by five years of war.

We understood that we had approached the project with a set of tools to erect buildings yet were facing obstacles outside the realm of architecture. On top of operational challenges, we encountered experiential divergences that had an impact on site. Where foreign professionals could perceive an empty plot of land – a *tabula rasa*, ready for new constructions – the survivors of Sarajevo's siege saw the military wasteland in the city centre as an emotionally loaded territory that they were keen to avoid for many years to come.

Instead of focusing on architectural solutions, the key questions for us became more fundamental: How can we perceive with the eyes of another person so that we can attain a deeper, more nuanced understanding of a situation? How

can we extend our view beyond what is visible from our own perspective or standpoint?¹⁴

We neither had the tools to fully grasp the complexity of the situation, which seemed of systemic nature and included emotional barriers, nor did we have the tools to assess whether an operational framework existed that could have rendered the project feasible. With these experiences three blind spots were revealed that impeded our habitual approach to architecture:

- Failing to see what is under the surface of preconceived ideas
- Missing capacities for unlearning and breaking the boundaries of habitus as a precondition for learning a-new
- Lacking the skills for creating shared visions

The deadlocks that prevent effective responding to complex urban situations with architectural solutions are not exclusive to post-war cities, but characteristic of people and societies in transition. Similar patterns can be found in other territories undergoing change. The scale of contemporary societal changes is such that one could say we are living in an “Age of Disruption”.¹⁵

Symptoms of disruption can be perceived as tips of the iceberg on a surface like a landscape of issues and pathologies. They can appear in many forms: a disconnect between the financial and the real economy, between infinite growth and limited resources, between the Haves and the Have Nots, between institutional leadership and people, between gross domestic product and well-being, between technology and real societal needs, between actual ownership forms and best societal use of property, between governance and the voiceless.¹⁶

Observations of discontinuities between oneself and the environment, the self and others, and also one’s personal inconsistencies are recurrent. Within our work in architecture and urbanism, we often encountered them in projects involving

14. The difference in perspective depending on the point of view is called parallax. The term parallax is the effect whereby an object appears different depending on the position from which it is viewed. Parallax geometrically describes the effect of a change in the position of the observer on the viewing of an object. Parallax is one of the most important factors in being able to perceive depth.

15. Scharmer and Kaufer, *Leading from the Emerging Future*.

16. *Ibid.*

complexity. One example is the Memorial Parc, a redevelopment project of the site of the former train station of Deportation of Jews in Bobigny (2014/2015), where the divides revealed were much deeper than the urban and territorial discontinuities that commissioners asked us to treat. Their list is long and overwhelming.

The phenomenon that “beneath the visible levels of events and crises we are facing, there are underlying structures, mental models, and sources that are responsible for creating them” is described by Scharmer as an “iceberg model”.¹⁷ Similarly, the research office for architecture and urbanism Chora calls the underlying forces that manifest themselves on the surface of the earth at some point in some place as urban phenomena “proto-urban conditions”.¹⁸ According to Scharmer, a “triple divide” of ecological, social, and spiritual-cultural disconnections between the self and nature, the self and other, as well as the self and Self, respectively, lies at the heart of major challenges that contemporary society is facing. The overarching problem can be subsumed in one simple question: “Why do we collectively produce results that nobody wants?”¹⁹ The growing gap between our actions – which are always grounded in geographic locations, and what we aspire to – resonates just as vividly in the actors’ and project logic at work perceivable for our built environment, cities, and territories.

In 1989, Guattari argued for a more complete approach to an ecological balance of our living environment. Specifically, he proposed to go beyond the material ecology and add an ecology of social relations as well as an ecology of the mind. He called this set of three interdependent ecologies *ecosophie*.²⁰

17. *Ibid.*

18. Chora et al., “CHORA Manifesto”, *Daidalos* 72 (1999), 42-51; Chora et al., “Proto-Urban Conditions”, in *Urban Flotsam* (Rotterdam, 010 publisher, 2001), 44-107.

19. Scharmer and Kaufer, *Leading from the Emerging Future*.

20. Felix Guattari, *Les Trois Écologies* (Paris: Galilée, 1989); The root “eco” in its original Greek acceptance refers to oikos, i.e. house, household, habitat, natural environment; “Sophia” in Greek means knowledge, wisdom. A literal translation of “Ecosophy” could be translated as “wisdom of living”. The concept of ecosophy was proposed as early as 1960 by Arno Naess to denote a holistic, deep ecology, as opposed to a shallow ecology that separates phenomena and deals only with the material dimension of resources. In Guattari’s shift of the triadic approach to ecology, it is interesting that he includes the balance of the inner world as a constituent part of being in relation to the outer world.

In the 1970s, James Lovelock and Lynn Margulis introduced what they called “Gaia hypothesis”, a view of planet earth as a self-regulating living system with all living beings being part of it.²¹ According to this view, we are part of the living system earth, hence ultimately the observer is part of the observed among other observing observers.²²

Spatial Triad, a Metamodel for the Production of Space as a Socially Shared Reality

While searching for how to approach a stuck situation in post-war Sarajevo in 1997, I discovered accidentally the phenomenon of Nello and Patrache in Hoboken, a district of Antwerp. In Hoboken, a fictional story stimulated a physical transformation of the city as well as of the representation citizen have of themselves and their town. The example of Nello and Patrache in Hoboken made the production of space as an intrinsic relationship between the perceived, the conceived, and the lived space, conceptualized by Henri Lefebvre as a spatial triad,²³ explicit (fig. 1). Mapping these relationships evidenced the mechanisms of a spatial continuum that govern the practice of space embodied by people, the specific territorial context, and their objects of representation. It made comprehensive how the singular material phenomena that one can encounter in a situation are rooted in a broader context of spatial dynamics, embedded in a field of forces.²⁴

21. James E. Lovelock and Lynn Margulis, “Atmospheric Homeostasis by and for the Biosphere: The Gaia Hypothesis”, *Tellus* 26 (1974), 2-9. DOI: 10.3402/tellusa.v26i1-2.9731

22. In this line should be further mentioned: Gregory Bateson, *Steps to an Ecology of Mind* (Chicago: University of Chicago Press, 1972); Humberto Maturana and Francisco Varela, *Autopoiesis and Cognition: The Realization of the Living* (Dordrecht: De Reidel, 1980) originally published in Chile under the title *De Maquinas y Seres Vivos* (1972); Heinz von Foerster, *Understanding Understanding, Essays on Cybernetics and Cognition* (New York: Springer, 2003); for an overview of the relevance of cybernetics on design see Ben Sweeting, “Design Research as a Variety of Second-Order Cybernetic Practice”, in *Constructivist Foundations* vol. 11 nr 3 (2016), 572-579.

23. Lefebvre, *La Production de l'Espace*.

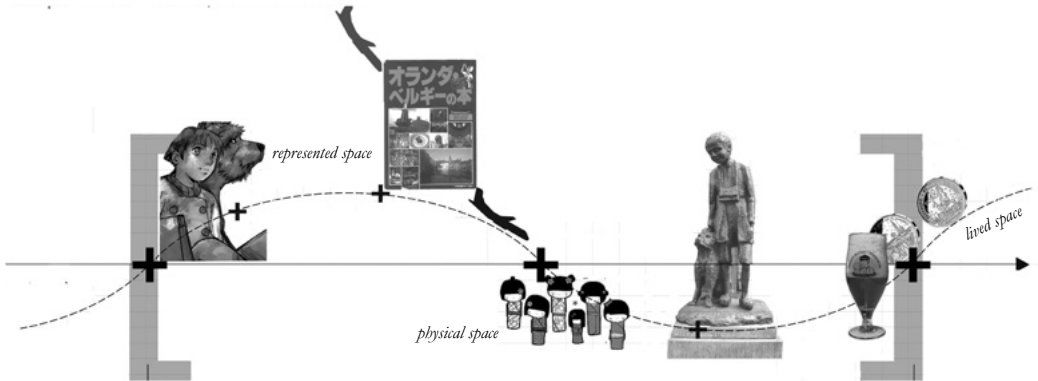
24. Petra Marguc, “The Chance of Conflict” Graduate Speech, 03.07.1998, video library The Berlage Institute, “The Chance of Conflict”, in *Berlage Cahiers n°7 Process* (Rotterdam: 010 Publishers, 2000), 118-119.

Following Henri Lefebvre's concept of the production of space as a spatial triad between the perceived, the conceived, and the lived space and mapping spatiality as a continuous oscillation between physical space, imagined space, and social space makes it possible to overcome urban disruption and to perceive links between seemingly distinct and fragmented phenomena which Chora calls "Urban Flotsam".²⁵ Drawing these spatial relations and thereby making them explicit can reveal how patterns of phenomena evolve over time as well as how a singular phenomenon is situated within the spatial triad and can affect the whole. Thinking within the case of Hoboken of the production of space as a spatial triad revealed the operative mechanism for the construction of meaning as a socially shared reality.

Applied to Sarajevo, the concept of triadic spatiality revealed that there is a spatial continuity that goes beyond the visible disruptions: The siege of the city began in April 1992. Snipers controlled the streets of the city from the surrounding hills, shooting people at the street junctions, where they were especially vulnerable and exposed to the line of fire. With the number of victims increasing, foreign media attention and collective emotions rise until they reach a culminating point, resulting in a decision to act. The international community intervened, pushed back the frontlines, and established a 10 km wide security corridor in the city. This allowed for reconnecting the besieged city centre to the airport, which in turn enabled outside help, international people, and provisions to enter the city again. This marked a shift in relations which endured until the end of the siege in 1995 (fig. 2).

The representation of space, which in this case was especially present in the role of the media and the international community, and the perceived physical space, conditioned by the city's topography and urban morphology, are intrinsically related. They resonate, affect each other, and form an urban dynamic pattern, a lived space that intensifies until a new configuration emerges (a decision to intervene, separating and pushing back the frontlines, the creation of a neutral zone, etc.). From the moment a new distinct phenomenon appears, the spatial triad pivots into a new

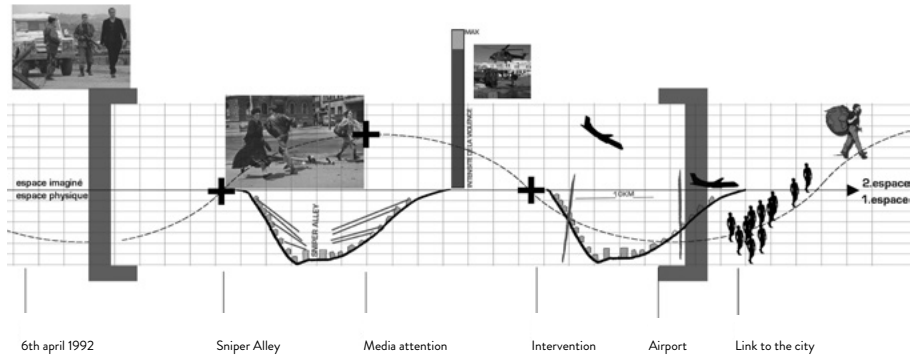
25. Chora, Raoul Bunschoten and Takuro Hoshino, *Urban flotsam. Stirring the City* (Rotterdam: 010 Publishers, 2001).



In 1872 an English author, Ouida, wrote a novel “The Dog of Flanders” which plays in Hoboken. It is a fiction about a Flemish boy named Nello and his dog Patrache (the story exists in imagined, mental space). In the 1970s, the Japanese film industry adapted the novel into an animation broadcasted as TV series. The story of “Nello & Patrache” became a children’s classic for decades in Japan and Korea, to such an extent that in the 80ies Hoboken was mentioned in Japanese tourist guides as a place to visit (the story impacts lived, social space). But when the Asian tourists arrived in Hoboken, there was nothing to see, the locals did not even know the story. In their idea of Hoboken, there was not any connection to Nello and Patrache at all (disruption in imagined space). Then, in 1987, in response to the ongoing tourists flux a first statue was built in public space (new physical space), followed

by a branding policy with derivate products (new social space). Since then, three monuments were raised to commemorate Nello and Patrache to please tourists and the local economy (new physical, imagined and social space). The last monument was inaugurated end of 2016 in front of the famous Antwerp Cathedral, as a place to take a rest, to play, literally walk all over it (new physical space). A spatial dynamic between the imagined, the lived and the physical space, culminated rhythmically in the emergence of distinct singular objects (a tourist guidebook, a statue in public space, derivate products, an urban furniture, a public square...). These objects concentrate multiple scales, multiple places and multiple drivers. Over time, in an on-going oscillating interaction, the physical space, the imagined space and the social space evolve, each one in relation to the two others.

Fig. 1: The urban phenomenon “Nello and Patrache” encountered in Hoboken in 1997, mapping physical, representational and lived dimensions of triadic spatiality.



6th April 1992: Sarajevo is surrounded by Serbian forces. The siege of the city lasted until October 1995

Sniper Alley: From the adjacent hills, snipers surround the city of Sarajevo and shoot at people who venture out into the city's main artery. Many die.

International media: The growing intensity of local violence is increasing attention from the foreign media

Intervention: The international community intervenes by establishing a 10 km wide security perimeter.

Airport: This strip reconnects the city centre with the airport

Bridge to the city: Outside resources and people can re-enter the city again, it marks the end of siege.

In time, the interplay between the physical space and the represented space generates the re-appropriation and transformation of the territory.

Fig. 2: "Sarajevo Sniper Alley and the end of siege", mapping the urban phenomenon in terms of the physical, representational and lived dimensions of triadic spatiality (1997).

configuration opening different perspectives, a new “landscape of affordances”²⁶ occurs. It is a leverage momentum.

As I became aware of the mechanics of interdependency between people’s behaviour, their practice of space, the physical organization of a living environment and on its meaning for a community, I began to look at space not only as a physical static entity, as architects tend to do, but as a continuously evolving pattern that keeps reconfiguring. From this perspective, a physical entity turns into a phenomenon, the manifestation of a momentary resolution of interplaying forces that, through its emergence, spurs further movement.

The insights on the mechanics of the spatial triad gained from experiences such as those in Sarajevo or Hoboken led to a shift in terms of thinking of spatio-temporal frameworks wherein to perceive, conceive, and enact design projects as interventions rather than as finite solutions. For the university project in Sarajevo, this shift turned out to be useful for observing, grasping, and describing what is there, and to identify how to reconfigure existing resources in a new pattern so that a university could emerge, thereby reaching beyond the emotionally charged context.²⁷

Could the spatial triad be a useful model for projecting the production of space into the future in addition to better describing the present urban dynamics and grasping the underlying nature of past phenomena?

The spatial triad became the metamodel for the production of space I have been exploring as an architect, urban designer and teacher (fig. 3). I used it as a framework to develop the practice Polimorph, it has guided most project developments, and it became a way to view the world with the position of the architect resembling that of a fisherman navigating through a moving environment more than that of a demiurge conceiving the world by moving objects leaning over the table from above.

26. Erik Rietveld and Julian Kiverstein, “A Rich Landscape of Affordances”, *Ecological Psychology*, Volume 26, Issue 4 (2014), 325-352. DOI: 10.1080/10407413.2014.958035.

27. Understanding the intrinsic relationship between material environment, the practices encountered and the ideas which circulate about that space in terms of a continuous rhythmic interaction mechanism generating meaning, became part of my thesis work “The Chance of Conflict, Constructing Communication Spaces” at the Berlage Institute; see Petra Marguc, “The Chance of Conflict”, *The Berlage Cahiers* 7 (Rotterdam: 010 publisher, 2000), 118-119.

Foundational Premises of a Spatial Practice

In addition to the spatial triad, some concepts that were treated within these early project experiences, object as system design, ecosophy, and communication spaces, using conflict and controversy as a transformative driver to overpass limits of language became foundational premises for Polimorph and the direction my practice took. These concepts generated new knowledge on the behaviour of spatial dynamics, their relation to architecture, as well as on how to observe and interact with them. They also led to the idea of space as a system of exchange. These concepts are still relevant for comprehending the position from where this PhD project is approached.

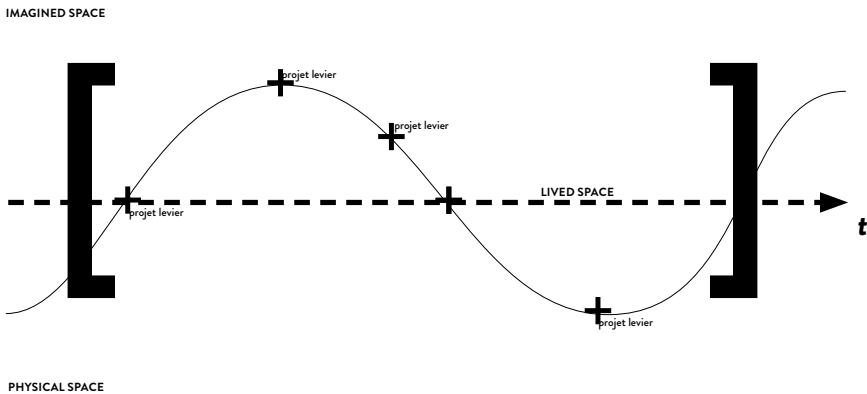


Fig. 3: Metamodel for the production of space as a socially shared reality, processual view; the material object result from and impulses spatial dynamics.

Object as System Design: As the physical, imagined, and lived dimensions of space are interdependent, not only can interventions be undertaken in any of the three spatial dimensions. Outcomes, too, will emerge in each of them in diverse formats. Even when the process starts with changes in the imagined or lived dimensions, as the example of Hoboken illustrates, at some moment in time, a physical transformation can be expected to emerge.

Ecosophy: The concept of Lefebvre’s spatial triad (1974) echoes with Guattari’s ecological triad (1989), where the material ecology of the environment is put in relation with a social ecology among actors and an ecology of the mind of the individual. It suggests a relational continuum between the environment including objects, the multiplicity of others, and the self. It resonates again with Scharmer’s Triple Divide (2013).

Creating Communication Spaces to Get Past the Limits of A Language: The idea of deliberately using confrontation with realities other than one’s own as a starting point for working within architecture or urbanism was triggered by the dilemma experienced during the university reconstruction project in Sarajevo. But not only. When moving outside of an expert community with its institutions, shared values and cultural codes, when working on implementation of projects, at some point, the language turned from being a carrier into being a barrier. I experienced a dilemma of a lack of shared language between our expert community of architects and urban designers and the other parties. The urge for a reality check emerged. Critical interrogation of our working methods through embedding our professional engagement in practice on the ground was needed.

Two questions needed to be addressed: First, how can concepts and methods that are easily understood within an academic setting be translated to and applied in the field? Second, how can one strip the conceptual and theoretical discourse to a level that allows for parties with different backgrounds to engage with projects and act on them?

Experiences which triggered questioning on the architectural design practice – starting with the work in Sarajevo on the chances of conflict and further working on alternative urban methodologies with Chora and with the Diploma Unit 10 at the AA, Architectural Association, in London, the challenge of designing for territories in transition, where wicked problems²⁸ involving complexity, uncertainty, and breakdowns of communication manifest as Triple

28. Horst W. J. Rittel and Melvin M Webber, “Dilemmas in a General Theory of Planning”, *Policy Science* 4 (1973), 155–169. <https://doi.org/10.1007/BF01405730>.

Divide in the urban fabric – became a major driver for setting up my own professional practice. Polimorph was thus a logical step wherein alternative approaches to spatial design could undergo the needed reality check and be revised by practising.

1.2 Polimorph, a Venturous Practice in Architecture and Urbanism

In the words of Blythe, “the venturous practitioner is one who, being dissatisfied with the disciplinary realm in which he or she practices, seeks to shift, in topological terms, the boundary of the discipline and thereby to extend it in some substantial way. That is to say, the venturous practitioner contributes to knowledge through a certain kind of practice that is oriented in a specific direction, is motivated by a driving intent, and proceeds according to a systematic and grounded process. These qualities of dissatisfaction (meaning that there is a certain lack of satisfaction with the discipline ‘as found’, which motivates the venturous practitioner to seek change), along with intentionality and grounding differentiate the venturous practitioner from professional practice. In other words, the venturous practitioner, whether or not he or she is involved in professional practice, is engaged in research.”²⁹

Polimorph was founded as a platform aimed at experimenting, implementing, and disseminating integrative urban and architectural design proposals. Its activities focus on three areas: (1) The exploration of collaborative tools for a design practice and that is open and inclusive; (2) the implementation of integrative approaches to urban and architectural design proposals; and (3) cultural interventions in public space that foster the exchange with the public at large on urban and citizen issues. Two complementary partner organizations were created (fig. 4). *Polimorph Architects* focused on building commissions, whereas *Polimorph Produits Pratiques Espaces* focused on exploring interactions between

29. Richard Blythe, “An Epistemology of Venturous Practice” (2016).

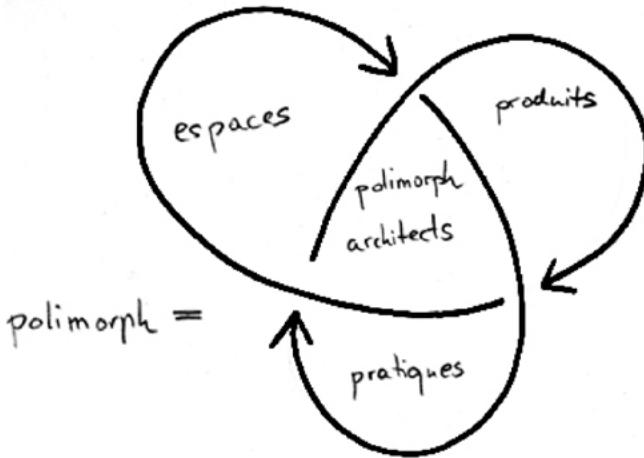


Fig. 4: Polimorph organisational structure described with a trefoil knot, 2005

practices (i.e., ways of doing), products (i.e., objectual, tangible outcomes and deliverables), and spaces (situations of exchange that are created and opened up), with the idea that each of the two could nurture the other.

Like water to drink or air to breathe, space is existential to our body and cannot be dissociated from it. Therefore, every body is familiar with space, every body practices space at any moment, and every body has some implicit knowledge about space.³⁰

Since Polimorph was founded, there has been a desire to involve various stakeholders in the design of projects – not as a point of arrival or ultimate objective, but as a starting point or even prerequisite. The idea was to build with the diverse viewpoints and tacit spatial knowledge that each of us embodies.

30. This motto was first presented at Polimorph's double web launch event 05.10.2007. It followed a slogan «L'espace est à vous (aussi). Avant qu'on y touche, qu'est-ce que vous en dites?» (The space is yours (too). Before we touch it, what do you have to say?) used at the public event *Le Printemps de la Démocratie Paris*, in 2005.

This required a deliberate crafting of encounters between very different people, who often had different perceptions of space, expectations, vocabularies, as well as conflicting interests. It was necessary to devise specific ways of doing, that is, tools with precise and transversal objectives, for different stages of projects.

Polimorph practice was initiated with the goal of refining as well as developing methods and concepts for urban transformation from direct immersion with the subject matter, “fighting close to the bull”.³¹ This approach meant working with a variety of viewpoints within an extended spatial paradigm that goes beyond the material, the practised, and the imagined space. It meant starting from precisely the phenomena where a mismatch occurs.

Evolution of an Architectural Work at the Interplay Between Products, Practices, Spaces (fig. 5)

Polimorph was founded by five core members in continuation of the first edition of the urban game *TabulaRosa* in 2004-2005.³² The original idea was to view Polimorph as an evolving practice with no fixed form, where an organisational structure would emerge and solidify with time through doing, the succession of productions, and the growing body of work. We aimed at an architecture practice that was sustainable in terms of environmental and human resources as well as agile enough to adapt to evolving capacities, individual desires, or societal urgencies. The structure should remain resilient in the face of an unpredictable future.

First phase (2004-2007): Initiation

During its first phase, Polimorph intervened mainly in the context of festivals and cultural commissions at the interface

31. Marcelo Stamm, “Constellation Creativity”, in RMIT Graduate Research Conference (2011), 1-15.

32. Jacques-Olivier David, art historian and cultural mediator whom I met at a conference “Enjoy Sarajevo” (Lyon: Ecole des Beaux-Arts, 2000), Marine Roman, a young architect, and Laurence Hartenstein, an artist, and Olivier Lannuzel, editor and translator, from Paris, and Pierre Lemaire, a Belgian architect and urban designer accomplice since we met at the Architectural Association in London.

between art and urbanism. Its main activity consisted of prototyping integrative approaches and tools intended to make different parties collaborate on issues of urban and civic space. Compared with the duration of typical projects in architecture and urbanism, these kinds of commissions tended to be short and often took the form of events. They were very useful for running experiments and generating quick feedback. The body of work that was produced as well as several publications positioned Polimorph as an experimental research platform working on the inclusive production of space. Polimorph was put on the map, but our interdisciplinary team was perceived as an art collective situated in the field of the city making, *la fabrique de la ville*.

Polimorph's public stance started to shift towards the end of the project "PariPassu" in 2006 which was a programmatic refiguration of possible neighbourhood transformations in the 13th arrondissement in Paris prior to a major urban regeneration project (GPRU, Grand projet de renouvellement urbain).³³ After participating in one of the events we had organized in public space over the course of several months, the local deputy for town planning provocatively concluded, "On n'est pas là pour faire les clowns, passons aux choses sérieuses" (We're not here to clown around, let's get down to business). This was the turning point from which we sought to position our work beyond the cultural field of urban art, or city making and into the discipline of architecture and urban design.

Second phase (2008-2012): Adjustment and Repositioning

In order to have a larger impact in that discipline, we needed to gain access to architectural and urban commissions and to be perceived as architects, not as artists. We entered a phase of adjustment and took the lead on new kinds of projects. As of 2009, Polimorph was getting increasingly commissioned for its integrative design approach, mainly in first stages of

33. PariPassu was curated by 2R2C, represented by Maud Le Floch, an urban planner and at that time still co-director of a street art company, La Compagnie Off. In 2007, Maud Le Floch founded the Polau-pôle arts & urbanisme (which was then called pôle des arts urbains) in Saint-Pierre-des-Corps, near Tours. Today, Polau is a leading actor in promoting cultural urbanism in France.

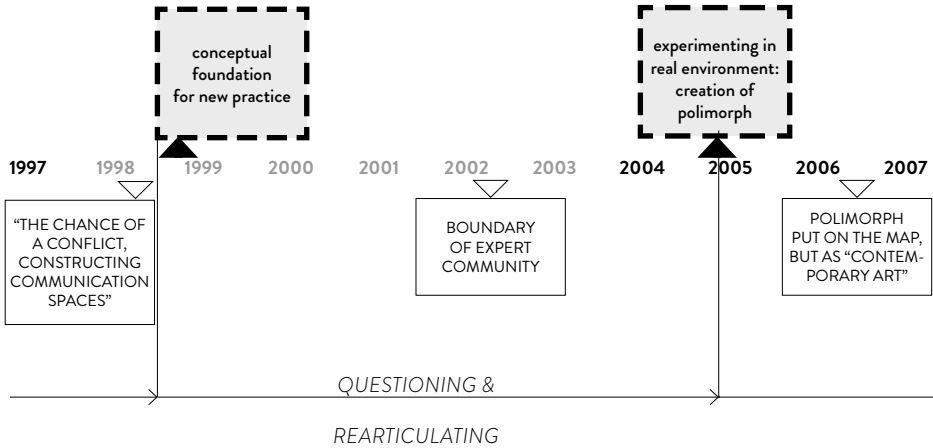
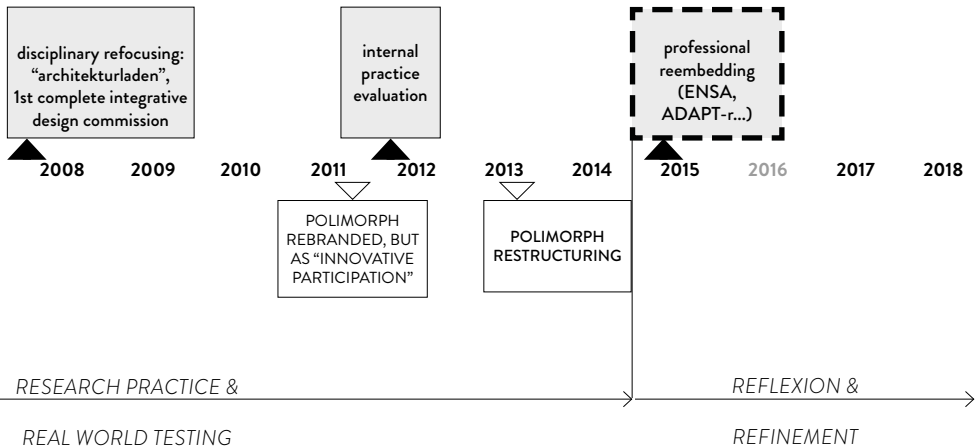


Fig. 5: Transformative triggers provoking shifts, pivotal moments, in the evolution of Poa professional practice.

urban development projects that included participatory and collaborative approaches. This allowed us to iteratively develop and test tools and methods from one project context to another, to evaluate, adapt, adjust, and establish what worked.

During this second phase of Polimorph's development, we were working on two major pilot projects. The first was *Architecture & Handicap, pour que les histoires s'écrivent avant que les murs ne se lèvent* (Architecture & Disability, for stories to be written before the walls being raised, 2008-2010). The second was *Ecohamlet* (2010-2016), an extension of a small village at the border of the Greater Metropolitan Region of Paris. These cases were also a fertile ground for inventing new tools and urban prototypes. One such tool was a cartographic instrument *Carte Sensible* (2008), which investigated a semi-automatized data collection process and combined quantitative with qualitative data in one representation. The prototype *Minihamlet* (2011), a housing typology for peri-urban housing,



was developed to facilitate the regulation of a more sustainable territorial development. Finally, a water network (2011) was proposed for landscaping the village, treating the water run-off and weaving together several generations of rural and neo-rural residents.

Over a period of six years, a core team of six members emerged from the 26 people who collaborated on Polimorph's various productions. By 2012, Polimorph's public image had evolved from a kind of "contemporary art collective" (2006) to an "innovative participation practice" in architecture and urbanism.

Since 2013: Participation as Specialisation versus Open and Inclusive Design

Coinciding with the shift in Polimorph's public image, subjects such as participation, service design, and social design gained presence in France and increasingly moved from a

marginal position into the centre of disciplinary and public debate. They were taken onboard by institutions and public bodies.³⁴ An entire market for “expertise in participation” developed.³⁵ As the popularity and diversification of participatory approaches grew in architecture and urban design, we observed a lack of rigour in terms of the underlying motivations, goals, and methods. Despite a display in favour of a participatory approach on the part of clients, the stakes and decision-making processes often remained opaque, which brought the risk of adverse effects on participants, stakeholders, and communities.³⁶ Because our experience covered a range of participatory projects and because we could observe that handling multiple perspectives and controversy are skills that can be learned by everybody, we concluded that specializing in participatory services for supporting clients would not be necessary. On the contrary, including multiplicity and controversy in the design development can help to “increase the number of choices, designing a set of viable alternatives, each one a possible path to effective action in the context of our goals”.³⁷ On the long run, it can enable individuals to design more of their own choices.

Instead of specializing in this emerging field of participation, Polimorph and especially the architects in our team favoured a strategy of developing an open, inclusive design approach grounded in the specifics of each design situation. Our positioning within the new landscape in architecture and urban design seemed clear, Polimorph evolved increasingly towards

34. Polimorph, “Tabula Rosa, jouer à imaginer le futur”, in *Design des politiques publiques*, ed. La 27^e Région (Paris: La Documentation française, 2010), 52; Ezio Manzini, “Design and the social construction of public space”, in Human Cities Festival Brussels(2010), founder of DESIS, Design for Social Innovation towards Sustainability (2009), www.desisnetwork.org.

35. In France, design as a vector of social, ecological and cultural transformation has only appeared after Great Britain, Belgium, Italy and Northern European countries, platform-socialdesign.net (2015). Before that, integrating multiple stakeholders within a design practice promoting societal transformation, was considered as a conflict of interest. Usually, a separation of expertise occurred between designers involved in a participatory process mandated as Assistance à la maîtrise d’ouvrage (AMO) on the one hand, and designers in charge of the project on the other.

36. For instance in the project experience *Le Pilomètre*, 2012, Le Pile, Roubaix.

37. Heinz von Foerster, *Understanding, Essays on Cybernetics and Cognition* (New York: Springer, 2003), 295

an architectural and urban design office. But we were also faced with a dilemma: everyday urgencies could easily overrun the ability of collaborators to engage meaningfully in questions beyond just running the office. Teaching started to become a counterpoint, vehicle for a more in-depth exchange with peers driven by disciplinary questions.

Stepping Across the Border, Tactics of Public Behaviour for Connecting with Other Realities

Stepping across the border³⁸ of what we think we know or master to confront ourselves with other realities became a way of working at Polimorph. It could happen in the context of projects in open and inclusive design, public behaviours in the form of citizen, disciplinary, and teaching commitments, or field explorations. The teaching units we set up with colleagues at the architectural school ENSA Nantes are generally grounded “hors les murs”, that is, within a real context, with real partners, and real needs in situ.³⁹ Such formats bear the potentialities for creative decentring while staying in touch with reality.

Jeudis Polimorph: The single common denominator for the public debate series *Jeudis Polimorph* was that its topics were presented through the lens of spatiality from within a specific case. The principle was to invite each time two or three speakers who would talk about a subject from their perspective on the basis of their experience.⁴⁰ For instance, for an exchange on

38. Fred Frith et al., “Step Across the Border”, soundtrack of the documentary film on Frith, *Step Across the Border*, (Switzerland: RecRec, 1990).

39. Particularly relevant to this PhD are the following teaching assignments: the project studios “Borderline” (Master 1, Master 2 and diploma project) and “Territoires hypothétiques”, a 4th and 5th year short multidisciplinary design workshop with students from the fields of architecture, geography and law, which we carried out together with Sabine Guth; the 2nd year design studios in the FPC, Formation Professionnelle Continue, with Bruno Plisson and Tewfik Hammoudi; the collaboration with dancers and choreographers Emmanuelle Huynh, Loïc Touzé and Laurent Cébé; the 4th and 5th year design workshop “C’est la Pause” with Bruno Plisson; the 3rd year design studio “La Ville des Possibles” at ENSA Mauritius; and the nightly debates around the table, on our train journeys and during a legendary study trip to Naples in 2018, which resulted in a teaching experiment on the art of exchange, “La Chambre du Commerce”.

40. Seventeen Jeudi Polimorph debates took place between 2008 and 2014.

different stakes in the context of water resources, a hydrologist and a cultural non-profit-organization shared their respective project approaches to water in the city. On the topic of aging in the city, we organized a debate on the first self-managed retirement home in France, *La Maison des Babayagas*, with the women initiators of this pilot-project and their architect. Rules of geometric patterns in architecture were presented through the arabesques embedded in Moroccan culture by an artist mathematician, Jean-Marc Castera. Some encounters that happened first at the Judis Polimorph series later evolved into actual project collaborations.⁴¹

Public events: Installations and workshops in public space, which were either commissioned or self-initiated at Polimorph, are designed to stir imagination and stimulate citizen engagement. For example, at the installation of the House of Urban Metabolism of Paris (*La Maison du Métabolisme Parisien* 2006), visitors produced their urban pillows called *l'Aspire* by upcycling paper and plastic to have a moment of rest in the city. The situ-action *Les Giraffes au Lycée* (2013) played with shifting the perception of the school building and public space. Such performative activities create encounters between professionals and the general public through a shared, often somewhat offbeat and engaging spatial experience.

Peer dissemination: Complementing the different ways of actively reaching out and stepping outside disciplinary borders, Polimorph was also regularly invited by professional bodies⁴² and cultural curators to participate in symposia⁴³ and present its work

41. Edouard Sors, an architect specialising in water treatment, for example, became a project collaborator for the Ecohamlet, a sustainable village extension of Saint-Cyr-en-Arthies; artist and mathematician Jean-Marc Castera, who works with soft geometries, later collaborated on two building structures.

42. For example: ADEME, CAUE, territorial planning bodies such as agence d'urbanisme de Saint-Nazaire, agence de développement territorial de Bruxelles, DDT, PNR.

43. For example: Human Cities, Bruxelles; Initiative & Institution, London; Métropoles Créatives, Paris; Festival Chalons dans la rue; Maison de l'architecture, Paris; Centre d'Architecture Arc en Rêve, Bordeaux.

within the fields of architecture and urban design, in particular relating to transversal design processes.⁴⁴

The teachings from Polimorph's experiences working in contact with other milieus revealed that when cross-fertilization among actors and audiences from diverse backgrounds occurred, it could be inspiring and uplifting. It created a reflective moment of questioning, adjusting, and re-stabilizing one's own position. Occasionally, these encounters led to collaborations. In our case, engagement with a general public won favour, but it did not directly lead to more important commissions. The outcomes of such public behaviour become intelligible primarily through interviews among collaborators, recorded feedback by participants and the public. One can conclude that the impact of cross-fertilization on our spatial expertise could be described as somewhat diffuse rather than clearly traceable in terms of linear causes and effects. They influenced the direction our work took loosely at first, yet, become more tangible over longer time spans.

1.3 Contact as Transformative Trigger

Multiplying points of view and mapping the distance between perspectives to shed light on the differences that exist, extending our comprehension beyond our field of mastery, looking for friction within and resistance to what we think we know happens by getting in touch with other people as well as by establishing contact with the material reality on the ground. In everyday practice, moving and changing position, walking into the field,⁴⁵ and exploring what is going on in any given context became a habit. Discovering gaps between what we thought and what we saw as well as deploying mechanisms which could provoke displacement turned into a stimulating inquiry.

44. Before starting the PhD project, since 2005, we accepted 28 invitations to lecture, expose, debate or lead workshops. In comparison, between 1999 and 2004, prior the creation of Polimorph, I participated in six such events and two exhibitions. Our work has been widely published (28 publications on Polimorph's work, 18 publications on Petra Marguc's work).

45. Chora et al., "How to see Proto-Urban Conditions, Seven Walks", in *Urban flotsam. Stirring the City* (Rotterdam: 010 Publishers, 2001), 70-107.

Grounding Creative Processes in a Shared Reality

It was by directly experiencing a place, a remote island in the North Sea, a tiny patch of land of less than 7 km², populated by some 60 people and 3000 wild sheep that we became aware of the fact that our binary view of city versus countryside as two mutually exclusive conditions was not quite fitting. Although the isolated island and the dense metropolitan environment we came from did appear like two radically different territories, the city and the countryside are connected by organisational structures governed by the same globalized system of our present society. The organization of the community was bound to British legislation, which in turn impacted the practice of space among the people within the community (fig. 6).

In Le Pile, Roubaix, one of the poorest neighbourhoods in France, we experienced another kind of disruptive adjustment. Situations of sidewalks littered with rubbish are a real problem, a sanitary problem and a problem of public space. The neighbourhood suffers a bad reputation. From the perspective of the client, the problem stems from the lack of civic behaviour among residents. Sometimes, this finding is followed by educational projects aiming at changing behaviour. However, during fieldwork, we discovered another reason for increased littering. The neighbourhood is at 4 km distance from the Belgian border. In Belgium, the garbage collection costs are higher than in France. Residents at the border commute to France with a trunk full of garbage, which they then empty in the streets of Le Pile. The phenomenon takes such proportions that local garbage collectors feel the urge to take photos as proof to their superiors that they are doing their job well despite what the material situation might suggest.

Multiplying viewpoints can be a double-edged sword. It can be enlightening, yet, also destabilizing. Either way, the additional evidence gained from consulting different viewpoints can stimulate shifts in perspective or further solidify prior assumptions. When faced with incoherencies due to paradoxical findings, the experience can be that of not having a hold on a situation. Erik and Ronald Rietveld would

call this “grip”.⁴⁶ This is neither an indicator that there is nothing a designer can do, nor that there is nothing at stake in the situation. It might just be that different ways of looking are required for turning what might feel as a disruption (i.e., an obstacle), discontinuity (i.e., a gap) or as indistinctness (i.e., there is nothing to hold onto) into transformative drivers. Sometimes, deepening insight into how things operate sheds light on gaps in the approach of the commissioners or the design team. Sometimes, that insight can reveal unsuspected creative potential. A condition for the latter to emerge is that one does not stop with identifying gaps, and does hold on the trouble they bring about.

An Active Gaze, Looking, Framing and Describing

The tools one uses for approaching a situation and looking at it matter. Specifically, the ways of looking – framing the view, observing, and describing – are not neutral, but condition what can be perceived and can therefore shape the actions one engages in.

Isolation vs. Situatedness: Observing a material object and describing it in isolation while ignoring how it relates to its context tends towards abstraction and conceptualization. Looking at the object as it is situated in its environment, observing it as part of a dynamic whole, and describing the material phenomena in relation to other spatial dimensions can lead to an understanding of processes and systems. Both ways of looking are instrumental, looking at a situation through a dynamic framework, such as triadic spatiality or looking at a situation through a static framework of cartesian geometry. What matters is an awareness of what each of them can provide, for depending on which one is used, different insights can emerge. Just as, in analogy to architectural drawing conventions, the use of plan, elevation, and section, reveal distinct insights

46. Erik Rietveld and Anne Ardina Brouwers, “Optimal grip on affordances in architectural design practices: an ethnography”, in *Phenomenology and the Cognitive Sciences* 16 (2016), 545-564.

by momentarily drawing some facets into the foreground and masking others.

Static vs. Dynamic: Approaching spatial situations that are intrinsically dynamic through a framework of static conditions, without considering the parameter time, will provide only partial insights and will obscure deeper understanding of what is going on. It might generate inappropriate interpretations that will lead to effects opposite of the ones desired.

One case illustrating these issues is a discovery we made while working on one of the Orkney Islands (fig. 7). The small island in the North Sea has a unique dry stone wall surrounding the entire island. Constructed in 1830-1839, it is one of the largest dry stone constructions considered a single entity in the world. The purpose of this wall, a sheep dyke, is to protect the farmland and to keep the sheep on the beach. A few years prior to our visit, the National Heritage Trust designated the Sheep Dyke a heritage to be protected. On the one hand, it was a gain for the declining community, which then received recognition and support. On the other hand, it was a problem as it threatened the community structure.

The National Heritage Trust only protected the wall, as physical object. To be designated as national heritage means that there is an “expert” declared as such by mainland Scotland, who is responsible for maintaining the wall. However, the preservation of the wall, the management of the wild sheep, and the farmland are all connected. They form the backbone of the entire communal structure to this day since Communal Agriculture: All islanders can keep sheep in the common flock outside the dyke. Once a year, the entire community takes part in catching all the sheep, counting them, marking them, and distributing them to different owners. This act, called “punding” is one of the last remaining elements of communal farming on the Orkneys. The number of sheep an islander can get depends on the length of the dyke he or she can take responsibility for. Now that the community is in decline due to aging and economic migration, dry wall dyke maintenance is increasingly becoming a challenge. The municipality hoped for funds for the maintenance of the wall, vital for protecting the farmland. But with the National Heritage Trust’s label protecting the wall and

ignoring the related practices, locals were asked to stop doing the job they have done for generations. The support of the National Heritage Trust, even if well intentioned, endangered the social structure of the community by transferring dyke maintenance to a new institution.

The situation was approached with an object-oriented framework only, ignoring the fact that the object was part of a system with long-standing processes that kept the community and hence the social fabric intact. It was also likely approached with a somewhat static lens, thinking of the intervention as a singular event, while ignoring the role of the wall for the community in the past and the potential effects of the enacted changes over time.

These kinds of gaps in perception which come from looking at things in an isolated way versus looking at phenomena situated in a milieu, or from applying a static versus a dynamic lens to problems - are recurrent and can be one of the reasons why, as Scharmer criticizes, we “collectively produce results that nobody wants”.⁴⁷ Training an active gaze, consists of looking at material things as phenomena (fig. 6), inquiring the operational field they are being part of (fig. 7). Playing with shifting frames allows to verify the solidity of interpretations of phenomena (fig. 8), to inquire the relevant scales for possible action (fig. 9) and to compare multiple perspectives (fig. 10) for evaluating a possible position on existing situations.

47. Scharmer and Kaufer, *Leading from the Emerging Future*.



Investigating the phenomenon of abandoned cars in the midst of wheat gently blowing in the wind on a tiny island in the North Sea, by talking to the locals, reveals in fact, that the nearest scrap yard is on the mainland, that the transport costs are high, and that the population density on the island is so low that leaving the wreck behind doesn't bother. Further wondering about the omnipresence of cars among the 56 islanders who live on that tiny patch of land, it appears that for driving up and down the only road, 4 km total length, the islanders do need a driving licence, for they are part of the UK, and the policemen is coming every Wednesday. The organization of the community is bound to British and European legislation, the driving

licence obtained on the island, allows them to drive anywhere in Europe, even though the only traffic junction they experienced is the one crossing the local runway for small planes.*

For people coming from London, the natural environment of the small island appears the opposite of what they know. In fact, city and landscape are part of the same system, like two sides of the same coin, interconnected by organisational urban structures of present society.

*Petra Marguc, "A Middle Margin", in *Sexymachinery* n° 04 (2001).

Fig. 6: Inquiring material phenomena embedded in a situation, example of cars on North Ronaldsay (2000).



The unique dry stone wall surrounding the island was constructed in the 19th century to protect the farmland by keeping the sheep outside on the beach. The maintenance of the wall, the management of the sheep, and the farmland are interdependent. They are the backbone to the organisational structure of the community to this day since communal agriculture called “punding”. The number of sheep an islander can get depends on the length of the dyke he or she can take responsibility for. The caretaking is

adjusted on a yearly basis depending on the capacities of each community member.

The sheep dyke on North Ronaldsay exemplifies the irreducible relation between community organisation, material shapes and practice. Together, they form an operational field. Looking for the operational field a thing is being part of, gives deeper insight about its role within the territory and the community.

Fig. 7: Grasping things as components of an operational field, example of the sheep dyke and its role in communal agriculture on North Ronaldsay (2000).



Nowadays, the dry walls of the historic village centre of Saint-Cyr-en-Arthies are considered a typical heritage reference of the French Vexin. Investigating the patrimonial value and taking a closer look at its operational field, we understand the emergence of this physical form: In the agricultural past, when ploughing the fields, rural workers would pick up stones from the earth and pile them to the side. These sorted out stones were then reused to build walls and houses. Work, people and land were closely linked. From today's sustainable development perspective, this would be a perfect example of a practice of short distances and reuse of existing local resources, both material and human. Using a low-cost material on site, carrying

out little transformation of the raw material, generating little waste during the processing represents an economy of energy, of means, of matter and of money, in short a sustainable approach in tune with the territory. But demanding construction methods of dry stone walls, as encountered by heritage institutions, when there is no longer any activity in the fields, becomes a costly and somehow paradoxical affair. Reframing heritage on the cultural aspect rather than on the thing alone, allows us to ask the question in a different way: what would be this material and its transformation today, which would respect the cultural legacy in line with the sustainable practice from this territory?

Fig. 8: Shifting the frame of observation from the isolated object to the object inscribed in an operational field, enables to verify the relevance of prevalent notions, for example the notion of heritage in the case the French Vexin (2010).



The crack in the front of the house described at the scale of a plant represents a seedling niche, the same crack described at the scale of the owner implies the repair work to be undertaken, the same crack described at the scale of the municipality questions the

management of water flows... Playing with the scale of description, depending on the framing, allows to identify the scale of relevance, for the range of possible actions will appear before us in a different light.

Fig. 9: Inquiring the scale of relevance, situation encountered in Saint-Cyr-en-Arthies, France (2010).



“We have been classified as a historical monument” begins the song in the video “Ghetto historique” produced by Jock’R and the inhabitants of l’Etoile (2010).*

What happened? The Cité de l’Etoile, designed at the end of the 1950s by Georges Candilis, is considered emblematic of the architecture of an era of socially-oriented collective housing. But fifty-five years later, living conditions in the dilapidated buildings have become difficult, and the National Urban Renewal Agency (ANRU) has planned its destruction. However, the Ministry of Culture intervenes, and classifies

the housing estate as 20th century cultural heritage. All intervention projects are frozen, the urban regeneration project stopped. Between incomprehension and anger about this decision, the residents, who had been waiting for years for essential work to begin, reply. The social enterprise for housing supports the mobilisation of the inhabitants of the Cité de l’Etoile with the broadcasting of “Ghetto historique”, and the strong message it carries. In 2023 regeneration is still on-going.

*www.youtube.com/watch?v=zmJOqP2rKj0&ab_channel=jockR

Fig. 10: An active gaze, Cité de l’Etoile between cultural heritage and historical ghetto, depending on who is looking; Situation encountered in Bobigny, 2015.

Spatial Design in Flux

When it comes to the production of space, the potential benefits of perceiving things as situated in given contexts, dynamic, moving, and in perpetual reconfiguration, are double: To the extent that one develops a systemic comprehension of context, the possibility of discovering deeper organisational patterns at play increases. In turn, this can increase the chances of finding opportunities for intervention that will not lead to a breakdown of the finely tuned system.

Reading the specific material phenomenon as a key for grasping urban dynamics requires a situated and relational way of looking, which can be trained and practised. For example, one can describe things in relation to people and their actions or in terms of processes in relation to time. In projecting an intervention to transform a situation, it also requires a type of proposal that can maintain the system dynamic and alive and would not lead to its stand-still and collapse like the sheep dyke protection risks engendering.

There are systemic and relational ways of looking at spatial situations, tools that enable complex urban dynamics to be articulated schematically exist, for example, such as the valley-section by Patrick Geddes⁴⁸ or Metaspaces, with its basic set of four processes (erasure, origin, transformation, migration) by Chora,⁴⁹ Despite this, spatial practitioners and experts do not always take advantage of such tools. When working participatorily, even among experts, one can often notice a lack of distinctness between what people tell, what their bodies tell, and what the material phenomena tell. There is a loose amalgam of ideas and representations circulating about a particular area, the behaviour and actions that can be observed in that area, the way the space is used and practised, and the material facts that can be found. Learning how to recognize and distinguish distinct dimensions

48. Patrick Geddes, "Civics: As Applied Sociology", *Sociological Society*, University of London (1905); "The Valley Plan of Civilisation" (1925); Catharine W. Thompson, "Geddes, Zoos and the Valley Section". *Landscape Review* 10 (1-2, (2004): 115-119. <https://doi.org/10.34900/lr.v10i1-2.219>.

49. Chora and Raoul Bunschoten, *Metaspaces* (London: Black Dog Publisher, 1998); *Urban flotsam. Stirring the City* (Rotterdam: 010 Publishers, 2001). 167-211.

of spatial phenomena, to differentiate opinions, behaviours, and matters of facts, how to juxtapose them to inquire their veracity and significance appears fundamental to get a grip on the complexity of spatial dynamics, a deeper understanding of a context. To use again the framework of spatial triad, opinions belong to the imagined dimension of spatiality, behaviours belong to the lived, practised, enacted dimension of spatiality, matters of facts belong to the material, physical, tangible dimension of spatiality.

The tools of the valley section, the spatial triad, the ecological triad, the Triple Divide have in common a particular systemic approach which is spatiotemporal. They all circumscribe a relational system between places, people and actions. Guattari and Scharmer add a precision to this system by considering “people” not as a generic entity, but as a multiplicity of different experiential individuals. An underlying dynamic-system approach that includes the material environment, human’s faculties for representing that environment, and action can be found across scientific and creative disciplines, even though there are slight differences in the definitions and taxonomies used and the influences between researchers across disciplinary fields might not be explicit or are many years apart.

In the discipline, whether in architectural practice, education or theory, there is significant work in each of these directions: be it on the importance of the milieu, the need for a plurality of viewpoints, the power of lived experience and action. Certain approaches that experiment with participatory processes and the involvement of people, often close to the social and political sciences and more recently to social design, design thinking and commoning practice, tend to examine contexts more closely in order to formulate more in-depth questions. Their methods can be close to those of anthropologists or geographers. Other approaches focus on material processing and the techniques that lead to the shaping of objects. For some of their representatives, the edification of a building is the finitude of their engagement, while the absence of a material artefact is interpreted as the absence of a creative act. There is the approach of drawing the creative act from an unspoken intuitive feeling that implicitly gives legitimacy and value to a

work. There is a consistent and relevant body of work in all perspectives on spatial design. These approaches often co-exist next to each in the disciplinary practices and debates.

Relational models such as Patrick Geddes' notion of "People, Places, Work" transposed into the tool of the valley-section are still operative for architectural and urban design today, and find a continuity with the concept of Transect.⁵⁰ Donald Schön's seminal work on the reflective practitioner and of thinking in action, which attempts to bridge the experiences of making, thinking and disseminating,⁵¹ finds continuity in the experiential turn in architecture⁵² and the research emerging from other fields such as i.e., affordance theory or the embodied, embedded, enacted, extended 4E cognition both investigating the role of the material environment for the individual and for groups.⁵³

Even though attempts and disciplinary references do exist, surprisingly, we lack a debate on an architectural paradigm or a model for how the environment, a multiplicity of voices and viewpoints, the lived individual and collective experience, and action could work together.⁵⁴ In the absence of an explicit dynamic system approach to the process of production of space to discuss, the knowledge about the rules and behaviours of such a dynamic approach for spatiotemporal design remain

50. Geddes, "Valley Section" (1905, 1925); The Transect as tool is utilised by architectural and urban design practitioners such as Chora, Bernardo Secchi and Paula Vigano, Bazar Urbain, Nicolas Tixier, Pascal Amphoux, to name but few.

51. Donald A. Schön, *The Reflective Practitioner, How Professionals Think in Action* (New York: Basic Books, 1983).

52. John Dewey, *L'Art comme expérience* (french translation of *Art as Experience* 1932, Paris: Gallimard, 2012); Juhani Pallasmaa, "Architecture as Experience, The fusion of the world and the self", *Architectural Research in Finland*, vol.2, n°1 (2018), 9-17; Juhani Pallasmaa, "Embodied and Existential Wisdom in Architecture: The Thinking Hand", *Body & Society*, 23(1), (2017): 96-111; Richard Sennett, *The Craftsman* (Yale University Press, 2008).

53. Albert Newen, Shaun Gallagher, and Leon De Bruin, "4E Cognition: Historical Roots, Key Concepts, and Central Issues", in *The Oxford Handbook of 4E Cognition*, edited by Albert Newen, Leon De Bruin, and Shaun Gallagher (Oxford University Press, 2018); Isis Chong and Robert W. Proctor, "On the Evolution of a Radical Concept: Affordances According to Gibson and Their Subsequent Use and Development", in *Perspectives on Psychological Science*, vol.5, issue 1 (2019), 117-132.

54. Michael Hensel, "Performance-oriented architecture towards a biological paradigm for architectural design and the built environment", *FORMakademisk*, 3 (1) (2010): 36-56; Gabriella Trotta-Brambilla, "La typo-morphologie en Italie et en France. Élaboration, appropriation et diffusion d'un modèle urbanistique", *Riurba* 6 (2018).

implicit. Being unclear about what epistemological and theoretical framework we refer to when suggesting a dynamic paradigm of spatial design, we are deprived of discussing tools and methods for spatial design based on facts, which can lead to relying once again primarily on our professional experience. It is not a question of arbitrarily unifying under an alternative ideology fundamentally heterogeneous fields, but of making each other support innovative practices of recomposing individual and collective subjectivities.⁵⁵

In a dynamic system approach, plurality, participation, and transdiscipline are inherent. Naturally, when getting in contact with others coming from different backgrounds, having different perspectives, and using different languages, generates disruptions, gaps, mismatches. Finding a common ground becomes a challenge.

55. Félix Guattari, *Les Trois Écologies* (Paris: Galilée, 1989).

CHAPTER 2

Framing Dynamic Fields

Maison du Métabolisme Parisien

[10]

Le projet de maison parisienne est un acte de projet qui s'inscrit dans le cadre de la politique de la ville. Il s'agit de créer un lieu de vie, un lieu de rencontre, un lieu de dialogue, un lieu de partage, un lieu de solidarité, un lieu de responsabilité, un lieu de confiance, un lieu de respect, un lieu de dignité, un lieu de fierté, un lieu de joie, un lieu de bonheur, un lieu de paix, un lieu d'amour, un lieu de vie.

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Maison du
Métabolisme Parisien



FERRI

1st urban prototype of *La Maison du Métabolisme Parisien*, public event, Paris, 2006.



PRODUCTION

TO BE

WIN

2.1 Creative Practice Research Methodology

Without having ever articulated it as a conscious method, in fact, in practice we work and approach a design project by searching situations, which challenge us in terms of preconceived ideas, which can surprise and offer discovery. That implies looking for friction, for qualities which go against our expectations. In order to investigate what we as a community can understand and thus learn from a practice that “seeks the friction”, the research will investigate precisely the moment of instability that occurs, how and where shifts emerge and what they engender. To what extent and in what way do situations of contact and tactics of play contribute to inquiry and creation in architecture and urban design?

Could intensifying contact with unfamiliar situations and tactics of displacement foster spatial transformation processes? Could they contribute to a culture of urbanity, understood as the art of exchange, knowing how to negotiate and balance personal and common needs from within the places we inhabit? Could architecture become a means for regulating virtuous relations knowing how to entangle our needs and aspirations across the intimate, the social and the environmental realm?

A practice of making by being immersed within the complex reality on the ground is simultaneously a bodily experience, a reflexion on spatial matters, and transforming matter. Tacit knowledge occurs. The present practice driven PhD investigates

experiences from a creative practice with the aims of explicating tacit knowledge and disseminating it.⁵⁶

The doctoral research started from the position of a Marie Curie early stage research fellow in the ADAPT-r ITN – Architecture, Design and Art Practice Training-research program. It evolved from the RMIT/ADAPTr PhD research model for design practitioners.⁵⁷ That model provides a framework for critical reflexion on the nature of a practice mastery, speculation through practice on the future enaction of insights from the research, and for sharing the findings publicly. It combines a set of research perspectives with a set of inquiry lenses aimed at leveraging practice experience from a design context to a research level. Findings gathered throughout the research journey are presented twice a year for critical peer assessment at Practice Research Symposia.⁵⁸ With the feedback considered, the earlier findings are further examined and refined in renewed practice. These research frames are iterated as often as necessary until the findings stabilize.

In a preliminary research phase, questioning one's existing practice generates first insights into the overarching quest that will connect most projects and grows the capacity to formulate the research question with more precision and mastery. This phase gives direction to the entire research journey.

The final phase consists of examining how to share findings with the wider discipline and society at large. This phase involves explicating the methods, actions, and findings, placing them within a wider professional and societal context, and envisioning future developments. The observations and findings from the doctoral research result in peer-reviewed publications.

56. Between “Creative practice research”, “Research by design”, “Design Driven Doctoral research DDDr”, the definitions and boundaries of terms are fluid. In a recent article the authors suggests introducing PbD instead of PhD to designate the different descriptions used nowadays for a design-driven research approach. Hanne Van Reusel, Christoph Michels, Yves Schoonjans, “Dissecting the Archipelago: PhD by Design Concepts in the Field of Architecture and Urban Design”, in *ARENA Journal of Architectural Research*, 6(1), (2021), 4. DOI: <http://doi.org/10.5334/ajar.255>.

57. Leon van Schaik and Anna Johnson, *Architecture & Design, By Practice, By Invitation Design Practice Research at RMIT* (Melbourne: Onepointsixone, 2011).

58. Karin Helms and Petra Marguc, “Une science du projet. Retour sur expérience d'une formation à la recherche par le projet en réseau européen”, in *Revue Culture & Recherche*, n°143 Europe (2022), 84-88.

Three Complementary Research Perspectives

The overall research framework consists of a series of iterative and reflective moves between three research perspectives: Research on existing practice experience, research in new practice, and research for transposing observations and findings in relation to the state-of-the-art future engagements. The reflexion on an existing body of peer-acknowledged work is further deepened in the development of new works produced during the doctoral research. The works, processes, and methods of the practice are placed in a broader disciplinary context. This allows the research to be theorised from within the practice discipline and to clearly identify contributions to disciplinary knowledge.

Inquiry Lenses

Complementing the research perspectives, the RMIT/ADAPTr method also employs a set of inquiry lenses, which are crucial for attaining a deeper understanding of one's design practice and uncovering the research aspects that are running through the work more or less implicitly. Specifically, the lenses are case studies, communities of practice, transformative triggers, public behaviour, tacit knowledge, methods, and viva. Each of them and their role in the research are described in more detail below.

- **Case studies.** Case studies are selected from a body of work and are organized around the core research theme. These personally lived experiences are considered a 1/1 model. Going through the process of identifying case studies and then examining them further reveals underlying themes and quests at the heart of one's design practice (fig. 11a - 11d, fig. 12, interlude 1).
- **Communities of practice.** Identifying the people who are relevant for one's work as well as seeing the research in relation to the works of other creative practitioners and researchers helps to situate one's individual practice within the wider state of the art and to define its innovative qualities. Such communities of practice may include people we work with, the accomplices and intellectual friends who nurture our research in one way or another and, of course, the old friends we do not know personally, but who are an enduring source

of inspiration that leaves a mark on us and our work, with whom we maintain an inner dialogue. Such references help to raise questions, develop, improve, and transform the work (fig. 14, fig. 15, interlude 2).

- **Transformative triggers.** The moments of shifts that lead to innovation in the practice and generate insights for the research are studied through the focal lens of transformative triggers (research steps 1 to 6).
- **Public behaviour.** Looking at the public behaviour helps to examine the tactics and strategies the practice employs to establish a dialogue within the discipline and a broader public (research steps 1 to 6).
- **Tacit knowledge.** Tacit knowledge acquired in practice is to be made explicit, for instance through a regular participation in scientific research symposia.⁵⁹
- **Explication of methods.** The aim of this lens is to clarify and better articulate the working methods that are used in the practice. It corresponds to the written part of the of the PhD.

59. “Grounding Knowledge in Uncertainty”, ESRI European summer research institute online, Mind & Life Institute Europe, 10.-14.08.2020; “Un urbanisme du contact: apprendre à Doulon-Gohards”, Poster présentation, P. Marguc, S. Guth, 3e séminaire du réseau “Ville, territoire, paysage”, organised by ENSA and ENSP Versailles, with the support of DRAC Île-de-France et de Versailles-Grand-Parc, Versailles, F - 13-14.06.2019; “Displaced. What is the productive distance to situate oneself as an architect in transversal design?”, Ca2Re Conference for Artistic and Architectural (Doctoral) Research, Berlin, D - 2018/09/30; “Kinship, Conflict and Compassion”, ESRI European summer research institute, Mind & Life Institute Europe, Fraueninsel Chiemsee, D, 27.07.-02.08.2018; “The Global Society - The Importance of Interdisciplinary Collaboration to Tackle Societal Challenges”, International PhD Academy, Venice International University, I - 18-22.09.2017; “Learning from Limits, The stakes of mutual understanding in intercultural urban practice”, Ca2Re Conference for Artistic and Architectural (Doctoral) Research, Ljubljana, SLO - 2017/09/08; “Exploring Experience”, Poster presentation, ESRI European summer research institute, Mind & Life Institute Europe, Fraueninsel Chiemsee, D, 27.07.-02.08.2017; “Game boards and turning tables, play and game in urban design processes”, in Ca2Re Conference for Artistic and Architectural (Doctoral) Research, Ghent B -2017/04/08; “Middle Margins Matter, Action protocols and relational objects to nurture shared presentations and to move forward in transversal design”, in PRS practice research symposium, London. 24/11/2016; “Actionprotocol, making data meaningful”, Séminaire productions spécifiques et apports croisés dans le domaine Ville, Territoire Paysage, ENSAP Lille (19.11.2016); Games for Cities Circular Amsterdam, University of Applied Sciences, Lectorate of Play & Civic Media, Play the City Foundation, Cyberparks Project, Amsterdam, NL - 10-14.10.2016; “La recherche par l'expérimentation, la thèse par le projet. Expérience du réseau ADAPT-r et des partenaires de RMIT Europe”, Pavillon de l'Arsenal, Paris, 11 juin 2016; “Transversal design processes, Potentials and challenges”, in PRS practice research symposium, Ghent, B, 2016; “S(i)ideways?”, in PRS practice research symposium, Barcelona, 2015.

- **Viva.** The viva consists of bringing together three complementary formats, a written piece, an exhibition, and the oral presentation, for presenting the results of the doctorate.

Practice Research Symposia

During the PhD journey and prior to writing the dissertation, each researcher participates at practice research symposia (PRS) twice a year. These symposia take place over several consecutive days, during which all supervisors and doctoral students from different European countries meet around each other's work. In addition to the critical debate on their current research, training on research methodology, conferences, and thesis defences are organized.⁶⁰

The doctoral candidates share their research progress with a jury panel of four to five people from partnering schools and universities as well as from non-partnering universities who do not have an exact knowledge of the candidate's work. They are exposed to three sources of feedback and evaluation of their work: their supervisor, the juries of the research symposia, and meetings between doctoral students without the supervisor. Regularly presenting ongoing research to the scientific community in the form of presentations, publications, and exhibitions also provides opportunities for testing different formats of presenting. These research gatherings provide a finely curated learning environment for extracting the essence of the knowledge generated through practice, articulating, and sharing it regularly with peers.

As a researcher, practitioner and educator who has already developed a body of work in architecture and urbanism, this creative practice research methodology helps me to critically reflect upon the nature of a mastery and speculate through practice on how the knowledge gained from the research can be enacted in the future. The doctorate is an opportunity to reflect on the course of a practice, to reveal the deep drivers of

60. Comparable formats to the PRS exist, for instance the DTRS design thinking research symposia which started in 1991 at the TU Delft, or the DRS doctoral research symposium at Ca2Re since 2017, <https://ca2re.eu>; Nigel Cross, "A brief history of the Design Thinking Research Symposium series", in *Design Studies*, 57 (2018), 160-164.

a personal quest, to critically question one's methods to invest in an object and to produce knowledge about an object.

2.2 Preliminary Inquiry for Leveraging Practice Experience at a Research Level

A reflexion on existing practice, combining the procedures of mapping, peer interviews,⁶¹ and experimental artefacts helps to unravel the underlying quest that guides the practice activities (i.e., why do we do what we are doing), the way of working (i.e., how do we do what we are doing), and the communities of practice, types of collaborations, peers and people that are important for the development of projects (i.e., who counts for what and how we do what we do). These preliminary investigations, a first sorting out and reorganizing of Polimorph's productions, reveal fascination lines, moments of instability and displacement, and transformative triggers that run through the practice.⁶² They permit to look at one's own practice with new eyes and to begin to lever practice experience at a research level.

Fascination Lines in Existing Projects – Trefoil Knots, Playing with Displacement, Situ-Action

Mapping potential case studies among the existing projects several times in different ways (fig. 11, fig. 12) identifies at the heart of Polimorph practice three project types, each one dealing with regulatory processes: The “inclusive design tools” aim at regulating the relations between people and a territory during

61. “Petra Marguc-Polimorph”, in *Case Studies, Written Interviews*, ed. Valentina Signore, Maria Veltcheva (Leuven and London: internal document by ADAPT-r, 2016), 108-121; “Petra Marguc-Polimorph”, in *Communities of Practice, Written Interviews*, ed. Valentina Signore, Maria Veltcheva (Leuven, London: internal document by ADAPT-r, 2016), 108-113; “Petra Marguc Account of Transformative Triggers” and “Interview with Petra Marguc and Eric Gibert”, in *Transformative Triggers*, ed. Anna Holder, (Aarhus: internal document by ADAPT-r, 2015), 132-151; “Petra Marguc Account of Public Behaviors”, in *Public Behaviors*, ed. Anna Holder and Eli Hatleskog, (Aarhus, Ljubljana: internal document by ADAPT-r, 2015), 130-131.

62. A first reflexion on Polimorph's production which explicated moments of instability and displacement was done at the practice research symposia with the presentations “You and me and the other” (PRS Barcelona November 2014), and “S(l)ideways” (PRS Ghent, November 2015)

the design process; the “spatial typologies” aim at regulating the interaction between people’s practice of space within a territory, the way people move across and act; the “urban prototypes” are project interventions where the former two, spatial typologies and integrative design tools, are entangled for stimulating shifts on an urban scale (fig. 12, fig. 13).

Around these three project types – inclusive design tools, spatial typologies, and urban prototypes, two other realms of activities are being characterised. On the one side there are activities, mostly private housing commissions and competitions, which allow Polimorph to stay in touch with everyday architectural project situations. These productions also temper the financial uncertainties of the more venturesome type of projects. On the other side Polimorph engages in creating situations of public space to exchange among others about urban stakes and issues of living together. Most of the latter activities are self-initiated and independent from a project implication. Both play a supportive role in staying grounded in the commonplace of the discipline among citizen concerns and counterpointing disciplinary bias.

Trefoil knots for designing relations

Examining case studies further revealed that regulating relations between people, places, and the practice of space is done in a particular way. For conceiving regulatory systems, be it for designing organisational principles or for spatializing relations, we utilise the diagrammatic figure of knots, particularly the trefoil knot as the simplest non-trivial knot. The trefoil knot has as basis three crossing points, they are links which can be manipulated. Through the manipulation of the crossing point, the overall organization of the knot is transformed without using its relational quality.

“Ring-chain typologies”, for example, are geometric objects inspired by knots (fig. 22). As an entity of its own (a ring element) and a link to other rings (a chain element), they are a form that is at the same time open ended and closed, embodying the dual nature of product and process.

The preliminary investigations confirm a quest on the production of space in terms of the relation between design processes, designed products, and spaces of interaction,

diagrammatized in the shape of a trefoil knot. They also reveal traits and fascination lines we were less aware of. Recurrent themes addressed across design projects next to urban prototypes and ring-chain spatial typology are pleasure props, multiple viewpoints, and the shaping of voids (fig. 12).

Playing with Displacement

Polimorph tends to set up situations as a means for provoking discoveries. We do this by displacement or by playing. Playing and displacement are techniques for challenging a change in perspective – every situation constitutes a potential playground. To play with what is there, to play with the role and design stance of the architect and other involved parties, to play with material presence, to play with the tension between improvisation and control, between bricoleur and engineer, to play as if a project situation was as field station and research in practice. Walking into a situation to be informed by the context; rubbing against something until indistinctness evolves into feeling sensations; discovering unthought facets, and deepening insights due to the exposure of another reality.

We combine modes of investigation by switching positions of the observer: Learning from directly lived experience, learning from the position of being witness to another person's lived experience, learning from a third-person perspective drawing upon an acknowledged body of work proven previously by others. Furthermore, we tend to design spatial interventions to act upon broader issues beyond the boundaries of the site.

In such an approach, "Pleasure props" use playfulness to facilitate overpassing a latent unease and resistance towards displacement, suspending habitual assignation of signification and interpretation. They encourage improvisation for stepping sideways and for serendipity to emerge.

Situ-Action as Communication Device

The mapping of case studies, communities of practice, and public behaviour has made it possible to unveil and make explicit that there exists tacit knowledge developed over years of practice revolving around the design of interfaces for contact that can facilitate exchange during the design process. This kind of

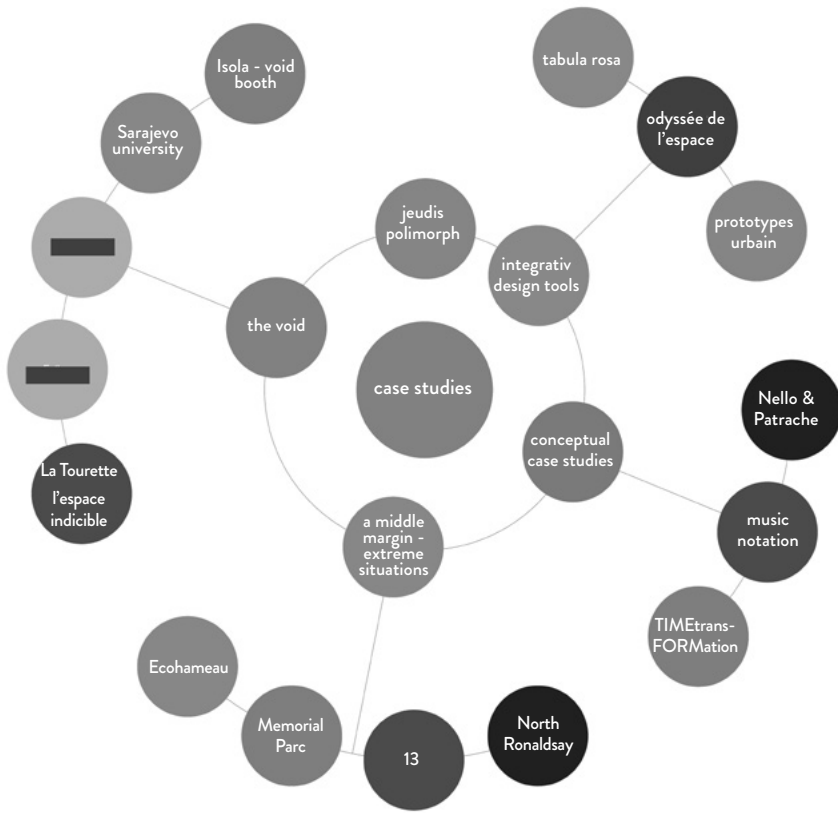


Fig. 11a: Procedure for selecting relevant case studies, 1st step: Fast Lane, intuitive selection under time pressure.

The first step for selecting case studies was done very quickly without thinking, using a mind-mapping software. This selection was immediately put aside to then undertake a more systematic procedure for inquiring which case studies would be relevant for the research.

To my surprise, the thoroughly reasoned establishing of a selection procedure and the fast lane generated the same results. The difference was that the reflective procedure led to an awareness of relevant criteria, whereas the fast lane was a sensing.

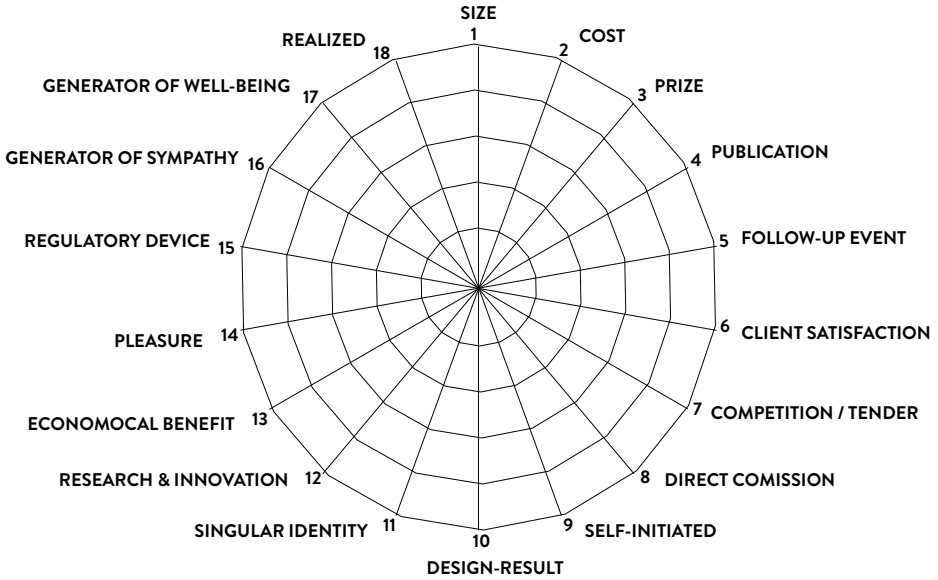


Fig. 11b: Procedure for selecting relevant case studies, 3d step: Reflexion on criteria for evaluating a production.

Reflecting on qualitative criteria for assessing a potential relevance of case studies, three different perspectives emerged to evaluate productions. The personal perspective contains criteria 10-14, such as design result, singular project identity, testing of something new, economic benefit, pleasure. Professional criteria 3-6 contain prize, publication, generation of follow up events, client satisfaction. Societal criteria

15-17 contain regulatory capacity (impact), generating sympathy and well-being for others. Further criteria are assessed such as size, cost, competition, direct commission, self initiation, realized production. These latter criteria should not be relevant for the choice of my case studies, but they might become useful at a later stage. The 17 criteria are organized in the shape of a radial score-diagram with an evaluation between 1 and 5.

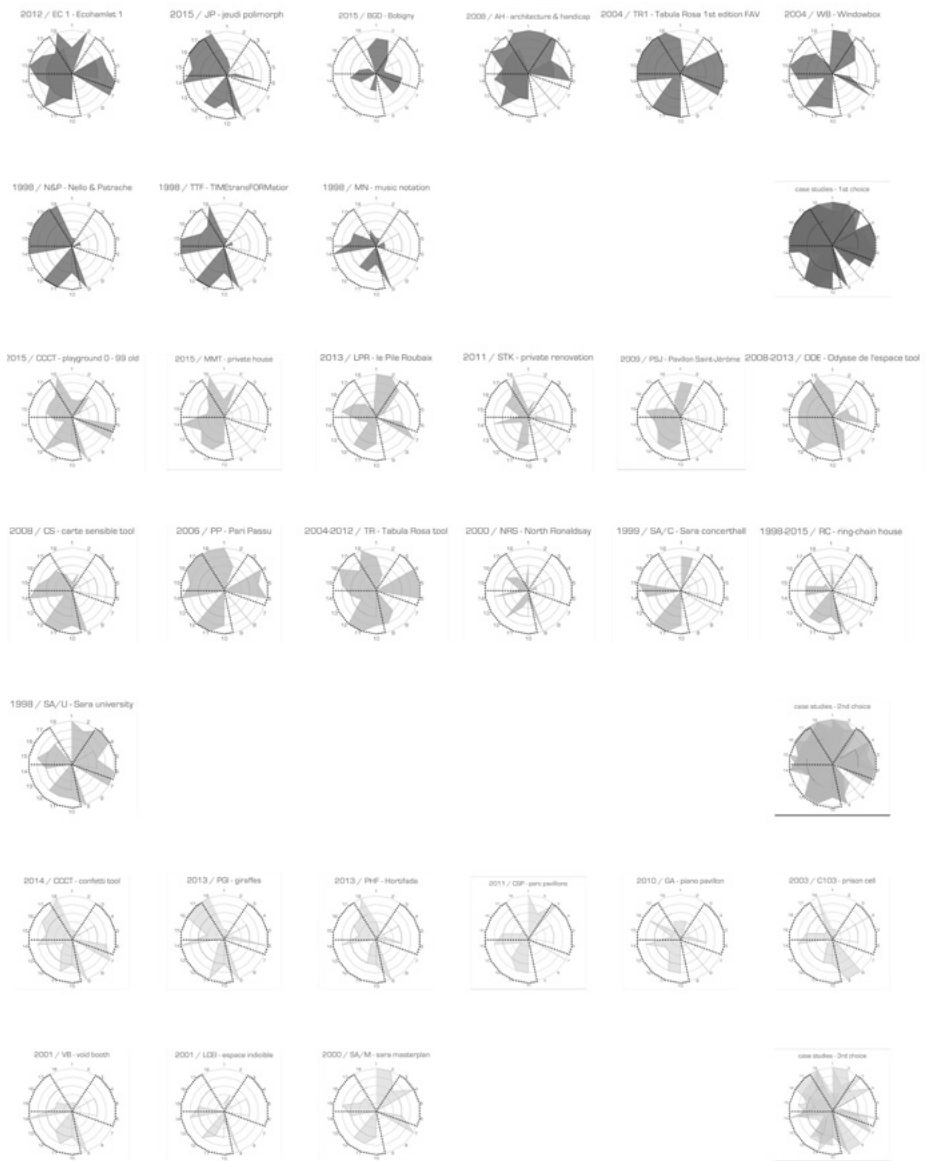


Fig. 11c: Procedure for selecting relevant case studies, 4st step: Testrun with assessment criteria and refining what matters.

After eliminating many of the productions, the remaining thirty-one projects were examined through the 17 criteria. The radial view facilitates to see the overall specificities of each project. It showed that most of my favourite projects have a below average economic score, but a much higher than average enjoyment score. I realised that the personal criteria «enjoyment» and «economic benefit» should not be relevant for selecting a case study, as they say nothing about the quality of a production that can be shared

with a community of peers or with society at large. This first observation might simply reveal that our business approach is poor - which might need attention at some point, but it should not affect the choice of this research. Being fulfilled by the activity and being able to make a living from it is somewhat obvious and valid for all cases, which is why these two criteria were removed from the evaluation procedure. Reflecting upon evaluation criteria provides insight but it is not sufficient to rarefy the selection.








	criteria code	project	Size	1	2	professional realm						personal realm						and beyond			realized			
						3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
2012/15	EC 1		3,7	3	5	0	4	4	5	3,3	5	0	0	3	3	5	3,7	3	4	5	4	3	4,0	5
2008/18	OCE		3,4	3	1	0	2	2	4	2,0	0	2	4	3	3	5	3,7	3	4	4	4	4	4,0	5
2008	AH		4,0	5	5	5	3	4	5	4,3	0	5	0	3	3	5	3,7	3	4	3	5	4	4,0	5
2004	TR 1		4,8	4	1	1	5	5	5	4,0	5	0	0	5	5	5	5,0	1	5	5	5	5	5,0	5
1998	TTF		3,4	1	1	0	1	1	0	0,5	0	0	5	3	5	5	4,3	0	5	5	3	3	3,7	5
1998	N&P		3,7	1	1	0	1	1	0	0,5	0	0	5	3	5	5	4,3	0	5	5	5	5	5,0	5
1998	SAU		3,7	5	4	5	5	3	5	4,5	5	0	5	4	4	4	4,0	0	3	4	3	3	3,3	0
2013	GIRAFFES		3,5	1	1	0	0	1	5	1,5	0	0	5	3	5	1	3,0	0	5	3	5	5	4,3	5
2015	JP		3,6	2	1	0	0	1	4	1,3	0	0	5	3	4	4	3,7	0	5	4	5	5	4,7	5
2015	COCT		2,7	2	2	3	1	0	5	2,3	5	0	5	3	3	5	3,7	1	2	3	3	3	3,0	5
2015	MMT		3,1	2	4	0	0	0	5	1,3	0	5	0	3	4	4	3,7	3	5	2	2	3	2,3	5
2008	CS		3,6	1	2	0	0	0	5	1,3	0	0	5	4	5	5	4,7	1	5	4	3	3	3,3	2
2006	PP		4,5	5	3	0	5	4	5	3,5	0	5	0	4	5	5	4,7	0	5	4	5	5	4,7	5
2004/12	TR		3,8	4	2	0	5	5	5	3,8	0	3	4	4	5	5	4,7	2	3	4	5	3	4,0	5
2004	WB		3,6	5	5	4	3	0	2	2,3	5	0	0	4	4	5	4,3	1	4	5	4	3	4,0	1
2001	VB		2,6	1	1	0	0	0	1	0,3	0	0	5	3	4	3	3,3	0	5	2	2	1	1,7	1
1998/15	RCH		2,3	3	1	0	0	3	0	0,8	5	0	5	3	4	4	3,7	0	3	3	1	1	1,7	0
2015	BGD		1,8	4	4	2	1	1	3	1,8	3	3	0	2	2	0	1,3	2	3	2	1	0	1,0	3
2014	COCT/confetti		2,9	1	1	0	0	0	4	1,0	5	0	5	3	4	2	3,0	1	4	3	4	4	3,7	5
2013	LPR		2,7	5	5	4	1	0	3	2,0	5	0	0	3	4	4	3,7	1	2	4	3	2	3,0	1
2013	Horiflada		2,5	2	1	0	0	1	3	1,0	0	0	5	3	3	1	2,3	0	4	2	3	3	2,7	5
2011	STK		2,6	1	2	0	0	1	5	1,5	0	5	0	3	4	1	2,7	1	4	1	3	3	2,3	5
2011	CSP -		2,6	5	3	5	0	0	0	1,3	5	0	0	4	4	3	3,7	1	4	3	1	1	1,7	0
2010	GA/M		2,6	2	2	0	0	1	3	1,0	0	5	0	4	4	2	3,3	2	4	1	4	1	2,0	2
2009	PSJ		2,5	4	4	0	1	0	3	1,0	0	5	0	3	4	4	3,7	3	3	4	2	1	2,3	2
2003	C103		2,4	1	1	0	5	0	2	1,8	0	5	5	3	3	1	2,3	0	4	3	1	1	1,7	5
2001	LDEI		1,9	1	2	0	0	0	0	0,0	0	0	5	1	3	4	2,7	0	4	3	0	0	1,0	0
2000	SA/M		3,0	5	5	3	5	0	3	2,8	5	0	0	3	4	4	3,7	0	3	4	2	2	2,7	0
2000	NRS		2,2	3	0	0	1	1	0	0,5	0	0	5	1	2	4	2,3	0	4	1	3	2	2,0	1
1999	SAC		2,6	4	4	0	0	0	0	0,0	5	0	0	4	5	5	4,7	0	4	5	0	0	1,7	0
1998	MN		2,7	1	1	0	1	1	1	0,8	0	0	5	2	3	3	2,7	0	5	3	3	1	2,3	2

Fig. 11d: Procedure for selecting relevant case studies, 5th step: Reframing, reselecting and sounding out “Does it feel right?”

Returning to the raw scores in tabular form, I calculated the average numerical scores from the professional, personal and societal perspectives. Then, all scores above 3 were highlighted, and projects with an overall score below the average were discarded. As a final assessment of the emerging results, to check the consistency of the multiple cross-referencing of the criteria and possibly refine

the results with my personal view, I asked myself “Does it feel right?”. Eight major case studies were selected, nine projects were considered useful to expand on some aspects, if necessary, while fourteen projects were set aside. These could only be taken up if their usefulness became apparent at a later stage. The eight main cases could be arranged in a cluster, as several of them are directly related (fig.16).

RECURRENT THEMES:

- META PROJECT 
- INTEGRATIV DESIGN TOOL 
- RING-CHAIN TYPOLOGY 
- VOID 
- URBAN PROTOTYPE 
- PLEASURE PROP 
- THRESHOLD PROJECT 

A production is represented by a vignette, a title, a visual, a year and possibly augmented by a recurring theme icon. The vignettes are positioned on a timeline from left to right and between the top, bottom and centre of the map depending on whether they took place in representational space, whether they are transformations of matter and therefore productions that took place in physical space, or whether they operated on both levels, representational space and physical space. After positioning the vignettes on the map, the specific productions are grouped together, five groups emerge. The crosses highlight the key productions, i.e. the threshold projects that have had a lasting and transformative impact on the evolution of practice. If useful, specific outputs can be linked by lines, to show the evolution from one case study to another.

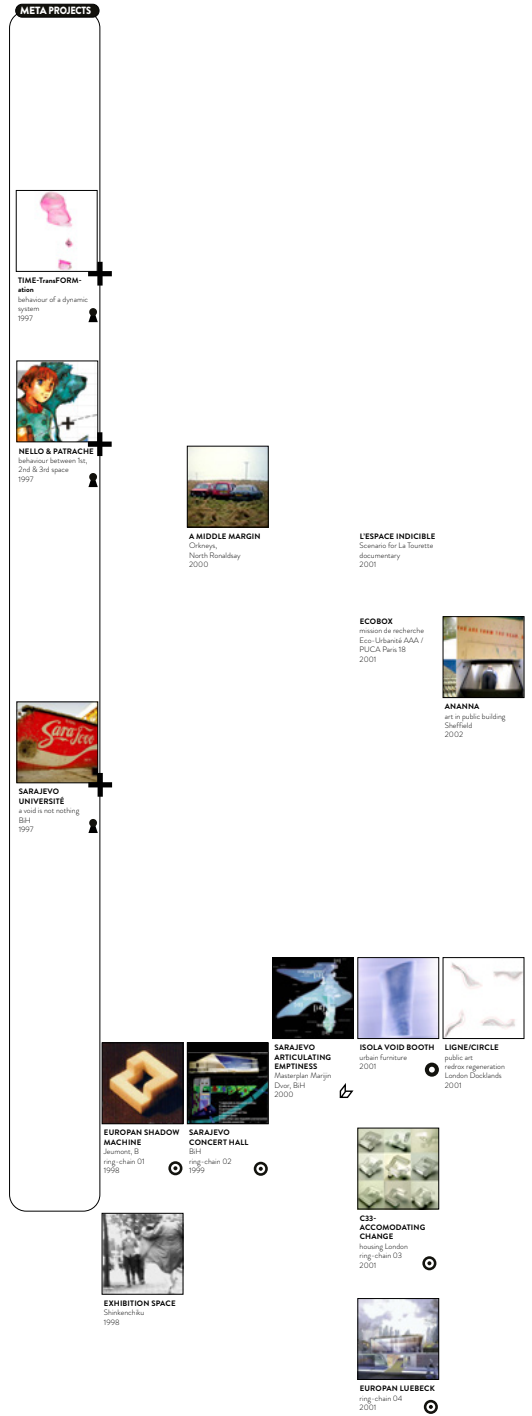


Fig. 12: Case study map.



[Case study map bigger view \(pdf\)](#)

- jeudi polymorph 2008
01 IMAGES VIVANTES ET MOUVANTES
La Carte Sensible
- jeudi polymorph 2009
02 COMMENT FILMER UN IMMEUBLE DISPARU?
- jeudi polymorph 2010
09 LES FOYERS POUR TRAVAILLEURS MIGRANTS
de la discrimination à l'intégration?
- jeudi polymorph 2013
11 LE MONDE EN UN JARDIN
- jeudi polymorph 2014
14 EL POCEIRO
desert urbain de la speculation
- jeudi polymorph 2013
12 PARIS EST UN LEURRE
la véritable histoire du faux Paris
- jeudi polymorph 2013
13 LES HÔTELS MEUBLES À PARIS
enquête sur une mémoire de l'immigration
- jeudi polymorph 2013
15 DÉTROIT, VILLE SAUVAGE
- jeudi polymorph 2013
16 LA CITÉ DU BOCAGE
Maison d'habitat citoyen.
- jeudi polymorph 2013
17 LA TORRE DE DAVID
le premier d'un habitat assigné à la vertical.

SITUATIONS OF PUBLIC SPACE



HORTI-FADA, OPERATION PLACE 110 POUR LE REVEIL DES PONT-EN-CIELS
Action urbaine 2013



LES GIRAFES AU LYCEE
Action urbaine 2013



CHANTIER PUBLIC OUVERT
outil de reconstruction



03 TOPOLOGIE DU DOUTE
Georges Perec et Georges Perec



04 LES VIEUX DANS L'ESPACE
La Maison des Babayages



05 A VIVRE L'EAU, ON PEUT FINIR PAR ALLER LOIN...



06 NOUS BÂTISSONS ENSEMBLE
trois histoires d'habitat groupé associatif



07 OBSESSIF MORPHOSES DE L'ARABESQUE
la joie mathématique à l'empire de l'architecture



UN TERRAIN POUR TOUS
atelier Citévaise de l'espace
Frédéric Bissière, Bousvinière, Montréal 2009



MENU AU CHOIX
outil de diagnostic des opinions



JOURNÉE IDÉALE, JOURNÉE CAUCHEMAR
outil de diagnostic des pratiques de l'espace



CE QUI NOUS TRANSPORTE
outil de diagnostic des pratiques de l'espace



CONFFETTI
outil de diagnostic du territoire 2014



EMOIS SOUS MON TOIT
outil de diagnostic de l'habitat 2015



TABULA ROSA, UN JEU URBAIN
filles au point d'un outil de co-création



ODYSSÉE DE L'ESPACE, VOIR CE QU'ON NE CHERCHE PAS
outil de diagnostic du territoire



ATELIER DE PROTOTYPAGE PUBLIC
Métastations urbaines, 2006

CULTURAL EVENTS



FESTIVAL VIVES PARIS
TabulaRosa, 1^{re} édition 2004



PRINTEMPS DE LA DÉMOCRATIE PARIS
TabulaRosa, 2^e édition 2005



LA MAISON DU MÉTROPOLISME PARISIEN
exposition collective + Pop up City 2006



FESTIVAL RAYONS FRAIS TOURS
TabulaRosa, 3^e édition 2006



PARI PASSU
étude de définition collective 2006



FRESQUE - ÉCOLE BILINGUE
jeux public building Paris, 2007



DON'T BOTHER TO CUT THE GRASS
Babilafilles, IR 2004



L'ESPIRE - UN COUSIN URBAIN
2^e édition 2006



RÈCHEZ ED & MURIEL
Paris, 2007



WINDOWBOX
réhabilitation d'une tour HLM Londres, GB 2004



MORECAMBE BAY
projet de renouvellement urbain 2005



MAISON S
Nieu-Ulm ring-champ 06 2007



FICTIONS, NOUS SOMMES EN 2012...
représentation d'un atelier prospectif



PROGRAMMATION ENRICHIE
atelier prospectif



BOBIGNY RACONTE BOBIGNY
atelier Citévaise de l'espace sur l'ancien gare de la déportation 2009

URBAN PROTOTYPES



PARC CSM ARCHITECTURE ET HANDICAP
étude de définition collective 2008



PARC CSM PAVILLON SAINT-JÉRÔME
Restauration 2009



PAC - PETITE ARCHITECTURE CITOYENNE
pavillon for urban regeneration Beaumont (95) 2009



HABITAT GROUPÉ RUE ANDRÉ CHÉNIER
Etude de faisabilité pour 6 familles, Mussy (91), 2009



MAISON FERRAUD
habitation IJF 92 2007



MAISON DEBRENNE
extension à atelier atelier Seine 60 2007



LOFT RUE LAFAYETTE
reconversion Paris 2007



CENTRE-BOURG PLAILLY
rehabilitation Paris 2009



PLU / PADD TOURS
Maison situation PLU, prescription du développement territorial 2009



ECO-HAMEAU LE CHAMP FOULON
étude de définition en co-conception urbaine et architecturale Vall d'Osse (95) 2010-2012



ECO-HAMEAU LE CHAMP FOULON
modification du PLU Saint-Cyr-en-Artois Vall d'Osse (95) 2012



STUDIO KIKA
renovation Paris ring-champ 07 2011



LE PILOMÈTRE
Densification urbaine, architecturale et paysagère participative Roubaix 2012-2013



MMT HOUSE
maison individuelle Montréal ring-champ 08 2014-2015



ECO-HAMEAU LE CHAMP FOULON
maison individuelle AMO Vall d'Osse (95) 2015-2016



ANCIENNE GARE DE DÉPORTATION DE BOBIGNY
Etude urbaine 2014



MAISON DEBRENNE
extension à atelier atelier Seine 60 2007



SEVRES HOUSE
habitation IJF 92 2009



MAISONS PASSIVES LIÉGÉRIENNES
AMO - cahier des charges pour concours 2010



ATELIER EMILIE
Paris 2011



MUSÉOGRAPHIE DU CENTRE D'INTERPRÉTATION PORT-SUD
Studio de Janssens 2012



POM HOUSE
duplex renovation Paris 2012



EDITION HELVETIUS
reconversion office 2014

SUPPORT STRUCTURES



MAISON DEBRENNE
extension à atelier atelier Seine 60 2007



SEVRES HOUSE
habitation IJF 92 2009



MAISONS PASSIVES LIÉGÉRIENNES
AMO - cahier des charges pour concours 2010



ATELIER EMILIE
Paris 2011



MUSÉOGRAPHIE DU CENTRE D'INTERPRÉTATION PORT-SUD
Studio de Janssens 2012



POM HOUSE
duplex renovation Paris 2012



EDITION HELVETIUS
reconversion office 2014



MAISON FERRAUD
habitation IJF 92 2007



MAISON DEBRENNE
extension à atelier atelier Seine 60 2007



LOFT RUE LAFAYETTE
reconversion Paris 2007



CENTRE-BOURG PLAILLY
rehabilitation Paris 2009



MAISON GAGNY
rehabilitation IJF 93 2011



MAISON DEBRENNE
extension à atelier atelier Seine 60 2007



SEVRES HOUSE
habitation IJF 92 2009



MAISONS PASSIVES LIÉGÉRIENNES
AMO - cahier des charges pour concours 2010

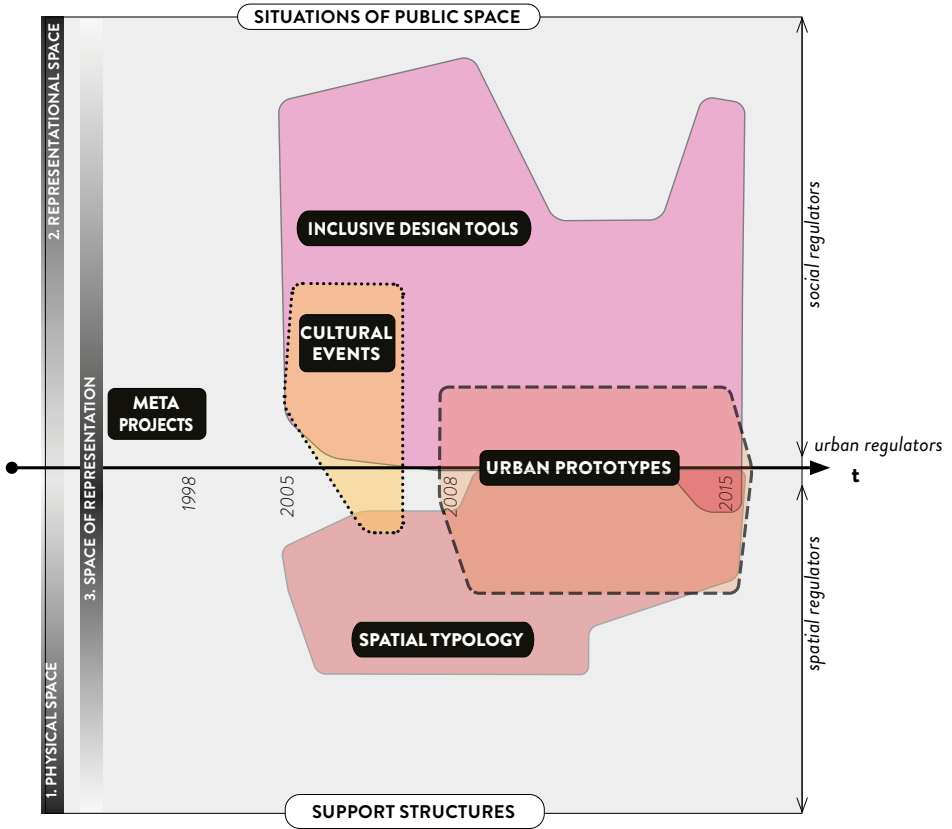


Fig. 13: Five types of relevant productions.

Meta projects (foundational for the creation of Polimorph), cultural events (providing ground for rapid testing), inclusive design tools (social regulators), spatial typologies (regulating spatial relations), urban prototypes (where social and spatial regulators come together and impact on urban relations).

Opposite page - Fig. 14: Embodiment map.

The embodiment map shows productions in relation to the people who were behind the projects, for carrying out the activities and for whom these activities were produced. In the centre are listed the type of activities, on the left the people involved are listed in alphabetical order, on the right the commissioners are listed according to type. Through this mapping of projects embedded in the network of humans

related to it, intensity patterns occur: they show who gathered around which type of activities, be it on the production or reception side. It also highlights people who were involved across many activities (Jacques-Olivier David, Laurence Hartenstein, Olivier Lannuzel, Petra Marguc, Marine Roman), activities which were carried mainly by individuals or mainly by teams, etc.

EXPERIMENTING INTEGRATED PRODUCTION OF SPACE

Création d'œuvres collaboratives

- Ensemble moulin - outil de diagnostic de l'habitat, 2015
Cartes - outil de diagnostic du territoire, 2014
Centre Sensible - outil d'évaluation numérique du territoire, 2008
Cajou de l'Esplanade, une vie qui ne s'arrête pas - outil de diagnostic du territoire
Journal idéal, journée cauchemar - outil de diagnostic des pratiques de l'espace
Mars au chapeau - outil de diagnostic des espaces
Réseaux, nous sommes en 2012 - expérimentation d'un atelier prospectif
Programmation architecturale - expérimentation d'un atelier prospectif
Métadonnées urbaines - exploration de données et mise en point d'un atelier de prototypage public
Tabula Rasa, un jeu urbain - outil de co-création sous forme de jeu urbain pour voir la ville en mouvement

Interventions, conférences & expertises

- La ville durable, les défis dans le sud - lecture, Journée CAUE de la Somme, 2014
La ville comme terrain de jeu, lecture, Fédération nationale des CAUE, 2011
Avaloir (BLU) - la concentration dans les documents d'urbanisme, atelier de formation CAUE 78, DDT 78, 2013
La marque en contexte, Compagny City, lecture ERASMUS MUNDI Parma, 2013
Compagny City, 2nd emerging centrally, representing the suburbs, workshop ERASMUS MUNDI Parma, 2013
La Ville en regard, ateliers Polytechnique Paris, 2013
Mouvements, l'habitat en une phrase, lecture ENSA Paris - Val de Seine, 2013
La Mère automatique du futur, atelier de recherche de Marsella, 2013
Le soleil, symbole d'espérance pour concevoir un mouvement ou un usage, lecture ENSA Normandie, 2012
Bateau d'Empanache sur l'urbain durable, lecture, PNR, FACEME, la CAUE 91 et la DDT du Val de l'Orne, 2012
Clerc des métiers protégés pour habiter, séminaire et ateliers, formation ADEME Bâtiment France, 2010
Sous-marin sous le futur - Destination 2030, Université alternative, lecture AADEN Saint-Nazaire, 2010
La Tante, l'Œil de Liens, Tour d'horizon d'expansion de projection régionale, 27a Région, 2012
La ville et les territoires, comment repenser dans un mouvement et un mouvement, lecture ENSA Normandie, 2011
Urbanisme participatif et créatif en milieu rural, Rencontres habitat rural, 2011
Conférence et atelier, l'interrogation la coopération sur le projet urbain, lecture LAURE, CHNEC ULM2 706, GUS 2010
Ville Créative - Cité des Territoires - Institut d'Urbanisme de Grenoble, UMR PACITE, Urbancom, 2010
Maison - C'est Symphonie, L'impact public d'Urbancom, lecture Marsella, 2010
Sous le soleil, de passage en ville, lecture Agence de développement territorial de Bruxelles/ADT, ATO, 2010
Le bruit des autres, conférence Arabesques sonores SASUHP, 2010
Expérience, Nigeria, villes, lecture et symposium Habitat & Inclusion, 2008
Métropolises créatives, entre villes et métropolises - comparaison européenne, Maison de l'Europe Paris, 2008
Architectures créatives, quel dialogue pour développer la ville? lecture et séminaire public, La Sorbonne, 2007
L'empire et le sous (faux), avant qu'on y touche, séminaire et atelier 7 Forum des associations Paris, 2007
Citéphile, l'impact public et les transformations urbaines, lecture, Citéphile, 2006
Festival Citadins dans le sud, Présentation et symposium - Les amis de la rue - 2006
Pop-up city, Dada Libération, 2006
Tabula Rasa: paysage et modernité, séminaire La Méditerranée Coteaux, 2004
Tabula Rasa Studio Libération, 2004

IMPLEMENTING PROJETS URBAINS ET ARCHITECTURAUX INTEGRATIS

- Centre village de Fossez - feasibility study participatory design, 2015
AMO habitat participatif Eco-Normes La Chapelle St Louis 2005-2016
'Ville sans soleil tout', transitionnel playground, Paris 13, 2014-2015
'La ville immatérielle, l'eau d'ailleurs' - L'écologie verte de la déperdition de Biology - 2013, 2014
La Pléiade, Biologie, urbanisme, architecture et paysage participatif, Biaban, 2012 - 2013
Modification du PDU Saint-Cyr-en-Artois, 2012
Maîtrise de la Centre d'Urbanisme Paris Sud, Bruxelles-Anderslecht, 2012
Maison juf de Belgique, un centre d'art en phase de la ville, Bruxelles, 2011
Urbanisme et la ville Paris paysage et territoire de la Seine, 2011
Eco-Museum à Champ Foulin, étude de définition en co-conception, 2010-2012
Maison passive Ignyon, AMO - réaménagement du cadre des chaises de concours d'été, 2010
Drolier Saint-Julien, 2009
PAC - petite architecture citoyenne, 2009
Habitat groupé rue André Chénier, 2009
Etude de projet d'aménagement de centre bouge, 2009
Architecture et Habitat, pour que le Habitat à Biologie soit aussi que les murs se libèrent, 2008
PDU Paris, Etude de définition participative, Paris 13, 2006
Monoculture Bay, projet de renouvellement urbain, 2005
Urbanisme, actualisation d'un tour FLAN, London, GB - 2004

SHARING MEDIATION CULTURELLE SUR L'ESPACE PUBLIC

- Jeux de polymorphisme
Le Tor de David, du paradis du habitat assigné à la vertical, jeu Polymorphisme 17, 2014
Le jeu de Biologie, Habitat (habitat et réorganisation citoyenne), jeu Polymorphisme, 2014
Démocratie, ville sauvage, jeu Polymorphisme 16, 2014
Et l'écologie, un jeu de médiation, jeu Polymorphisme, 2014
Les Nôles médailles à Paris, enquête sur une mémoire de l'immigration, jeu Polymorphisme 13, 2013
Paris en un jour, la verticalité historique de Paris, jeu Polymorphisme 10, 2011
Le mouvement en jeu, jeu Polymorphisme 8, 2011
La forme peut être invisible, jeu Polymorphisme 10, 2010
La forme peut être invisible, jeu Polymorphisme 9, 2010
Métropolisation de l'endurance, quand la performance s'empare de l'architecture, jeu Polymorphisme 8, 2009
Trop de biologie, Compagny City et l'Esplanade, jeu Polymorphisme 7, 2009
Nouveaux habitats, une ville invisible d'habitat groupé sauvage, jeu Polymorphisme 6, 2009
A vivre dans un jeu, jeu Polymorphisme 5, 2009
Le jeu dans l'espace, jeu Polymorphisme 4, 2009
Comment s'agit-il de biologie? 7 Avenue Jimmy, jeu Polymorphisme 3, 2009
Comment s'agit-il de biologie? 5-7 rue Colonne, jeu Polymorphisme 2, 2009
Le Centre Sensible - images vivantes et nouvelles, jeu Polymorphisme 1, 2008

Événements participatifs ou de médiation auprès du grand public

- Les Grilles au lycée, Action urbaine, 2013
Maison-Jeu, opération place 100 pour le soleil des ports - au lycée, Action urbaine, 2013
Biologie recrée Biologie - atelier urbain, 2009
13 - terrain partagé, atelier urbain, 2009
L'Esplanade - un nouveau urbain, atelier participatif de prototypage de concours urbains, 2006
La Maison du Métadonnées Parisiens, exposition collective de Pop-up City, 2006
Tabula Rasa, un jeu urbain - Séminaire dans le cadre du Festival Urbain Paris, 2005
Tabula Rasa, un jeu urbain - Séminaire dans le cadre du Festival des architectures vivantes, Paris, 2004

SUPPORTING PROJETS PETRA MARGUC EN INDEPENDANTE

- Agencements
Maison T, 2013-2015
Maison H, 2012
Maison G, 2012
Avaloir (EMU), 2011
Studio City, 2011
Maison S, 2009
Bât d'Agencement, 2008
Chez Ed & Michel, 2007
Maison Delphine, 2007
Maison Sadek, 2007
Maison 2007
Cité 103, un espace d'habitat pour le grand public de Toulouse, 2003
C33 - assembling charge, 2003

territorial and urban development

- Etude urbaine - L'écologie verte de la déperdition de Biologie, 2014
Droit de la ville - Le cas de Compagny, 2014
Mobilier urbain, 2014
Bateau d'Empanache (ECOBAT), 2013
Ergonomie Urbaine, 2013
Surveys (Maison), Margot, 2013
Avaloir (EMU), 2013
Studio machine, 1998

equipment

- Edition Habitat, 2014
Drolier de mouque pour un collectionneur de plantes fortes, 2010
Salle de concert Urbaine, 1999
Sergues Urbaine, 1998
Edition Space, 1998

art, installation & other interventions

- Projet - atelier biologie, 2007
Agencement, 2002
Avaloir, 2002
Nôles, 2002
L'empire invisible, 2005
Nôles 10 (Nôles), 1997
TIME - street CSRH - union, 1992

CLIENT CONFIGURATIONS

GENERAL PUBLIC

- INSTALLATIONS IN PUBLIC SPACE VIA
-2012 - de rue et de cirque
City of Paris
-Fédération de France
-Maison-projet-urbanisme
-PNUA (Plan des Aménagements Urbains)
-FAV (Festival des architectures vivantes) A-Pick
-Dada Libération
-Shuffell Urbain
-VJU

WELL POLIMORPH IN PARTNERSHIP WITH :

- architectes
-artist-mathématiciens
-City of Paris-Centre Océan
-Compagnons du Devoir
-Résonances
-Industrie
-Jacques Nouy
-Logos
-Laboratoire de design
-philosophes
-social sciences
-theatre
-writers

PUBLIC WORKSHOPS

CONFERENCES

- ADME Agence de l'Environnement et de la maîtrise d'Énergie
CAUE Conseil d'Architecture d'Urbanisme et de l'Environnement (Council for Architecture, Urbanism and Environment)
PASC NATURES REGIONAL
SCHOOLS OF ARCHITECTURE, ART, LANDSCAPE DESIGN
SCHOOLS OF PUBLIC SPACE
-France Centre Symposium Bruxelles
-Institut et Institution London
-Métropolises créatives, entre villes et métropolises Paris
-Festival Citadins dans le sud
URBAN TERRITORIES AND CULTURAL DEVELOPMENT
-Agence d'urbanisme AADEN Saint-Nazaire
-Agence de développement territorial de Bruxelles ADT ATO
-Citéphile
-DDT - Direction départementale de l'équipement
-La Maison
-L'Université de la Sorbonne, Art & Espace Public

PUBLIC INSTITUTIONS

- La Maison de l'Architecture UF
PNR - Parc naturel régional de Voiron France
PNR - Parc naturel régional de l'Oise
Tour Agglomération
Ville Municipale
SPA La Fabrique des Quartiers Dubaï
City of Architecture, Urbanism and Environment Paris
-Festival Citadins dans le sud
URBAN TERRITORIES AND CULTURAL DEVELOPMENT
-Agence d'urbanisme AADEN Saint-Nazaire
-Agence de développement territorial de Bruxelles ADT ATO
-Citéphile
-DDT - Direction départementale de l'équipement
-La Maison
-L'Université de la Sorbonne, Art & Espace Public

ACADEMIC COMMUNITY

- Architectural Association London
Berlage Institut NL
École d'Architecture de Paris - Malakoff
École d'Architecture de Nantes, St-Florent
Kingston University, UK
ERASMUS MUNDI (Parma University)
PAYSANUS (DAS, école d'ingénierie)

BUILD ENVIRONMENT

- Projet person
Association médico-sociale Centre Saint Martin
CA 2 Bureaux de Seine
CAUE 91
-Mairie de Biologie
-Northern Centre
-Services Culturel Art Society
Urban Spirit, City of Montecarlo
Boulogne

RESEARCH

- CHNE UMR (Unité mixte de recherche) 728
GIS - Paris (Parti du public, élections, démocratie participative)
-Institut d'Urbanisme de Grenoble et UMR PACITE et Urbancom
-Laboratoire MITE Université de Clerg-François
-LAVUE (Laboratoire architecture, ville, urbanisme, environnement), Marseille
-Ministère de la culture et de la communication
-AMA - Atelier d'Architecture Autogère

POLIMORPH TEAM CONFIGURATIONS

- Chloé Béhéris
Maya Bélan
Juliette Brunelle
Kevin Bouaric
Paméla Cabanis
Jean-Marc Caster
Oumou Kabaïna Cissé
Florence de Commaud
Anne-Laure Cotte
JACQUES-OLIVIER DAVID
Hélène Delagrègne
Juliette Demestres
Marie Faenenet
LAURENCE HASTENSTEN
Carole Josselin
OLIVIER LANUZZEL
Benoît Leclercq
Pierre Lemaire
PÉTRA MARGUC
Anthony Penet
Marianne Buisson
MARINE ROMAN
Alain Seravotto
Ming Sin
Édouard Sarr
Thibault Zambaux
Yannick Fédouat

- Partenaires projets & conseillers
Christine Alban
Ingrid Auzan
Ingrid Baudouin
Sylvain Bule
Benoît Crenon
Patrick Meyer-Coffard
Rafa Escal
Julien Fige
Yveline Gic
Jean-Michel Roux
Tran-Viet, urbanisme opérationnel
Bastien Saper

- Ingrid Auzan, architecte, urbanisme & TPBC
Christine Alban, architecte, urbanisme & TPBC
Ingrid Baudouin, architecte, urbanisme & TPBC
Sylvain Bule, architecte, urbanisme & TPBC
Benoît Crenon, architecte, urbanisme & TPBC
Patrick Meyer-Coffard, architecte, urbanisme & TPBC
Rafa Escal, architecte, urbanisme & TPBC
Julien Fige, architecte, urbanisme & TPBC
Yveline Gic, architecte, urbanisme & TPBC
Jean-Michel Roux, architecte, urbanisme & TPBC
Tran-Viet, urbanisme opérationnel
Bastien Saper, architecte, urbanisme & TPBC

- Produced with
Polimorph Activities
Contributing to
Embodiment Map

PRODUCED WITH

POLIMORPH ACTIVITIES

CONTRIBUTING TO

EMBODIMENT MAP

professional activities in relation to people
december 2015

Petra Marguc

ADAPT



Embodiment map
bigger view(pdf)

Fig. 15: Mapping communities of practice (extract) that became foundational in terms of key encounters evolving over the years and places.



[Communities of practice
in 6 acts \(pdf\)](#)

Extract from interview, November 2015.

There are several communities of practice I am part of: The first group are the people I am working with at the moment, my colleagues from the School of Architecture in Nantes (ENSA Nantes), my collaborators working on Polimorph productions. The second group are the occasional collaborations with research communities working on particular studies, professional institutions and speaking at symposia and conferences or acting in public space to reach out to a general public of citizen.

The third group are people and/or fields I am feeling close to and which are not part of my current collaborators. Immediately come to my mind people from the fields of music, art, and playful language. There are the piano work of Ligeti, Step across the border by Fred Frith, the Trilogy of Silence by Glenn Gould, the sound installations by Frieze, Neue Musik and its notational system, Oulipo, Thomas Hirschhorn, Michel Quarez, Mona Hatoum. It is irritating that I feel immediately close to people from other fields whereas I need to search longer in the fields of architecture and urbanism. There are some people who were key persons in the past and who had a major impact on my evolution as a practising architect. It is because of Finn Geipel, one of the directors from Lab FAC with whom I have been working as a student for several years, that I remained in the field of architecture, at a moment I wanted to study arts and theatre direction. With Finn Geipel and Nicolas Michelin we have been working on competitions in an atmosphere I was familiar with from art schools and theatre companies. It is this inspiring, creative and very free-thinking community I enjoyed tremendously. Later, studying at the Berlage Institute in Amsterdam and teaching at the Architectural Association in London had a major impact on my professional evolution. Raoul Bunschoten, who was my thesis tutor at the Berlage Institute in Amsterdam and with whom I have been collaborating afterwards at Chora and teaching at the AA in London, became a key person who marked my professional path. It is due to the encounter with Raoul, in the three institutions mentioned above that I could begin to reconcile a more poetic and philosophic

approach with a more pragmatic societal need and a methodical process thinking in the field architecture and urbanism. In the first year of my own practice Polimorph, Maud Le Floch was influential. When we met, Maud was an urban planner and a theatre director for a street art company in France, in the process of setting up PoLAU, which since became successfully established as Pole for urbanism and art. After she had seen our first production during an architectural festival in Paris end of 2004, she invited Polimorph on several occasions. The initial years of Polimorph's development were influenced by her encounter and contributed to Polimorph's establishment in France. I realized that I do feel closer to architects and designers who combine their work with an experimental and engaged approach, such as AMO, Bouchain or Raaf, Forensic Architecture, Ruedi Baur from Integral Design, Rotor, AAA to mention but few.

The fourth group are practitioners with an attitude of societally engaged creative research practice, such as for example the experimental collaboration between John Cage, Buckminster Fuller and Merce Cunningham, made possible at the Black Mountain College of Art. Their creative concern was about art, democracy, and utopia at large, yet they managed to articulate that in specific creations and a consistent body of work over a lifetime. Their mode of expression could settle in various fields, music, performance, dance, architecture, engineering, theatre, geography...

And finally, the group of old heroes, people who left an irreversible impression on me through their work, their thinking or their being and with whom a conversation is still ongoing. Since I came across them many years ago, I do treasure them close to heart, they became my spiritual fathers, for example Dada movement and the poem AnnA Blume by Kurt Schwitters, Joseph Beuys and 7000 oaks, the door 11 rue Larrey by Marcel Duchamp, Felix Guattari and The Three Ecologies, Henri Lefebvre because of his triadic spatiality... I am doing injustice to all those I do not mention here and who are just as relevant...

Maja Babin
graphiste, photographie
Jean-Marc Cucher
artiste mathématicien
Omaria K. Bouam Case
architecte
Florence de Commaumont
architecte

JACQUES-OLIVIER DAVID
médiateur culturel, théâtralité, pédagogie

Hélène Delaproyoux
urbanisme, participation, art espace public

LAURENCE HARTENSTEIN
graphiste, vidéo, performance

OLIVIER LANNUZEL
journaliste, éditeur, réalisateur

Benjamin Leclercq
architecte sociologue
Pierre Lemaire
architecte, urbaniste

Mervyn Rubin, urbaniste

MARINE ROMAN
architecte, développement durable

Edvard Sosa, architectes, systèmes, hydrauliques

/// Art & Public Space ///

Mauda La Roche, Pôle des Arts Urbains (P.A.U.)
Pascal Labrun/Cordier maître art espace public (Paris, La Sorbonne)

AAA atelier d'architecture autogérée (R.Utban)
27- Région

/// Research ///

Anne Herzog, géographe-chercheuse
Hélène Hartzfeld, urbaniste-chercheuse, Ministère de la Culture
Khadija Mamou, architecte, sociologue, chercheuse

/// Teaching ///

Benoit Pissone, ENSA Nantes, architecte

David Just, ENSA Nantes, architecte
Isabelle Faure, philosophe

Pascal Amphoux, géographe ENSA Nantes

Sabine Guth, urbaniste ENSA Nantes
Romain Rousseau, architecte ENSA Nantes

Martine Boucher, architecte ENSA Val de Seine Paris

/// Partners & Consultants ///

Christine Alban, urbanistes/associés

Integral Ruedi Baur, scénographes, signalétique

Sylvain Balle, sociologue NSA Val de Seine Paris

Benjamin Cuvrman, ingénieur de l'aménagement

Patrick Mayer-Coffard, architecte
Raba Enckel PCU projet habitat groupe
Janina Marjus, social psychologue
Jean-Michel Roux, transnovel, urbaniste expérimental

Social Design



language play
Raymond Queneau, Oulipo

societally engaged research practices & collaboration
Black Mountain College
John Cage & Buckminster Fuller & Merce Cunningham

Joseph Beuys (7000 Oaks)
John Dewey

Neue Musik

Marcel Duchamp

Dadaism

Felix Guattari

Urban Street Art

voids

Henri Lefebvre

systemthinking, cybernetics & knots

Saskia Sassen

COMMUNITIES OF PRACTICE



contact seeks friction as a creative driver for the design process and relies on playful inquiry and interaction with a twofold intention. On the one hand, it aims to attain more profound knowledge about the complexity of existing situations, that is, to grasp and explicate the processes at work. On the other hand, it aims to envision ways to intervene in these processes to create new configurations of existing components and give rise to alternative realities. Designing communication devices to stir and regulate the transformation processes is part of it.

Middle Margins Matter, From Borders to Thresholds

The effects of contact between realms, people, issues become manifest at the margins, where distant subjects, which might otherwise never meet, get in touch with each other and interference might occur. The fascination lines underlying Polimorph projects concern getting a grip on how these interferences can become drivers for positive transformation rather than disturbances to be eliminated.

It would be inadequate to represent the case studies hierarchically or arborescent to each other, for both in practice and during the research, the development of the work keeps circulating multi-directionally across cases, relations fluctuate, appear, and disappear. The configuration of case studies varies closer to a rhizomatic organization within a dynamic field, which keeps moving. It is over time that some case studies stand out and form a relief, salient either because of the frequency of their recurrence or because of their transformative impact.

This goes as well for communities of practice. At the beginning of the research, it does not appear right to “freeze” some state of the art for this research nor a single disciplinary framework. In practice-based research, the notion of “communities of practice” appears more truthful and operational than a given state of the art, as it allows to map who counts in the development of a singular body of work and what kind of affinities and affiliations stand out, thereby defining a community of peers, as a field of knowledge within which our work is anchored and to which it may contribute (fig. 14). It means thinking in terms of who counts for the development of the work, helps

to create subgroups and networks of collaboration on an everyday basis, generates encounters that can trigger changes in ways of working, and can include figures one does not know personally, but whose work and thinking still resonate with ours and thereby influence it. Communities of practice keep evolving, as two accounts at different instances illustrate (fig. 15). They will undoubtedly evolve further towards the end of the research journey and become more specific as research findings solidify.

2.3 Playful Interaction Settings for Spatial Transformation

From the preliminary research emerges a selection of case studies relevant for deeper investigation, for they use the creation of situations of intercultural encounter as an inclusive design method. The cases are variations on tactics and strategies of playful displacement in architectural and urban design. They are examples showing that at the margin where two realms meet, and contact happens, conditions emerge that can either drive creative processes forward or lead to blockage. What are the parameters leading interaction and exchange settings to pivot towards project development and generating proposals for spatial intervention in one case and not so in another?

At the beginning of the practice-based research project, in autumn 2016, I followed Johan Verbeke's suggestion to attend a European workshop on Games for cities.⁶³ One discovery from this exchange was that after several years of producing the urban game *TabulaRosa* for design projects, we had acquired implicit skills and knowledge on using the techniques of game and play for working transdisciplinarily.⁶⁴ Our practice of architecture, urban design, and teaching had evolved because of these experiences of playing urban games. Today, a lot goes without saying and appears essential in our way of working.

63. <https://gamesforcities.com>; <http://cyberparks-project.eu/training-schools/games-for-cities>, Lectorate of Play & Civic Media, Amsterdam University of Applied Sciences, (10-14. Oct. 2016).

64. Manfred Max-Neef, "Foundations of transdisciplinarity", *Ecological Economics*, 53 (2005), 5-16.

First, we bring different parties together in a situation that places them at equal distances concerning a territory, regardless of their initial status, power, backgrounds, expertise, legitimacy, or desires. Second, we interlace facts and imagination by either injecting play when transforming the real world or by anchoring games in the real world when playing. Finally, we return the interaction outcomes to all parties in a form that facilitates collective deliberation. Within Polimorph's approach to open, inclusive design, the urban game TabulaRosa occupies a key position. It was developed as an interaction framework for spatial transformation. What insights can be gained and shared with the peer community when including other viewpoints in the design practice, when looking for playful displacement without losing ground, and when searching for shared decision-making become part and parcel of the way we work?

The Urban Game TabulaRosa, A Case Study Evolving Across Seven Productions

TabulaRosa is a board game played by a group of four people around a table. The goal is to transform a situation (e.g., the city, a territory) together and see what emerges from this interaction. It supposes that ideas for improving a spatial situation pre-exist among the people within a territory. The interactive structure of the game provides the framework to bring out the peculiarities that already exist and to weave them into one shared vision, a fictional narrative that remains palpable and rooted because imagined with elements from reality and by real people. Ideas, desires, and needs are brought to the table and played out as a polyphonic narrative. Sometimes, these scenarios generate unexpected configurations and project ideas. According to the rules of the game, each participant can at any moment adopt a character that he is not in real life, to get rid of a speech that is expected of him in a stereotypical way, depending on whether he is an inhabitant, a politician, an expert. It allows him or her to speculate more freely.

As a collaborative design tool, TabulaRosa is situated at the crossing point between present reality and a future to be projected. It brings together professionals and laypeople. It ties relations between the specificity of a site and the realm of

floating ideas and desires. It is a product, a process, and a tool at the same time.

With Polimorph, we have produced TabulaRosa seven times since 2004: in the first period, cultural or public institutions commissioned TabulaRosa for their work on public space and the city, participation, and democracy.⁶⁵ In the second period, Polimorph was invited to produce TabulaRosa for large-scale urban renewal projects and policymaking.⁶⁶ Ultimately, TabulaRosa became a core methodological component within architectural and urban design commissions.⁶⁷

The extended use and development of TabulaRosa provides a solid amount of raw material to explore the nature of Play and interrogate the potentials and limits of introducing Play and Game as a framework for the interaction of different parties that usually do not meet in spatial design processes. TabulaRosa, which is also the first project that Polimorph produced, aroused much interest and reaction. It is also a widely published production that generated the most follow-up commissions and experimentations.

Further Development of Scenario Games

TabulaRosa is a further development of prior explorations of scenario game techniques. Between 1998 and 2002, I experimented scenario game techniques with Raoul Bunschoten and Takuro Hoshino within the Chora research office for architecture and urbanism and with our students of the Diploma unit 10 at the Architectural Association in London.

In 2000, we tested scenario games for the regeneration of the Salamander industrial wasteland in the suburb of Stuttgart, in Kornwestheim.⁶⁸ For the first time, I found myself playing outside of an academic framework, with real actors, the city mayor, the

65. 1st edition *Festival des Architectures Vives* (Paris, 2004); 2nd edition *Printemps de la Démocratie* (Paris, 2005); 3rd edition *Festival Rayon Frais* (Tours, 2005).

66. 4th edition *Pari Passu* (Paris, 2006); 6th edition *PLU/PADD Tours* (Tours, 2009).

67. 5th edition *Architecture & Handicap*, Medico-Social Centre Saint-Martin for Mentally Disabled People (Etrepagny, 2007); 7th edition Ecohamlet Le Champ-Foulon (Saint-Cyr-en-Arthies, 2010).

68. Chora, Juurlink en Geluk and Sandra Hasenteufel, "Kornwestheim", in *Offene Räume*, ed. Jochem Schneider, Christine Baumgärtner (Stuttgart, London: Edition Axel Menges, 2000), 88-95.

director of an Industrial group (Salamander), investors, members of local citizen associations. While introducing the rules of the game, the investor pointed at his watch, reminding our team that he had to leave within one hour. After the first round of scenario games, all invited participants wanted to play a second time. We spent half a day playing together, including the investor who had stayed with the group. In the end, key actors who were in opposition to each other regarding the future development of the industrial wasteland came to me individually. “Thank you for this exchange! If you knew how much time we already spent together in fruitless meetings so far – this session allowed us to go beyond deadlocks and envision completely new possibilities nobody had thought about before”, both the mayor and the director of Salamander commented independently.

These earlier experiences confirmed that the scenario game technique was methodologically powerful for creative interaction but still not so easy to apply within projects and outside academia.

With TabulaRosa, we intended to take scenario game techniques outside the academic environment and test them within a professional practice on the ground. This would allow for improving the methods and investigating whether and how such a collaborative design tool could become instrumental and transposable in the daily practice of spatial design.

Our team⁶⁹ worked on the game environment, simplified rules, improved the user experience, and sought a more comprehensible and shareable restitution of the game’s outcomes. Depending on the nature of the commission, we kept addressing outstanding issues and improving the game from one production to the next to increasingly stabilize a structure that we ultimately applied and adapted to each case (fig. 17).

Game Structure

During the pre-production phase of the game, we do extensive fieldwork to prepare the game sessions. We collect a critical mass of approximately fifty real situations observed within the perimeter of the investigation. These are then formatted as playing

69. Jacques-Olivier David, Laurence Hartenstein, Olivier Lannuzel, Pierre Lemaire, Petra Marguc, Marine Roman.

cards with which to begin the game. We also create a database of various relevant actors and investigate what is at stake in the given territory. These stakes are formulated as challenge cards the players will have to tackle during the game sessions. Usually, we prepare between three to five challenge cards.

During the playing sessions each challenge is played at least three times to obtain enough scenarios on each theme. The result is a minimum of twelve comparative scenarios on a given territory after each session.

In the postproduction phase, all the scenarios are analysed. They serve as raw material to extract project proposals that emerged while playing. Sometimes, a proposal is very much articulated and detailed in a single narrative already. However, we also often draw together recurrent strands across several scenarios, reformulate the wordings if necessary to make the emergent proposals more intelligible.

In the end, we return to the public to present the outcomes of the game session. They are the formatted proposals, called urban prototypes, and the narratives. The participants and broader public can read or listen to the stories and discover the project proposals which emerged. This setting is used for discussing together specific possible interventions. We end a TabulaRosa production with a public vote on the most popular proposals the group would want to see further developed. The chosen proposals are then either handed to the local authorities and clients or further developed in the project if we have the commission to do so. To illustrate, at the end of the first production of TabulaRosa, the most preferred project proposal was *La Maison du Métabolisme Parisien*. We chose this project for further development in the next cultural event. After playing TabulaRosa in the Ecohamlet project, the elected proposals which were further developed included reed beds for phyto-purification and group housing as a contemporary reinterpretation of a farmyard where several households live and work in a small entity around a yard.

Evolution of the Game Development

During the first phase of TabulaRosa productions, we realized that the entrance cards are a powerful incentive for

people to comment and add their knowledge on a territory. We also observed that when we collect situations in a territory to constitute playing cards, after a certain number of descriptions, one person tends to see always similar phenomena. A multiplicity and diversity of observers reduces this risk.

In the second phase of TabulaRosa productions, we invited outsiders to produce the observations in real sites. Exploring a territory and collecting observations became a collaborative tool on its own. This tool, which we called L'Odysée de l'Espace, was formalized with precise action protocols and relational objects as a form of return. Commissions followed for participatory explorations of a territory.

In the third phase, when we utilised TabulaRosa within the participatory design projects aiming at the definition of building proposal, we had to adapt some tools. For instance, working with mentally disabled participants, we diversified modes of expression for not relying on spoken language only, which we felt was not reliable enough. We introduced explorations on how a territory is practised compared with how it is described in words and pictures. We also realized that participants felt a strong urge to express their opinions beyond simply describing their living environment. Therefore, we added communication devices to enable the collection and sharing of them.

Over time, particularly the explorative tools became so popular among the stakeholders that we wanted to facilitate the procedure for treatment of collected data. We were looking for how to use digital devices to automatise the data collection, data treatment and data output (e.g. first prototype of Carte Sensible).

Variations on Strategies of Playful Displacement: A Selection of Existing Case Studies (fig. 16)

Architecture & Disability, Ecohamlet, a Memorial Park, *a* Temporary Playground, these four cases deploy variations on play as a setting for inclusive design projects enabling interacting and negotiating of multi-perspectival positions. They are relevant for inquiring what happens when applying strategies of playful displacement to the development of design proposals. These cases were commissioned as an open, inclusive design approach

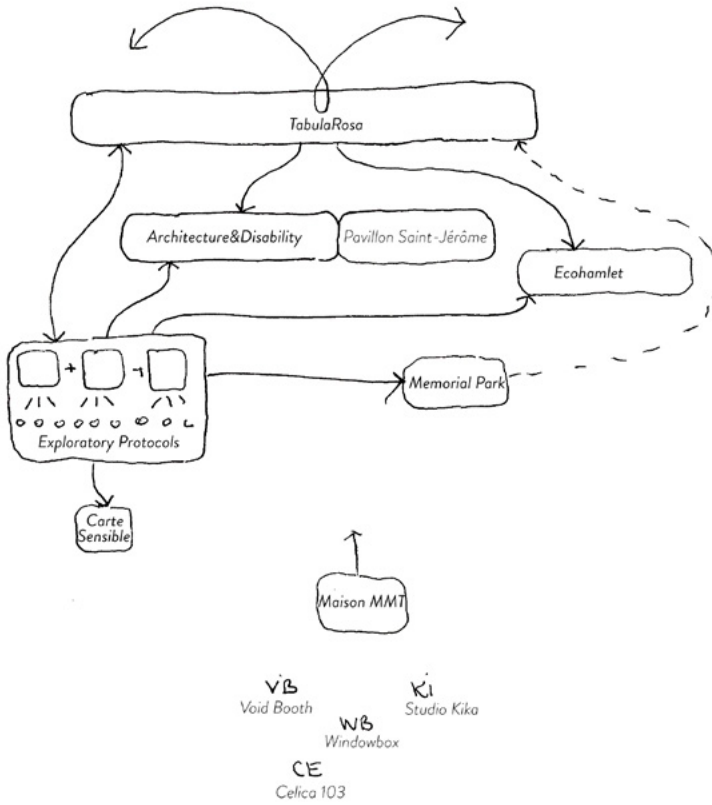


Fig. 16: Selection of case studies and their relations.

beginning with a feasibility study to define the program and aiming at construction or intervention. They unfolded differently over time, as for different reasons, things did not develop as planned when entering the operational and construction phases. Prior to being built, the first case was honoured with citizen project award. The second was published as a reference for innovative territorial sustainable development. The temporary playground, part of a group exhibition, got realized for the satisfaction of all involved parties but the designers. The Memorial Park got stuck in the middle of the process. As the transposition of playful methods and tools unfolded differently in each project and with ambivalent feelings about the outcomes, comparing and examining the pros and cons in each appears essential for learning from the limits encountered.

Architecture & Disability (“Architecture et Handicap, pour que les histoires s’écrivent avant que les murs ne se lèvent”) was commissioned by a private institution and designed with multiple stakeholders. It included mentally disabled residents, so the tools were adjusted to be intelligible (fig. 18).

The Ecohamlet is a public commission for a sustainable village extension. The open, inclusive design approach aimed at finding common ground between the villagers’ needs, the territorial planning bodies looking for strategies containing urban sprawl, and the future residents to be attracted to move into a shrinking community (fig. 19).

In the case of an intercultural project definition study for the transformation of a former railway station, which served the deportation of Jews during WW2, into a Memorial Park commissioned by the city and the Ministry of Culture, the strategies of an open approach served to tackle a sensitive, emotionally loaded project situation (fig. 20).

Exploratory protocols to see what we are not looking for, are devices we developed to drive the creative design processes as a multi-perspectival undertaking. They are playful assignments that foster engagement with a territory with fresh eyes, to look at it as if it was the first time, without immediately applying professional jargon or preconceived ideas. Polimorph has experimented with them since 2004, and they continue to evolve within urban project commissions and, since 2014, within teaching. Their purpose is to stimulate an open-minded inquiry of existing situations alongside ideas, practices, and the material phenomena of a territory. In practice, experiences from working with multiple parties showed that there are often gaps between what people say, what they do, and what factually exists in a territory. When speaking with local experts and professionals, it appears that participants tend to generalise and describe their opinions about a territorial condition without confronting them with real phenomena on the ground. Hence any participative approach primarily based on verbal inquiry and a single mode of expression raises questions (fig. 21).

Exploratory protocols are based on putting different realms in touch with each other, a technique that accelerates the emergence of discrepancies and consequently the necessity of verification.

Whereas the urban game *TabulaRosa* speculates on possible futures by recomposing existing realities, exploratory protocols focus on observing and describing what is there in a new pluralistic way. Within a given design process, such an inventory can be reiterated several times at any moment of the development process. Exposing multiple viewpoints next to each other helps to verify interpretations of what is there and identify what is at stake. Cases-studies that use protocols for exploration serve as the raw material for examining the extent to which allowing for diverse viewpoints contributes to a better grasp of the urban dynamics in a situation and the extent to which this might be relevant for the design proposals.

Among the exploratory protocols, *Carte sensible* is a prototype of a digital cartographic apparatus experimenting with multiperspectival data sampling procedures that combine qualitative and quantitative data in one single representation. The map generated by the software is designed as a support for decision-making aimed at different interest groups. Although a minor case in this research, *Carte sensible* is relevant as an experiment that puts issues on the procedures of collecting, organising, interpreting, and representing data up for debate. It is also an attempt to join the material, lived, and represented dimensions of a given territory in one single dynamic visualization.

Experiential productions of artefacts, such as *Trefoil Mutations*, and *Material Studies*, operate as parallel strands of thinking by doing. *La Belle Excentrique*, and *C'est la Pause!* are two case studies produced during the PhD research to further examine emerging notions and concepts and to stabilise the knowledge gained. Minor investigative formats are created within ongoing projects and in teaching design studios or workshops in architecture schools (*Master Ville et Territoires*, *Studio Borderline*, *La Ville des Possibles* in *ENSA Mauritius*, and *FPC formation professionnelle continue*). They represent small experiments to iterate some findings, refine observations, and thus solidify the knowledge gained. Relevant experiences gained from these latter productions will be mentioned within the description of the research journey or the discussion of results only if necessary to complement the explication of findings.

Excursions into other spatiotemporal creative approaches will be undertaken if they have a transformative impact on the work and the research. As inspirations, whether they are theoretical, conceptual, or projectual, they can become part of a referential framework, even if they go beyond a given discipline. The criteria for being mentioned in this PhD are whether the reference is constituent for this research, which focuses on applications within architecture and urban design, and whether it could be relevant for the disciplinary debate.

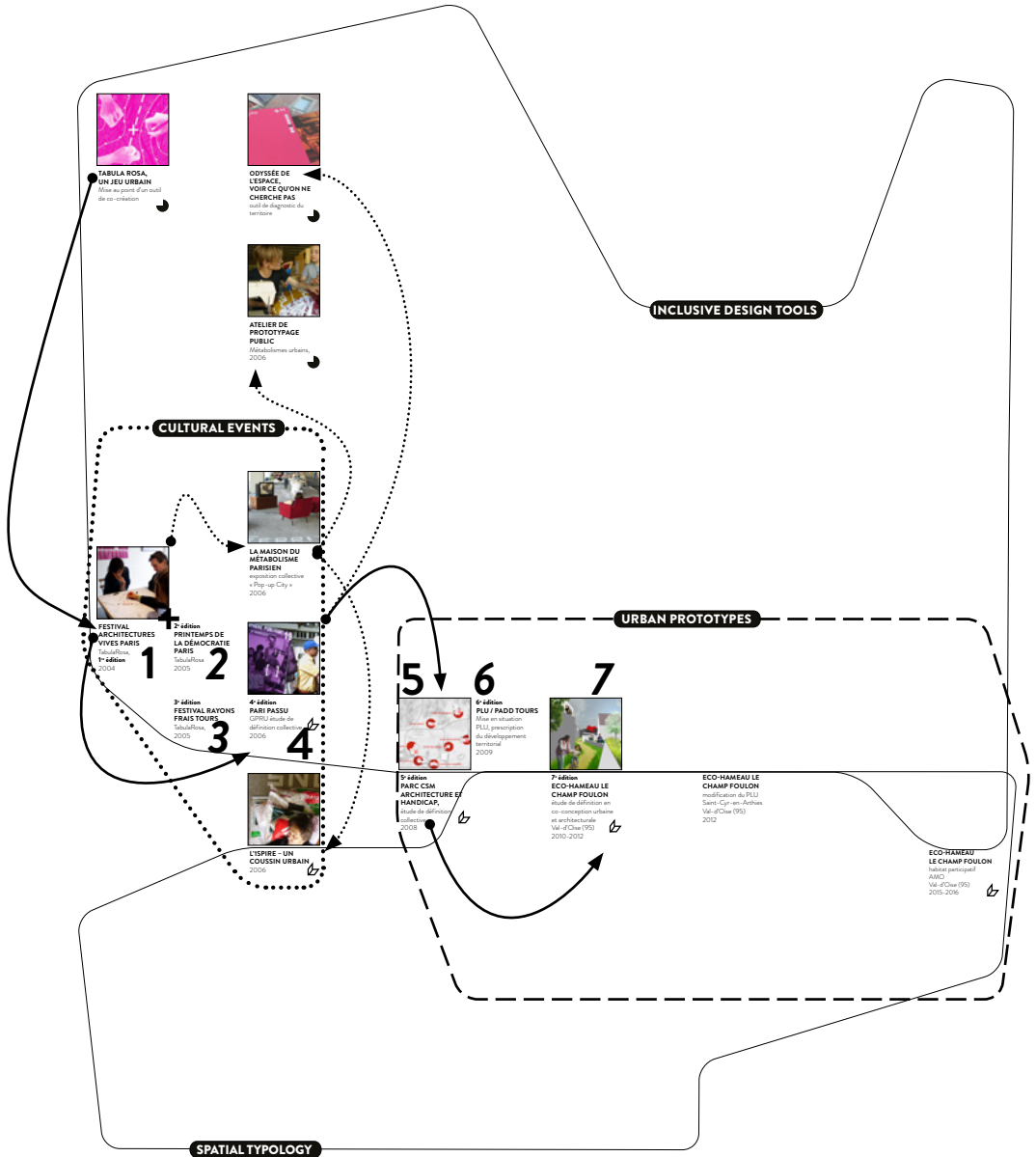


Fig. 17: Case study TabulaRosa and its relations.

CONTACT URBANISM

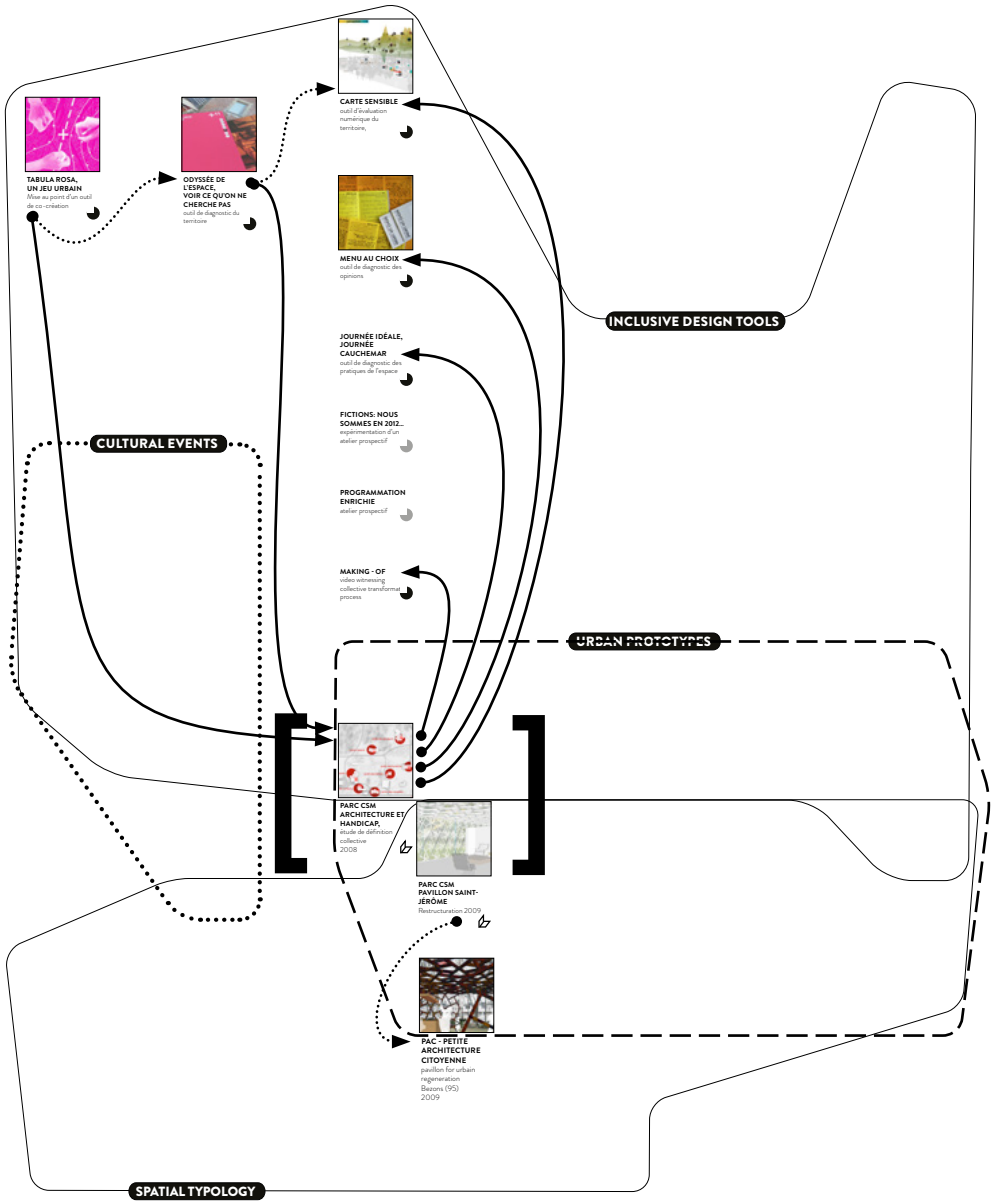


Fig. 18: Case study Architecture & Disability.

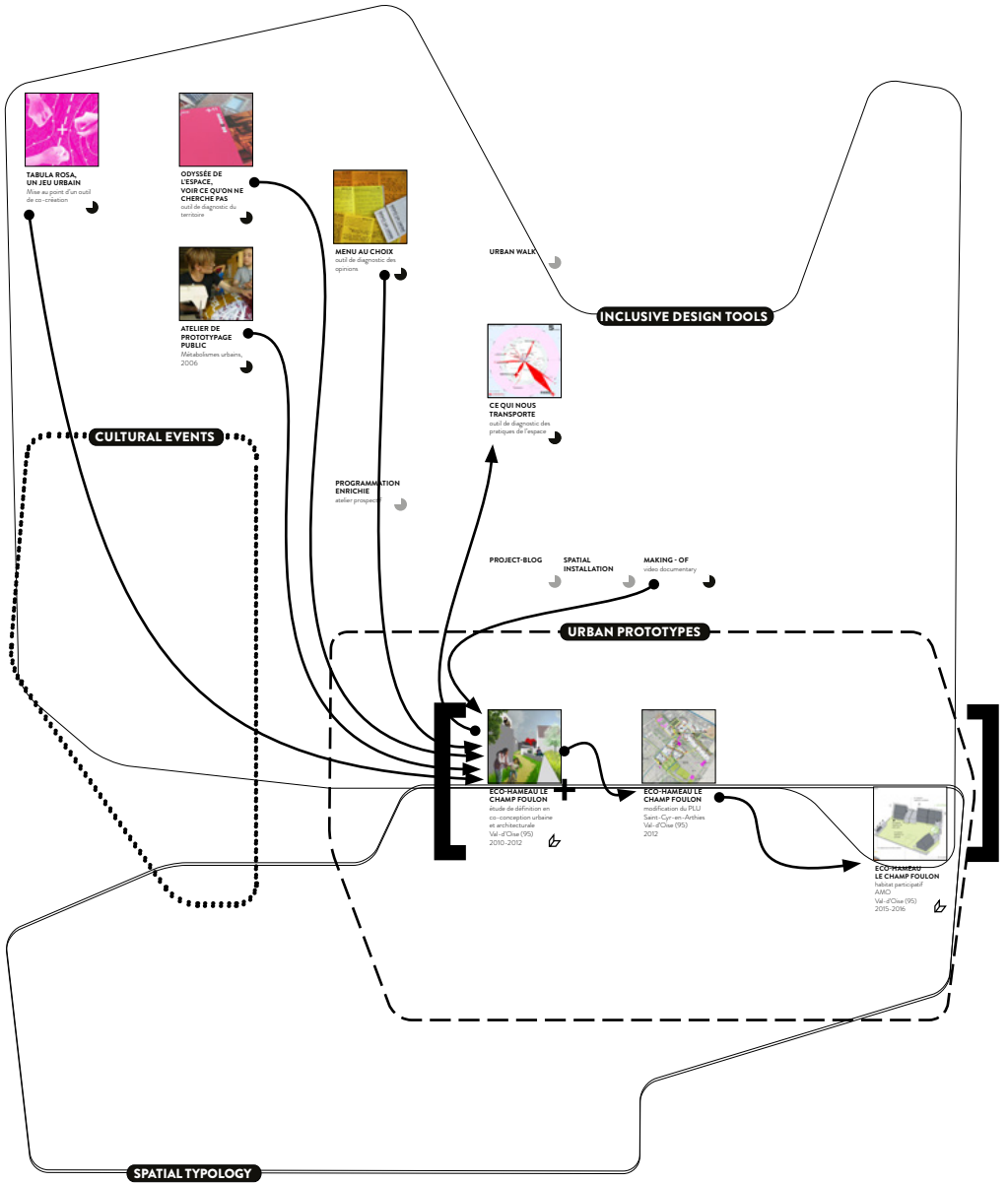


Fig. 19: Case study Ecohamlet.

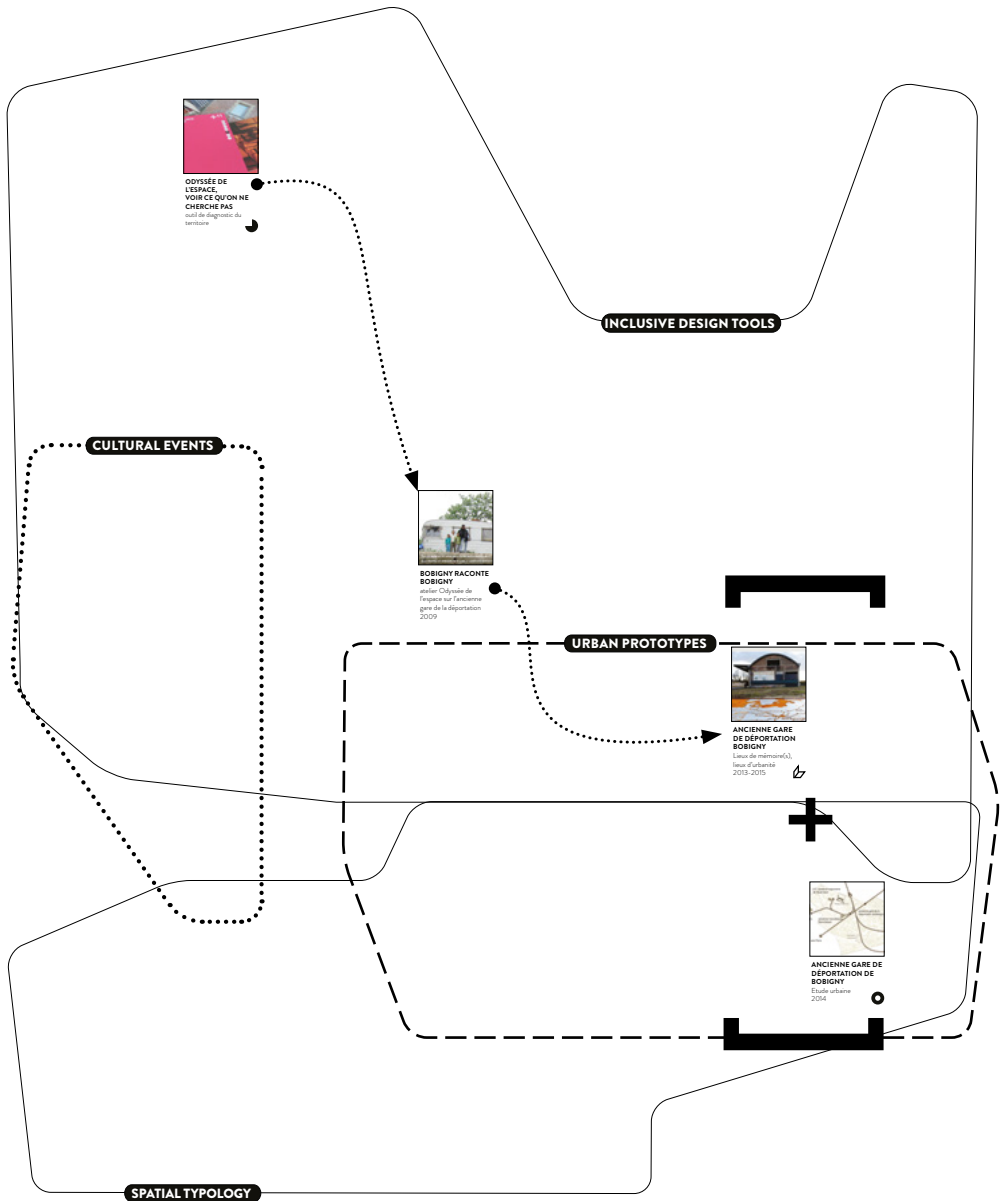


Fig. 20: Case study Memorial Park

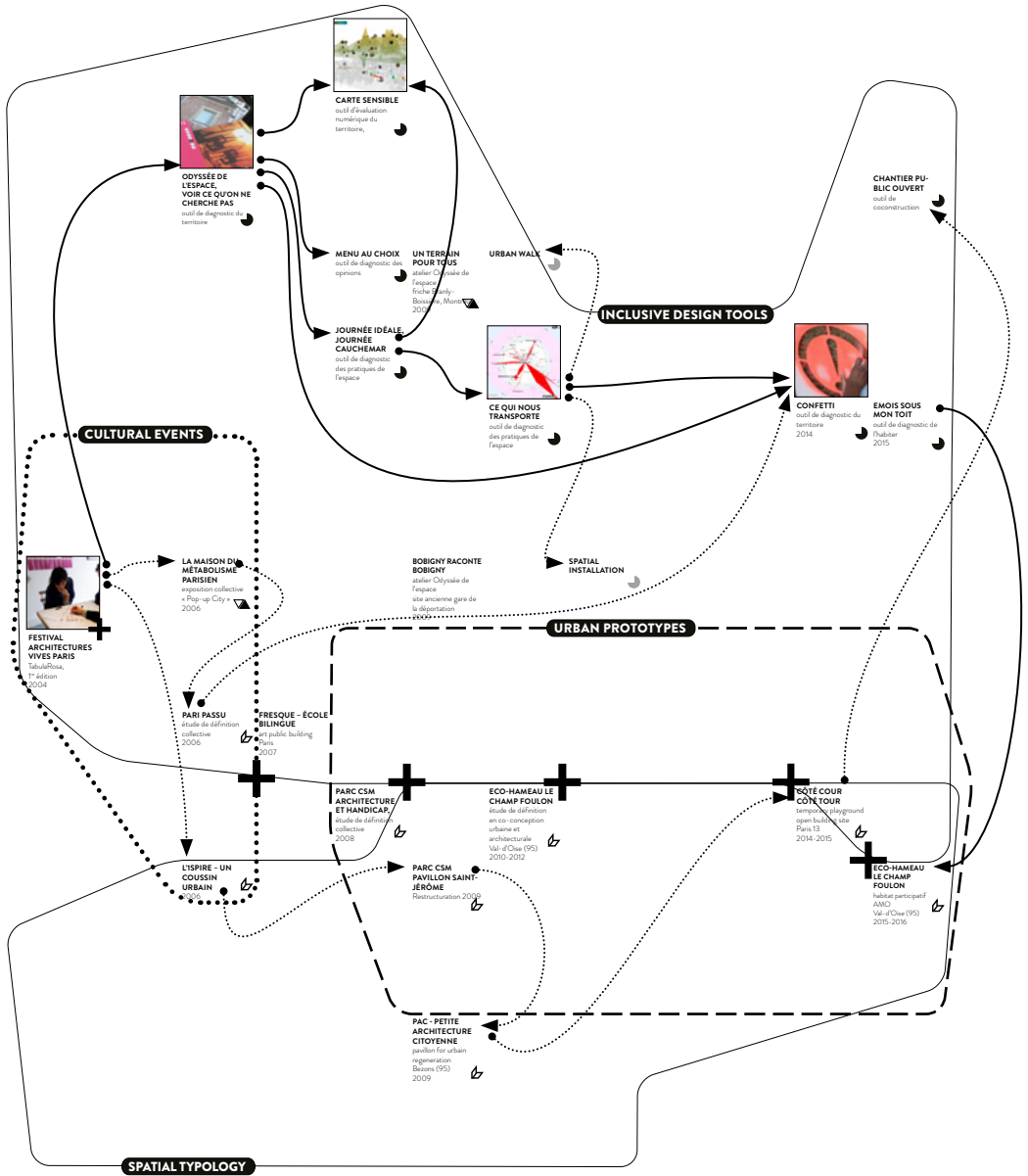


Fig. 21: Case study Exploratory Protocols, to see what we re not looking for.

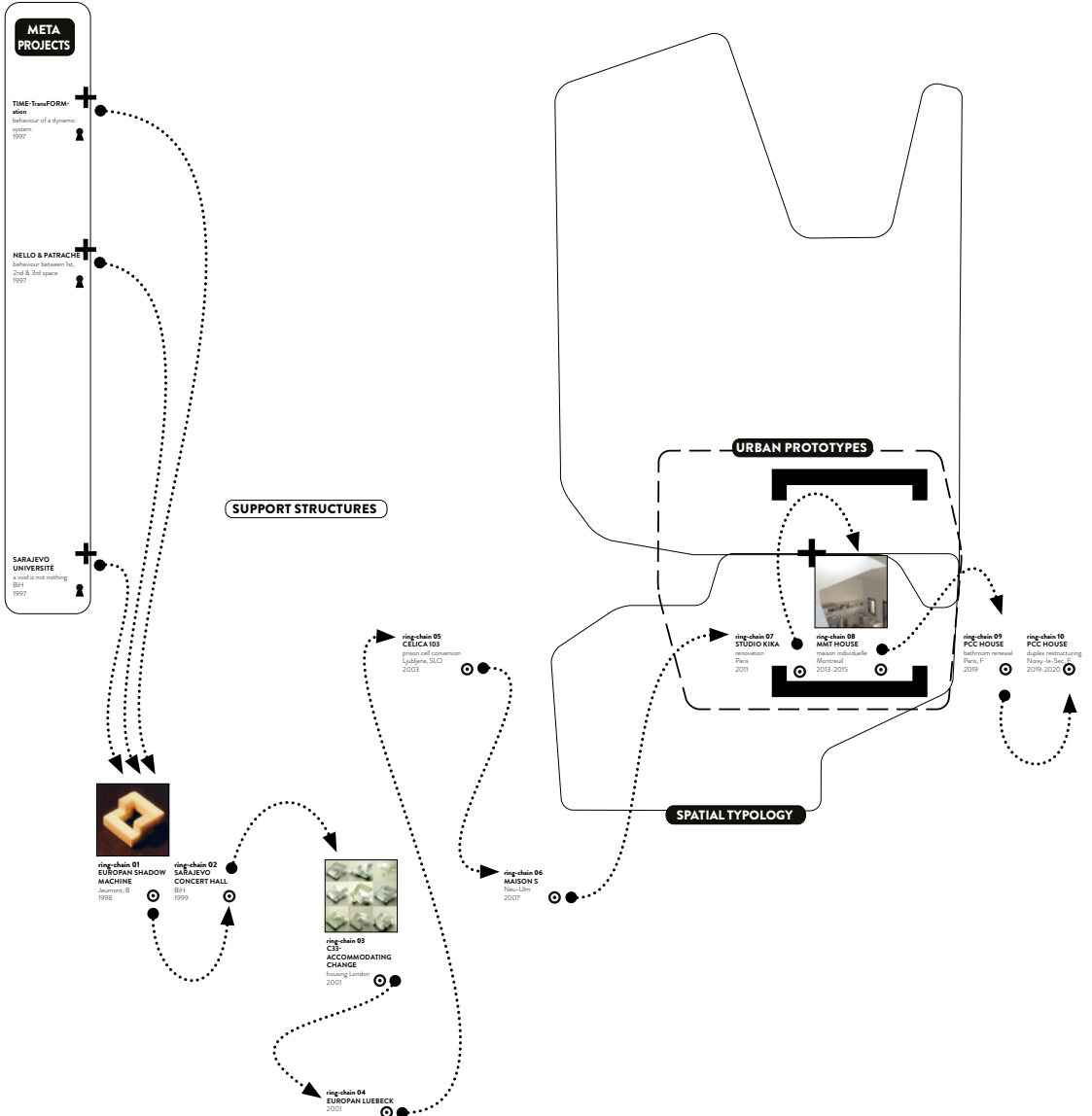


Fig. 22: Case study House MMT, ring-chain typology of interlacing and spacing.

CHAPTER 3

Process



**LA CHARTRE
ECHO-QUARTIER* 28**

PAR LA FENÊTRE* 29

**CHAMPIONNAT DE
CONTRE-PROJETILES* 20**

**JARDINS DE L'
INSOLITE* 25**

SPHERE PUBLIQUE* 19

**CRIS ET
CRISPATIONS* 17**

**O.G.U.-ORGANISME DES
GENERATIONS UNIES* 23**

ENTRE CIEL ET TERRE* 27



Les habitants des tours d'habitation, qui s'élevaient au-dessus des toitures de la ville, ont été une nouveauté sur le site. Ces tours constituent un facteur principal de dynamisme et d'attrait pour le quartier. Les motivations architecturales et les avantages sociaux qu'elles offrent ont permis un peu de fluidité circulaire entre ces tours et l'espace public des rues. Elles ont permis de créer un espace public de qualité, un espace de rencontre, de socialisation, de jeu, de détente et de loisirs accessibles aux habitants.

un observatoire 360° à un centre de recherche sur le climat urbain.
un centre de vulgarisation scientifique.
un jardin urbain.
un hôtel avec les dômes dans une rue au sol, aligné dans une rue.
une terrasse suspendue sur les toits, le premier étage de la tour sur la tour.
des jardins de toit à l'ouest et l'est de la tour, avec des terrasses sur les toits.
une passerelle de toit à l'ouest.
une passerelle de toit à l'est.
des cours alignés de manière régulière organisés de manière à être tous proches des entrées.
un espace public pour les habitants, avec des entrées accessibles par terre sur le site et par l'escalier des tours.

BALADING THE CITY* 18

objectif : établir des liens ludiques, pratiques, surprenants entre les différents espaces

Que vous soyez amoureux, stressé, curieux, ému ou transporté d'amour, le Balading, guide des flâneries urbaines, à des parcours à vous proposer, en vert et liouge et chez les commerçants.
Il rassemble une variété de promenades décalées, imaginées et testées lors des ateliers thématiques organisés dans le quartier: petites ou grandes, nocturnes, amoureuses, latines (réflexologie), sonores, off-cadres, souterraines, archaïques, de fracture de la cheville, d'objets urbains, de métiers, d'histoires locales personnelles ou collectives.
Des prototypes de mobilier urbain sont essayés sur ces parcours. Testez-les et faites vos commentaires aux concepteurs directement à l'adresse de la Sphère, place de Vendôme, ou par sms au numéro que vous trouverez sur les parcours.

Project carriers (porteurs de projet) of urban prototypes, in PariPassu, Paris, 2006.

MICROCLIMAT 26

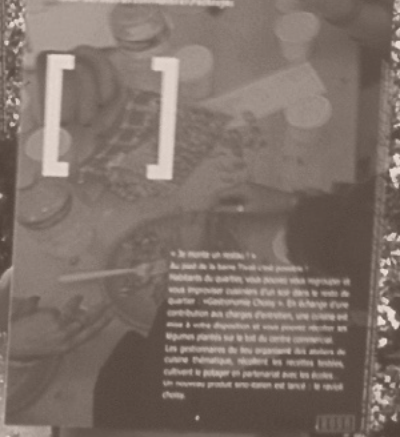
Le climat d'un quartier est un enjeu crucial pour les habitants. Il s'agit de créer un environnement agréable et sain, en tenant compte de l'orientation des bâtiments, de la végétation et des matériaux utilisés. Les architectes et urbanistes doivent donc réfléchir à ces aspects dès le début d'un projet.

ZÉNITH EN SOUS-SOL 24



Les sous-sols sont un espace souvent négligé, mais qui peut devenir un véritable atout pour un quartier. Ils offrent une solution pour accueillir des activités, des commerces ou des équipements publics, tout en optimisant l'utilisation du sol. Les architectes doivent donc penser à ces espaces dès le début d'un projet.

GASTRONOMIE CHOISY 22



Le plaisir de la table, c'est un art. Il s'agit de créer un environnement agréable et sain, en tenant compte de l'orientation des bâtiments, de la végétation et des matériaux utilisés. Les architectes et urbanistes doivent donc réfléchir à ces aspects dès le début d'un projet.

3.1 Introduction: Unfolding Of An Open Inclusive Design

Unravelling professional practice experience through repeated mappings in the preliminary research revealed an underlying quest on the production of spatiality as being dynamic not static. When Polimorph works in contact with different actors in a territory, interaction takes place in several phases of a design project. What can be learned from including a range of viewpoints in the design practice? To what extent does playing with displacement, loosening reality bounds whilst anchoring a creative process to factual situations on the ground feed the design process? And finally, what is the role and place of the designer and the design object in a design process which is interactive and open?

For identifying how design processes which are open and including multiple viewpoints are being facilitated and how they evolve, we'll inquire in this chapter the time dimension of the formation of space to assess how open and inclusive design processes unfold.

First, the research inquires processes of spatial formation (Research Step 1: Space in Motion). Then, the research investigates where the architect positions him/herself when a process of spatial creation is open and inclusive to others (Research Step 2: Inclusive Design Postures). Finally, we question the relationship between open inclusive design processes and the results they produce (Research Step 3: Process versus Product).

This set of research steps aims to clarify which factors are essential for the unfolding of an open, inclusive design process, to what extent instructions are important for the interaction and exchange of intermediate outcomes, and what results are

achieved. This leads to first findings on the transversal nature of open inclusive design processes, on the role of play in situations of exchange and on the qualities of propelling devices driving the spatial design process forward.

3.2 Research Step 1: Space in Motion

CONTEXT

Case Study 01: Polimorph Practice

Polimorph's productions are used to describe the process of spatial (trans)formation as an interplay of the physical, imagined and lived dimensions of space. When the process of spatial formation is schematised in terms of this spatial triad, four key states, or key instances,⁷⁰ appear in time: Diagnosing, Projecting, Reshaping, and Inhabiting.

(T1)-**Diagnosing:** We look at a given situation in a territory, frame a perimeter of investigation, observe, and describe it, we qualify what is there until we can identify what is happening, uncover questions and enunciate what is at stake.

(T2)-**Projecting:** We imagine something differently into this situation, we open up an alternative vision to consider what we are looking at in a different light and speculate “what happens if...”

(T3)-**Reshaping:** After comparing and evaluating several speculations about possible developments of a given situation, we make choices and intervene in the situation; we transform matter, build or dismantle something in a specific location. The intervention in a particular place has an impact on the wider context.

(T4)-**Inhabiting:** Building, unbuilding and reshaping matter changes spatial practices, reconfigures relationships, creates new relationships and a different habitability of the situation. The territory mutates not only physically, but also in the eyes of the many. Over time, we look at the place differently, the

70. The notion state refers to circumstance, situation, instance. Instance, or state, or situation is preferred to the term stage, for the latter could be misinterpreted as step or phase. The emphasis here is on a setting, not a phase.

representation and ideas we have of this situation evolve, our practices of the space change.

A continuous movement across states of spatial formation maintains territories dynamic and makes our cities feel alive. In *imagined space* ideas are represented and expressed, things from an existing context are reassembled together differently and combined with new ideas, alternative realities are simulated, possible development hypotheses are played out as fiction. It is a space of play, where various constellations are possible and allowed, reality bounds are loosened. In *physical space*, these speculations are grounded in matter, built. Things are tangible, measurable, manifest to the many. A new practice of space emerges, and behaviours change, leading to new individual and collective representations of space. Imagined and physical space are not parallel, separate worlds; they are connected through *lived space*, where the experiencing human body is able to interweave, stepping in and out of physical reality and entering an imagined space, moving relentlessly across borders between realms and connecting realm.

If a process of spatial formation is a continuous movement between those key states, how does the *transition* happen between them, how does a situation evolve and pivot from one state into another? What is a designer doing in an open, inclusive design approach to make the transition from one state into another happen?

In each state of a process, the designer can take two reciprocal perspectives and flip direction between looking back and looking forward, switching perspectives between narrating where something is coming from and looking ahead to where something is going (fig. 23). To interrogate the transformation process, we are mapping a looking backwards and a looking forwards in each key state and thus we shift the view away from key state towards the transitions from one key state to another.

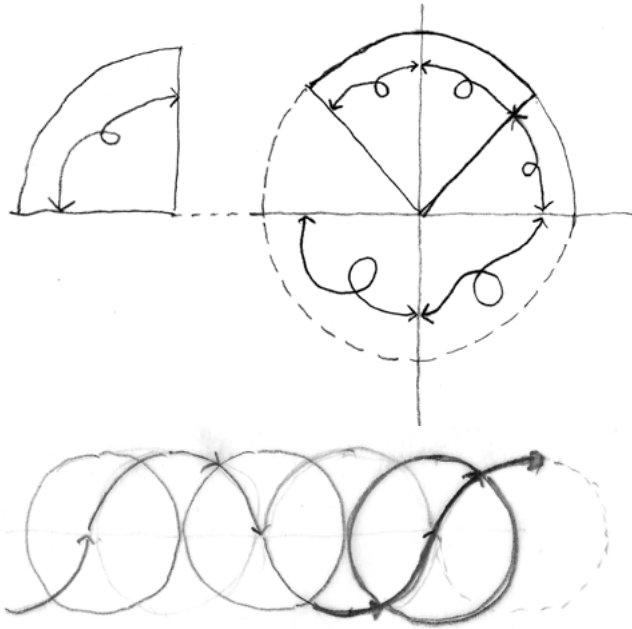


Fig. 23: Process viewed from above as dynamic field (top) and viewed as elevation with the time-axes from left to right (bottom).

Diagnosing a situation consists in making an inventory in such a way that the situation reveals itself to us, informs us and enables us to assess it.

- **Inventory:** We observe a situation, select a range of items by which we describe the situation. Depending on what we select and how we describe it, it reveals what we perceive as crucial issues in the situation. Let us call this inventory. The inventory consists of data collection through fieldwork, inquiry and documentary research.
- **Assessment:** The set of data are put in relation to each other to grasp the underlying mechanisms at play and most importantly to be able to uncover interesting questions and enunciate the stakes which are at play in that situation. For example: How to build an extension to the village in such a way that existing surface runoff problems due to soil impermeability are not made worse? The questions are worked on until they can be formulated as design questions.

Projecting consists of the simulation of possible alternatives and the formulation of an action plan.

- **Simulation:** On this basis of the stakes which are at play, we define a series of development hypothesis. A development hypothesis begins with “What happens if...?”. It projects a speculative idea about the future of the situation and gives directions to an action. These hypotheses are then played out in form of simulations of alternative realities. Some examples of enunciated hypotheses we were dealing with: For the Ecohamlet in Saint-Cyr-en-Arthies: “What if a village of 100 households is increased by 50 new ones?”; For the medico-social Centre Saint-Martin in Etrepagny: “What if the surrounding walls of the enclosed domain for mentally ill residents are being opened up to the outside?”, “What happens if apartments for couples are provided allowing mentally ill residents to live together?”; In Sarajevo: “What if the investment for building the university cannot be raised?” *What-if* hypothesis are more instrumental if they are formulated as design dilemma. This means that a simulation can be spatialized and that there is no simple single answer to it. Doing a series of simulations allows us to forecast a possible behaviour of a territory under certain conditions, to look at and compare different possible configurations. It is better to be a bit bold with the hypothesis and not to be afraid of exaggerating with the playing out of the hypothesis. That might bring up the breaking points of development and reveal the limits of a possible scenario.⁷¹ It is also better to test out several development hypotheses in order to compare the pros and cons that occurred in the scenario. Comparing and evaluating different scenarios including project proposals results in the extrapolation of project principles, orientations, and guidelines.
- **Action plan:** With project principles formulated as objectives to achieve, we can design action plans for transposing them into matter and making them concrete. The action plan, just as a technical design or execution drawings, can be seen as a music score: to realise the project and make it exist outside of

71. The term “scenario” is used in this research to refer to a future narrative or an alternative reality as it might unfold in time. It is not used as a synonym for “variant”. Scenario implies the inclusion of the parameter of time, which is not necessarily the case with “variant”.

our minds, we set some performative instructions to be played out by others. We also set rules for playing together. We define who is doing what where when, and how, we propose the instruments to be played out and select the performers, for example.

Reshaping consists of the intervention in the territory by transforming matter as well as of setting up the necessary operating framework for cultivating the new situation.

- **Intervention:** For transforming matter we conduct the intervention in terms of players, instruments, and actions together in space and time until the building emerges embedded, localizable, and tangible in a given point of the territory.
- **Operating:** The users and maintenance can take over, the building generates its own new life.

Inhabiting consists of the adaptation and mutation of the milieu leading to its profound change.

- **Adapting:** Behaviours evolve, new behaviours arise, some of them might get institutionalised if they reach a certain degree of importance. Others may remain informal, ephemeral, and some create new conflicts.
- **Mutating:** In time, the territory is transformed not only physically but also in terms of how it is practised, in terms of relations it engenders, in terms of image, of the collective identity. Until the need for a new assessment spurs an inventory again.

Shortcomings of Representing Design Process as a Linear Sequential Scheme

The linear representation of the spatial transformation, and thus also of the design process, bears some shortcomings. When we represent the process of spatial formation along a timeline, the states of Diagnosing, Projecting, Reshaping, Inhabiting are shown as successive sequences one after the other. First comes the time of identifying the problem and political decision, then comes the time of creation where the professionals for the production of space are commissioned, comes then the time of materialization

by the builders and finally comes the time of consumption, with the users taking possession of the transformed territory. Across those sequences intervene different experts. Those interpreting a situation and formulating a need are not necessarily the same as those examining which type of intervention would be best. The architect's expertise comes into the foreground from the moment of translating a design brief into spatial concepts until the handover of a building to others who will inhabit the new situations afterwards, who will take care of it and live it. This comprehension of the architect's expertise is still very much prevalent. In certain circumstances, it remains a valid and valuable operational framework.

However, in practice, from a specific scale and complexity of a project onwards, a design process does not happen in such a strictly linear manner as a sequential representation along a timeline might suggest. Neither is the involvement of stakeholders precisely contained within a particular sequence. In practice, there is a back and forth between experts, and beyond the stages they are conventionally associated with, overlaps and mingling are common.

Loss of knowledge transmission between experts

Pitfalls of a linear sequential representation occur when applying the sectorising of the process into phases too strictly to the extent that it leads to a loss of mutual understanding and a loss of transfer of knowledge from one sequence to the next. When involved parties lose sight of motivations, purposes, and interests that lead to intermediate decisions, or when relevant information between various experts, whether decision-makers, professionals, residents, or opponents, is not transmitted, and knowledge transfer staggers, the design proposals can become inadequate.

As will be illustrated later in more detail, we encountered a loss of knowledge transmission in projects several times. For instance, prior to Polimorph's design for the Ecohamlet in Saint-Cyr-en-Arthies, a previous design proposal for the extension of the village proved unfeasible because it had ignored the constraint of the village extension not being connected to a sewage system. A new design proposal had to be developed.

Missing reflexivity of multidisciplinary and participative processes

Sectorisation in a linear model omits the reflexivity of multidisciplinary and participative project approaches. For instance, when local actors in site, clients, need assistance for defining a design brief, the designers' intervention gets extended over a broader range of stages, including the study of key issues and the definition of a project brief. The linear design process where professionals come in one after the other is shifting towards a multidisciplinary collaboration across stages. When architects are operating in this way, the working methods change. Data collection, data processing, transmission, and communication issues are challenged. From our practice experience, when opening the design development process to other disciplines and laypeople, the way of working feels fuzzier. Without being able to predict and control precisely what the interaction will produce, we are operating in a "protocol for action" modus. Elaborating the content of a project in a modus of action-protocols consists in proposing assignments that can bring the group to work together for stepping forward and evaluating what happens. The development of the project is set in motion along a vector that gives it a direction, and the stakeholders begin to walk in that direction towards a point on the horizon that is not yet fully clear. The working methods are continuously adjusted while developing the content.

In order to better reflect the transformation of space as it happens in a reflexive practice and to counteract the pitfall of a loss of knowledge transfer between experts the schema needs adjustment.

METHOD OF INQUIRY

Adjusting the Scheme of Spatial Formation Processes

Therefore, a framework for process design is proposed, where the imagined space, the physical space and the lived space are brought together related to a situation, away from a chronological representation of one-after-the-other (fig. 24 a, b).

Superimposing imagined space and physical space (I + P), attached to a situation, results in the following shifts: (a) it is bringing people from different fields together around a situation

in the now, the present moment; (b) it is mixing material reality with fiction. Suddenly people with different horizons, viewpoints, and opposite needs, which in a linear model come in one after the other, appear at the same moment in a situation, like in a kind of marketplace or a traffic junction, an infrastructural knot. A multidirectional (c) back and forth occurs between people crossing each other and provides an environment of potentialities (fig. 24c).

Opposite interests become palpable, a plurality of viewpoints become explicit, a rhythm of multidirectional interaction between involved parties simultaneously in relation to a situation to be transformed is set free. The lack of a common language becomes a battleground. We are losing control. We thought we were facing one problem, but suddenly there is another one, or more! That can be a scary perspective, at least until unexpected new expressions pop up, as an accident, a surprise, a serendipity.

The encounter of two entities is like the crossing of two vectors pointing in different directions, an inflection point in which the configuration of a system can pivot either into dissipation and deflect or self-regulate into a new level of complexity.⁷² It is a critical momentum. Encountering, mingling, and exchanging would most often result in some kind of displacement. Otherwise, if the displacement of both parties did not occur, encounter would not really happen. If it is a happy encounter, the edge where two parties meet turns into a threshold, where new information can be received, that then triggers positive transformation.

What if we cultivated an environment of potentialities wherein we can imagine new and better situations? What if we fed imagination through reconfiguring real components and momentarily liberating reality from stiff bounds? What if we attach vision to factual reality, enabling a continuous play between existing field conditions and imagined worlds, making the design process an open system of exchange?⁷³

72. Ilya Prigogine (ed.), *L'Homme devant l'incertain* (Paris: Odile Jacob, 2001).

73. With open system in opposition to closed system is meant a mode of interaction which does not seek preventing interference from outside, but a mode of interaction which adapts and evolves to what occurs.

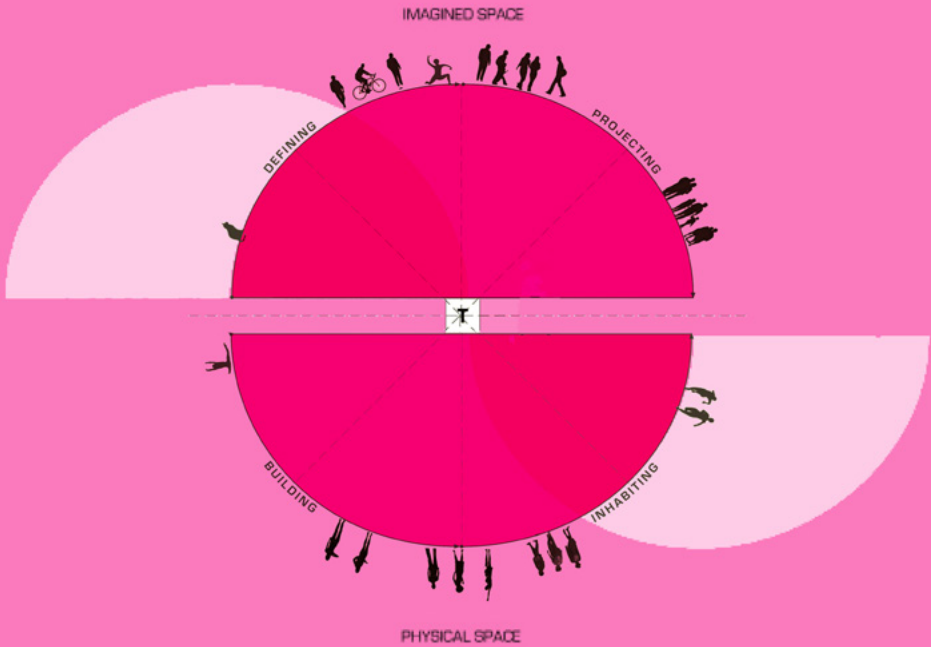
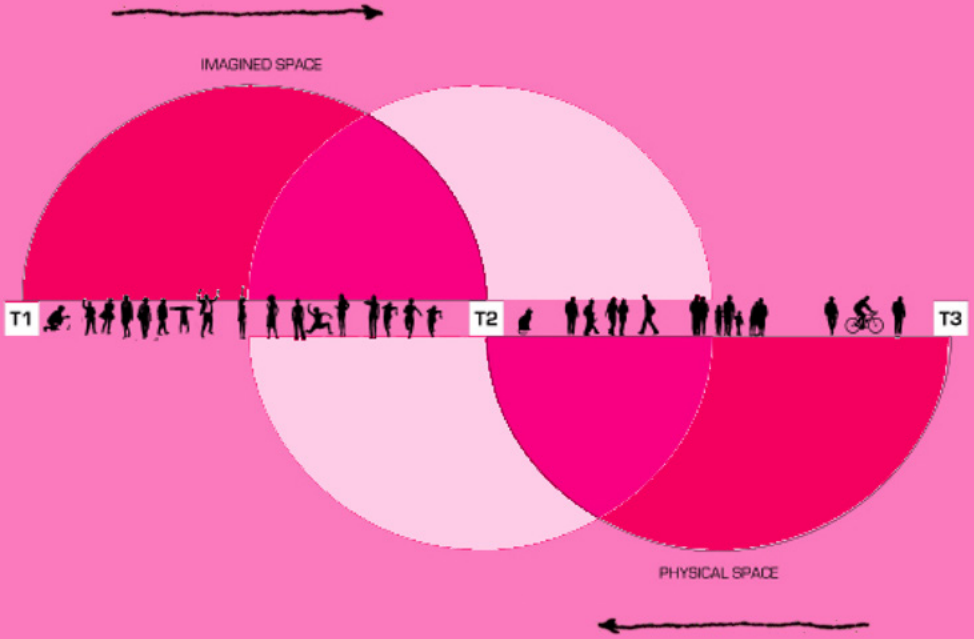
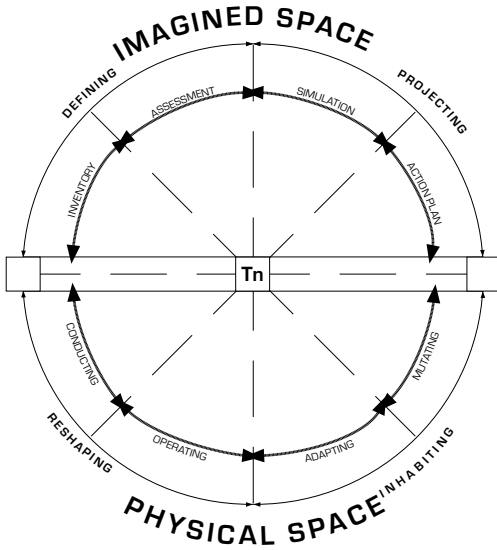
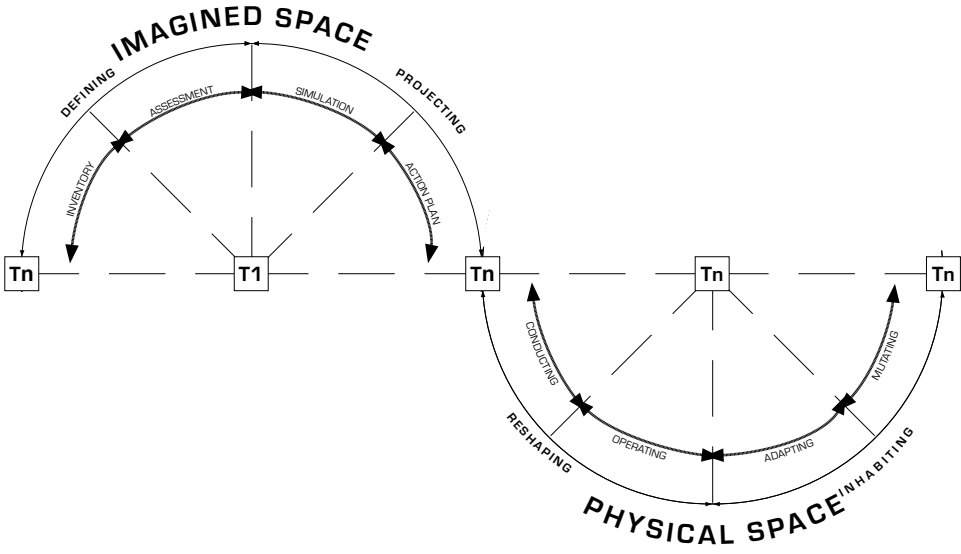


Fig. 24a: Shifting from a linear to a transversal design process, principle view, and detailed view 24b (next page).



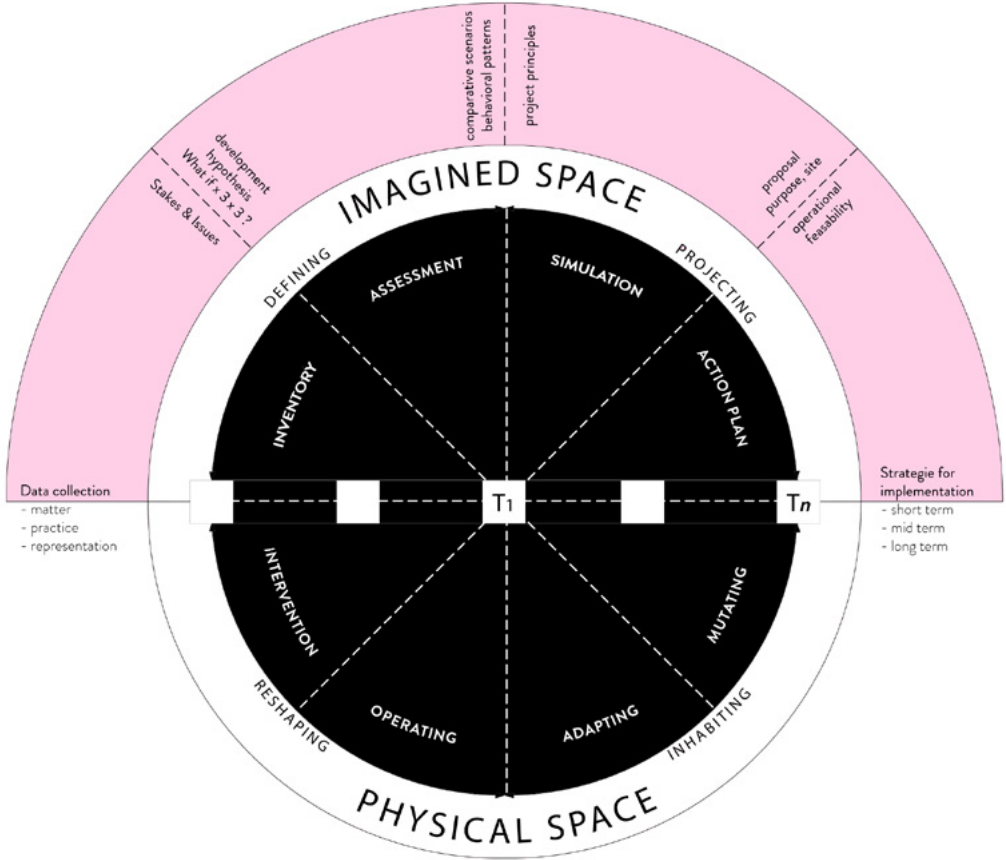
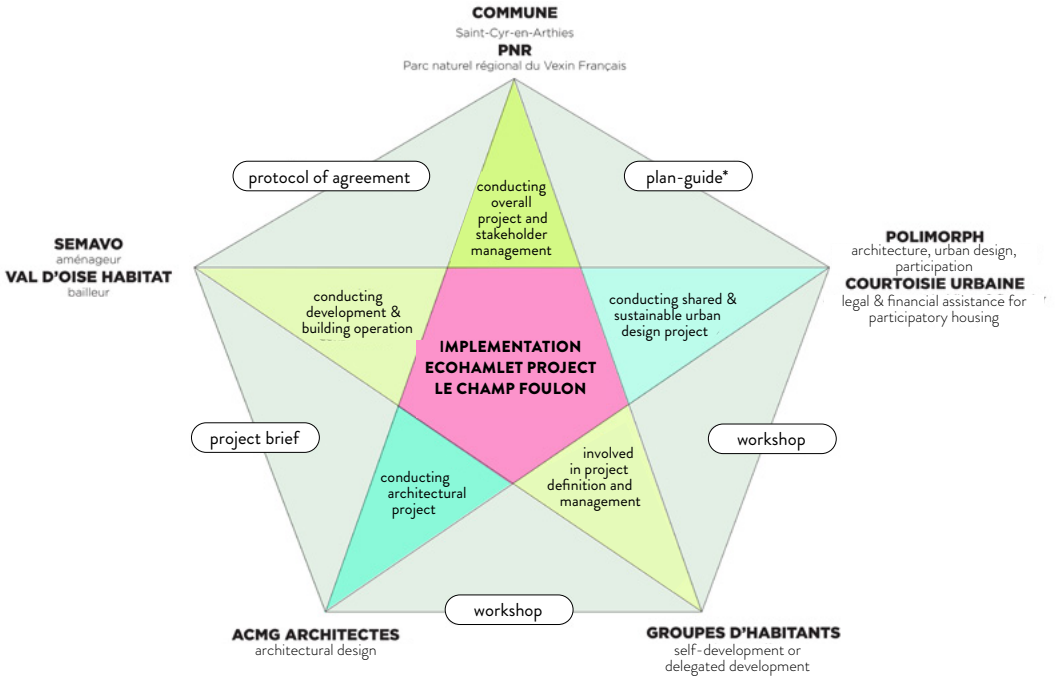


Fig. 24c: Spatial formation process as a multidirectional oscillation across instances.



*Plan-guide is an evolutive tool for conducting urban transformation and facilitating governance for all project stakeholders. It was first developed and used at the end of the 1990s in the context of the urban renewal of the Ile de Nantes (F) by Chemetoff.



Fig. 25: Diagram of a transversal production of space used as a didactic tool.

During the operational project phase of the Ecohamlet (2nd follow up commission 2015/2016), new stakeholders joined the on-going participatory project development. Polimorph utilised the diagram to outbalance a discrepancy of participants understanding of the stakeholders relation to the on-going project development, and to each other.

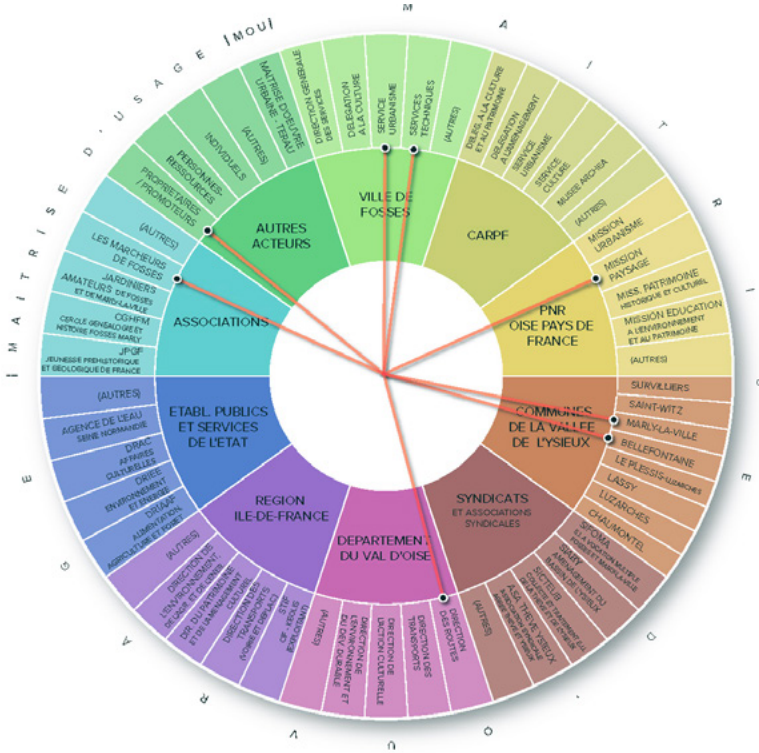


Fig. 26: Diagram of a transversal production of space used as a working tool.

During the project development for the regeneration of the centre of Fosses (t.e.rau, Polimorph, 2015/2016) the diagram was used as a collaborative support structure for designing proposals in relation to institutions and actors to be mobilized.

REFLEXION
 From a Linear Design Process
 to a Transversal Design Approach

The transversal design process differs from a linear design process. It consists of anchoring a project firmly in the territory and situating it in the centre – among the multiple stakeholders, throughout the transformation process, and whatever the state of the project. If an actor can appear at the forefront at a particular moment because he or she is available or wants to contribute, what matters is that any intervention is undertaken from the perspective of interaction with other concerned parties on the ground (fig. 25, 26).⁷⁴ In the transversal design scheme, a project is always informed by two relations, concerned parties and a ground condition.

A schematising of spatial formation process shows the edified architecture situated in the in-between, at the threshold between two states. On the one hand – from the perspective of the designer – it is the materialized outcome of a project in search for responding to a particular stake in the past. On the other hand – from the perspective of the inhabitant – the built architecture is the origin of new spatial organizations and behavioural patterns that can further influence social, spatial, and urban relations to come, opening potentialities for the future. From such a perspective of processes of spatial formation, instead of being a solution only, the building is a momentary resolution of forces in material form that itself engenders new dynamics.

Viewed from a processual perspective, this dual nature of a building positioned in the in-between of two states has the potential of turning it into a regulator of social, spatial, and urban relations. To maintain this dual nature of being simultaneously a result and a stimulus for urban transformation, the notion of

74. In his installation 33 1/3, John Cage was able to beautifully elaborate this change of perspective from a linear process of creation to an interactive creative process. In the latter, the work emerges among engaged parties. The composer's contribution consists in setting the frame. This posture contrasts with an attitude wherein it is first the creator who conceives, then performers execute the creators intentions and finally the audience receives and consumes the work.

spatial intervention or proposal is privileged when talking about an architectural project.

The schematisation of spatial formation as a continuous process is including the state of inhabiting, where spatial transformation occurs through spatial practice and behaviour beyond initial intentions. An absence of intention is therefore not to be mistaken with the absence of action. Practising space, being part of a situation, implies acting upon it, whether we intend it or not. Whether we act upon a spatial situation intentionally or not, as soon as we are part of a situation, it will continue to change through us. Hence practising space could be included as part of the creative design process. A processual representation of spatial formation including the state of inhabiting suggests that the practice of space can be included as an active, a constitutive part of spatial transformation.

The shift from a linear to a transversal perspective is in analogy to changing the view from section to plan. Whether we illustrate processes of spatial formation from a temporal or territorial perspective, we are looking at a field in motion. The difference of a processual perspective lies in including the parameter time in the way we conceive spatiality. Spatiality is approached as a dynamic system of forces, a space-time continuum, where the physical components are material affordances.⁷⁵ By relating physical dimensions of space to the imagined and the lived dimensions of space, we shift from a static model to a dynamic model of spatiality.

A transversal design process brings the diversity of viewpoints within a situation to the foreground. Increasing the number of viewpoints by introducing multidisciplinary or participatory approaches can produce more subtle proposals, similarly to when we take a broader range of parameters into account while developing a proposal.

However, this is only valid under certain circumstances. For instance, it is essential not to get lost in translation between different parties along the way, for the same words do not always

75. James J. Gibson, "The theory of affordances", in *Perceiving, acting, and knowing: toward an ecological psychology*, ed. Robert E. Shaw, John Bransford (New York: Hillsdale, N.J., Lawrence Erlbaum Associates, 1977), 67-82.

have the same meaning, and the same factual matters do not always have the same significance. Similarly, it is important not to get stuck with the limitations of a legal framework, which does not evolve as quickly as the practice on the ground. For example, issues of liability, property rights or fees are directly related to issues of decision-making procedures and risk management. If these issues remain unaddressed in participatory working methods, the chances that this has a disruptive impact on the design processes are high. Finally, it is crucial not to get disconnected from the ground.

Handling multiplicity in a design process makes our working more complex. But ultimately the challenge is to recognise that the situation we are about to transform will keep changing as we search for what to do. This is tantamount to recognising that external forces will impact on the designer's ongoing work and potentially disrupt his or her intentions, as we are dealing with a dynamic context.

How to act when the context is unstable?

One option to resolve the uncertainties of an environment that keeps changing as we develop an intervention consists in closing of and ignoring all the relations to potential outside disturbances. We can act as if the given phenomena were frozen, disconnect it from a dynamic context and idealize it as an isolated object, responding on this abstracted conceptual level. By doing so, we transform an open system of relations – one that considers that unpredicted interference can occur – into a closed system of control, where relations are possible among entities but protected from outside forces that might interfere. Another option is to do the opposite: to use situatedness to anchor ideas in an existing environment. By observing how material phenomena are embedded in a dynamic spatiality, relations become graspable and manageable. When using situatedness instead of abstraction, material phenomena are not reduced in their complexity. They become part of a more encompassing system of interdependent components.

For instance, an orange will become idealized in the shape of a sphere if we disconnect it from its context and look at it long enough as an isolated object.

On the contrary, if we observe the orange attentively until we see the details, such as the sticker on it, with a name, a country, and a price, or if we taste that there are no irritating seeds in it, or if we touch it, the tangible aspects turn into circumstantial evidence revealing information about a context, and with it the extent of a territory and practices. They give us a clue that this orange is an object of trade, we deduct that the orange without seeds is a product from the agricultural industry, we can map how many hundreds or thousands of kilometres it travelled from the tree to our hand, we understand whether it is ripe or not. Describing the orange in terms of its relations unravels a broader territorial context. Looking at an object in relation to its milieu turns it into a material phenomenon, into a key that gives insight into a situation of urban dynamics not perceivable at first sight.

To navigate an environment that is constantly in flux, experience from professional practice and teaching suggests that instead of focusing on either of the options alone, the creative drive lies in a playful stepping in and out between the two opposite poles of embedding and abstracting. Disconnecting the realm of imagination too much from existing field conditions can produce imposed meaningless design. Then again, although examining underlying urban dynamics of an existing reality increases the understanding of its complexity, the mechanisms at work, it can produce paralysis of action and restrict imagination. For example, teaching design studios at the AA, showed that following a linear design process starting with understanding complex situations first and developing propositions second tends to create a misbalance between the imagination of possible design interventions and comprehension of an existing state. Therefore, teaching design studios today, we changed the assignments, breaking up a linear development process by creating several instances of back and forth between embedding speculation in the complexity of a situation on the one hand and disconnecting it from these reality binds on the other hand. This way, imaginative speculation and understanding of existing complexities feed and augment each other in a more nuanced way.

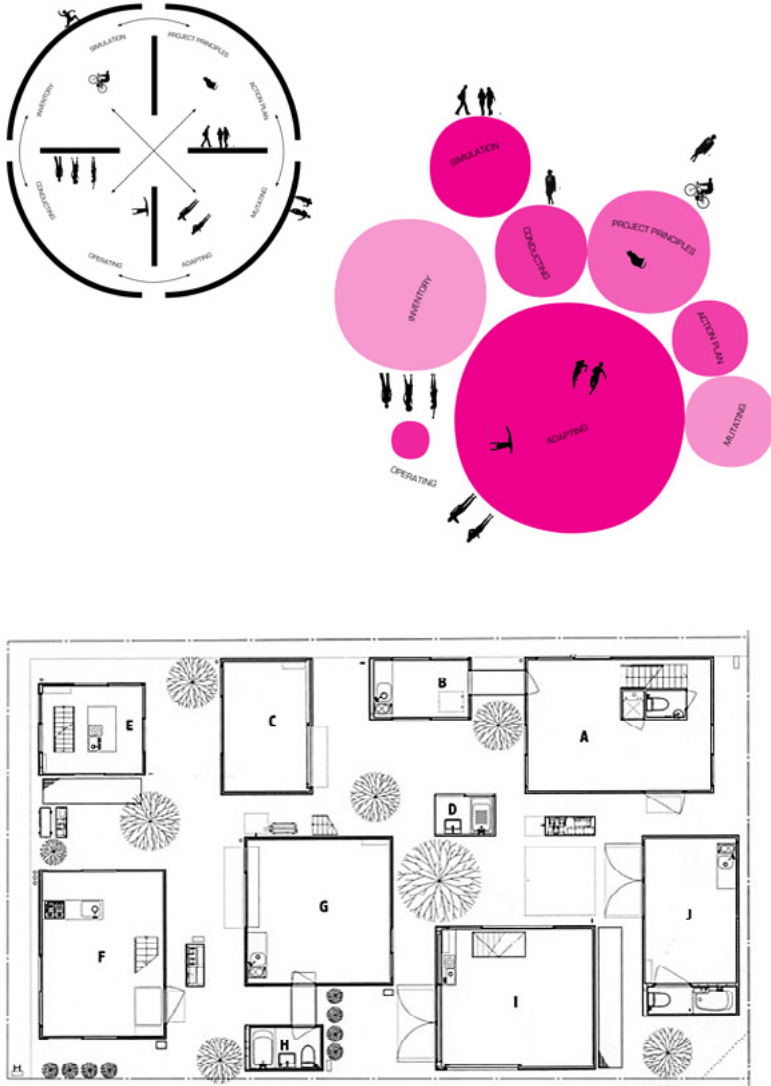


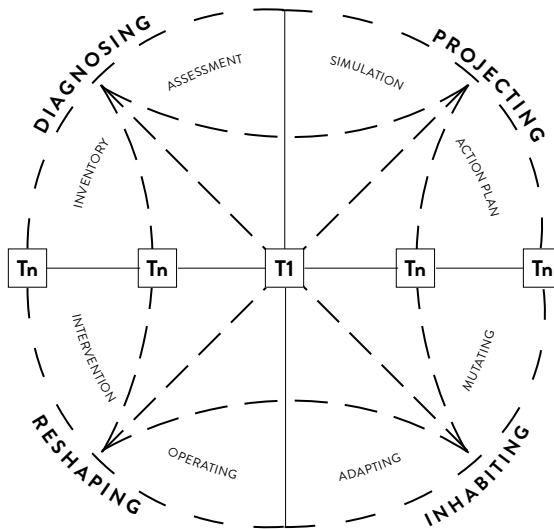
Fig. 27: (a-below) Moryama House floor plan, Ryue Nishizawa, Tokyo, 2005; (b- above and right page) If the diagram for a transversal spatial formation process is viewed as a dynamic field, would it be possible to move freely between the key states, that could be seen as rooms, just as one can move in a multiple of pathways across the rooms of the Moryama House?

3.3 Research Step 2: Inclusive Design Postures

CONTEXT

Case Study 01: Polimorph Practice

If the formation of space is dynamic and transversal, oscillating between different states of Diagnosing, Projecting, Reshaping, Inhabiting, should an open inclusive design approach follow a specific order? Should it always start from the same position? At first glance, a look back at the Polimorph projects suggests that this would not be the case.



METHOD OF INQUIRY

Mapping the Position of the Designer

To address the question from which position to set in motion an open, inclusive design process, selected Polimorph's projects with an inclusive aspect will be positioned in the previously established scheme for transversal design processes. Mapping the various states the projects cover and the positions from which they were initiated will help to obtain a deeper understanding of how an open inclusive design approach can be incorporated and enacted in architecture (fig. 27). The mapping reveals five types of design postures, which capture

CONTACT URBANISM

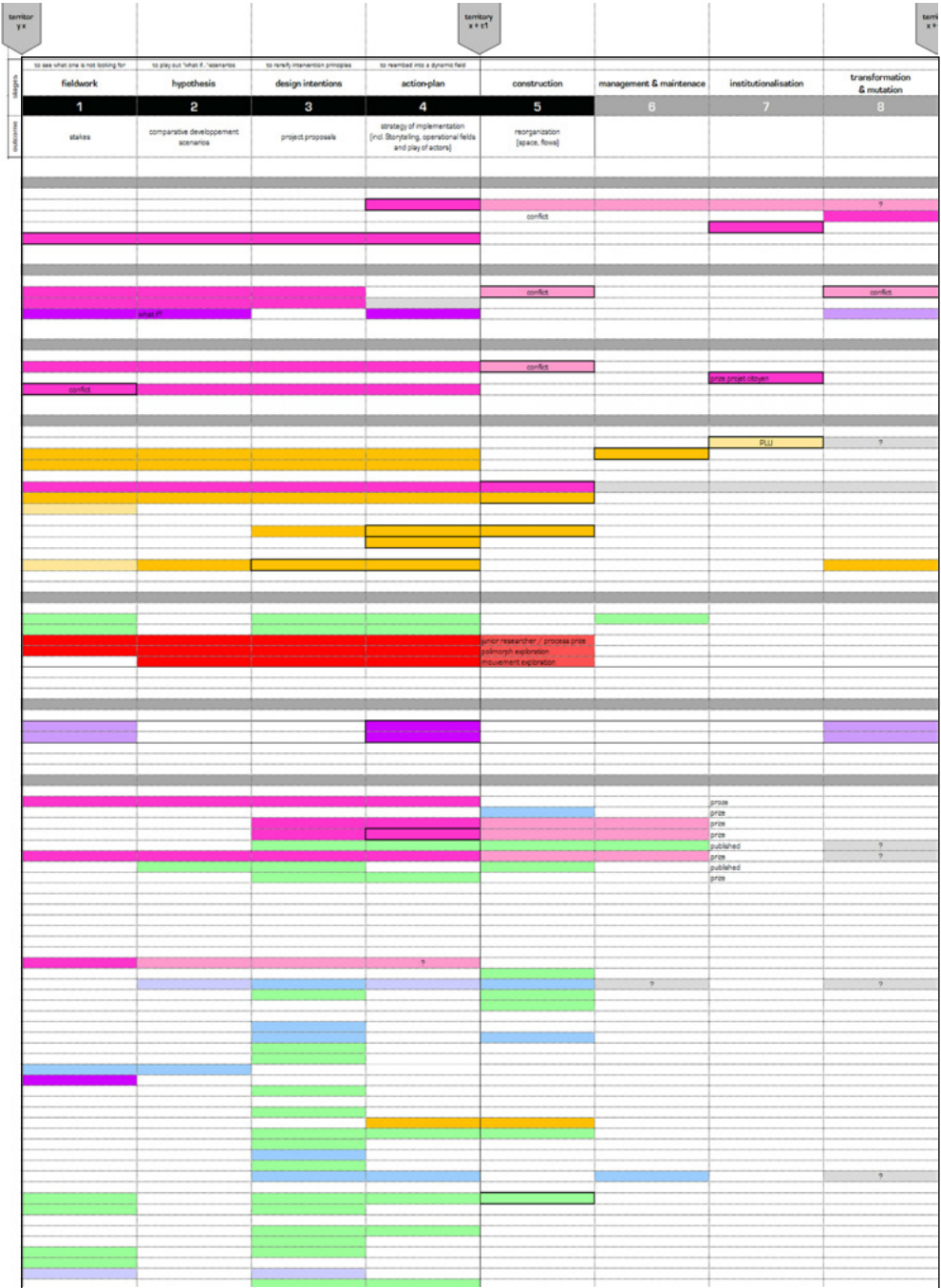


Fig. 28: Mapping the different states that the projects have addressed in order to identify the positions from which productions have been initiated.

the overall starting point of the designer within a given project depending on whether one focuses on the process, on an object, on direct action, on building, or on evolving project dynamics. Each of the design postures comes with distinct properties, as outlined below.

Designing Open Inclusive Procedures, Interaction Designer

When architectural or urban projects are commissioned as a participatory design procedure starting with defining the project brief up to projecting and building a proposal – as was the case for instance with the project Architecture & Disability for the Medico-social Centre Saint-Martin in Etrepagny and for the Ecohamlet in Saint-Cyr-en-Arthies (fig. 29) – contractually, these projects were developed in two and three follow-up contracts respectively. A first contract covers the definition of the project up to the guide plan including design scheme. Follow up contracts cover the realization of the project. When putting into place open inclusive design processes, several pros and cons can be observed.

On the one hand, inclusive design processes generate a more profound and subtler understanding of underlying dynamics between involved parties and the site conditions. By working together, participants learn both individually and as a group. They often discover that their appreciation of the same spatial situation can be radically opposite or that the qualities of a situation differ depending on the moment of the day, week, or season. Most initial difficulties quickly resolve into manageable patterns that either dissipate or transform into project drivers producing unexpected, innovative proposals. All parties evolve with the project, and a sense of appropriation and meaning usually emerges as a side effect from within the process.

On the other hand, vague resistance can also emerge at the intersection with established professional structures. When open inclusive design processes are participatory, they can raise questions of legitimacy and decision-making, fees and liability, or who is in power. For example, the architects who had worked for many years for the Medico-social Centre Saint-Martin and who participated in the design process set up by Polimorph wrote an open letter after the first collective design session, accusing us of undermining the

profession and left the project.⁷⁶ The turmoil this open criticism triggered in the entire group led to increased solidarity among all other stakeholders towards Polimorph, legitimizing the project approach collectively and publicly. After completing the first commission, the Union of architects honoured the project with a “Prix du projet citoyen”. This success did not prevent us from running into troubles later, during the follow-up commission, which prevented the project from being carried out on these bases during construction phases.



Fig. 29: The group of participants in the Ecohamlet and some of the residents participating in the Architecture & Disability project.

76. Intriguingly, during the last stage oral competition jury for reconstructing the university in Sarajevo in 1997, one jury member from Tel Aviv argued virulently that a proposal reconfiguring existing resources in a system design from where a building could be realised instead of designing a building equals killing the profession.



Fig. 30: For the tower block regeneration in London Newham (international competition 2003-04, short-listed project), we proposed adding windowboxes to the facade grafted on the periphery of the building to circumvent costly residents relocation during construction. As a result of the windowbox, the habitability of the dwellings is greatly improved: the surface area is increased, the glass facades bring a massive amount of light inside, and guarantee better thermal and acoustic insulation. Residents co-develop and select windowboxes from a catalogue. The rehabilitation of a low-cost tower block becomes a social and urban catalyst.

Relational Objects, Designing Objects Within a System, Product Designer

What if we do not wait to be asked by the client, but proactively propose integrated design objects that establish strong relations with the existing territory and generate a broader benefit? We tested this design posture in most competition entires we submitted

Two insights stand out from these initiatives: First, one out of two proposals won a prize, for instance the Windowbox tower bloc regeneration in London (fig. 30), the pavilion Petite Architecture Citoyenne in Paris region, or Le Pilomètre in the neighbourhood of Le Pile in the city of Roubaix. Second, the prize they won was often the 2nd, or shortlisted, not the 1st prize. As such, designing building proposals explicitly embedded within a broader system brought us invitations for dissemination, i.e. talks and journal publications, it played a role for getting future commissions, but not for realisation. Reasons for that pattern would need further examination. It could be that the very quality of being integrated within a territory and establishing multiple relations highlights the value of such thinking while also raising questions about project management and contractual procedures to which there are currently no a priori or simple answers.

Situ-Action, Creating Place by Direct Action Activist

What if we act and intervene directly on-site without asking for permission? What if we knowingly ignore rules and regulations, step across the borders, and simply take place and intervene in it?

We worked in direct action mode several times, for example, with interventions in Bobigny, the Giraffes au lycée (fig. 31), Hortifada. We also experiment situ-action as part of a design method within project studios working with students. The performative nature of such type of spatial interventions on-site bypasses habitual procedures, raises attention, and allows for unconventional responses. It is a design posture that accelerates reactions, which in turn can disclose relevant information. Direct action can be perceived as a transgression. However, when the transgressing intervention is generous and does not cause serious damage, experience shows that it stimulates fondness, desire, and support from both, residents and decision-makers, for further action. Direct action⁷⁷ requires a sense of risk management and sensibility on behalf of the activist to avoid serious incidents, to spur an inspirational effect, to inspire, open up possibilities versus closing down potentialities.

77. Not to be mistaken with the French far-left militant group Action Directe.

Motivations for direct action at Polimorph varied. Sometimes, we wanted to see small project ideas realised or the procedures for obtaining permission seemed too complicated relative to the potential nuisance of the intervention. Sometimes, direct action represented an efficient form of inquiry to test reactions an intervention could elicit. Sometimes, it appeared more efficient to let parties that could be annoyed come to us than us looking for them, or we reasoned that it would be unlikely that someone within the structure of authorities could take a favourable decision even though everybody would likely be fond of an intervention happening. At times we also sensed that creating an experience of spatial transformation first could then accelerate desirable change. In short, direct actions can be useful when the anticipated benefits outweigh the costs for everyone associated with a site.



Fig. 31: Les Girafes au lycée, situ-action Paris (2013).

Open Building Sites for Including Inhabitants in the Construction, Social Engineer

What if the productions are realised as an open building site, where professionals and amateurs build together? From the current perspective, for instance, from return on experience with

the construction of the temporary playground or the Housing Pavillon for mentally disabled people, building together with residents can promote social cohesion, federate people around a shared experience, and increase the appropriation of a project. It can be helpful for learning and transmitting skills, keeping costs down, or prototyping low-tech construction techniques. However, it also requires good orchestration skills to avoid poor design outcomes as well as to manage safety and insurance issues.



Fig. 32: Open building site Côté Cour Côté Tour, a playground for the 0 to 99 years old, Paris (2015).

Being open and attentive to what and to who comes, Weaver

Reflecting on past productions, it appears that Polimorph did not have an a priori position on the type of commissions we would accept. We did not decide to restrict our professional activities to categories such as a particular type of commissioner, a particular type of programme, a particular scale, a particular role as interaction designer, product designer, activist, social engineer... In fact, we followed projects as they emerged, moving from one opportunity to another. I realise now that the underlying conditions for engaging in a project were rather - to put it in the words of Charles and Ray Eames - that there is an overlapping area between the interests and concerns that drive the design team, between the interest of the commissioners, and the concerns of society at large. To be noted that all areas of interest grow and develop as each influences the others (fig. 33). Interestingly, Charles and Ray Eames noted in 1969 that putting more than one client in the model builds the relationship in a positive and constructive way.

This design posture of the weaver tends to be beneficial for the creative process, and to everybody involved, if the participants share an attitude of openness to listen to each other and a readiness to hear the other. There is more readiness to work in this way in the frame of cultural commissions. Handling the changes it eventually elicits when staying open and adaptive to what comes when time, economic, and reliability aspects have a direct relation, and thus, impact on stakeholders money flow, which is most often the case in the context of the implementation of architectural projects, is less obvious.

By mapping productions over a timespan of several years, such a posture of *laissez-faire* while pursuing a direction at the same time, appears more prominently. Weaving relationships across projects, on the level of collaborators as well as subject matters, happen through iteration. The long term impact is refinement of a subject matter, increasing trust relationship and know-how for working together, collaborators become persons feeding a sense of mutual reliability. Each one knows we can count on the other and reach out to each other if needed.

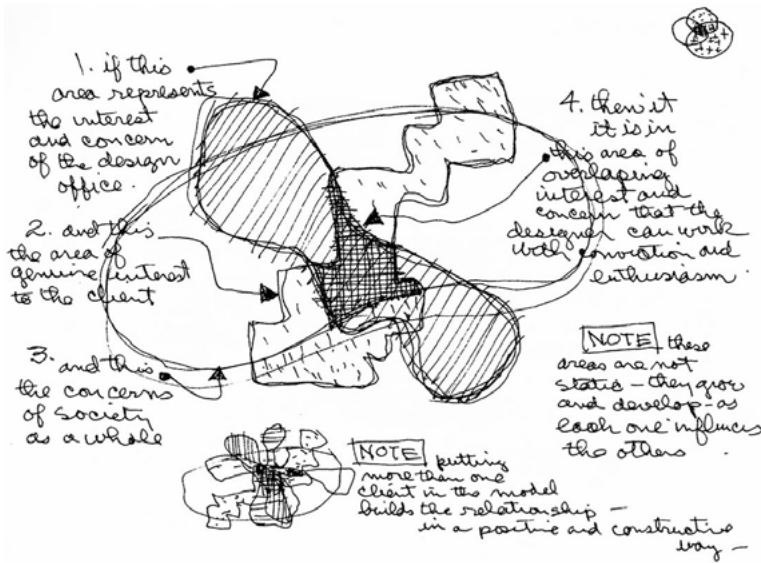


Fig. 33: What is design?, Charles and Ray Eames, Musée des Arts Décoratifs, Paris (1969)

REFLEXION

Postures for Designing Relations

The mapping shows that the designer can embody different positions to initiate and support an open and inclusive creative process. An open, inclusive design is not dependent on or limited to projects commissioned for their participatory approach. Nor does multiparty involvement have to begin with the state of shared diagnosis and then unfold through the states of projecting, reshaping and inhabiting. Rather, the open, inclusive dimension lies in the capacity to shape relationships with an environment and the parties involved. For an open inclusive design to be successful, it depends on whether a designer focuses on establishing relations between acting forces and a milieu, and whether he or she is attentive and caretaking to an evolving project, possibilities and limitations arising on the way, be it by means of participatory process, relational artefacts, direct action on the ground, co-construction. These

first findings, highlighting potentials and limitations of the different design postures, need deeper investigation to grasp the core mechanism at work. For example, an unexpected observation is the catalyst potential of direct action and knowingly transgressing boundaries. So far, these types of interventions have constituted minor and very marginal activities at Polimorph. However, the productions in direct-action mode that create a spatial experience for others without asking for permission – that is, performative actions that are realised as physical interventions – do receive positive feedback, despite their transgressive character. This raises the question of the extent to which bypassing, cutting short, taking decisions independently instead of following the long and winding official route could be engaged at times more proactively. Even more so in light of the observation that projects commissioned for their participatory process often suffer from slowdowns when it comes to implementing proposals, despite the fact that the very same projects tend to receive prizes and disciplinary appraisals prior to the edification of buildings - a finding that will be deeper inquired in chapter four, Pivots.

3.4 Research Step 3: Process versus Product

CONTEXT

Case Study 02: Architecture & Disability

Case Study 03: Ecohamlet

Two architectural and urban projects carried out by Polimorph are emblematic of the open inclusive design approach, its questioning, its evolutions and the problems it faces. They are “Architecture & Disability, for stories to be written before walls are being raised”, a private commission for a Medico-Social Centre, and the Ecohamlet, a public commission for a sustainable village extension of Saint-Cyr-en-Arthies.

These projects were set up by their clients as pilot projects for experimenting with alternative modes of project development to help improve their responses to the challenges they were facing. Both projects were considered exemplary, way before buildings were realised. One became an example for a “citizen

project” (fig. 34),⁷⁸ the other one a reference for sustainable rural development.⁷⁹ Both projects faced obstacles when it came to the follow-up commissions for building the proposals. From the architect’s point of view, this paradox makes these projects interesting case studies to investigate the relationship between the design process and the process output, in more depth. How does the proposed inclusive design approach work? What happens in the design process and what does it produce? Where does its added value lie? Where is the design outcome?

Architecture & Disability, for stories to be written before walls are being raised

The project “Architecture & Disability, for stories to be written before walls are being raised” was an inclusive design commission. The staff of the Centre Saint-Martin, a private non-profit organisation for residents with mental disabilities who live on 35 hectares, realised that whenever a refurbished building is revealed after months of construction work behind a fence, the residents get out of balance. The caretakers need several months to help them find a new equilibrium. This observation was one of the motivations for changing the practice (fig. 35). It happened in the context of a new law that changed the denomination from “disabled person” to “person in a disabling situation”, and which marked an important step in a long-term evolution.⁸⁰ From this law onwards, it is no longer a person who is considered disabled, it is a situation that is considered disabling for a person. The director demanded to include members of the institution, that is, residents, staff from the medico-social field, and professionals of architecture and design, to engage in the transformation process and thereby co-create the future of their centre. Instead of the different members of the centre discovering the new spaces once they are built, they all should be part of the development.

78. “Architecture & handicap, pour que les histoires s’écrivent avant que les murs ne se lèvent”, in *Archi citoyen, dix années de prix du projet citoyen*, edited by UNSFA, 74-75. Paris: Edition PC, 2010.

79. “Ecohameau du Champ-Foulon”, in *Guide urbanisme durable*, edited by PNR du Vexin français, PNR IdF, DRIEE and la Région Ile-de-France (avril, 2014), 42-49.

80. The law of 11 February 2005 is the reference text on the rights of people in a situation of disability. Its main objective is to promote access to autonomy for people in a situation of disability.

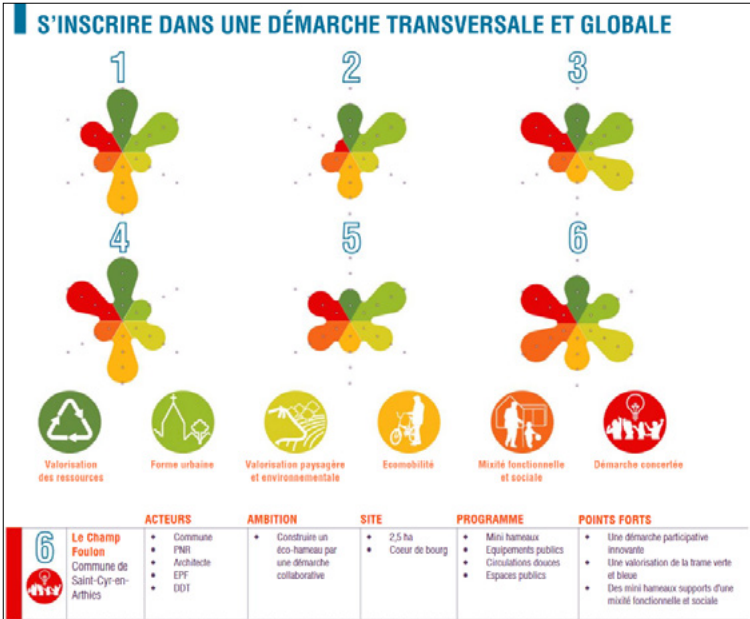


Fig. 34: Evaluation of the Ecohamlet (n°6), in *Guide de l'urbanisme durable*.



Fig. 35: After the construction of the central kitchen and restaurant of the Centre Saint-Martin, the director wished to change the modus operandi and include the members of the community in the development of a spatial transformation project (P. Marguc in co-contract with Drôles de Trames, 2006).

Other motivations were financial, socio-cultural, and the desire to lead the residents from a situation of handicap toward greater autonomy.

In terms of spatial design output, the goal in this project was to produce one guide plan for the future development of the entire domain (20 buildings including a farm, 94 residents, 69 staff members on 35 ha) and to develop project proposals for three buildings: a residential building for 14 residents, the Pavillon Saint-Jérôme, that needed major restructuring, the construction of a new wood workshop that should be set up as an enterprise, and a spa for the residents, la Maison Source, which should be open to the public.

The process was documented by a photographer⁸¹ in the role of a witness account. A short making-of documenting the collective experience was shared publicly at the end of this process (see link below). With the ending of *Architecture & Disability*, Polimorph received the follow-up building design commission for the restructuring of the housing Pavillon Saint-Jérôme.



[Architecture & Disability.
making-of, 2008, 12' \(mov\)](#)

The Ecohamlet Le Champ Foulon, a sustainable village extension

The project for the sustainable village extension “Ecohomeau Le Champ Foulon”, about 75 km outside of Paris at the border of the Greater Metropolitan Region, was a public commission by the regional Parc authority, Parc Naturel Regional du Vexin Français (PNR). It was one of five pilot projects wherein the PNR was looking for new models for sustainable territorial

81. Maja Bialon.

development in periurban and rural areas. The motivation underlying the project was to find ways to reduce the urban footprint of territorial development, constrain land consumption, and research alternatives to the environmentally heavy burden of the single-family homes with gardens. The goal was to develop a design scheme for the extension of the village Saint-Cyr-en-Arthies together with the different stakeholders, that is, existing inhabitants, newcomers, and authorities concerned.

Over a period of ten months, we worked on defining the program together with an average of 40 participants, playing out several development hypotheses. We organized six public workshops in a rhythm of shifting between brainstorming to open collective visions of future alternative realities and restitution for feedback. The development process was documented in the form of a Making-of video produced by an independent video artist⁸² (see link below). A project blog was set up as a communication interface for the group members all along the development and for publicity (see link below).

We set ourselves two objectives: First, the project should evolve as much as possible from within the local territory, building upon existing resources. Second, the project should generate a greater benefit beyond the perimeter of the site. The developed scheme proposed the construction of 23 new homes and shared facilities in a community of 269 inhabitants, an existing 100 homes. The degree of specification equivalent to the stage of preliminary design with spatializing the project principles. This should then be taken up in a follow-up commission for realising the project.



[Ecohamlet making-of 2011
short version, 20' \(mp4\)](#)



[Ecohamlet Archives Vives
project-blog](#)

82. Florence de Comarmond.

METHOD OF INQUIRY

Comparison of Two Participatory Design Commissions

The two cases, including the underlying motivations and objectives that led to the initiative, are compared in terms of setting up and running of an open inclusive design process, the techniques used to include a diversity of stakeholders and in terms of the outcomes that such a design process was able to produce.

More broadly, interrogating these experiences attempts to gain insight about the essence of open and inclusive design processes, who had a say in the development of the project and the relationship between the design process and the process outcome.

Setting Up an Open Inclusive Design Process

Prior to working with a group of stakeholders, Polimorph investigated together with the client who should participate to ensure a mixture of actor profiles and a good size of the group. We agreed an overall duration and a rhythm of collaborative workshops to ensure progression within that time span. We defined the collaborative design tools to bring in for driving the development process forward. We agreed the decision-making procedure and validation of intermediate milestones.

Setting the rhythm: In both projects examined here, Architecture & Disability and the Ecohamlet, the intended timespan was structured in blocs dedicated to a task – identification of the issues to be tackled, comparison of several project hypothesis, prototyping proposals and planning of actions for initiating the desired change. Each bloc began with a workshop that opens an exploration of a wide range of options, which was then followed by a session that is synthesising the exploration, narrowing down the spectrum of possible choices shared among the participants. Then, a period of several days was given for reflexion of possible choices before decisions were made and validated. Prior of entering a working bloc, we suggested the level of specification we believed instrumental to reach as a group before the project could move on to the next development stage (fig. 39).

Mixing Participant Types: During the preparation phase prior to the participatory design process, we established together with the commissioner the mix of participants' profiles we considered essential to include in the creative process. In the case of Architecture & Disability, the participants came from three domains. We brought together experts from the medico-social field (i.e., staff working in the Centre and other doctors, gerontologists, representatives from other medico-social centres), experts from the field of spatial design and culture (i.e., architects, urban designers, furniture designers, engineers, artists), and experts of the everyday practice of space (i.e., employees, the residents, who in this case were adults with mental health issues living in the centre, their parents). In the Ecohamlet village extension, the participant group consisted of residents already living in the village, potential newcomers keen to get involved in the development of their future homes, professionals from the field of spatial design (i.e., architects, landscape designers, urban developers, environmentalists, economists), and representatives of local institutions considered relevant for the realisation of the project (i.e., the PNR, the municipality, the National Heritage Trust, the EPR, the council housing association in the role of the real estate developer) (fig. 36, 37).

The parties concerned with the development of a particular site do not have the same representations and feelings about existing situations and projects, they do not share the same interests, neither do they speak the same language. In Polimorph we consider this to be a simple fact to work with, rather than an uncomfortable discrepancy to iron out. If different and diverse points of view are considered as latent sources of knowledge, diversity could become a capacity-building factor. Therefore it is essential that the group of participants represents different interests and expertise. Architects and urban designers can become instrumental in creating an environment that facilitates collaboration between people who share little more than a concern for a particular territory. At Polimorph, this insight has motivated the search for inclusive methods so that the development of a project can be inspired in a meaningful way.

Introducing Collective Design Tools for Driving the Design Process: In the two cases described here a number of tools were deployed and tested to drive the participatory design process. These tools – methods, devices, techniques, and support structures – are conceived with the idea that they are positioned like a hinge between groups of actors, at the interstice where they meet, and thus play a relational role regulating the creative process (fig. 38). These have been imagined helping each participant and the group to partake in the development. The collective design tools differed according to what had to be developed.

To investigate and describe the existing situation, its underlying concerns, and resources and to identify the issues at stake, we used tools in both projects that allow us to collect and cross-reference three types of complementary data. The tool we call “Odyssée de l’espace”, guides the participants according to a random principle to observe and describe what is tangible in a found situation. It allows us to locate a critical mass of material phenomena collected in a given area. The description of material phenomena is complemented by an investigation of the ways in which people practice a territory. In the case of Architecture & Disability, this happened with the tool “Journée idéale, journée cauchemar”. Participants describe their practice of the territory through the prism of two typical days, the best and the worst day, as they unfold on site. In the Ecohamlet project we developed the tool “Ce qui nous transporte”, where participants are encouraged to describe their practices in the territory through the prism of the means of transport used. In both cases, the tool included the time parameter by inquiring when participants practice a place. The types of movements between places in a territory, the rhythms and their frequencies could be mapped. Finally, the dimensions of tangible phenomena and practices encountered in a territory were completed by investigating representations that circulate about the given area to be examined. Using a tool that we called “Menu au choix” for Architecture & Disability, and “L’état des Choses” for the Ecohamlet, we asked what people think of a situation, what they associate with it or what it means to them, what they envisage for the future, for the project and their

place in the project. To structure the description of what the participants think, the tool proposes four angles to reflect upon a situation, “Here”, “Elsewhere”, “You here” and “Further on”. “Here” is framing the description of a place. “Elsewhere” is asking to describe the place in relation to other places of choice. “You Here” is framing the description of the observer in relation to the place. “Further on” is describing any other thoughts a participant considers relevant to bring up.

Distinguishing and relating data on what exists materially on a territory, on what people think of a territory and how they practice it, highlighted the gaps between preconceived ideas and factual reality, be it in terms of phenomena or behaviour. Furthermore, this groundwork of mapping the data collected by several observers revealed existing concerns, resources, and pre-existing spatial practices beyond general knowledge or first impressions and made it easy to agree on what is at stake and to define collectively what would be expected from the future spatial intervention.

To facilitate the pivot from understanding a present state to projecting possible alternatives, we used in both projects the urban game tool *TabulaRosa*. The tool provided a framework for playful interaction that stimulated the collective imagination in the form of scenarios while addressing the concerns identified. These fictions led to suggestions for possible interventions. For *Architecture & Disability*, we proposed an additional tool, “A letter from the future”, which is a more direct, simpler mode of speculation as we were not sure whether the game *TabulaRosa*, which we considered not so simple, would work well with the participants. Both speculation tools worked well for the participants and the project development. We found that one advantage of *TabulaRosa* is that speculation and negotiation of controversial positions take place simultaneously, whereas in *A Letter from the Future* speculation tends towards unanimity, even if it is co-authored by two or three people. Thus, the discussion of opposing positions would have to be introduced in a subsequent working session. For this reason, although both help to develop scenarios in a narrative form, we considered the “*TabulaRosa*” method sufficient in the subsequent *Ecohamlet* project. The ideas for spatial transformations and for action,

as well as reactions, that emerge can be unexpected and inspire the further project development. This is a useful outcome, even more so as they emerge from within the interaction grounded in a real context. However, the scenario often does not give enough parameters to be able to assess the relevance of the proposal that has emerged sufficiently. A selection of emergent ideas for transformation are then further tested.

Urban Prototyping: To assess the ideas for potential intervention, they are subjected to urban prototyping. Urban prototyping consists of recontextualising the proposals by responding to a series of very concrete aspects such as where to intervene, with whom to associate to implement the proposals, how to use resources to do so. The qualitative aspects of the proposal, such as its aesthetics, programme, technicality, and engineering, were further developed in terms of their feasibility, impact and ability to respond to the issues previously identified in the inventory work on the existing situation. At this stage, the proposals are formatted in such a way as to spatialize the interventions, e.g. installations, performances, drawings, models, panels. The level of definition of possible design proposals was specific enough to lead the group to debate the pros and cons of an idea, and thus help to make decisions on what is important for future transformations, to define relevant design principles as well as to consider strategies for their future implementation. At the same time, the formulation of the urban prototypes is still open enough to allow for a certain degree of interpretation and to prevent the group from getting stuck in the discussion of aspects that were irrelevant at this stage.

Using Situations as Experiential Presence: The principle for setting up of an open inclusive design process consists in promoting contact and exchange. As situation facilitating exchange among people, we avoid frontal presentations, which suggest a divide between experts and lay people and prioritise settings that involve moving the body in space instead of sitting for too long in the same position. This allows us to break free from a classic frontal setting with an active speaker side and an

audience side that tends to be more passive apart from the few people who are used to publicly raising their voice. We realised that the spatial setting influences the way participants express themselves and exchange together. That is, a frontal setting reinforces habitual relations of exchange. Over several years of practice experience, we observed how creating situations and playing with the constellations of people, artefacts, and support structures in space can influence the reasoning that emerges among the participants.

Relational Objects for Feedback of Findings: When designing the actual participatory process, our attention focuses on creating a support structure that entices participants to actively engage in the process of conceiving a spatial intervention and getting a grip on its development. Although we may adapt and customize the tools and techniques used from case to case, the main criterion for the format in which findings are presented is to get hold of the development process and to facilitate exchange. Therefore, tangible things that are shareable in the moment of being together are preferred to represent the outcomes. They federate the group and allow participants to continue referring to them. They are called relational objects and have a mediating function that allows all the stakeholders to play their role fully, regardless of their status or their familiarity with an urban transformation project. They give each participant a means to grasp their involvement in the project, follow its evolution, understand the proposals put up for debate, form an opinion, and take on an engagement.

For the Centre, for example, we conceived of techniques that would make it easier for mentally disabled residents to participate and enable us to grasp what they express. Specifically, we extended the possible modes of expression beyond spoken language. The participants could point out examples, take photos, or guide others to show them what exactly they mean. This adaptation also worked well for most of the other participants.

For the Ecohamlet, we had to imagine how to engage two opposing groups of residents in a collective undertaking concerning the village extension. The existing residents were

afraid of losing their “identity”⁸³ if too many new people moved to the village despite knowing that the population had to increase to maintain a minimum of services, such as a bakery, a café, and the school. The newcomers were primarily interested in participating in the design of their future homes. They were still too far away to feel concerned about a village that was not theirs. To create conditions for genuine exchange, we identified matters of mutual concern. In this case, those were the issues of sewage and rainwater treatment, basic amenities, and the development of the existing qualities of the village as an environment for living and working.

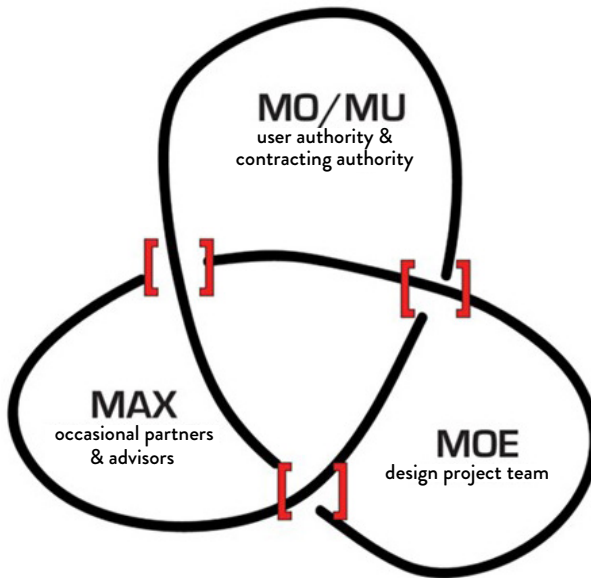


Fig. 36: Principle of interweaving at least three types of expertise (local MO/MU expertise, external MOE expertise and occasional partners and advisors, MAX, whose momentary contribution would be necessary or beneficial): tools and techniques for creative interaction are implemented at the crossings between types of expertise in order to promote the circulation of knowledge. This principle is subject to contractualisation.

83. The term “identity” was used by the residents. According to François Jullien, this terminology should be avoided as much as possible because it tends to define a person or a group through a rigid static category. He proposes instead to refer to cultural identity as a “resource”. In line with his argument, we try here to respect this conceptual differentiation as far as it is reasonable in terms of understanding. François Jullien, *Il n’y a pas d’identité culturelle* (Paris: L’Herne, 2016).

MO/MU - maîtrise d'ouvrage/maîtrise d'usage

PNR - PARC NATUREL REGIONAL DU VEXIN FRANCAIS - maitre d'ouvrage délégué		
Lanthier Agnès	Directrice	
Gaubert Patrick	Chargé de mission urbanisme	
Bimbault Paul	Architecte conseil	
Osson Romuald	E&U montiersis subite	
Filipe Delphine	Animatrice, contrat de bassin Ru du Roy	
Guet Patrick	Membre du pôle développement durable	
Jorelle Mme	Assistante de Delphine Filipe	
Laffond Magali	Paysagiste	
Pichery Jean	Vice Président du Parc chargé de l'urbanisme	
Mail à toute l'équipe du Parc	A ne pas utiliser à chaque fois!	

COMMUNE DE SAINT-CYR-EN-ARTHIÉS

Paric Martine	Maire	
Gilbert Bernard	1er adjoint du maire	
Vosnier Jean-Pierre	2ème adjoint du maire	
Mantigny Philippe	Conseiller municipal	
Dupert Martine	Conseillère municipale	
Barros Vincent fils	Conseiller municipal	
Dalencourt Remy	Conseiller municipal	
Manas Bruno	Conseiller municipal	
Vicq Catherine Marie	Secrétaire de mairie	

HABITANTS DE SAINT-CYR-EN-ARTHIÉS AYANT PARTICIPÉS À L'ETUDE

André Sophie		
Avanti Patricia	habitante, allée des tilleuls	
Barros Jean Pierre père	habitant et ancien maire, agriculteur	
Bourgeois André père	entrepreneur bâtiment à Saint-Cyr-En-Arthies	
Bourgeois Jordi fils	ancien gestionnaire du château	
Daubele Beate	horticulteur, nouveau propriétaire du château	
De Phevoit Marie	habitant et artiste peintre, ancienne brocante	
Dupert Guillaume	jeun habitant	
Grauer Philippe	galérie d'art, résidence secondaire	
Jehan Christine	animatrice section théâtre	
Joly Monsieur	ancien gestionnaire du château	
Jones Etienne	habitant, ancien maire de Saint-Cyr-en-Arthies	
Joulin Thomas	jeun habitant	
Leveux Christian	habitant, retraité	
Marras Guy	habitant, propriétaire des terrains	
Paric Martine		
Medina Amelbel	habitante, rue du parc	
Muzard Olga	habitante, Rangée de Crocourt	
Muzard Philippe	habitant, Rangée de Crocourt	
Omnes Nicole		
Poumier Marie	habitante, riveraine	
Poupeu Gerard	habitant depuis 1979 AUC	
Stado Stephane	propriétaire foncier AU 2, carrière et maison devant la mairie	
propriétaire Maison de Maître au nord	habitant, riverain	
Vassal Hubert	habitant, retraité	

POTENTIELS FUTURS HABITANTS AYANT PARTICIPÉS AUX ATELIERS & RESTITUTIONS

BEN Franck		
BOURGEOIS Marc		
BIDON Thierry		
CORVIN Elina		
DEJAFREN Elane		
DEVALE Amélie		
DUCROGG Jocelyne		
JUNCA Elane	Paris	
KRUISSEL Patric		
LAPIERRE Anne-Marie		
LEDUC Sylvie		
LESCALX Brigitte		
LES ARTHÉZIENS		
WILMET Alain	association libre des potentiels futurs habitants	

MOE - maîtrise d'oeuvre

polimorph	Marguc Petra	architecte urbaniste, chef de projet
	Bakhadda Chihab	architecte
	Faverneic Marie	architecte
	Sore Edouard	architecte
	Amour Stéphanie	animateur / scripteur
	David Jacques-Olivier	animateur / scripteur
	Hartentson Laurence	animateur / scripteur
	Roman Marie	animateur / scripteur
arpents paysages	Alban Christine	paysagiste
rf-éléments	Cimernan Benjamin	ingénieur de l'environnement
MDTS	Strangé Thierry	urbanisme opérationnel / économie de
MOETC	Ducroux Michel	économie de l'aménagement
Making of	Florence de Comamond	atelier de bas en haut

MAX - comite de pilotage, conseillers externes

CG Conseil Général 95		
	Martin Marysa	direction des transports
	Gay Kauffmann	Directeur général des services du CG
	Morgane Enon	Chef de service aménagement au CG
	Christelle Lependu	Chargé du suivi des actions PNRF au CG
SDAP 95-Service Départementale de l'Architecture et du Patrimoine (95)		
	Bellon Jean Baptiste	ALIE ABF chef du SDAP
	Steinbach Virginie	ABF adjointe BELLDON
CAUE Val d'Oise - Conseils d'Architecture, d'Urbanisme et d'Environnement du Val d'Oise		
	Favot Joel	Directeur
	Delpoux Nathalie	stagiaire développement durable
	Luthringer Charlotte	Architecte conseillère
	Saintours Emmanuelle	Architecte conseil
CAUE les Yvelines - Conseils d'Architecture, d'Urbanisme et d'Environnement des Yvelines		
	Anfray Legendre	
	Emmanuelle Saintjour	architecte conseillère
EPAMSA Etablissement Public d'Aménagement du Marais Seine Aval		
	Beuzen Pierre	Chargé mission aménagement et construction durable
	Serendour Philippe	Animateur pôle Eco construction Seine Aval (CIN)
IDEA / SATO / MT - Direction Départementale de l'Équipement et de l'Agriculture		
	Civino Michel	Chef de projet aménagement et urbanisme, ingénieur
EPFVO - Etablissement Public Foncier du Val d'Oise		
	Eichhof Catrin	Responsable pôle étude et développement
	Madame Tronciu	collaboratrice de Mme Eichhof
SIAA - Syndicat Intercommunal d'Assainissement Autonome		
	Marius Houdouille	Président
	Decle Daquet	SIAA 14, rue du Heaulme 95640 MARINES
DDT Police de l'eau Val d'Oise		
	Berruto Flore	DDT 95
	Clément Alain	DDT 95
	Minnetzer Catherine	DDT 95
	Moulin Emmanuel	DDT 95
	Nadine Fritst-Jean	DDT 95
	Franche Poinette	DDT 95
	Mr Raimboux	
ADEME - Agence De l'Environnement et de la Maîtrise de l'Énergie		
	Besnard Eva	ingénieur management environnement des collectivités
	Skefan Loulat	contact de patrick gautier
Espace ING Energie Cergy		
	Hamet Sébastien	Conseiller info énergie
Cabinet de conseil PAKT - Amis du Vexin		
	Tourret Karine	Membre du conseil d'administration AVF/ Consultante cabinet de conseil PAKT
Amis du Vexin		
	Rosset Claude	Secrétaire générale adjoint
	Marchon François	Président
Association de sauvegarde de la vallée du Sauseron		
	Amot Daniel	Président
Val d'Oise Habitat		
	Renaud Catherine	directrice du développement
SIBVR - Syndicat Intercommunal de la Basse Vallée de la Risle		
	Habit Emmanuel	Entrepreneur / menuisier / élu Vitheuil / Président du syndicat de bassin
DIREN - Direction Régionale de l'Environnement		
	Lucet Stéphane	inspecteur des sites
Bergerie de Villarceaux		
	Sanson Baptiste	ingénieur Agronome

Fig. 37: Three types of expertise in the Ecohamlet: MO / MU- 58 people (e.g. institutions, community groups, local residents, etc.), MOE design project team-19 people (e.g. architects, landscape architects, engineers, economists, socio-scientists, etc.) and MAX- 37 occasional partners & advisors (e.g. steering committee, civil society representatives, etc.).



Fig. 38: Collaborative design tools utilized in Architecture & Disability (top), in the Ecohamlet project (below), from left to right: Ce qui nous transporte (mapping of the footprint of practised territory); Menu au Choix (exploration of thoughts about a territory); Odyssée de l'Espace (mapping of material phenomena in a territory); TabulaRosa, urban game (speculative design tool); Urban Walk, Spatial Installation; Material support for Re-configuring, Project Blog, Making-Of video documentary.

1

DIAGNOSTIC DES BESOINS, POTENTIELS & PRATIQUES DE L'ESPACE

2

MISE EN SITUATION HYPOTHESES

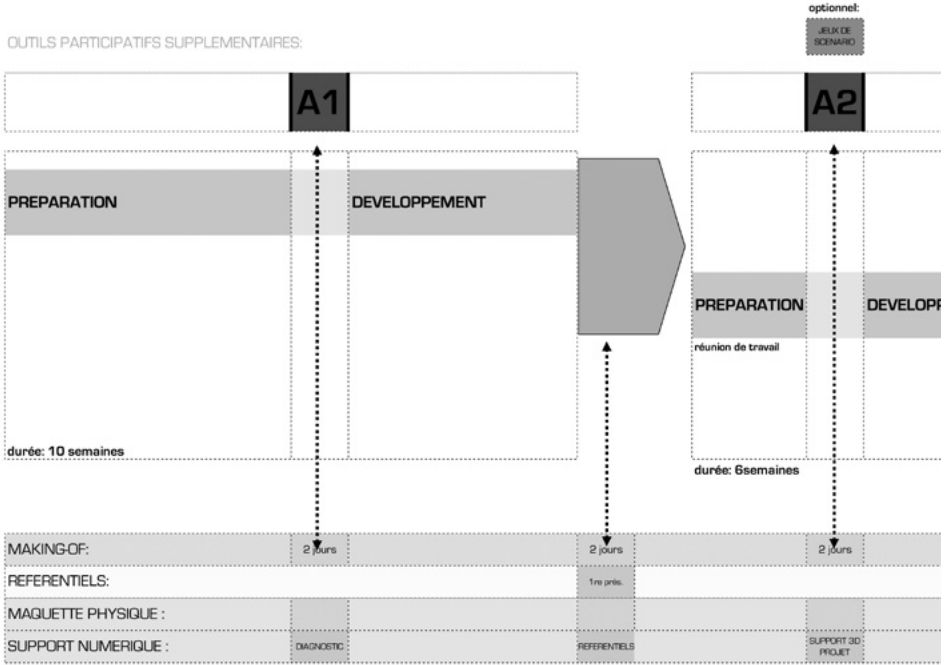


Fig. 39: Principle for setting the rhythm, which is oncontractualized between Polimorph and the commissioners (example from the case of the Ecohamlet, 2010).

Outcomes of an Inclusive Design Process

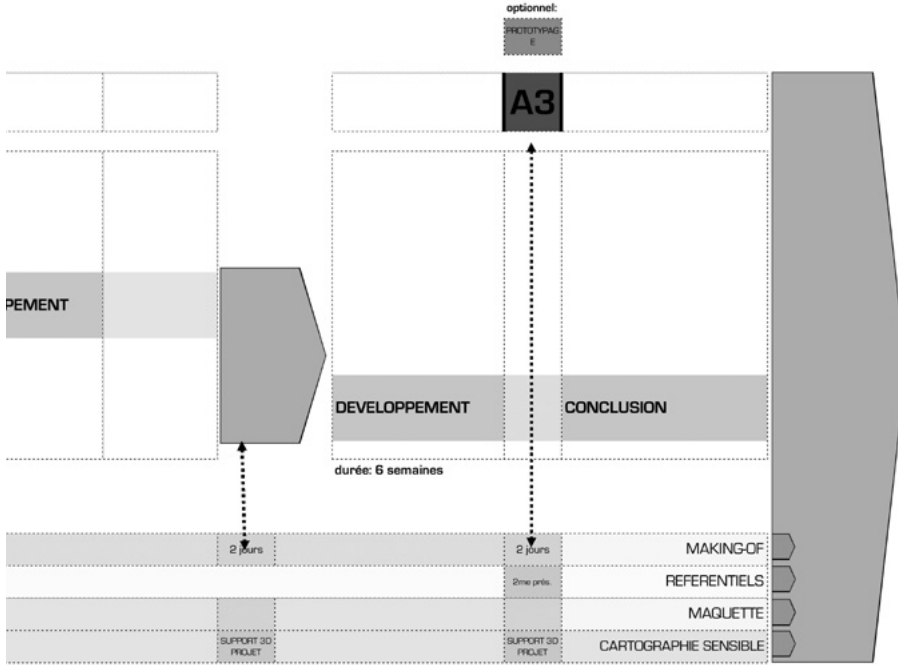
The interaction of the participants leads to a series of intermediate results along the way. Participants produce a shared description of the existing; they agree on what they consider to be relevant to address and what they consider meaningful as response; they agree on the spatial proposals and design principles that should guide a transformation process; they assess their capacities for action.

For Architecture & Disability, the open inclusive design approach resulted in the correction and refinement of the design brief, which evolved and got adjusted throughout the process. For instance, initially all design attention focused on the residents, but with the exploratory tools in the diagnosing

DES

3
DEVELOPPEMENT DES PRINCIPES
DU PROJET

4
POSTPRO
DUCTION



phase it turned out that the employees were suffering from their working environment. Ergonomic improvements for repeated gestures, such as helping people in and out of the bath or spaces facilitating moments of breaks and retreat from being with the residents, were identified as necessity and transposed in the architectural design project for the Pavillon Saint-Jerôme.

Furthermore, it led to a clarification of notions, such as autonomy or home. The group specified that instead of simply replacing dependency with autonomy, as it was demanded at the beginning, there should be different degrees between those two poles. They became aware that dependency is not only negative, but some dependencies also bear qualities. For example, the residents mentioned the situation of the social worker ironing

in the shared living room while also having an eye on them. Both residents and employees treasured the conviviality of this situation, chatting in an ambiance of the odour of fresh laundry, and wished to preserve and transpose this atmosphere into the new scheme. In terms of design guidelines, that would demand for instance ensuring such qualitative situations of atmosphere even if staff members would not be required to iron in the living room anymore.

The collective refinement of terminology directly impacted on the design principles transposed in the projecting phase for the restructuring of the housing pavilions. For instance, the participants pointed out that most of the residents stay living in the centre throughout their entire lives. So far, the rooms resembled a medical, institutional place. By contrast, home for the participants meant a roof over your head, a sense of entrance, a direct access to an outside space, the possibility to personalize your home, and having the choice to receive guests in the privacy of your home, not only in the shared spaces of all the other residents. The future housing pavilions should not only provide rooms but houses for the residents, which would feel like home. Home was defined having a roof, receiving friends in the private space, having a sense of entrance of arriving home, personalised decoration (fig. 40).

The process also led to an evolution of values. For instance, subjects such as providing apartments where people with mental disabilities could live together as a couple or developing activities within the domain of the Medico-Social Centre that would attract outside people were both very controversial among the members of the community. Through envisioning future inhabitation which would evolve with spatial and architectural transformation, all participants could conceive such changes manageable and agreed upon structural change of the rules within the community, their value systems evolved. This part of the open inclusive design commission ended with an overall plan for the future development of the centre and the definition of the design principles for the building projects.

For the Ecohamlet, the inclusive design process laid from the very beginning underlying conflicts of how a sustainable

village extension could be realised bare open on the table of discussion. Controversy became manifest around topics such as density, sustainability, cultural heritage, and identity. The idea of a village extension was accepted as a necessary territorial development for maintaining essential local services in the community, but the number of newcomers estimated vital to achieve it was considered too high for the existing community. Grouped housing and bioclimatic construction methods were considered attractive, but, from the perspective of the villagers, “it did not correspond to the local culture and the drywalls typical for the region”. Sharing services on an intercommunal scale would be a good idea, but “our village has nothing to do with the people from the neighbouring village”. The barriers we encountered in inventorying the existing were to a high extent rooted in different value systems between many people living in the village and the people interested to be part of a participative pilot project carried by a partnership of two public institutions. As a start all the participants agreed upon the village extension but disagreed on how this should happen.

Material anchors of two types, material evidence and material constraints, became instrumental as project levers and enabled to overcome the encountered oppositions during the design process. First, the methods and tools we introduce to drive the process request to attach any claim to material evidence. This leads to revealing together to which extend a claim is truthful or needs reformulation. For example, mapping the footprint of everyday practice evidenced that the village people already rely on a network of amenities spreading over several communities, sharing services on an intercommunal scale is factually already existing in the everyday practice of a villager’s life.

As it turned out that the belief or self-representation that our village had nothing to do with neighbouring villages was not true, discussing whether or not inter-municipal collaboration would be possible shifted towards how to develop upon a practice which is already there. Mapping the existing urban densities in different parts of the village evidenced to the group that the density in the historic heart of the village, which was the reference for all, was far higher than the density disputed for the

project: Once evidenced and shared, residents could associate a degree of density to other experiences than what they had in mind so far. Higher density was accepted, the discussion shifted towards understanding the parameters which made the dense historic heart of the village a qualitative reference shared by the many, which then evolve towards design principles understood and supported collectively. Secondly, by finding a material constraint that would be of concern to all parties, we could work on proposals to create a win-win situation so that each party would benefit from the project to come. In this case, a common tangible concern was identified in the rainwater runoff, causing a range of problems for private households and the municipality.

By the end of the diagnosis, the group was able to define the development guidelines to be respected for the spatial interventions to follow. For example, the rain- and wastewater treatment should become the backbone for designing the village extension so that villagers and future residents would benefit from the project. It should build upon the topographic qualities and condition the design of public space and private gardens. In continuation of that logic, the treatment of outside spaces, whether public or private, creates ecological corridors for water and biodiversity and settles spatial qualities at pedestrian scale. (fig. 41)

In the second half of the project, these guidelines were translated into one overall guide plan and a series of smaller manageable spatial projects on architectural scale and landscaping of public space. Intense negotiations concerning the number of newcomers the village could accept, a viable solution for the dysfunctional wastewater treatment in the village, and the kind of contemporary architecture a traditional village could incorporate without losing its identity did find a resolution that, at times, generated innovative solutions. As an outcome of projecting the future extension, the typology of a mini hamlet was found which could intertwine and regulate several concerns (fig. 42). It is a plot entity of intermediate scale gathering a few households, neither a small individual property nor a large entity for a developer, allowing a contemporary reinterpretation of the

regional farmhouse. This typology reconciled the need for higher density, allowing a range of possible lifestyles and respecting the local housing tradition. The scale of treatment is neither a single house nor an allotment. The entity regrouped homes around a common wastewater-treatment plant stimulating village life and efficient cost-management.

Both projects were set-up in two stages, a first participatory design commission to define the future project up to the preliminary design scheme, a follow up commission for realising the projects. In both cases problems occurred during the follow-up commissions. In the case of the first follow-up commission of Architecture & Disability, to realise the restructuring of the Saint-Jérôme Pavilion for 14 residences, the building permit, the execution drawings and the tender got validated, but the collaboration derailed just before going on-site with construction. The breaking point was the incapacity of reaching an agreement between the client's intention to allow members of their institution execute a part of the building work themselves and the architects requiring an amendment to their contract for partial discharge of their responsibility in order to be able to do so.

For the follow-up commission of the Ecohamlet, the group of stakeholders was extended by a developer and a new Council Housing organisation. Together with the municipality, our client, the park authority, wanted us to supervise the operation for ensuring that the ambitions of the preliminary design were indeed translated into the realisation stage, to continue with a participatory approach for the stages to come, and to be the project architect for at least one of the five urban plots. Despite a three partied contract between the municipality, the park authority, and the developer agreeing to maintain all the project principles which had been collectively developed before he joined the project, a rupture occurred. The developer separated the preliminary design from the project realization and appointed through the public tender an external architectural firm. The work of Polimorph as project architect ended there.

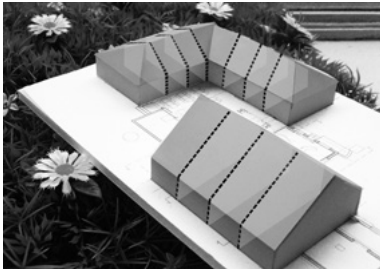
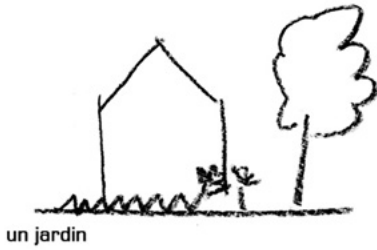
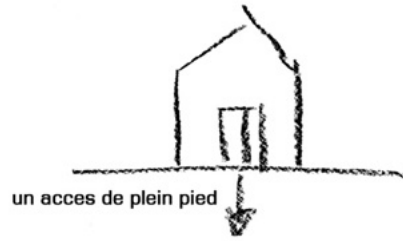
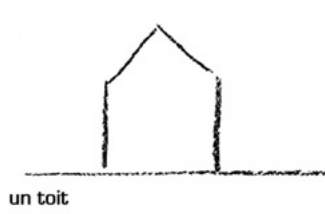
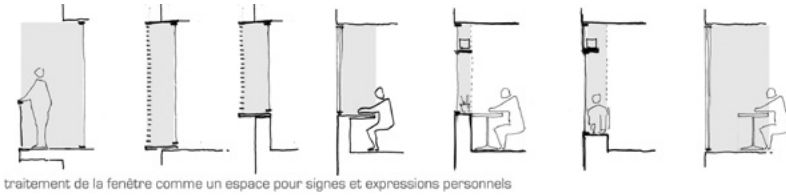
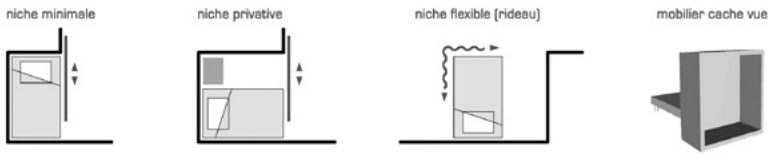
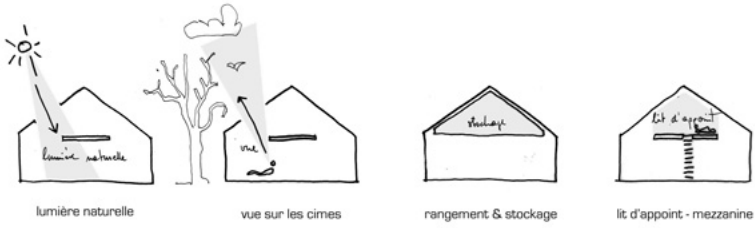


Fig. 40: Examples of collectively developed spatial design principles for transforming existing institutional healthcare rooms into homes, in Architecture & Disability(some extracts).



CONTACT URBANISM

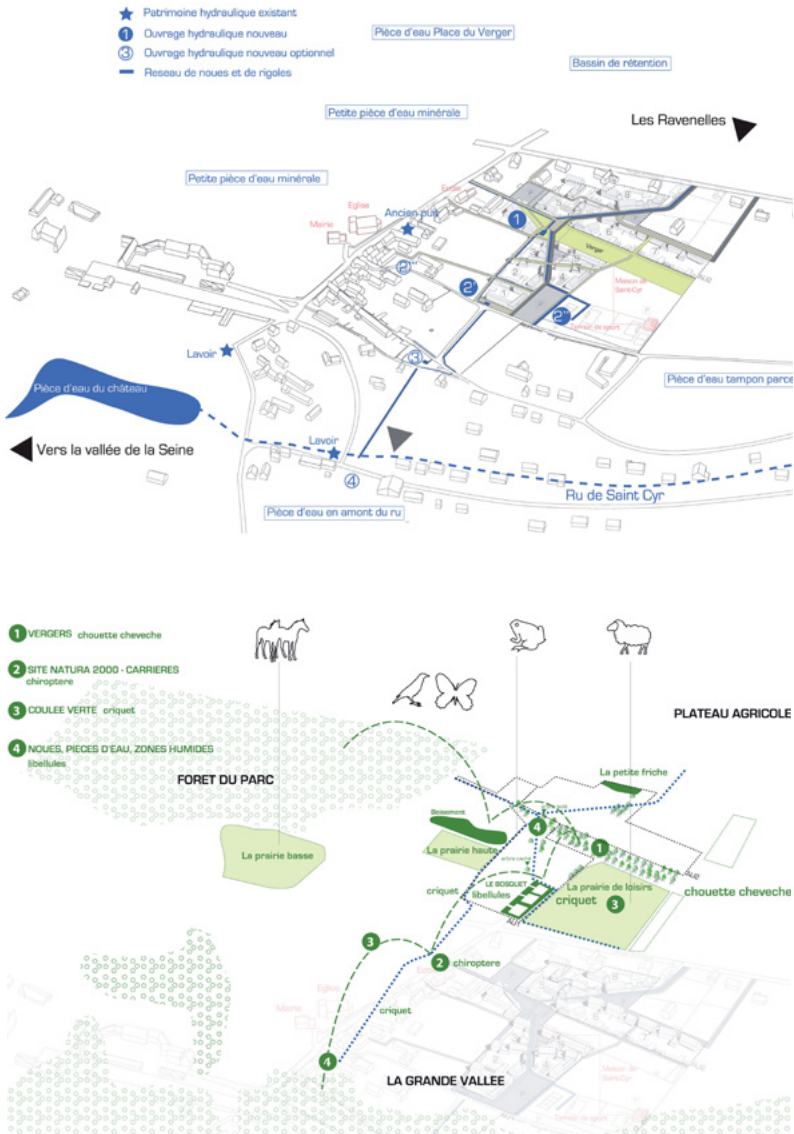


Fig. 41: Ecohamlet - (above) The design of the water system creates spatial qualities for the eco-hamlet and solves the existing drainage problems of the village; (below) A differentiated management supports the ecological corridors of the wider landscape.

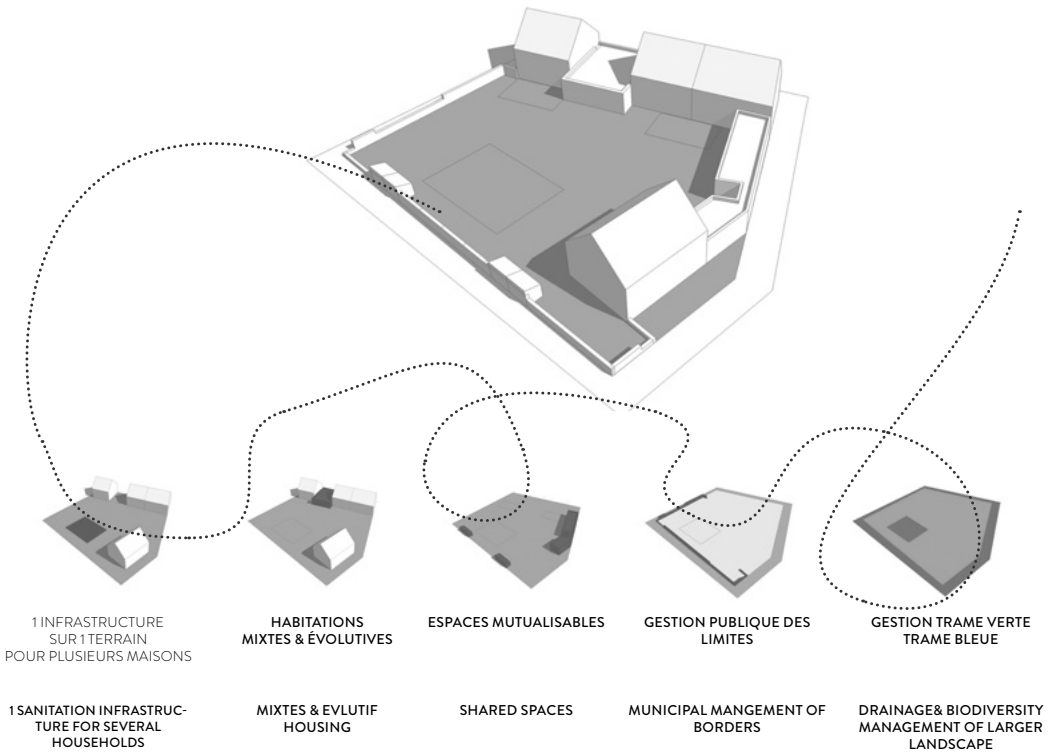


Fig. 42: Concept of Minihamlet - no single-family homes, no developers, but intermediate-sized sales lots; it is a co-housing unit inspired by the local farmhouse typology. Its principles design regulates the larger territory and communal organisation.

REFLEXION

Switching Between Action Protocols and Relational Objects Drives
Creative Interaction

Both cases show that the setting of the open inclusive process led to design proposals that fulfilled the participants' expectations within the planned time frames. Both cases generated new insights on interpreting the existing situation, led to a refinement of the project brief and the generation of innovative proposals to respond to the identified needs. In both cases, the professionals, clients, and other involved parties agreed upon the outcomes generated throughout the process and the increasing specification of the design proposal. For all but one of the stakeholders, the process was satisfactory, as each participant was able to get a sense of how the development was progressing, which they considered to be truthful. Participants did identify with the evolution of the development process and evolved themselves with it.⁸⁴

With the help of tools to observe and describe, the group established together a shared inventory of the existing and concluded with the formulation of major stakes the project should treat. From these collectively agreed stakes to be tackled, tools helped the group then to test tested and compare a few development hypotheses. These speculations enabled the group to envision what a future transformation of a site could lead to under a set of circumstances. With the prototyping tools, the simulations of possible future scenarios are transposed in the form of specific, viable, and achievable spatial interventions, which allow participants to assess, discuss and adjust possible interventions in view of concrete action.

Reflecting upon the introduction of collective design tools, we find that we rely on two complementary forms: there are design tools that facilitate and give direction to a quest. Inherently, they are protocols of action, which serve to open up and broaden the scope of possibilities. As a counterpoint, there are relational

84. The only exceptions were two architects who worked for the centre before Polimorph's got commissioned and who dropped out during the inventory phase because they did not agree with the open, inclusive project approach.

objects. Their role is to condense the range of possibilities, to summarise intermediate results and to reduce them to a core of options. In a rhythm of opening and closing, reflecting, deciding specific objects were proposed at the end of each work cycle, materialising achievements of the dynamics of exchange. Thus, in the course of the collective design process, the proposals for spatial transformation became more and more refined.

During the participatory design process, attaching controversy to material facts in the present situation turned out to be a powerful lever on many occasions that could make incoherencies tangible while bringing the discussion back to a pragmatic, factual level and away from personal apprehensions. Bringing attention back to the present tangible reality allowed controversies to pivot from apprehension into some form of proposal that appeared acceptable and desirable for parties that do not share the same value system. In a double move of grounding the interaction of the actors in tangible reality while simultaneously leaving room for their imagination made it possible to escape preconceived ideas and patterns of thinking and to overcome blockages. This favoured a progressive appropriation of the transformation process and contributed to the success of the development.

Both individuals and the group as a whole made profound learning experiences including oneself. The participants become knowledgeable about spatial organization, patterns of cohabitation and architecture based on examples from the environment they are familiar with and put in relation to examples which appear distant from their habitus. They learn how to develop criteria relevant for their situation as well as to envision, debate, and evaluate proposals. Having made the experience that as an individual they can contribute to a project about their living environment,⁸⁵ that individually they can collaborate with people one would not necessarily have anything to do or to share with and having achieved the formulation of a project together, is transformative, empowering and capacity

85. "(living) environment" is used closer to the German word "Umwelt", which literally means the world around us. It comes closer to "milieu" – an environment in relation to a living entity being constitutive to that living entity – than to an area.

building for each one. With the making-of presentations which produced a witness-account of the development process, we experienced the impact of looking back together upon the journey undertaken. Recalling from where we started to measure the distance to where we arrived, reinforces a sense of what has been achieved and what participants want to hold on to for the future.

The most important difficulties occur when reaching building phase. Unsurmountable obstacles appeared only in the follow-up commission, when transposing design proposal to edification. Some possible reasons could be that transposing a participatory approach into a legal framework for construction remains unconventional and requires additional resources. Furthermore, professional actors may be less willing to take risks for changing their usual practice or simply may be less capable of taking over outcomes of a development which was done and presented differently to the habitual formats. The observation of such obstacles calls for further scrutiny.

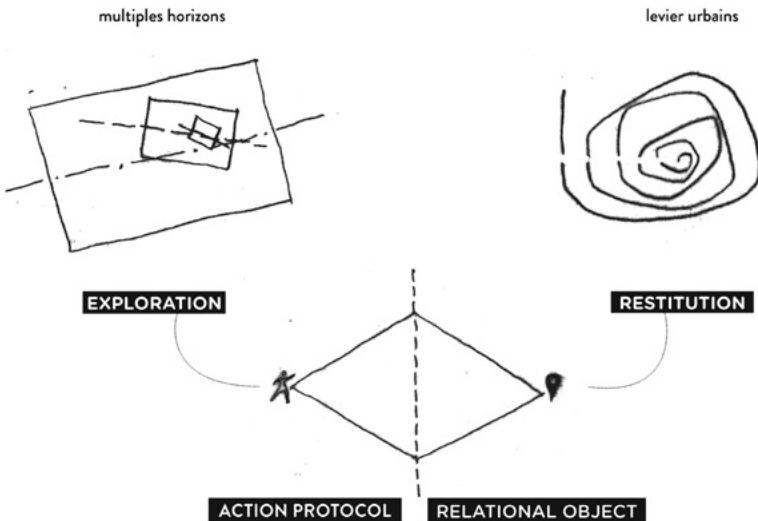


Fig. 43: Principle of the complementary relation between action protocol and relational object. For driving creative processes forward, this entity should not be taken apart.

3.5 Insights: Propelling Devices, for Getting Hold of Progression

*“Structure without life is dead,
but life without structure is un-seen”, John Cage⁸⁶*

Inquiring the process of spatial transformation through the way Polimorph approaches spatial design in practice, the following insights should be noted.

The design process is based on a spatiotemporal framework entangling location, material things and people. Techniques for orchestrating the relationship between those dimensions are developed driving spatial transformation forward and generating benefits for the specification of a project development as well as for the stakeholders (research step 3 – process versus product). It shows that an open inclusive design approach can be embodied from a range of design postures, beyond participatory design commissions. It can be achieved through designing processes, designing products, situ-action, co-construction or weaving relations in being attentive to what and who comes. While each of these design postures has its inherent strengths and limitations, what they all have in common is that they focus on the design of interactions, both with a place and among the stakeholders involved (Research Step 2 – open inclusive design postures). It also demonstrates that relying on the intrinsic bond between the physical, the imagined and lived dimensions of space leads to a dynamic model of spatiality, in opposition to a static view on space, which is instrumental for spatial design in many ways (Research Step 1 – space in motion). It provides a framework to look, to observe, and to describe relations. It allows evidencing relations across those dimensions and thus to understand the deeper mechanisms at work in a spatial situation. This helps to ask better questions and transpose problems into design problems leading to more meaningful design proposals. A dynamic model of spatiality leading to a processual representation of a space in

86. John Cage, “Lecture on nothing”, in *Silence, Lectures and writing* (Wesleyan University Press, 1961), 113.

motion shows its continuous transformation between states of inhabiting, diagnosing, projecting, reshaping.

Beyond seeing space in different states, it shows a changing position of the observer in each state. In the state of inhabiting the observer is a constituting component of the space observed. In the state of diagnosing the observer looks at an existing spatial situation, whereas in the state of projecting the observer looks into a future. In the state of building the observer is turning into an interventionist transforming, reshaping, matter. Including the state of inhabiting is highlighting the fact that practising a space is acting upon spatial situations transforming the territory, due to the mere presence of being part of it, regardless of whether being within and part of a situation is done with intention or not. An absence of intention of spatial transformation is not to be mistaken with an absence of impact upon the situation. Furthermore, a processual representation of a spatial (trans)formation shows the materialized architecture at the threshold between two states, at the end of building and at the beginning of inhabiting. Being positioned between states, shows the double nature of a building, making the finite object simultaneously into a regulator of social, spatial, and urban relations.

Propelling Devices Structuring Spatiotemporal Settings in a Transversal Design Process

The examination of the case studies shows that the essential five components influencing transformational dynamics in an open inclusive design process are as follows: (1) diversity of positions and perspectives, (2) collective design tools in an accessible format to support participants engagement and progression of the design development, (3) holding the pace, in a rhythm of opening exploration, rarefying possible choices, maturation and shared decision-making for closing, (4) situatedness for anchoring the interaction process in a shared tangible reality, (5) allowing time for pause and iteration.

In Architecture & Disability and Ecohamlet, a combination of these components ensures a creative interaction process for spatial design to unfold over time. A spatiotemporal setting

marking a beginning, an end and a tangible horizon of the process to reach, helps to motivate participants to engage in the development in a first place and to progress towards increasing specification of a design intervention.

In an open inclusive design process diversifying viewpoints within a situation is valued. By crossing a diversity of perspectives to look at and describe a place (i.e. through the material phenomena, through behaviours, through representations), considering a situation through the eyes of someone or something else, opportunities to see what one was not looking for are generated. This results in new insights for better interpreting an existing situation and verifying the formulation of needs (as it happened with the notion of “autonomy” or “home” in of the case studies, and “density”, “heritage” or “sustainability” in the other). This in turn promotes a refinement of the project brief and the generation of innovative proposals to respond to the identifies needs.

But, orchestrating multiplicity is laying open the challenge of translation and of mutual comprehension namely for achieving an agreement on the description of the existing, interpretation of what is at stake and what is needed. In the case studies inquired in research step 3, involved parties could agree upon the outcomes generated throughout the process and the increasing specification of the design proposal. Enabling stakeholders to partake in the development process is led by constructing agreements between the actors progressively. When these progressive agreements are achieved, they serve as milestones in the design process to refer to when evaluating design proposals, deciding on design principles, and assessing the capacities to be assembled for implementing the proposal. The design proposals fulfilled the participants’ expectations within the planned time frames, the process was satisfactory, participant could get a sense of progression of the development which they considered truthful. The development becomes meaningful to the participants. This contributes to a progressive appropriation of the transformation process. The design process then does not only lead to proposals for transforming a situation, but the open inclusive design process also becomes transformative, empowering and capacity building for people involved.

Being put in contact with other people or tangible phenomena, which is a source of disturbance and dislocations, spurs dynamics. But what is done to ensure that the design process progresses? Clearly, the pivoting from one state to another, increasing specification of future transformative action, is propelled by introducing collective design tools. Protocols for action spur a getting in motion, relational objects transpose momentary outcomes in graspable formats, pause introduces a space for reflexion between a stimulation and a response necessary to sidestep automatic reactions, a validation of decisions formalises a collective achievement as new benchmark.

Action Protocols and Relational Object for Setting the Pace: Within the spatiotemporal setting, processual levers are important for conducting investigation and for driving a design process forward. The use of engaging tools and feasible assignments, including the rhythm of how they are introduced in the project development play a key role for involving different participants, for driving the creative process, and for formulating proposals within a planned time frame. They constitute essential structural components to support transversal design. They regulate creative interaction and progression. If they had not been there, the open inclusive design process could not have progressed as it did. As propelling devices these co-design tools maintain a creative flow so that a relational architecture can be woven, and temporary objects representing gradual achievements engendered. The assignments need to be sufficiently clear and intelligible, just like tools to be utilised to perform an action. Depending on which moment of the process we are in, the challenge of intelligibility of tools and techniques arises in two complementary ways: one enables diverse experts and laypeople to step into a situation and engage in exploration; the other helps to step out of the exploration, exchange about collectively gathered data and make it meaningful and helpful for decision-making. Hence, among the variety of tools and techniques experimented for inclusive design a distinction can be established between means driven and target oriented devices. Such a complementary pair driving creative processes could be observed in action-protocols

intended to stimulate discovery and relational objects intended to transpose momentary achievements into a concise format. These process catalysts are called “action protocols” for those driving participants to engage in an explorative action and “relational objects” for those driving participants to reflect and make choices. Action-protocols put participants in motion to explore and open up perspectives, Relational Objects then gather and organise results (fig. 43).⁸⁷ It also works the other way round, a relational object can be put into a situation, and action-protocols help to inquire possible perspectives generated.

To create action protocols and relational objects they are imagined situated at the threshold between stakeholder groups, with the criteria to facilitate engagement and between states of transformation with the criteria to facilitate progression. They articulate like hinges the transition of entrance and exit of each phase and provide grips for developing concern for the project development. It resonates with the recent work developed by Ines Weizmann on Threads and Hinges: The Geo-History of Architectural Elements.⁸⁸ We consider these intermediate results as relational objects because of their supporting and mediation quality and because they allow a construction of agreements between the actors progressively. We realized that action protocols and relational objects are two types of assignments that do not have the same function but do work together.

87. The complementary role played by action protocols and relational objects is somewhat reminiscent of models describing organisational transformation processes, such as Kurt Lewin’s three-stage change model of “unfreeze-change-refreeze” (1947), David Kolb’s experiential learning cycle model of “concrete experience-reflective observation-abstract conceptualisation-active experimentation” (1984) or the *Double Diamond Design Process* model described by Béla H. Bánáthy (1996) and adopted by the British Design Council in 2005; Kurt Lewin, “Frontiers In Group Dynamics, Concept, Method and Reality in Social Science; Social Equilibria and Social Change”, *Human Relations*, Volume 1, Issue 1 (1947), 5-41; Bernard Burnes, “The Origins of Lewin’s Three-Step Model of Change”, *The Journal of Applied Behavioral Science*, 56-1 (2020), 32-59; David A. Kolb, “The process of experiential learning”, in *Experiential learning: Experience as the source of learning and development*, 2nd ed. (New Jersey: Pearson Education, 2015), 31-64; Bela H. Banathy, *Designing Social Systems in a Changing World* (New York: Springer. 1996).

88. Ines Weizman, “Threads and Hinges: The Geo-History of Architectural Elements”, in *ARCH+ features Stuttgart Talks on Architecture*, Vol. 11, 15.02.2021.

A collective design tool should maintain both aspects, otherwise the sense-making aspect of collaboration, and thus the commitment of the participants, could be compromised. It is in the coupling of these two, that pivotal moments emerge in an open collective design process that drive development forward.

Choreography of Withdrawal: Inquiring the cases revealed that after a time of active work follows a time for reflexion. After Action Protocols setting in motion a creative process and transposing the findings in form of Relational Objects, we introduce a Pause before decision-making and validating choices. We realised that people need some time before they can develop a position towards the exposed achievements and express their position to others. Often, the informal moments when people can meander freely amongst one another and the artefacts that embody the propositions are essential. Free, undirected conversations where the designers withdraw from their orchestrating role can occur according to the needs of everybody. It could be thought of as passive work, a period of time without any demand to let new stimuli settle. In the feedback we receive after participatory working sessions, many participants point out the discoveries they made in these interstitial situations where reflexion in more depth about the shared experience they had just before occurred. We became aware that giving time for reflexion, a pause for incubation and maturation, is beneficial if we do not want the participants to fall back into habitual thinking and saying. In this respect the role of witnessing should be recalled. It was agreed with the commissioners to document the collective experience. As it would be difficult to be an actor in the process and take the role of an outside observer at the same time, we invited witnesses to document the process through their eyes and create a piece reflecting the collective experience. The only instructions we agreed on were the format (photos for Architecture & Disability, video for the Ecohamlet). In retrospect, we realise that the fact of recalling a lived experience in front of others, to make time palpable, consolidates the persons' insights and nurtures intersubjective sense-making.

Rhythm: Thus, the process follows a rhythm of opening, rarefying, pausing, closing – exploration, return of findings, reflexion, sharing new positions. Inquiring how the process of spatial design unfolds, an insight that can be drawn at this point is that the propellers, provoking a dislocation, be it confrontation with others or a tangible resistance, and entertaining a pace of opening and closing, are introduced in a rhythm to lead to tipping points during the design process, from which the development transitions to another state. Indeed, to encourage a freer shuffling of parameters which could inspire the design, to temper the resistance of dislocation, Polimorph uses play tactics, i.e. trying out doing things differently, getting out of the predictable patterns and seeing what happens.

Another insight gained from participants feedback and peer recognition of such design methods suggests that the production of a more value is shared. To remember, for the designer it offers verification and refinement of design problems which allow the development of more situation-specific proposals. For the client, grounding the development in the potentialities and also limitations encountered, turns divergences into resources of project dynamics which are federating and increasing support. For other stakeholders, being included in the process allows them to experience how project issues affect them, to develop a sense of belonging and of how they can play a role. However, it is not sufficiently clear yet, why the open inclusive design process faces obstacles and gets disrupted when transitioning to the state of construction.

Reflecting on the methods deployed for including people in the development of spatial design proposals and the outcomes such a design process generates (research step 3), and when we compare Polimorph's open, inclusive design approach with other participatory approaches in the field of architecture and urban design, we find that we invest a lot of time and attention in the elaboration of tools and the formatting of intermediate results into things, relational objects. The range of methods by peers spans from those who work with the medium of verbal expression (public meetings, post-its, mind-mapping...) as a prerequisite to reach agreements and to others who use DIY co-constructions to transform a situation together with what is at hand (see research-step 2 – cobuilding).

A characteristic of Polimorph's technique to open inclusive design process is that we undertake action to provoke an experience of dislocation first and then we use verbal exchange. We are mobilising the participants including ourselves to live experiences, we are creating situations to be confronted with contradictions, we are imagining things to undertake. The work of verbal exchange comes only in a second time. This has a double effect that is important to remember. To be willing to experiment first, allows to pay attention to sensory qualities and to observe what comes up, without obligation to understand or justify them. Once openly on the table, it is left to figure out what to do with it. In discussions that follow, participants can reach out to a shared experience, which became a common frame of reference. This is attenuating the bias of representation and legitimacy of speech.

To conclude, for an open inclusive design process to succeed, it requires a mastery of translation for developing a shared understanding; it requires a mastery for making the process progress regulating playful imagination and maintaining the interaction focused on the situation to be transformed. These intermediate formats are substantial components, be it in driving the exploration or shaping intermediate results.

Still, some questions emerging from these observations remain unclear: Are we putting too much effort into shaping intermediate results instead of focusing on the material shape of the building earlier in the process? Could the assignments and the overall structuring be loosened? How much of the data gathering and collaboration needs to be in physical space, or could we simplify the development process by relying more on digital devices?

Further research is necessary to examine how much of a support structure an open inclusive design process needs to ensure progress and what its essential properties should be. What are the parameters that lead or otherwise obstruct the emergence of a spatial transformation?

INTERLUDE 1

Between Action Goals and Frames for Acting

Short experiments are conducted juggling between action goals and action frames to explore how much support structure is needed in a creative process to ensure progress and what essential features it should have.

It appears that there is more room for creative development and a greater chance of serendipity when goal-directed action is counterbalanced by a structure for acting.

However, the observations suggest that this depends on the designer's ability and willingness to play with the scope of action, to give some leeway over control of the outcome and to allow for what emerges.

Under these conditions, we can observe a felt sense, a bodily knowing. We sense when a configuration is right, or when a trouble remains. Feeling into such bodily sensations, staying with the trouble, serves as an indicator for looking further and where to look further.

EXPERIMENT 01

Trefoil Mutations, A Situ-Action about Spatial Practice



[Trefoil Mutation
2015 \(pdf\)](#)

“Trefoil Mutations” attempts to capture the essence of the present creative practice research in an artefact that would fit in a cardboard box of 33 × 26 × 6 centimetres.

The specific situ-action explores how to mediate a passion for dynamic spatiality without using overly abstract schemes such as a 3D diagrammatic drawing of a trefoil knot or other representations that had kept audiences at a distance. Ideally, the artefact would make this representation of dynamic spatiality experienceable, and allow people to engage with the subject at their own pace and as far as

they were interested. The situ-action “Trefoil Mutations”, began in summer 2015 with my local baker and was since then reiterated in Aarhus, in Paris, in Ghent...

Act and Observe: Pulling out of preconceptions of how to proceed and what the thing we are about to design should become, generated a creative pleasure and highlighted how a creative stream of sense-making while making is essential when transposing an intention into matter. Lending oneself to situ-actions awakens the joy of serendipitous finding and becoming aware.



Fig. 1: Trefoil knot, simplest example of a non-trivial knot, in expert language (above) and common language (below).



Fig. 2: Trefoil situ-action in Saint-Denis (top), in Aarhus (centre), in Paris and Ghent (bottom).



Fig. 3: Trefoil Mutations, artefact for the group exhibition, ADAPT creative practice research (Aarhus DK, Barcelona ES, Gent B, Paris F, London UK, Melbourne AU).

EXPERIMENT 02

Material Studies Shells

The dynamic modelling⁸⁹ experiment material studies consists of a double assignment: firstly, explore the process of entangling two material components that are structurally unstable on their own so that they hold each other when they connect, and secondly, explore how the transformative force that connected them but disappeared can be materialised. There is no purpose to produce a design object.

I made about forty trials to mould exhaling from tissue paper and thread. From one attempt to the next I became more familiar with the properties of the material, how it behaved under what circumstances. By repeating the procedure, my sense of observation and action refined. As I shaped the material, its resistance informed me of the limits of what could or should be done.

After a while, for example, I found a technique for making shells. They began to resemble and possibly become an object... perhaps a bowl, a lamp, a hat... However, the border of this shape was unsatisfactory. I thought I should make it neat and straight with a precise cut. The result felt wrong. Sounding out my irritation, I realised that the material quality of

the shell started to develop its own intriguing fragile aesthetic, a quality that had not been clear to me before.

The trace of a clean blade cut felt too strong to me, it crushed the emerging qualities of the thing. At that moment I knew that the material transformation had to be done in such a way that the interlacing would enhance, reveal and not restrict the inherent qualities of each material.

Felt Sense: Engaging in an experience seems to generate a felt sense first. This felt sense triggers reflexion to find out what it is that is annoying, what it is that feels right too. Then, this reflexion is articulated in thinking. From this thinking, an idea emerges with more clarity that orients the next, slightly adjusted gestures. It takes time. The repetitive engagement with the material itself is a process of becoming aware. Many insights only arose in the making, engaging in material contact, using the material resistance to inform me. By allowing the iterative practice the time it takes, at one point, shaping the material generates insights, supplemented by a feeling of pleasure and content. The material resistance shaped me.

89. Chora, Taschenwelt/Dynamic Modelling, 108-247.



Fig. 4-6: Material studies Shells (2016)





EXPERIMENT 03

Translating Across Levels of Knowing

(An image of strawberries is projected on the wall)

1. Look at the picture for a few seconds.
2. Close your eyes.
*Try to sense in which part of your body you can feel the strawberries.
Point at the spot in your body where you feel the strawberries.
(Wait for 30 seconds.)*
3. Close your eyes.
*Now, try to recall a memory of yours with strawberries.
Which situation with strawberries comes to your mind first?
(Wait for 30 seconds.)*
4. Close your eyes.
*Now, think about how you would describe the strawberries you remember
to someone else?
(Wait for 30 seconds.)
If you want, you can write it down.*
5. In the last step, open your eyes.
*Now, please do tell your strawberry experience to the person next to you.
Let's say each of the two has 45 seconds...*

Having experienced the exercise for myself⁹⁰, I re-conducted the experiment with participants in design studios as well as in practice research symposia. Is it possible to experience and share the different levels of embodied knowledge?

The exercise led the majority of participants to get a sense of the different levels of knowing, just as it did for me. A few participants could verbalize their experience with the strawberries to another person in a straightforward way (step 5). For most participants, moving from thinking about their experience

(step 3 to 4) to telling another person about their experience (step 4 to 5), did not happen as smoothly as they might have imagined. They grope, they stutter, and retry several times to find the right words, to bridge the gap between levels of knowing and to get it right.

Sounding out: The exercise consistently helped participants to become aware of an embodied, felt knowing, and of the intricate path it takes of transmitting an embodied knowing to making it comprehensive to others.

90. John Dunne, *Exploring Experience*, 4th European Research Summer Institute ESRI, 28.07.2017.



You and Me and the Other

“To move forward in spatial design research, I always found it easier to be doing both, stepping into a situation and acting amongst the found conditions, stepping out of a situation and looking at the broader picture. Playing with distance and proximity, feeding on the environing knowledge, in a never ending back and forth between real world testing and speculative design.

The specific situation is where my ideas are confronted to another reality. Inevitably, me putting an intention to a situation, and the situation distorting my intention, stimulates unpredictable action, reaction and displacement. New openings occur beyond my horizon, when something is putting resistance to my trajectory to the point of getting me out of balance, losing control.


Engaging in a situ-action implies the risk to fail. If displacement of both parties does not occur, encounter does not happen. If it is a happy movement, the edge where two parties meet is becoming a threshold.

In my research practice I work on designing spaces where the chance encounter can be received, embraced and used as a positive displacement, by altering practice, products and spaces. The process and the outcome are polymorph.”⁹¹

91. Trefoil Mutations, 44.

CHAPTER 4

Pivot



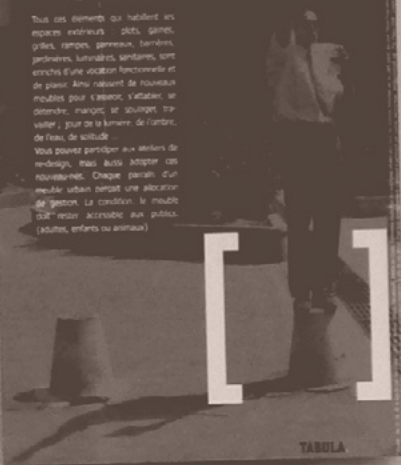
PARCELLES
À ADOPTER

"The Urban Furniture is Yours" (Le Mobilier Urbain est à Vous),
situ-action by Les Ouvreurs de Promenades in PariPassu, Paris, 2006.

LE MOBILIER URBAIN EST À VOUS* 21

maître, sensibilisation au paysage urbain

Tous ces éléments qui habitent les
espaces extérieurs - puits, grilles,
grilles, rampes, garde-mains, bornes,
pédaliers, luminaires, bancs, sont
enrichis d'une vision fonctionnelle et
de plaisir. Ils nous offrent de nouveaux
modèles pour s'asseoir, s'étaler, se
détendre, manger, se soulaguer, tra-
vailler, pour de la lumière, de l'ombre,
de l'eau, de solitude.
Vous pouvez participer aux ateliers de
rendez-vous, mais aussi adopter ces
nouvelles idées. Chaque parcelle d'un
meuble urbain reçoit une allocation
de gestion. La condition: le meuble
doit rester accessible aux publics.
(Adultes, enfants ou animaux)



TABULA



4.1 Introduction: Converging versus Dissipating Dynamics in Open Inclusive Design

The research steps inquiring the design process have focused on how to describe spatial transformation, what positions a designer can take to drive open inclusive design processes and which parameters a designer can draw upon to support such creative exploration including others. A key insight was that, when opening the design process up and including people from diverse backgrounds, those people will indeed bring what shapes their views to the table. Consequently, the same situation or object could be seen in different lights, associated with different meanings, and interpreted differently, depending on who is looking. The interactions can be highly fruitful, with contributions from the stakeholders finding a dynamic balance, stimulating individual and collective imagination, leading to proposals for spatial design and producing a general experience of learning anew. However, in open inclusive design processes, the opposite can also happen. Voices can clash or dissipate, understanding can break down, developing collectively ideas for the future drawing upon the diverse perspectives can be blocked. This happened in the case study of the Memorial Park, in radical opposition to the successful experiences encountered with the production of the urban game *TabulaRosa*.

In this chapter we attempt to deepen understanding of the transformative potential of situations of contact in spatial design processes by focusing on the very moment in a project's development when pivoting happens (fig. 44). When a development pivots on another level of specification, from one state of configuration into another state of configuration, such

moments generate a reconfiguration of patterns and contain a learning momentum for the person involved. We adjust our view on and understanding of a situation, we adjust our behaviour in a territory, we adjust the shape of the territory (see research step 1).

To describe moments that happen at a certain point in the creative process, when people change the way, they interpret and understand their world we also talk about “Transformative Triggers” in transformative education theory⁹² or “Creative Leaps”⁹³ and “First insight”⁹⁴ in design cognition and creativity research. As Matthew Hynam cites in his introduction to divergent convergent thinking⁹⁵ “Creative Leap is the moment within the creative design process when a designer bridges a gap within an otherwise convergent process by engaging divergent thinking. The cognitive act appears not so much as a leap but as building a bridge between problem requirement and solution proposal”.⁹⁶ Nigel Cross points out that the creative leap is not to be interpreted as intuition, “he instead proposes that better descriptions for the creative processes that occur within the design process should include: ‘...Problem Framing, co-evolution, and conceptual bridging between problem space and solution space’”.⁹⁷ One of the key factors uncovered in a designer’s ability to be creative is the ability to balance divergent thinking and convergent thinking.⁹⁸ Both divergent thinking and convergent thinking were coined by the psychologist J.P. Guilford in his book *The Nature of Human Intelligence*. A divergent thought process sees a designer start with a question and then use multiple approaches to explore multiple answers. Divergent thinking is closely related

92. Edward W. Taylor, “Intercultural Competency: A Transformative Learning Process”, *Adult Education Quarterly* vol. 44-3 (1994): 154-174.

93. Graham Wallas, *Art of Thought* (London: Solis Press, 1926).

94. Bryan Lawson, *How designers think: the design process demystified 4th ed.* (Oxford: Routledge Architectural Press, 2005), 148.

95. Matthew Hynam, “Introduction to Divergent Convergent Thinking”, www.designleap.org/159, 30 April 2014.

96. Nigel Cross, *Designerly Ways of Knowing* (London: Springer, 2006).

97. *Ibid.*, 115.

98. Lawson, *How designers think*, 153.

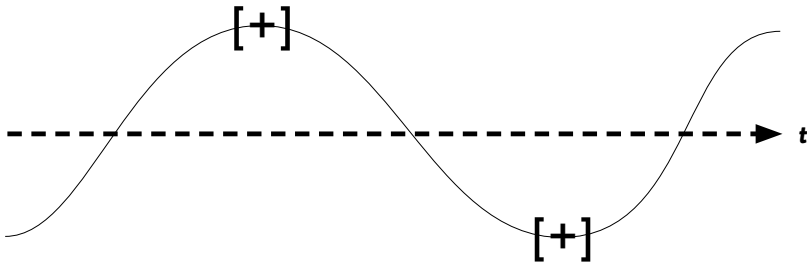


Fig. 44: Inquiring pivotal moments in the creative dynamic.

to the terms ‘lateral thinking’ coined by Edward de Bono in his book *Six Thinking Hats*^{99,100}

At this stage of the research we refer to the notion of Pivot rather than to Transformative Trigger or Creative Leap, for we inquire the phenomenon of a tilting point in a dynamic systems or again the inclination point in geometry. Furthermore, it suggests the research on outside phenomena. In revers, “Transformative Triggers” and “Creative Leap” suggest research on inward looking learning momentum and insight from an individual’s perspective.

We found earlier in reflecting on open inclusive design processes that the transition from one state to another can be propelled by a combination of four elements. Action logs spur people getting in motion, relational objects record momentary results in a tangible format, pauses create space for reflexion to avoid habitual reactions, and a validation of decisions together declares a collective achievement as a new point of reference for the group. One can stimulate movement and accelerate transformation processes through external or internal motivation: action can be provoked by exogenous stimuli, such as an obstacle or an attraction that requires a reaction. Action can also be triggered by endogenous stimuli, when we ourselves decide to start moving. Both external and internal motivation produce a decentring from an initial position, a dislocation.

99. Edward De Bono, *Six thinking hats*, rev. & updated (London: Penguin, 1985).

100. Hynam, *Divergent Convergent Thinking*.

Changing the way we do something, doing something differently, creates a new experience. Experiencing a habitus differently, typically happens when we are playing or experimenting.

The investigations in the previous chapter on processes of spatial transformation showed that we could conceive design processes including a diversity of stakeholders, that we could direct the interactive process towards increasing specification of proposals, that we introduce propelling devices which help us to stimulate creative leaps, to bridge gaps and switch across states of spatial transformation. By these means we can lead progression and ensure the development of a proposal in a given timeframe. However, assuming we can incite a process to progress, how can we know whether the pivoting from one state to another will reconfigure into a new situation that is indeed better or otherwise desirable? Can we avoid pivoting into a new state that would be worse or otherwise undesirable?

We experienced in the two opposite cases of TabulaRosa and the Memorial Park, that at the margin where two realms meet and come in touch with each other, conditions emerge that can drive creative processes forward or, on the contrary, lead to blockage. Situations of contact in the chain of actions of a development process – be it contact with others or contact with the complexity of a real situation – provide friction, shake up, and lead to a momentary loosening, unfreezing of relations.

To examine the mechanism of a pivoting momentum, to investigate how the switch happens between a stimulation triggering attention and the formulation of a response to it, two contrasted case studies by Polimorph will be inquired where the intertwining of different subject matters, problem framings, and people led to opposite dynamics for the project developments.

On the one hand, there is the urban game TabulaRosa, developed as support structure for driving open inclusive design processes, which elicited significant interest, and led to the most follow up commissions, publications, and visibility. On the other hand, there is the project for a Memorial Park, a redevelopment of the former train station of Deportation of Jews in Bobigny in the outskirts of Paris, which ended in an impasse, a point of no return. The open inclusive design processes directed with the help of TabulaRosa created more and further developments,

whereas with the Memorial Park the project dynamics dissipated until coming to a standstill.

Both case studies used the setting up of situations of intercultural encounter as design approach. Both inclusive design approaches were learning momentums triggering transformation in how we conceive spatial design practice. Both cases led to the generation of proposals for spatial intervention. With TabulaRosa, a framework for playful interaction was explicitly superimposed upon the development, whereas in the case of the Memorial Park interaction was proposed within the development without explicitly creating and enunciating a game setting.¹⁰¹ What parameters shaped a creative interaction in ways that fostered mutual understanding, federated a group with a sense of belonging to support project dynamics towards future transformation in one case but not so in the other? To what extent did the setting for playful exchange facilitate or not creative displacement at the point of contact between different parties?

4.2 Research Step 4: Creative Dynamics in Situations of Intercultural Contact

CONTEXT

Case Study 04: TabulaRosa, an Urban Game

The urban game TabulaRosa is played by four people seated around a game board. The goal is to redesign a situation, the city, or a territory together and to see which transformations emerge from this interaction. The participants are mixed such that different stakeholders of a city who don't share the same view and who normally would not meet come together around the interaction structure provided by the game and brainstorm about urban development strategies, how to change the places

101. TabulaRosa is simultaneously the design of a product (it is identifiable as a game), the design of a process (it specifies a certain interaction technique) and the design of an environment (it provides a setting that promotes the interaction). Specifying an interaction technique and a favourable interaction environment for creative co-development is also constitutive in the Memorial Park, without however bringing a game to the stakeholders. At no point participants thought they would be in a playful setting.

we live in. Ideas, desires, and needs are brought upon the table and played out in the form of a polyphonic narrative. These scenarios generate unexpected configurations and ideas for spatial transformations that are then explored, evaluated, and taken further in the project development.

The reason why real actors are brought together at the same table to speculate about a real territory is the underlying assumption that know-how and ideas pre-exist both within every person, among the people and the territory. The interactive structure of the game provides a framework for bringing out the peculiarities that already exist and for weaving them into one shared vision, a fictional narrative that remains palpable and rooted because it is imagined with elements from reality and by real people.

The settings in which TabulaRosa was produced evolved in time. The first three editions were cultural commissions that helped us test, refine, and demonstrate the tool by embedding it within a public setting (fig. 45). They also served as demonstrations, which then led to invitations to produce TabulaRosa prior to urban regeneration projects, such as *PariPassu* in Paris in 2006, (see link below) or *PLU/PADD Tours* (2009), which were the fourth and fifth edition. The last two productions, the sixth and seventh edition, were embedded among several other collaborative design tools we used within the participatory architectural and urban design commissions, *Architecture & Disability* and the *Ecohamlet* project. The tool of the urban game was instrumental to uncover differences in viewpoints, to test a project development, to define and refine a project brief and to play out possible ways to implement the proposals. A close-up examination of the interaction setting will yield insights about intricacies that influence the design development.

Key insights will be extrapolated to allow for testing and embedding in follow-up new research steps to refine the rules of the game.



[TabulaRosa 1st - VJ live, 2004, 4' \(VOD\)](#)



[PariPassu - IR 4th, video making-of, 2006, 12' \(wmv\)](#)



[PLU / PADD Tours, TabulaRosa 6th, 2009 \(mp3\)](#)



Fig. 45: Setting of TabulaRosa 1st edition, Paris 10^e 2004 - three tables with game boards in a gallery space; side wall: playing rules, entry cards, challenge cards, mappings of played scenario sessions; backwall: played scenarios transcribed in written form, displayed as wallpaper and combined with a sound installation; shopwindow: live VJ screening of ongoing playing sessions (see link), ideas for spatial transformation are displayed as a project sheet and are presented like real estate ads.



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Éco-hameau : ça avance !

Éco-hameau, acte 2 : une dizaine d'habitants et des institutionnels étaient réunis autour du maire Martine Pantic et du cabinet Polimorph pour une deuxième séance d'atelier autour du projet d'implantation de l'éco-hameau sur le site du Champ-Foulon. «Ce que l'on fait là, c'est une réflexion sous forme d'un jeu, conçu par le cabinet, qui s'appelle *Tabula Rasa*, explique Petra Marguc, chef de projet. L'idée, c'est de rendre les gens acteurs de la conception de ce hameau, de faire émerger les réticences, de trouver des solutions, des compromis.»

Par petites étapes

Autour de tables, des personnes évoquent un thème donné par le maître du jeu, et envisagent les interactions et les problèmes qui peuvent jaillir d'une telle installation. «La préoccupation majeure reste comment on va intégrer cette nouvelle population, qui va habiter dans une trentaine de logements», relate un architecte.

L'assainissement, l'urbanisme, le paysage : autant de thèmes évoqués à travers ce



■ L'urbanisme participatif : c'est ce qu'a inventé le cabinet Polimorph, avec son jeu *Tabula Rasa*, où l'on définit en groupe ce qu'on voudrait d'un quartier.

jeu farfelu, qui rappelle le principe du cadavre exquis, où chacun, à tour de rôle, poursuit l'histoire débutée par un autre. «Cela permet de se mettre à la place d'autres acteurs du territoire, et d'une manière ludique, d'évoquer des sujets un peu trop technique parfois».

Chacun vient avec ses envies, ses projets et sa pratique de l'espace. Un principe émerge à ce stade, «le développement d'un éco-hameau et l'arrivée de nouveaux habitants ne pourra se faire que par petites étapes», conclut Petra Marguc. La maire, Martine Pantic, constate : «Ceux qui viennent

sont plutôt favorables, on est plus dans le constructif, alors qu'au début, il y avait pas mal de réticences et de critiques». De cette seconde étape, sortira une analyse publique et une première figuration de ce que pourrait être le premier éco-hameau du Vexin. JS.

www.lechampfoulon.blogspot.com

La Gazette du Val-d'Oise du mercredi 22 septembre 2010

Fig. 46: Stakeholders on project site in the real territory (above) and within a game setting (below) playing out possible alternative realities for Saint-Cyr-en-Arthies as accounted by the local media.

CONTACT URBANISM

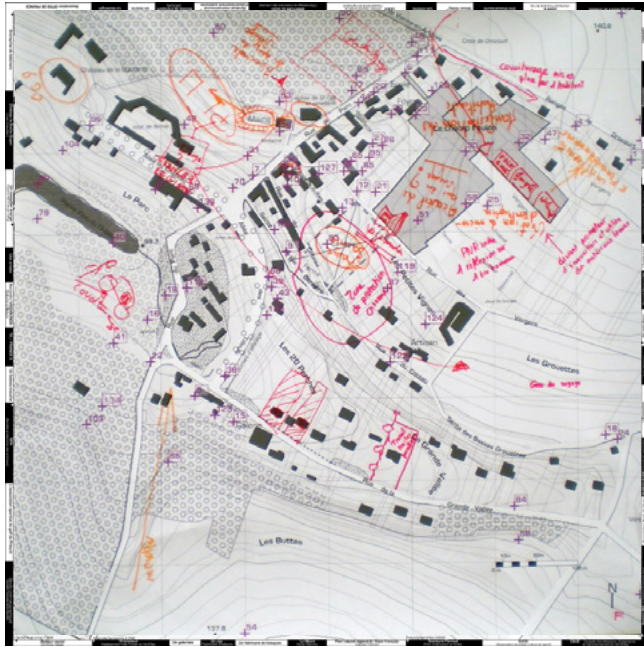


Fig. 47: Gameboard TabulaRosa, 7th edition Ecohamlet 2010 (top) 5th edition PLU/PADD Tours 2009 (bottom).



Fig. 48: TabulaRosa Playing Sessions.

METHOD OF INQUIRY

Decoding Interaction Mechanisms While Playing

The development and the production of the game is compared and assessed over the seven productions to establish what does and what does not work in the creative interaction. Specifically, it will help to address questions such as: How do player mechanisms stimulate the imagination of new worlds while simultaneously grounding these visions in a specific territory? Why could Play and Game be relevant for spatial design? Which opportunities and risks arise when games are applied to participatory design processes? The research on these productions is complemented by evaluating participants' feedback. This feedback was received in the form of informal conversations and writings, since the 4th edition, we captured the players' feedback also in the form of sound or video recordings.

The interaction dynamics occurring while playing TabulaRosa are inquired in more depth at three moments, namely in entering playing modus, the playing modus itself and exiting playing modus.

Entering Playing Modus, the Relevance of Embedding Playful Interaction in a Real Context

As the first three editions of TabulaRosa, were produced as part of a festival, it means there was no real project context. We therefore felt compelled to create an environment that elicits the desire to participate and play, that provides satisfaction, and gives participants a sense of meaning after the event. We defined an intervention perimeter, for instance in the tenth arrondissement of Paris for the first edition. We designed a spatial setting that exposed all stages of the game, including examples of outcomes produced in previous game sessions to help visitors imagine what their participation in the game could lead to (fig. 45).¹⁰²

102. Therefore, we organized a gaming session with volunteers and invitees, which was not open to the general public. It generated outcomes we could use as demonstrators in the public installation, and it was a final rehearsal for us.

For the last two editions within the participatory architectural and urban design commissions Architecture & Disability for the Medico-Social Centre Saint-Martin and for the Ecohamlet village extension of Saint-Cyr-en-Arthies, we did not need to elaborate on why it might be relevant to engage in playing and what might be the outcome. The goal was clear due to the project context. TabulaRosa was integrated in a participative approach as a technique to test several development hypotheses. It was a concrete situation in which the participants had a real stake in the game, whereas the festival context provided no real agenda for action.

We have found that the more the setting for the game is anchored in a real situation that they feel affected by or confronted with stakes of concern, the easier it is to get participants to interact. Identifying and suggesting potential matters of concern without feigning interest is the task of the designer. It becomes the designer's responsibility to create such an environment for interaction.

Playing Modus, Navigating across Levels of Representation, a Creative Co-Evolution between Game and Play

During the playing of TabulaRosa, we can identify four distinct levels of interaction, in which the participants relate to and co-evolve with one another: (1) the level of the real territory, (2) the level of the game setting, (3) the level of the scenarios, and (4) the level of emerging imaginary landscapes. The game setting is such that the four levels are coexistent and connected. Different sets of rules operate on each level. During a TabulaRosa game session, a player can draw freely upon these four levels. Each level simultaneously acts as a game board by which the perimeter of interaction is framed and as a projection screen, that is, a canvas on which ideas are expressed.

- **Real territory:** The level of the real territory is the one to act upon and to transform. At this level, real stakes, interests, and needs exist, which are often diverging. On this level actors play for real. They know that games are going on and, at the same time, often they do not know exactly what is being played and which more or less implicit rules are at play (fig. 46).

- **Game setting:** The second level represents the real territory transposed on a map and augmented by a few extra elements that transform it into a game board facilitating partaking, the real territory is hoisted within the framework of the game (fig. 47). By doing so, the participants and spectators know that this is a game and share the explicit and implicit rules. Around the game board, four people from different backgrounds (e.g., resident, professional, decision-maker, politician, artist) and an animator begin to play. The animator can be one of the four players (for beginners) or someone outside the group (for more advanced players). He or she is a stirring character with some knowledge of the real stakes. The animator can be a member of the stakeholder community, a member of Polimorph, or an invited external person. Starting from a real situation within this perimeter and according to a few simple rules, the players construct a story together akin to the game of consequences, a fiction written by a group. The first player adds a sentence to the observed situation by stating “who is doing what, where” and draws the action expressed on the game board. The syntax of one sentence, plus the adding of one sentence to another, plus the drawing of the action on the map result in an entangled narrative (fig. 48). After a few rounds, the players receive a challenge they must integrate into their story. The group constructs a scenario that is both, grounded in a physical place and embedded in an actor network. Within the fiction written by several voices the existing territory evolves progressively and is transformed. The voices represent interacting forces, with none of them having pre-established power over the others.
- **Scenarios:** The third level is the reconfigured territory as narrated in the polyphonic scenarios played. These fictitious narratives are where the group stimulates transformations of the territory and where players negotiate ideas – not as themselves, but by involving avatars whose identities they adopt in the scenarios. It is a “real utopia” in the sense that it is fiction based on the reconfiguring of real elements brought into play by these avatars who can represent real actors. Connections to the real territory are maintained via the frame of the game. Although the animator invites each

participant to introduce their will to bring about changes in the territory via the narrative and the avatars, just as in reality, no single participant can control the thread of the story alone. The players add their actions to the thread of the narrative and imagine situations of cause and effect between their words. The story unfolds. The key to the scenario lies in its triple bind, being fictitious and being anchored in a physical space and allowing the participant to play a character of his or her choice, thus offering leeway to dissociate the person from her real life persona. The rule of drawing the action expressed in words on the game board requires players to exemplify each act. In the beginning, participants tend to forget the drawing assignment. However, over the course of many iterations, the rule obliging participants to draw their sentence on the map of the city turns out to be an essential to keep the scenario concise and specific. It helps to avoid generalizations and urges participants to transpose experiences that often come from elsewhere into the territory at play.

- **Imaginary Landscapes:** The fourth level consists of a rereading and transposition of the scenarios highlighting the fragments of ideas, objects, or situations that emerge from the interaction during the scenario. From one moment to the next, we see things we have not seen before. These figures are often perceived as sudden illuminations, like momentary resolutions of forces one could not have anticipated. These figures carry the desires, constraints, fears, and dreams of the avatars created by the players.

When in *Playing Modus*, the participants of a *TabulaRosa* game session altogether gradually weave their shared stories by going back and forth across the four levels of representation. They interlace present and future realities, shifting reality bounds while also maintaining relations. Participants take a capacity for action they would not necessarily adopt outside of the interaction framework afforded by the game. They allow themselves to negotiate, tease, provoke, and challenge each other within the game setting in ways they would not always dare to do in a habitual exchange or professional setting.

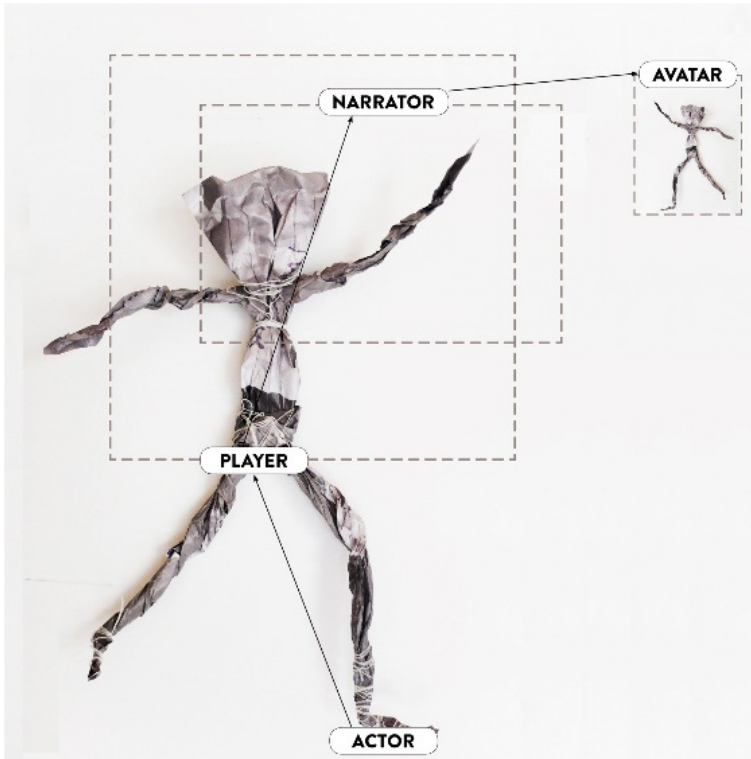


Fig. 49: Player mechanics consist of being able to move freely between several statuses: a real-life actor, a player during the game, a narrator giving direction to the scenario and an avatar when imagining protagonists.

Juggling Identities, the Role of Player Mechanics

TabulaRosa reaches its full potential when different players and real actors are involved. Indeed, these two aspects are key to creating strong links between future-oriented fiction and present reality. The more players come from different backgrounds contributing a wider range of interests and views on the issues of concern, the more relevant the interacting play becomes.¹⁰³ We observed this trend each time when we move from a configuration with comparatively homogenous groups,

103. This observation is valid even if the pertinence or richness of the play is also conditioned by the engagements of each player and the group dynamics engendered. Some people are more at ease to play than others. By replaying, people are becoming increasingly at ease with the game setting, playing is liberated and becoming more refined.

such as students from the same field, or colleagues during the development of the game, to a real territory playing with real actors from different backgrounds. These initial observations gradually solidified into insights when the same happened with the move of TabulaRosa productions from the context of cultural events to design commissions with real stakes and a real intention of spatial transformation.¹⁰⁴

When TabulaRosa is played on a real territory with real actors, their real-life roles begin to shift. Regardless of their background, every actor becomes a player and a co-narrator as soon as they join the game. According to the rules of the game the players are not supposed to keep their roles from daily life, but to project a character, an avatar of their choice. They consequently juggle and keep track of several identities: their habitual role as a field actor and their currently adopted role as an avatar, who, in turn, is both a player and a narrator. They can freely choose to what extent they allow these roles to overlap or diverge throughout the game. A player is juggling their own multiple identities and juggling the different identities of other characters.

We identified two qualities of the game structure which are beneficial for a creative playing out multiple identities. By freeing the actors from the binds of their responsibilities and what they usually represent in real life, their speech becomes freer. The mayor is no longer obliged to speak as mayor, for example. Through her avatar, she can express the characters of a mother, thug, or any other character with an acting force. The narrator is free to grant their character powers and capacities that differ from those in daily life. The only requirement is that each sentence added appears to evolve coherently¹⁰⁵ within the story. At the same time, despite the fact that the structure of the game leaves some leeway as to how a participant reveals his or

104. The fact that playing with real actors is more pertinent may seem obvious. Yet, even when clients are driven by a willingness to adopt inclusive, intercultural design approaches, they do not necessarily anticipate that this means getting the different stakeholders – city representatives, other participating architects, people from different sectors, interest groups, or legitimacies – together at the same table at the same time. We regularly must negotiate this issue with the more powerful or professional actors.

105. «coherently» - in the sense of logic, not in the sense of probability neither in the sense of prevalent value systems.

her “real” self or “hides” behind a character, we have observed that our participants tend to draw on their real experiences, skills and knowledge of the territories as well as of the problems that arise. Implicitly, the fiction therefore tends to remain anchored in the real life experiences with the real actors shining through their avatars tackling real challenges by drawing upon real knowledge from the terrain.

The framework offers the security of not being held accountable for what participants bring to the sharing platform. Experimentation and challenge become possible across participant profiles.

Exiting Playing Modus, and Reconnecting to Urban Dynamics

When entering the game, the goal is to stimulate the actors to think the unthinkable and go beyond the “reasonable”, that is, thinking constrained by feasibility concerns, self-censorship, or the roles the actors represent. Factors such as the game environment, the animators, or the avatars can facilitate this lateral move, lateral thinking, different associations than usual or predictable.

What about the reverse path? How to exit the game and transpose the experience gained during playing from decentering around the game board to the everyday practice within the real territory? How to implement insights gained during play and outcomes produced after playing into real action? Where is the benefit of the game for the urban fabric, the participants, the project, or the professionals?

The process of gradually stepping out of the game and back into the real territory consists of at least three steps. First, the imaginary landscapes and fragments of ideas, objects, or situations that appear during the scenario are interpreted, edited, and returned into the field. This happens by means of programmatic, strategic, and social spin-offs, design principles, or project partnerships. Second, they are turned into proposals for spatial interventions. As a method, we call this step of reembedding emergent ideas in form of possible proposals to



Fig. 50: The outcome of the scenarios is returned as a series of possible project proposal into public space. The transposition into experiential situ-actions, performances, installations is done by Polimorph or other invited creative practitioners.

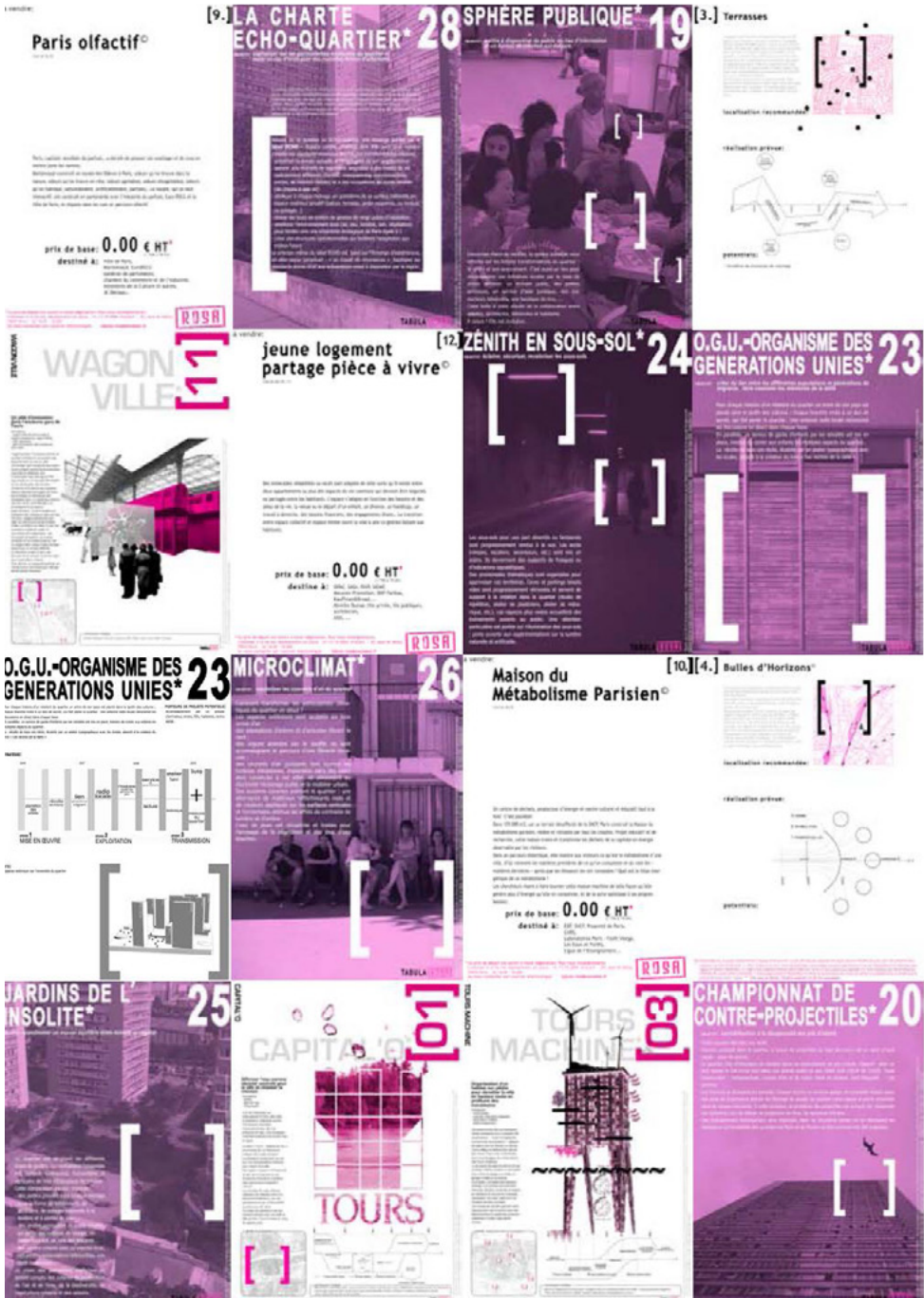


Fig. 51: Sample of project proposals resulting from TabulaRosa productions.

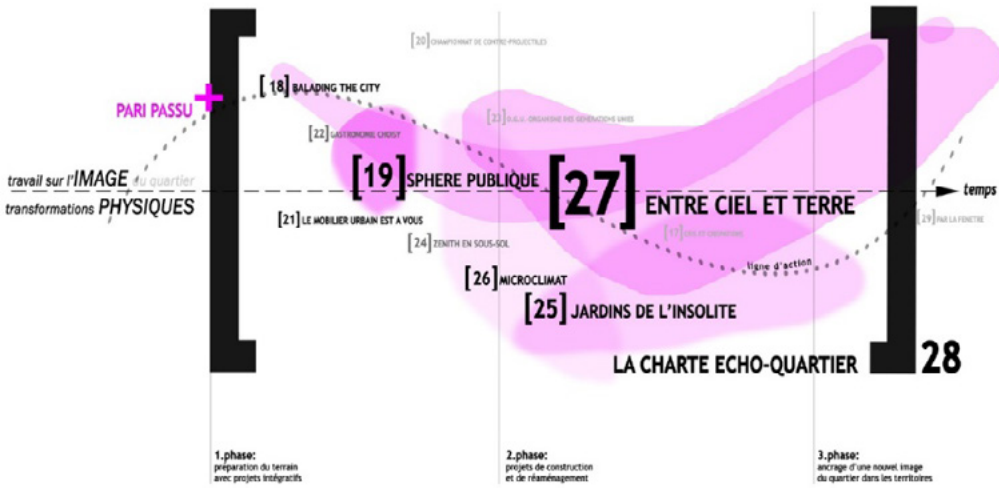


Fig. 52: Development strategy of orchestrating urban prototypes in time, Villa d'Este, Place de Vénétie, Paris 13, PariPassu 2006.

implement back into a milieu “urban prototyping”,¹⁰⁶ although we do not necessarily use this terminology with commissioners or the public. Each production of TabulaRosa consists of at least twelve game sessions, yielding between six and fifteen project proposals. The third step is then to return and present the proposals at least back to the group of participants, but usually also to a wider public to debate the specific ideas, priorities, priority sites, and consortia (fig. 50, 51, 52). At the end, an evaluation in the form of a vote or survey closes the debate and validates decisions.

Interestingly, every time a selection of proposals from the playful interactions was presented for debate, the public, the clients, and experts chose compatible very close design

106. The concept of urban prototypes was utilised when teaching, Bunschoten, Raoul, Petra Marguc, and Christian Rogner. “Urban Prototypes, London Sector A and Johannesburg Sector C, Diploma Unit 12”, in *Architectural Association Projects Review*, edited by AA. London: 2001; it was defined in Chora, *Urban Flotsam* (2001); it is utilised in architecture and urban design for instance by Gehl Architects (2000), Ooze (2003).

priorities.¹⁰⁷ This can be seen as evidence for collective learning whereby multiple actors converge on directions for further development.

It starkly contradicts preconceived ideas we often witness in the first period of open inclusive projects, such as when a politician believes that citizens would not have the capacity to subscribe to more complex and challenging decisions or when citizens believe their mayor, or any actor in a higher or representative position is necessarily in power to impact the course of things and if he or she doesn't do so, it is because of personal interest going before public responsibility. When the experience opens perspectives and generates original, meaningful proposals – which is the case in a co-evolutionary development that emerges from a context of existing urban dynamics and shared concerns – then the interaction framework proves effective both in elaborating concrete proposals for action and in promoting constituent intersubjectivity and social acceptance. Stakeholders get to know and understand each other better, the potential for reciprocity increases.

REFLEXION

Playful Settings Favour Informal Unlearning and Learning Anew,
Patterns of Re-Configuration Emerge

Looking back at the interaction mechanisms during the TabulaRosa productions played over the years, the following factors were identified having a positive impact on the project dynamics:

(1) the environment of the game represents an alternative setting for exchange which is safe. This is fundamental, especially when mixing participants that otherwise have a different status;

107. At the end of the 1st edition of TabulaRosa, the public chose the project proposal *La Maison du Métabolisme Parisien* (The House of Parisian Metabolism), which Polimorph then took one step further and developed a first interpretation for the Festival des Architectures Vives (Paris, 2006); for the 4th edition (PariPassu, Paris, 2006) the selected proposal was the urban prototype *Entre Ciel et Terre* (Between Heaven and Earth) capitalizing on rooftops as common ground to regenerate derelict tower blocks and increase singularity among the tower blocks; for the 7th edition (Ecohamlet, 2010), the selected proposals were “Convention d'échange foncier”, “Ouvrages hydrauliques structurant l'espace”, “Minihameaux”, “La Maison de Saint-Cyr”, “Une école à la campagne”, “Serre pepinière” a greenhouse nursery.

(2) the playful interaction modus afforded by the game setting propels a process of individual and collective unlearning and learning anew, a shift described by Kurt Lewin's Change Management Model in terms of unfreeze, change, refreeze to achieve organisations to change;¹⁰⁸

(3) drawing upon multiple sources of knowledge among the participants equals crowdsourcing;

(4) bringing hidden or unspoken issues onto the table, accelerates the emergence of latent dilemmas and in turn a bridging of gaps;

(5) the collective speculation grounded in real situations enables testing design reconfigurations, urban prototyping;

(6) keeping a certain pace maintains stimulation and delays judgement, allowing players to discover each other and explore quirky ideas. These framework conditions were pivotal to the success of the TabulaRosa sessions.

The inquiry of interaction dynamics while playing TabulaRosa reveals, that for assessing playing games in design processes, we must look at a combination of outcomes. An impact is shown on the development of the design proposals, but there is also an impact on individual and collective learning. The interaction dynamics are a form of generating knowledge and constituting intersubjectivity. Including a variety of actors in the process of playing out development hypotheses together is not a question of replacing the expert knowledge with the knowledge of the field, but of converging the knowledge of the professionals and enriching it with the know-how produced by users' everyday practice and stirring outsiders. By practising divergence, a process of adjustment and refinement is set in motion. Based on the feedback we receive, the participants testify to their unexpected learning, despite the non-professional aspect that some can lend to the playfulness of the interaction game and although it takes a little time to "play well".¹⁰⁹ Indeed, participants often ask to play a second time, as they tend to get increasingly skilled at playing, at freeing their expression, at freeing themselves from preconceived constraints. It points to a refinement of skills

108. Lewin K., 1947.

109. See Archives, testimonials.

common to the trial-and-error method of iterative learning. According to Gilles Brougère, “the game refers both to a singular individual experience and a form of collective participation, to a culture. The second degree in relation to the same activities of ordinary life is sought. (I know this is a game). The game itself has educational potential as it transforms external elements by giving them new meanings, and as a process that affects a change in knowledge and received ideas. Play is not a matter of objective characteristics of the activity that are not specific, but of how this activity takes on meaning for an individual or in the communication between two or more individuals”.¹¹⁰

The framework of the game affords unique ways of reconsidering the present and testing hypotheses for future development. Relearning thus occurs in situations that are not intentionally built for, in settings of risk control and at much lower cost. It is better to come to a deadlock or a breakdown together in a speculative scenario than to discover them once a scheme is built. It is easier to manage and to play out tensions in the limits of a framed alternative reality than in the context of everyday life relationships. Bringing together collective intelligence, developing among and with others instead of replacing or excluding them diminishes the risk of inappropriate realizations – without ever preventing it.

When to play games in design processes

The form of playful interaction setting the urban game *TabulaRosa* offers is of interest for projects looking for innovation, for projects going beyond the beaten track, and for project situations with a degree of complexity or conflict as a starting point, where an obvious response is not emergent.

There are clients who ask for new ways of project development and want to change existing practices: In such a case, all partners support an inclusive design approach.

There are project situations where no expert could say with assertion in beforehand which would be the best way to move forward, projects which require innovation, territories

110. Translation from Christine Delory-Momberger, “G. Brougère, *Jouer/Apprendre*”, *L’Orientation scolaire et professionnelle*, 35 (3) (2006), 479-481.

with strong oppositions amongst actors and stakeholders. The dynamics generated during TabulaRosa show that playing offers participants a momentary space to take risks without serious damage, to begin to talk to each other and to bring controversial issues openly on the table, to project with more ease alternative visions which are otherwise unthinkable or remain unspoken.

Considering that we are dealing with commissioners or policy makers who have opted for a participatory process, they are likely to show some willingness to deal with what emerges. At times, there are clients who demand inclusive working method, but it turns out they use it as an instrument of legitimation. This becomes apparent as they don't make their own positions evolve (see research step 5). It is conceivable that a mayor who wants to privilege particular interests over the general interest would gain nothing from an open, inclusive design process.

4.3 Research Step 5: Dissipating Dynamics in Situations of Contact

CONTEXT

Case Study 05: Memorial Park

In 2013-2014, the city of Bobigny, Polimorph, and the MRTE research laboratory of geography at the University of Cergy-Pontoise became partners in the action research project, "Places of Memory, Places of Urbanity, The Former Bobigny Deportation Station. Living Heritage as a Space for Interactions in the Changing City". It is this former railway station in the northern Parisian suburbs from which a third of the French Jews were deported to Auschwitz during World War II (fig. 53). The project was co-financed by the Ministry of Culture and Communication as part of the program "Intercultural practices in heritage institutions" and the City of Bobigny, which has been managing the site since 2006.

Today, the site obstructs the connection between the social housing estates in the west, Cité de l'Etoile, and the city centre in the east, with all amenities. In 2008, Cité de l'Etoile – built by Candilis, Josic, and Woods (1956 to 1962) – was elevated to the status of 20th Century Heritage. The railway wasteland was

**“BIODIVERSITY:
WHAT ROLE TO GIVE TO THE
FLORA AND FAUNA PRESENT
ON THE SITE TO NOURISH A
CULTURE OF DIVERSITY?”**

Fig. 53: Foreground - Site of the Former Deportation Station; background - Cité de l'Étoile, labelled 20th Century Heritage, Bobigny (93) Greater Paris Region, 2014.

**“PLACE OF URBANITY
AND CITIZENSHIP:
WHAT ARTICULATION
BETWEEN MEMORY, HISTORY,
CITY AND LANDSCAPE TO
CREATE A FEDERATING
PLACE?”**

**“MEMORY AND ITS
REPRESENTATION:
HOW TO TRANSMIT THE
MEMORY AND HISTORY
OF THE SITE TO FUTURE
GENERATIONS?”**



registered as a monument of history in 2005 and is also a pilot site for a biodiversity strategy.

Many reflexions and studies for turning the site into a memorial had already been carried out prior to our intervention. The goal of the action research project we were invited to direct was to better integrate the site in its current territorial and social context, the idea being to transform the wasteland into a place of memory and urban life for Bobigny today. It also sought to explore heritage processes by experimenting with participatory methods.

Despite an ostensibly promising start, this initiative had to be terminated prematurely. Therefore, the experience from this project makes it a suitable case for learning from limits in the transversal design approach by inquiring facts and situations that negatively affected the mutual understanding between the project partners and the dynamics that ended in dissipation and blockage rather than a creative balance and fruitful exchange.

Initial Dilemma, Why Invest in the Dead When it is the Living Who Are in Need?

The residents of the Cité de l'Etoile had been waiting for many years to see their derelict social housing estate repaired. The city of Bobigny in the Greater Paris Region grew in the second half of the 20th century with an influx of citizens from the former French colonies, many inhabitants of the Cité de l'Etoile today are descendants of Maghreb culture. Confronted with the memorial project, even if it were to become a public space that also benefitted them, these residents expressed their incomprehension of how the municipality assigned priorities with a simple question: "Why invest in the dead when it is the living who are in need?"

The stakes were high, the situation complex: how can we value a memory in public space, inscribe such an unprecedented event and painful heritage, the Shoah, in the city, while its current residents are also suffering? How can we transmit this history to future generations and allow the site to become meaningful for the descendants of the Shoah victims and the residents living in the surrounding neighbourhood today? What links can be imagined between memory, history, the city, and landscape in

order to create a place that can be meaningful for these different users? How to ensure that the population takes ownership of the site and its history, and ensure that it will not be the object of rejection, a concern that we sensed in discussions with the project manager? Could the biodiversity of flora and fauna present on the site today nurture a culture of diversity, a place of urbanity and citizenship tomorrow?

The intercultural approach, initiated and supported by two strong institutions – the Ministry of Culture and the city of Bobigny –, had strong spatial, societal, and cultural relevance. Within the project partnership, the role of Polimorph was to develop the methodology for the inscription of the heritage process on the territory, to conceive of the transversal action research approach and to ensure it was anchored on the ground as well as in the realities of the different stakeholders. The geographer joined the project due to her research on the memory of contemporary conflicts in relation to the territory. She was in charge of the impact analysis of the action-research on the development of the project, of a survey in the preparatory phase of the transversal process, and the participation in the workshops and scientific restitutions. The project manager of the City of Bobigny was in charge of facilitating the fieldwork of Polimorph (hosting the workshops, participation of the members of the steering and scientific committees, contact with the municipal services), and of transmitting the project within her institution and with the external partners. Polimorph's open inclusive design approach for the Memorial Park action research was set up in three stages spanning twelve months. Each project stage was supposed to end with a public restitution translating the achievements into a format that should be shareable, exploitable, and operational for the greatest number of people.

In response to these challenges, geographical, urban, socio-cultural, and spatial data were gathered to integrate those who live in the area, those who work with the context, and those who carry the memory into the development process. Polimorph proceeded with its fieldwork methods which led to proposals for development hypothesis to be tested for the transformation of the site. In the first stage, Polimorph established together with the geographer an inquiry by crossing datasets on material

phenomena, practices encountered in that territory and stakeholders' representations and opinions about that same site and its future transformation. The intensive fieldwork was done by immersion on the ground and approximately forty interviews with institutional, professional, memorial, and local actors. The goal was to find out how to break the complex geopolitical stakes down into manageable components and prepare three transdisciplinary design workshops that should take place in the second stage. The idea was for these thematic workshops to initiate project synergies between the institutional partners already in charge and the local partners who were implicitly there but did not play a role just yet. Based on the outcomes of these sessions, we would then propose in stage three guidelines in the form of an operational action plan, which would, in turn, become part of the project brief for the design commission to follow.

Strategy for Action: Changing Perspective by Widening the Frame of Observation and Shifting the Centre of Attention from the Site towards its Margins

It was clear that the subject matter of this project was complex and emotionally charged from the beginning. Therefore, we decided to widen the observational frame in terms of time and territorial perimeter in order to look at the bigger picture. This enabled us to see the former site of deportation within its context over time, that is, before and after the atrocities, look at its margins, and examine its relations.

From a geographic perspective, the site is located at the margin of several urban sectors. Today, it is perceived as a residual space, a boundary within the urban and social fabric disrupting a spatio-social continuity. This was not always the case. By extending the spatiotemporal framework, one can perceive how other periods of occupation existed in resonance with societal changes before and after the deportation of the Jews, during which the site was an integral part of urban life.

The site was and still is at present at the heart of a territory in transition. While the members of the Shoah's memorial associations are aging, there is land pressure from a major infrastructure development project of Greater Paris near the

site. Even if nothing is done on the memorial site itself, it will change under the pressure of such external forces (fig. 54).

Identified Stakes of Intercultural Practice within the Project

Our inquiry very quickly revealed major issues that had not been considered before. There was a stark imbalance between the accumulation of expert knowledge and its enacting capacity, a dispersal of resources, a resistance among some stakeholders to reconsider their existing perspectives, and a surprising reluctance by the City representatives towards anchoring ideas and practices in the material reality on the ground among the local actors, despite their initial demand.

Resistance to reconsidering the existing: The interviews with the various actors made it possible to highlight very different positions towards how to approach the historical context and spatial practices of the existing site. Some of the key actors representing the descendants of deportees, albeit not all, were so focused on the Deportation to Auschwitz that they could not perceive and consider what else was there beyond their own frame of looking. For instance, despite the fencing and despite what one might believe at first glance, in fact everyday urban practices and small memorial ceremonies did already coexist on site at the time of our study. Traces of shortcuts and conversations with residents revealed that informal paths across the site were used daily to go to school or the amenities in the city centre. Traces of precarious habitat recorded on site testified that marginalized populations already lived there, supported informally by the city's maintenance people, with the concern to remain unnoticed (fig. 55, 56). It was a curious moment when the municipal project partner handed the key to us so we could work in situ independently of her being present – after she had already seen results from our fieldwork. Our response, “You know that there is no need for a key to go on site, the fence is full of holes”, was strangely overheard by the City's representative. We also found out that opposition against opening the memorial site to everyday uses was far less pervasive among memorial actors than the city representatives told us. Through our fieldwork and interviews, we observed that a strong commitment and desire to open the

**STAKE:
WHAT IF
THE INTERVENTION
FOCUSES ON THE
MARGINS OF THE SITE
AND TRANSFORMS
THE BORDER INTO
A THRESHOLD
REGULATING THE
PASSAGE BETWEEN
MEMORY, HISTORY
AND THE URBAN
CONTEXT?
WHAT DEGREE OF
OPENNESS AND
CLOSURE OF A PLACE
OF MEMORY ON THE
SURROUNDINGS?**

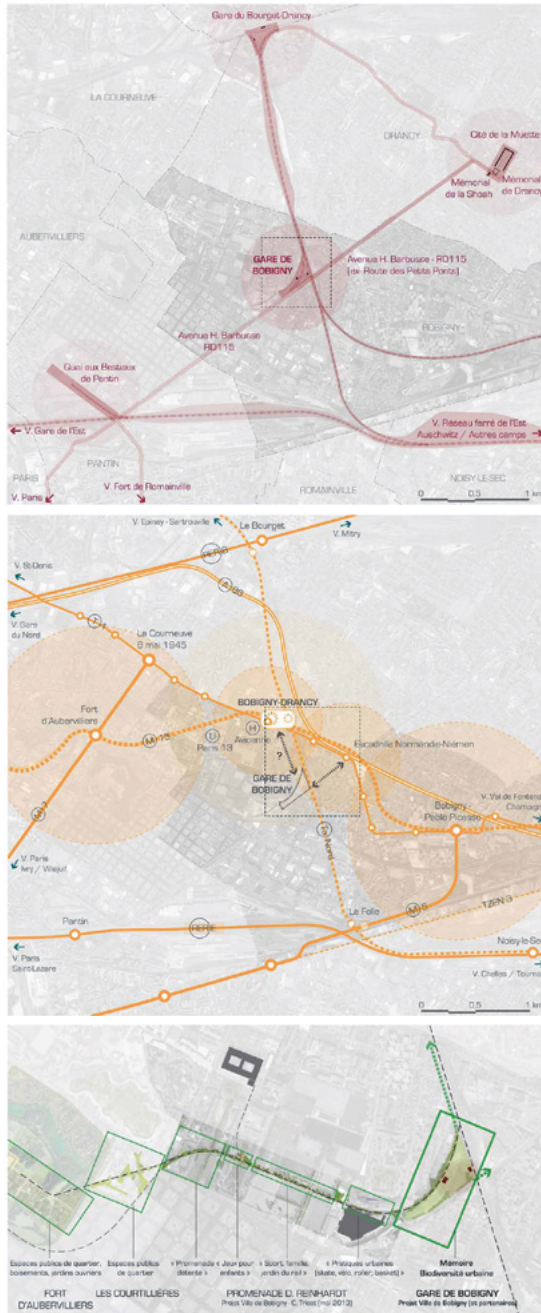


Fig. 54: The memorial park in a network of places of memory (top); the site at the crossroads of the Metropolitan area (centre); the site as a biodiversity haven (below), Polimorph, 2014.

memorial site towards urban uses did exist across different actor groups. Developing a shared vision for the future did not seem as far off as initially believed at all. The different actors merely did not know about one another's positions; they had lacked the opportunity for exchange. All these observations of tangible facts would have required an adjustment of the project's objectives and approach. However, despite our presentation of these facts and propositions for dealing with them, the city representative did not consider them.

Imbalance between knowledge accumulation and enacting capacity: We observed that a tremendous amount of expert knowledge had accumulated among different stakeholder groups, including memorial, institutional, and professional actors, but they lacked the ability to put this knowledge into action and transform the territory. To counteract that imbalance and initiate change, Polimorph proposed to involve people we identified who could bridge the gap and mediate between the different experts and actions on the ground. To initiate this relational work for project dynamics to emerge beyond expert groups Polimorph proposed to create situations for encounter between locals with user experience identified through fieldwork and the steering and scientific commissions that were already in place.

Fragments of expertise and dispersion of resources: The municipal project development that had started in 2006 progressed very much by accumulating small chunks of expertise in parallel without simultaneously developing a red thread or an overarching implementation strategy to connect those chunks. For an example, fertile relations could have been established by interlacing spatial organisation with programmatic, socio-cultural, and financial aspects. In hindsight, this kind of fragmentation complicated the synergy of efforts towards the same direction, and the lack of a red thread made orchestrating actions, the know-how of tremendously rich expertise, and people with resources extremely challenging. With at least some form of a shared vision, the tendency towards dispersal could likely have been counterbalanced.



Fig. 55: Mapping existing formal and informal practice on site (2013).



Fig. 56: Traces of precarious habitat recorded on site testified that marginalized populations already lived there, supported informally by the city's maintenance people, with the concern to remain unnoticed.

Material reality as an anchor for creating common ground

To get a grip on the site's complex heritage charged with a lot of tension and fear, and progress despite the many unresolved aspects, we took a designerly position. We decided to stay as closely connected as possible to material agency, that is, to material phenomena we could encounter on the site, and develop practical interventions that could be implemented immediately and remain reversible. These would provide an experiential setting that allows us to test what works or does not by progressing incrementally, in situ of the real lived context. At the end of this first stage, we proposed three alternatives to rise and enact transversality for the stage to come: one was to settle on the site as architects in residence with a laboratory producing lived heritage that could subsequently be presented to the public during the national heritage week; the second was to focus on the borderline of the site, to mark potential access points to test where and how to design the transitions between the memorial park and the surrounding neighbourhoods; the third was to produce a series of events that could stir the territorial dynamic towards participatory involvement. Furthermore, to open a unidirectional viewpoint which was so far oriented towards Auschwitz, we turned around 180° and followed the railway lines in the opposite direction of the deportation. Doing so allowed us to literally flip and increase the range of perspectives to consider our urban wasteland's connections with the larger historical and heritage context (fig. 57). Nothing got discussed, nor decided, nor validated.

The results handed over at the end of the first phase, including some findings which evidenced contradictions and blockages unpleasant for the city representative, did not lead to any further exchange, positioning, or engagement. No agreement was reached either to put in place some form of situ-actions, where stakeholders could encounter each other, exchange, collaborate, envision, and enact the future of the site together. Against prior agreement on a working method, serious discussions of the proposed alternatives for the second phase were all postponed to after our action research, which was neither an outright rejection nor a deliberation to act but a suspension. This made our mission impossible.

Resistance and obstructions between research partners had been multiplying since the beginning of that year, which entailed serious blockage, and ultimately the project's breakdown after the first phase. After seven months, which happened to be the time of the municipal elections in March 2014 and a change in political direction, the project had to be stopped. We had entered the project with the goal to improve mutual understanding among site-relevant stakeholders. Instead, we found ourselves devoured in internal blocking patterns among the three parties of the original project team. So, what happened?

METHOD OF INQUIRY

A Test of Translation, Mapping Disruptive Shifts
in Co-Developing a Proposal

The nature of the obstacles during the process of co-producing knowledge for the purpose of a spatial project as well as when and how they propagate is inquired as a “test of translation”.¹¹¹ For mapping the shifts that occur in the co-production among actors, we use the parameters proposed by Adoux and Gillets and which are in their terms interest and profit-sharing, legitimacy and enrolment, representation and spokespersons, truthfulness and confrontation of knowledge, and mutuality as construction of a shared world (fig. 58).

111. Christine Audoux and Anne Gillet, “Recherche partenariale et co-construction de savoirs entre chercheurs et acteurs: l'épreuve de la traduction”, *Revue Interventions économiques*, 43 (2011).

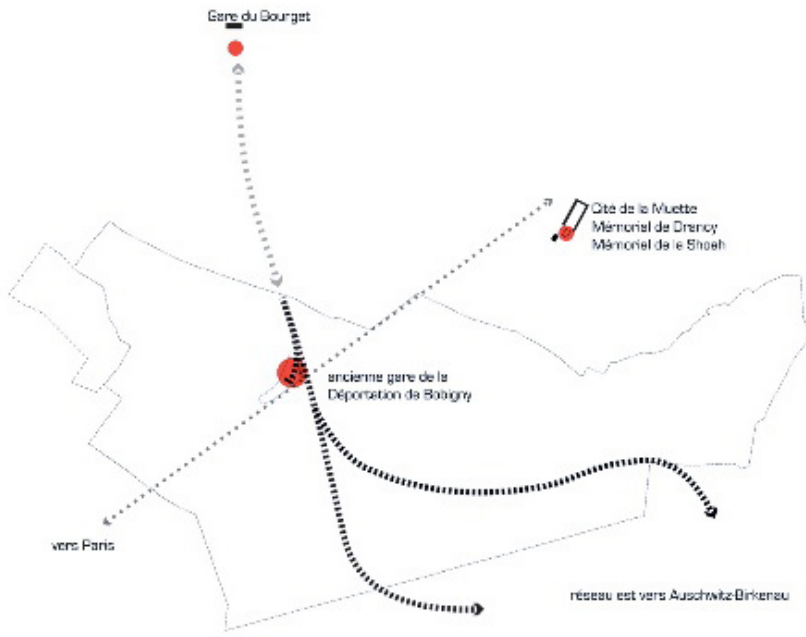


Fig. 57a: Existing viewpoints oriented towards Auschwitz.

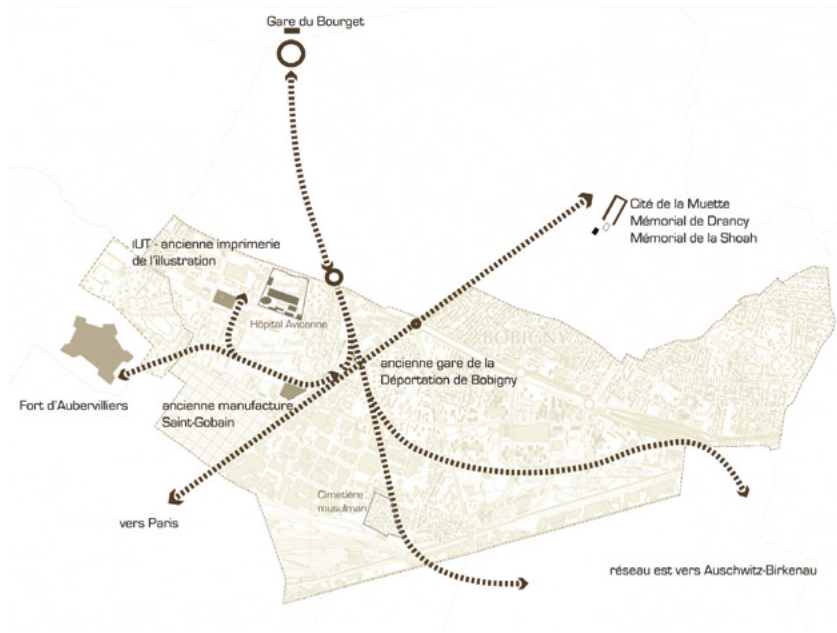
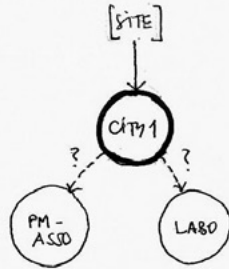
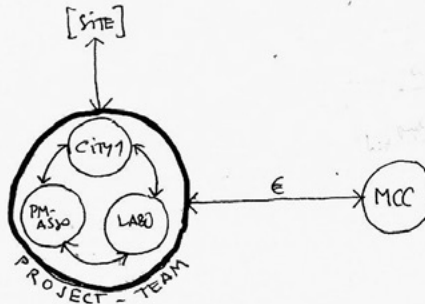


Fig. 57b: Diversifying viewpoints by following railway lines in the opposite directions and reconnecting the Deportation Station into the local territory.

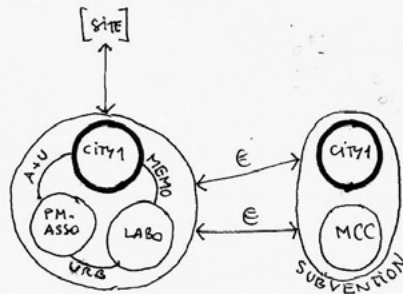
1. INITIATIVE



2. TENDER WON



3. DOUBLING BUDGET



4. WIDENING COMMISSION

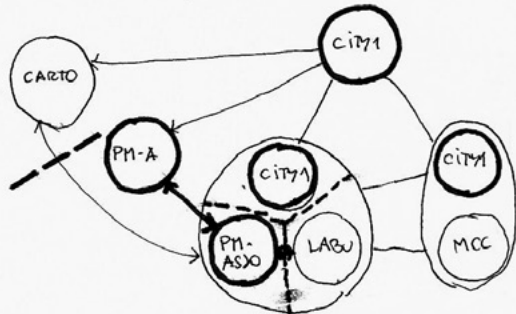
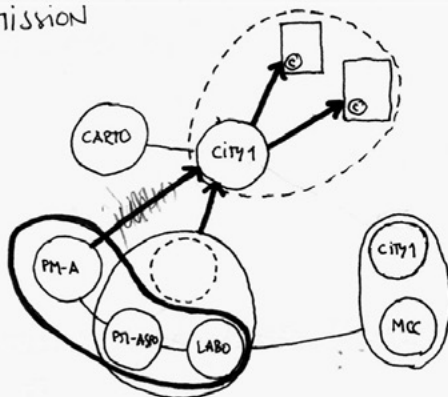
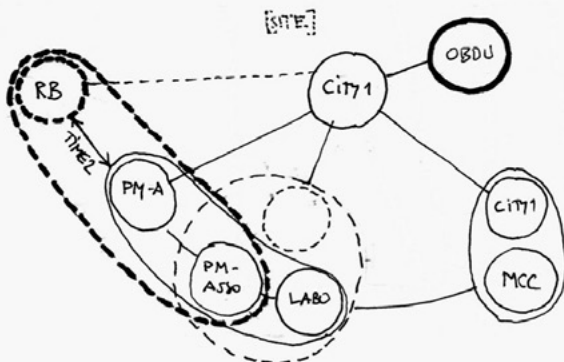


Fig. 58: Mapping shifting relations among project partners, the disruptions in understanding that occurred in time during the action research.

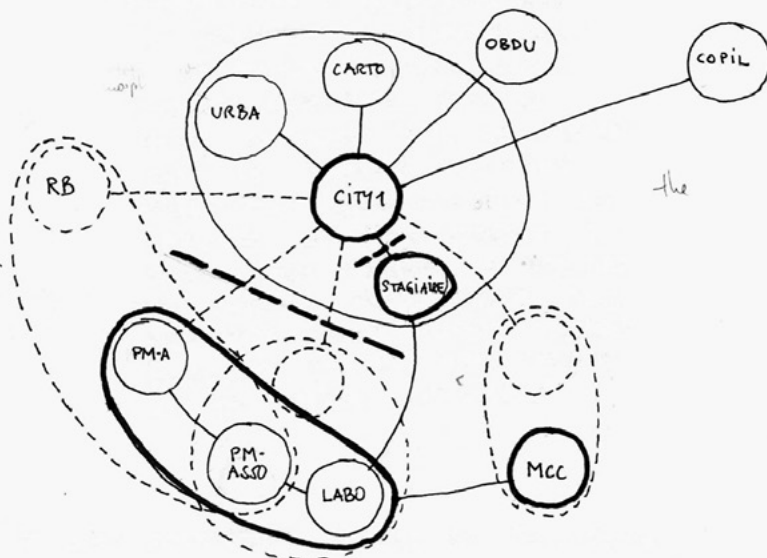
5. DEFORMING COMMISSION



6. PLAY OF TIME & DISCONNECTING GROUND



7. COLLAPSE OF IDENTITIES



REFLEXION

Nature of Obstructions Influencing the Falling Apart of Exchange

Evolving hierarchies leading to unspoken shifts in the rules of collaboration

In the case of Bobigny, due to the conversations between project partners during the preparation of the action-research, it was assumed that all the partners were aware from the onset that a multi-stakeholder action research project typically comes with a certain degree of unpredictability and unforeseen events that could challenge the distribution of tasks and responsibilities. Sliding or shifting roles are a characteristic of transversal approaches, and sometimes, the responsibilities of team members – the “who is doing what when where” – are adjusted seamlessly. The way the roles shifted in this project, however, ultimately appeared detrimental to its success.

Originally, Polimorph, the research laboratory, and the city had applied for project funding by the Ministry as a team of three equal project partners with different motivations. The representative of the city wanted to achieve a clearer vision on how to transform the unused land into a public space, participatorily and with a scientific view. Polimorph wanted to develop a project proposal while relying on its inclusive methods, the researcher in geography wanted to participate in such a participative action research on war memory. Once our team of three partner institutions received the funding, the city representative proposed a match funding to Polimorph that was just slightly higher than the funding from the Ministry, which Polimorph accepted. This move stood out in that it not only led to a shift in who is doing what on the same hierarchical level, but coincided with a shift in the hierarchy, such that one member found itself in the position of a principal with blocking and veto powers at his disposal. This implicit evolution from a partner to partner-plus-superior contributed to diluting the roles and responsibilities of the project partners and negatively impacted the collaboration as it progressed. Specifically, it generated misunderstandings, growing mistrust, a sense of uncertainty, in short, increasing tensions between the parties. Dependencies and power relations got blurred, which went hand

in hand with decreasing clarity of the evolving rules of the open inclusive project development, and ultimately led to conflict and disengagement.

Another problem that likely emerged from the shift to a double role of one partner and the uncertainty associated with that concerned the validation of achievements. Based on experiences from earlier projects, Polimorph had known how important it is in an inclusive design approach to agree with commissioners and project partners in beforehand upon the restitution of intermediate findings. Sharing intermediate outcomes as milestones was, therefore, part of the initial method described in the proposal and agreed upon by all parties. However, progressive achievements did not get shared among the participants we reached out to during the project development, neither were they formally validated, whether in a collegial or hierarchical manner. There was a fear of explaining conflicts and contradictions, diffusion of responsibility sneaked in. This lack of intermediate validations of achievements coupled with an increasing misunderstanding likely slowed down the process and prevented action.

Although there was a generally shared awareness of the dynamic, evolutionary, and adaptive nature of participatory design processes – before starting the project, in conversations among us, we all agreed on the terms, conditions and visions –, there was no upfront or parallel reflexion on how to recognize and remedy the possible side-effects of shifting roles in the organization. In the methodological approach we have co-written how to develop the project, we have not developed how to act in case the development diverges. Now, one could consider that with the definition of the rules of the game how to work, the protocol for action, one also defines the breach of the rules of the game and with it how to remedy it in order to contain the damage and to ensure that the project can be carried out successfully. In hindsight, this could have helped to counteract the downward spiral the project found itself in.

Staying at Distance versus Getting in Touch, as Two Divergent Ideas on Conflict Management

Bringing together actors with different concerns was expressed as a major objective from the onset of this project. However,

views on how they should be brought into contact and how to deal with divergences or conflicts turned out to differ starkly. This appeared from the beginning and became increasingly clear.

Polimorph tends to take an exploratory and pragmatic approach, seeking to configure real situations for direct contact, first-person experience, and indeed nurturing divergent forces until underlying intensity lines appear on the surface. This can accelerate the explication of potential friction, allowing the points of resistance to emerge. Confronting and touching upon the limits allow to locate the obstacles and make them tangible, graspable. The city representative sought indirect exchange frameworks and tended to avoid confrontation by increasing the distance between potentially conflicting stakeholders and diluting adversity while remaining a spokesperson. As we had already encountered different parties and found positions that were more nuanced than the ones represented by the official spokesperson, we believed that providing a situation wherein the different positions could be voiced next to each other could help to spur a creative process of adjustment. However, the more work Polimorph developed on the ground in direct contact with divergent parties, the more intense the opposition by the city became. The fear of not knowing what getting in touch could spur and of losing control of the process took precedence over providing room for freedom of speech and leeway for action left open to the different actors. For example, we managed to get a rendezvous with an elderly person who had lived in our area since the war. We did not understand why the proposed meeting place was at the town hall. Once there, we met two women, the old lady we wanted to interview and a younger woman we thought was her daughter or friend. She did not introduce herself but took extensive notes during our conversation. Only at our insistence did we learn that she had been sent by the city to attend our conversation with the old lady. We realised that the city representative was interfering behind our backs so that she would not miss the conversations we were having with different actors. In a context of mutual mistrust between citizens on the one hand and representatives of political authorities on the other, we had discussed at length the need to create a neutral body to forge new relationships, based on Ganser's experience

with the very successful large scale regeneration project in the Ruhr region in Germany, the IBA Emscher Park.¹¹²

We were confronted with a paradoxical situation: the city represented a discourse on the inclusion of local actors in project development, at the same time it interfered with or blocked contacts between the stakeholders. From then on, the question of the possession of a legitimate speech was raised.

Spread of Partitioning Patterns within the Organisation and in the Work Practices, Beyond the Zoning of a Territory

The urban fabric of the city of Bobigny is a typical example of 20th-century territorial partitioning into sectors of living, working, leisure, and services – a programmatic patchwork. The site of the former Deportation Railway Station became a residual space in-between such sectors. Today, it stands for disruption of the urban and social fabric.

Our work revealed that boundaries to overcome not only exist in the fragmented territory but also in the operational practices of the institutions and the individuals. For example, we found out that in parallel to our project on the site of the former Deportation Station, the city commissioned a project to transform the abandoned rails at the border between the site and the social housing estate into a public walkway, the Django-Reinhardt Promenade. In the interviews with the architect commissioned and the municipal project manager in charge, we found that the two projects were not being considered in relation to each other. In looking for ways in which the two projects could respond to each other for mutual benefit, we also found that the two municipal project managers for our site and the adjoining project site belonged to different departments, with virtually no culture of exchange between them and little desire to change.

The culture of partitioning thus appeared deeply anchored in the functioning of the municipal organisation, which is in stark contrast

112. The IBA Emscher Park was a small informal public structure (under the supervision of the Land), established for a period of 10 years (1989-1999). Its task was initiating, leading and coordinating the process of restructuring and changing the Ruhr Region. This informal public body had a mediating role between established political structures and the 17 cities making up this territory, via cooperation contracts. I first heard the argument developed by Karl Ganser during a lecture organised by Werner Durth at TU Stuttgart in the 1990s.

with the displayed discourse of promoting an approach open to engage with various actors and users related to the site. Although the willingness was expressed, the culture of how to do, a practice, was lagging. Pointing out contradictions without a means of dealing with them runs the risk of disengagement and interruption of creative interaction. Disruptions, gaps, incoherencies are inspiring, they can generate insight, but we need tools to help us traverse such gaps and get to the other side.

4.4 Insights: Scenic Devices, for Getting Hold of Dissipation

The study of two opposite cases of creative exchange versus dissipating exchange in situations of intercultural contact provides insights on the parameters by which an interaction can be regulated. We found parameter to ensure a fruitful progression of the design development and parameters which slow down creative exchange.

It yields how anchoring an interaction in a tangible setting plays a determinant role in keeping the interaction beneficial for the design development. As long as space for discrepancies is allowed, the concrete situation accelerates the experience of boundaries and also of imagination, which leads to deeper understanding and creative leaps.

The Memorial Park case study, just as the case study of TabulaRosa confirmed that crossing viewpoints and drawing relations between the physical, practised, and imagined dimensions of space, presents an efficient method for describing a situation, redefining the problems, and achieving a deeper understanding of relevant issues and how to tackle them.

Whereas disruptions are graspable in the territory of an urban fabric, the limits we encountered in the open inclusive design approach of the Memorial Park project were elsewhere. They appeared as incongruities in the social organisation and within individuals themselves. While as a spatial designer we can manage the tangible disruptions, the human inconsistencies remain more obscure at first.

In the case of the Memorial Park, having identified some underlying urban dynamics ongoing in the territory and revealed some of the obstructing phenomena, having framed some stakes to build upon for a successful transversal design process, should have led to a refined project brief. Instead, it engendered the opposite effect. Putting the weaknesses identified in the first phase of the project on the table among the three project partners, engendered discomfort for the municipal representative, reinforced blockage, and led to collapse.

Unlike the beneficial creative dynamics evidenced for the urban game TabulaRosa, the dynamics in the case of the Memorial Park were reminiscent of a vicious cycle of positive self-reinforcing feedback, which can only end in death unless stopped.¹¹³

Juggling evolving identities of stakeholders

When discrepancies arose, when involved stakeholders felt pressured, ways of dealing with tensions was to ignore some information, create distance and suspend relations. We have found that there are discrepancies at the personal level – of which the person may not even be aware –, which manifest themselves, for example, in contradictions between what a person says and does. We don't know if the issue of holding back decisions point to the fear of the one who holds the power that the decision will slip away from him through the open inclusive design process. But we do know that holding back decision making has a disturbing effect on the design development and those in charge of it.

If the discomfort of feeling challenged publicly, the fear of losing one's public image, generates ignoring possible criticism in an ongoing project, it does inhibit creative interaction dynamics and ultimately has a downside effect on the design development.

Comparing the two cases, outside the context of the game, opposing world views seem irreconcilable, participants are more

113. Cannon (1932) in Kelvin Rodolfo, "What is homeostasis?", *Scientific American* 282 (2000). By positive self-reinforcement is considered in our case an intensification of existing interaction dynamics.

reluctant to venture into uncharted territory, hesitant to express half-baked ideas or to maintain speculations that may sound silly or prove meaningless. There is little room for considering a shift in point of view, or even for a real exchange to begin.

When playing TabulaRosa, this reservation changes. Participants and their relations are more relaxed, thoughts and expressions are freed. If participants are not required to stick with the one identity they usually represent in public, if they are given enough leeway to use both tacit and explicit sources of knowledge and can choose freely how to combine their various skills and know-how, the participants draw upon several realms of knowledge. Interactions can become more creative. In other words, superimposing a different framework for interaction on a real situation, has the potential to change the modes of exchange among actors and creates space to express what could otherwise easily remain unspoken or even unthought. Once the expressions are put on the table, formally recorded, and detached from the real-life person, they provide a possible precedent to which the real-life persons can refer from now on, if necessary, even after playing.

Providing a space in which reconfiguring relations differently is encouraged, turns out to be an essential quality of the urban game. The structure of the game overlays the real situations with an alternative set of relationship rules.

Evolving rules of procedure, and organisation of social interaction

Another type of dissipative pattern was triggered by an implicit change in the organisational structure of our working process and working relations, with no alternative in sight on how to respond to it.

The impact of evolving rules of procedure within the project development, such as suspending feedback and suspending explicit agreement on how to go further, not to mention Polimorph's blind acceptance of doubling the fee without considering the shift in dependencies and power relations that this would entail, occurred gradually. It became apparent in losing sight of where things came from, where they were heading to, and what to do. It became also manifest in a gradual loss of trust

between the project partners. We conclude that if losing grip over the interaction dynamic, over the procedure of collaboration, is not counteracted in time, such disruptive dynamics will lead to damage to the operational framework between the project partners in the medium term. Ultimately, damaging the system of collaboration ends with the collapse of the cooperation.

**Limits encountered in the territory, and limits
encountered in collaboration and in individuals behave
like different sides of the same coin**

Incongruities at the level of organisations and at the personal level are not per se a design problem. However, they can become a problem for the designer if they lead to dissonances in the relational structures that the designer is confronted with without having the means to address them and to move the creative process beyond such disruptions.

Having identified that disruptions on the territorial level are related to disruptions on organisational and on personal levels, resonate with the triple divide Scharmer and Kaufer describe as a disconnection between ourself and our environment, ourself and others, and the incongruities between the conflicting facets of our Selves' unresolved personal aspirations (see introduction).¹¹⁴ A similar observation, formulated not as a triple divide, but as the triple interdependency of a material ecology in relation to a social ecology and an ecology of the intimate, is developed by Guattari, when he argues for the need of addressing the three ecologies as one irreducible entity, *ecosophy*.¹¹⁵

The ecosophical paradigm is in line with the insights we have gained in the study of creative and dissipative transformation dynamics. The limits we have encountered at the level of spatial design and the limits we have encountered at the level of cooperation and the personal level behave like different sides of the same coin.

114. Scharmer and Kaufer, *Leading from the Emerging Future*.

115. Félix Guattari, *Les Trois Écologies* (Paris: Galilée, 1989). The term *ecosophy* close to the idea of a deep or holistic ecology was coined by Arne Naes (1973).

From the ecosophical perspective of an irreducible entity of three interdependent ecologies, a material, a social and an intimate ecology, we cannot consider spatial interventions transforming existing situations without addressing simultaneously the design process itself which leads to its production, meaning the way people collaborate with each other and the position of the individual within that group of others and the milieu.

The real question that arises in these two case studies is: do we really want contact? If so, are we aware of what it sets in motion? Are we prepared to expose contradictions? Are we ready to respond to them?

Assets of Interaction in Spatial Design By Making Resistance Tangible, Boundaries Turn into Transformative Triggers

Why to look for interaction in Spatial Design anyway?

Bringing together divergent eyes, hands and minds tickles a collective intelligence, in that the interaction accelerates the exposure of these divergences and what motivates them.

Dealing with disturbances and maintaining interaction with external stimuli allows for a more accurate assessment of an existing reality, a better appreciation of what changes are relevant and a better assessment of how to bring about change – in short, it brings about at least the verification and redefining of the problem, and eventually an emergence of unthought responses.

How to handle interaction in Spatial Design?

If an opening up of the spatial design development process to external stimuli were inevitable, how could the exchange be invigorating and promote decision-making capacities without losing the ground beneath the feet?

The capacity to handle disturbances can be influenced by the environment, in that the interaction setting gives hold and in that the interaction setting gives leeway to the participants. We find that breaking down difficult problems into material problems is a means of dealing with complex issues.

The interaction environment of TabulaRosa points at parameters facilitating to get through these troubling situations

and exemplifies that divergences can be a source for exploration, and awesome discoveries. Based on these experiences, the following parameters for creating a favourable interaction framework may be established.

- Provide an interaction framework,
- which is safe, by dissociating what a person represents and what is being expressed;
- which incites people to draw upon their spatial know-how, for example by linking the interaction to a real context and/or by relating “real” people who embody a diversity of know-how. By this latter term of “real” people, we mean do not speak for the other, but give the other a place to speak for themselves. Beyond ethical or philosophical aspects, which is another valuable debate, the relevance lies in that there is a limit in simulating being another. It would be like playing chess for instance with oneself, which is a more difficult undertaking than to interact with a real Other;
- which provokes unfreezing of habitual relations, which generates change of relations, and which refreezes relations in new patterns.¹¹⁶ By relations are considered relations between elements of a system, including the actor network being part of that system;
- which entertains a relation between an existing reality and a future possible reality;
- which offers support to step into the interaction environment;
- which offers support to step out of the interaction environment and relate new insights to present everyday practice.

Where to do it

Interaction in design development is of interest for projects looking for innovation, for projects going beyond the beaten track, and for project situations with a degree of complexity or conflict as a starting point, where an obvious response is not emergent.

116. Lewin K. 1947

Grounding Creative Interaction in Tangible Situations for Sounding Out, Creative Leaps and Co-Evolution

We observed in both case studies, that anchoring an open, inclusive design process in a tangible situation has a strong influence on the interactive development of the work. The spatial setting wherein the interaction takes place has an impact on participants' capacity for grasping, learning, and deploying knowledge, that is for integrating new information and for coming up with their own information. This could be explained by the fact that being situated in a specific spatial context activates tacit knowledge that is usually acquired through practice and helps to formulate this tacit knowledge in an explicit way.

Furthermore, it seems that every person had some embodied spatial knowledge that they could draw upon when they were indeed in a spatial situation.

Experiential Bodies as Measure and Medium

We found that several capacities overlap when the creative process is anchored in tangible settings. We could witness across many projects, not only in the two case-studies of TabulaRosa and the Memorial Park, that the challenge of handling information and influences, emerges in our capacity to question, verify, adjust, and stabilize what we think we know and going beyond our preconceived ideas.

Immersion in a tangible situation offers lived bodily experiences which accelerates a shift in how we see a situation. By moving or being moved, through the encounter with external attractors or resistances, both from the places themselves and from other people, our perspective on things changes, a lived experience impacts a revision of thinking. The experiential body then becomes a regulating body, mediating between modes of knowing and monitoring the coherences or discrepancies between them.

It also emerges in our capacity to share our knowledge and make it impactful through action. A tangible situation used as reference by several people accelerates mutual understanding and the formation of a shared vision.

Indeed, the need for creating an environment where mediation between different levels of embodied knowledge is made possible became increasingly present in Polimorph's practice when working with groups. Anchoring interaction to situations can draw upon such tacit embodied spatial knowledge and make it shareable and beneficial in the development of spatial design.

Making use of material boundaries or divergent points of view encountered in situations and playing with the transgression of boundaries for challenging resistance, can accelerate insights and creative leaps (see situ-action, research step 2). In this sense, encounters contain a latent transformative potential, looking for encounters can become a creative engine for discovery.

A Dynamic Balance between Divergent and Convergent Creative dynamics

An action aimed at accelerating a response from within the environment implies loosening control over the exact outcome of the encounter and letting unpredictable things happen. However, loosening control is not to be confused with a lack of control. A playful interaction propels individual and collective learning anew among the participants.

Transformation from within the places and people, draws upon directly lived experience and from being among others, either witnessing their way of doing or listening to their accounts.

Such drawing upon multiple stimuli, facilitated by the interaction settings, bring useful information on resources and issues open onto the table. If the participants are keeping a certain pace, interaction is a modus of discovery of each other and of quirky ideas providing joy and delaying judgement.

An approach that strives for both, stimulating interaction and defining a design proposal requires control of the process. For leading the design process, it is necessary to ensure that both the creative interaction continues and the transformation proceeds.

Obstacles appear later, that is, when the imagined projects that emerged from the collaborative interaction enter the realization phase. The question of why this happens needs further investigation.

Play and Game, in its Different Meanings

The distinction between the terms Play and Game articulates two opposite concepts of playing. Play refers to a playful activity with no precise goal, strolling, drifting, like a child's play, being carried away by what happens, inspired by the instant, playing freely from one moment to the next, permitting associative diversions. This inherently implies that there is uncertainty about the outcome and if it would lead to something. At the other end of the spectrum, game refers to a playing activity with a goal to be reached, such as in chess. In his expansions of Johan Huizinga's *Homo Ludens* (1938),¹¹⁷ the French ludologist Roger Caillois (1956) indeed postulates an essential differentiation between play (*paidia*) and game (*ludus*).¹¹⁸ In practice, in the field of urban game design, there is often a mixture of the two. In *TabulaRosa*, according to this differentiation, the overall setting is a game which incites play.

Whether we are playing a game with a specific goal or whether we are playing in stroller mode, what is common to both is that we tend to do things differently when we are in player mode. We take crossroads, explore new relationships, test “what happens if...”, adopt different perspectives, and act in a space of hypotheticality, “as if...”. In principle, both give us the opportunity to explore and enact the possibility of different realities.

Within the context of the design process, an interesting aspect of playing is the quality of uncertainty and drifting – drifting with others – being receptive towards the uncertainty of the outcome of the game and towards envisioning new configurations together. This quality is fascinating because, whether meandering playfully or playing target-oriented games,

117. Johan Huizinga, *Homo Ludens, a Study of the Play-Element in Culture* (London: Routledge and Kegan Paul, 1949); Hector Rodriguez, “The Playful and the Serious: An approximation to Huizinga's *Homo Ludens*”, *Game Studies*, volume 6 issue 1 (2006).

118. Roger Caillois 2001/1958 in Konstantin Mitgutsch, “Digital Play-Based Learning: A Philosophical-Pedagogical Perspective on Learning and Playing in Computer Games”, *Human It*, 9 (3) (2008), 18-36.

when we play (in) the city, it is quite possible to tackle serious issues with methods of Play and Game.

Game boards, for example, frame and define the conditions for play. As they constitute a setting for collaborative design processes, questions arise about the empowerment of stakeholders who are generally farther away from engaging in reflexions on city making and partaking in decision-making.

What kind of transformative power does the game have on our living environment? How can it help to generate socially sound knowledge? What is the relevance of invigoration that game setting for playful interaction might provide? Besides the distinction between a target-oriented Game versus an associative Play, in examining the case studies we found a wider range of qualities that play offers when we approach open inclusive design as dynamic

Play as Creative Driver

Settings for creative interaction contain a mixture of the open play without a specific goal (*paidia*), and game with a goal to be achieved (*ludus*). In the open play, there is a principle of turbulence, free improvisation, and carefree flourishing, which manifests a certain uncontrolled fantasy. Game is structured according to circumstances, with a set of rules to be followed depending in which circumstance we find ourselves in order to reach a goal.¹¹⁹ In a spatial design development, whether we are in a state of investigation, of inhabiting, whether we are looking for partners, whether we desire to open up a creative drive or to stabilise a configuration, the set of rules to activate are different.

TabulaRosa, as do action protocols and relational objects investigated in the chapter Process typically contain a mixture of both, play and game. These design tools contain at the same time a divergent and a convergent stimulus.

119. Unlike the English “play” and “game”, this linguistic distinction does not exist in French, where *paida* and *ludus* are translated as “jeu”.

At this stage, we identify five significant qualities of play that we would like to highlight for the promotion of creative processes.

Play as an alternative reality: In the alternative reality, we are free to play according to other rules than in real life, we know when we are in the space of the play and when we are no more there. The advantages of such a framework become evident with the case study of TabulaRosa.

If the temporary suspension of habitual guidelines is not made explicit among stakeholders, play may not be used to its fullest potential and interaction may lead to collapse. The loss of the framework for interaction that occurred in the case study of the Memorial Park is such an example.

Play or Game as a score: A set of rules, a set of indications that choreograph and qualify the movements – who does what where when how... – to be enacted by the performers, for example of a musical work or a board game or dancers on a stage. Just as a musical score serves as a medium, a format for transposing between a musical intention and sound setting, a score in spatial design is a set of indications that choreograph and qualify the movements – who does what where when how... – to be enacted by the stakeholders. As such, the score exercises a central role in transposing an intention into an interpretation, in orchestrating a desire into collective action.

Play as performance: The performative quality is expressed in the interpretation of the rules of action. In the case of a musician, an actor, a sportsman, this is obvious, but it is just as true for any player, a designer. In short, for anyone who performs an action, one can discuss how that person does what he or she does.

Play as regulation comes in two variants, in its active and in its passive form:

Having play as a safety margin: a reserve, extra time or money, a buffer, which facilitates taking risks more easily, for instance to explore a different, uncertain path, to test an unthinkable configuration, to see what would happen if... Having play allows you to let go and take initiative in face of uncertainty.

Giving play in form of a gap, a distance, in Jullien’s terms an “*écart*”¹²⁰. It is the distance between two parts that provides enough flexibility for possible adjustment under tension. The expansion joint in construction – “*joint de dilatation*” in French – is an example that is particularly close to my heart. The name embodies a paradox, which defies logic, as it is one and its opposite: it joins and it expands at the same time: the gap between solid components both distances and establishes a link between the parts. By building a bridge between A and B, a relationship can be nurtured, the gap can play the role of reach. If the relationship between the two edges is lost, a rift occurs, which opens a potentially insurmountable divide, instability and uncertainty take over.

Having identified the characteristics of combining resources, structuring of a process, setting of rules, giving leeway and building trust, it will be necessary to redesign new playful settings to further inquire the stability of these observations for spatial design, and to clarify two unresolved aspects, the role of the designer and how to introduce the potential of play into spatial design.

How much does the designer need to stir and how much can he or she leave the process open to what emerges? *TabulaRosa* works well in many occasions, but there are two weak points: to produce *TabulaRosa* as a creative working session in a design development, it is rather expensive in terms of fees; from the position of the designer, we would need to elaborate levers to ensure that outputs will be transposed into building.

We can detect that in the open interactive setting the designer is neither predicting nor controlling the outcome. However, his or her role is different to the role of the participants, he or she also needs a set of skills to make the creative process instrumental. The role of the designer needs further research.

120. Jullien, *L'Écart et l'entre*, 2012.

As matter seems to matter in dynamic spatiality, how does the material dimension give hold to thought and action? How does the material artefact help to make possible futures tangible and plausible, experiential?

Artefacts In Spatiotemporal Creative Procedures

Where is the original work in an open inclusive creative process situated? Is it in creating a procedure, in creating instruments for interaction, creating material artefacts, or creating a spatial transformation?

Investigating communities of practice during the preliminary research phase (fig. 1), it appeared that some creative practitioners constitute a long and lasting source of inspiration, influencing the development of Polimorph's practice. Some pieces of work which were triggering transformation still count today.

These references, performative art interventions, rule-driven creative approaches, sound-installations and graphic music notation, share a questioning of the creative procedure, of the status of involved parties, they are rooted in the polis. They all share a spatio-temporal approach, there is an artefact and a performative dimension, all of which are relevant components of Polimorph's working methods.

As works in flux whose boundaries are continuously moving, these examples are similarly intelligible through a material agency despite their dynamic and performative nature.

To deepen insight into this material agency, to inquire where to situate the original piece of work in an open inclusive creative process, and to inform the questions still open, some key references are revisited.

These examples, rather a beginning and not exhaustive, are presented in chronological order.

Porte 11, rue Larrey

Marcel Duchamp

Date of creation: 1927 / 1963

Location: Paris / New York

A relational object, embodying the paradox of a simultaneous opening and closing

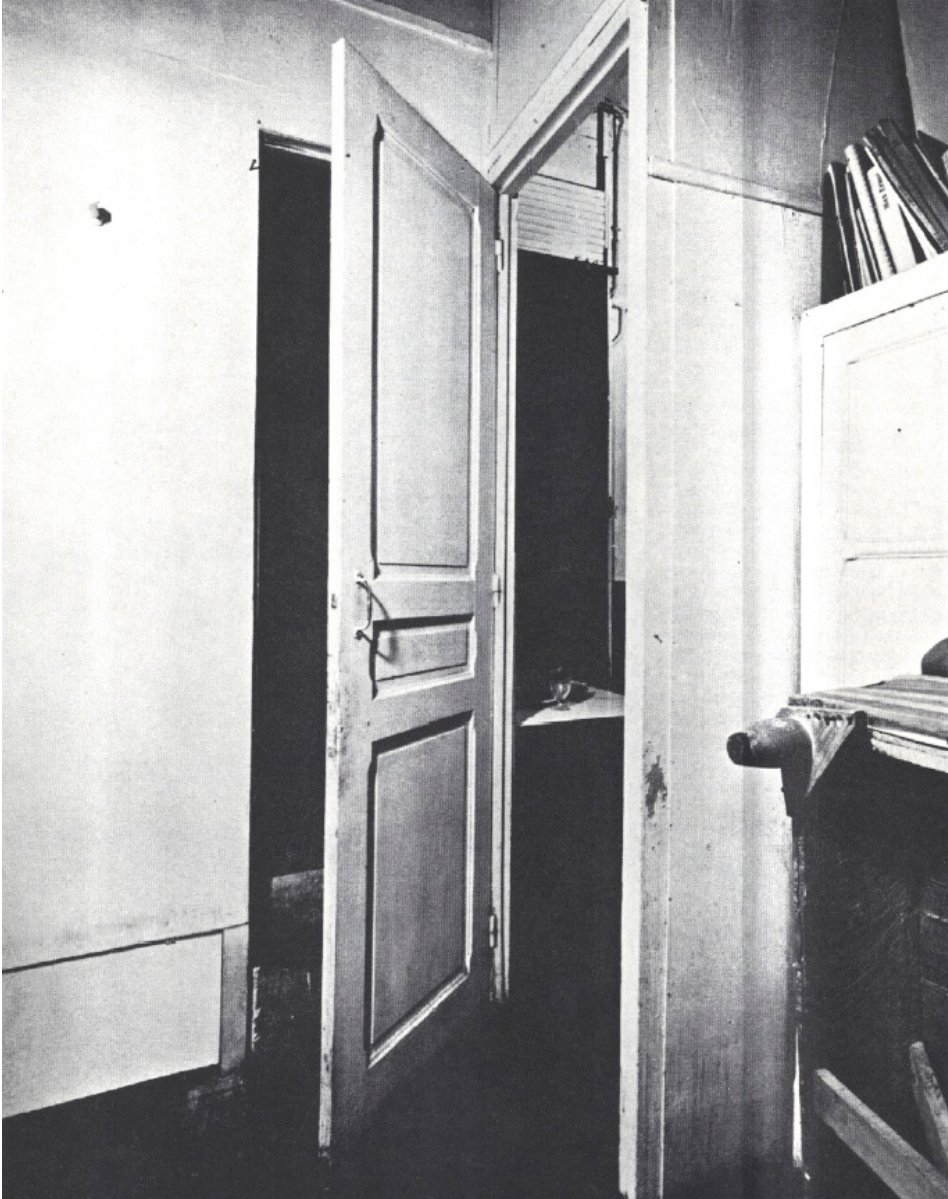
In 1927, Marcel Duchamp placed one door in the corner of his living room in his small apartment-workshop (Paris, 11 rue Larrey), in such a way that it regulates access to two adjacent spaces, either the tiny bathroom on one side or his workshop on the other.

Duchamp's door generates understanding beyond words in a most universal and straightforward way about the irreducible entity between a sign, a setting in motion, a regulating of relations. The only fixed position of the door, which can't be undone is the possibility of a permanent renegotiation of relations. As common object, it is highlighting an inherent paradox and unresolvable contradiction, that is proper to any thing and any movement, that is closing and opening at the same time. The signifying aspect of the door is easily intelligi-

ble. Seeing the movement or the relationship requires a little more effort: When we handle an object, we do not necessarily think about its ability to handle us and set us in motion. We move the door and the door with its handle moves us. It is a reciprocal relationship.

The modification of the door frame – a result of a practical need more than an artistic intention¹²¹ – is enough to shift our gaze on a banal object of everyday life. The new framing not only enables regulating with one door access to two spaces and resolve a practical problem, it also opens our view on what a door is. Displacing the usual frame literally and metaphorically awakens us to the perception of the door's paradoxical character, that is, simultaneously being, a closing of and a bridging device.

121. The initial installation of the door in 1927 was motivated by the constraint of Duchamp's too small appartement-atelier. It is hard to say if the installation was thought of as a work of art at that time. It officially became so in 1961, when the artist Daniel Spoerri rebuilt the door on the occasion of the exhibition "Art in Motion" (Stedelijk Museum, Amsterdam), and in 1963, when Marcel Duchamp signed his door and deposited the original to put it in another context, the exhibition setting at the Cordier & Electon Gallery in New York in 1964.



REFLEXION

After having come across this installation of a single door simultaneously regulating openness and closure, capturing its relation in such an irreducible and essential entity, it is difficult to go back and forget about the fact that everything embodies multiplicity including paradox.

From an architect's perspective this artefact is a comprehensive demonstrator for the double quality of a thing. The door is a finite, recognizable, nameable, and tangible entity, and it also generates open forms and articulates relationships. Meaning emerges from the relationship between the opening and the frame. Neither the framework nor the opening alone could generate it.

This work renders intelligible that any meaning attributed to a thing we look at depends on the situation through which it is perceived. In Duchamp's idea of the ready-made, a new meaning emerges from moving the frame of reference or the play of who is looking. As a spatial designer, when creating, we are not restricted to the plastic transformation of physical matter, to the thinginess. Because a work becomes intelligible through its relationship with a situation, we can just as well move

the frame of reference or change the position of the observer for a creation to emerge and become intelligible and significant.

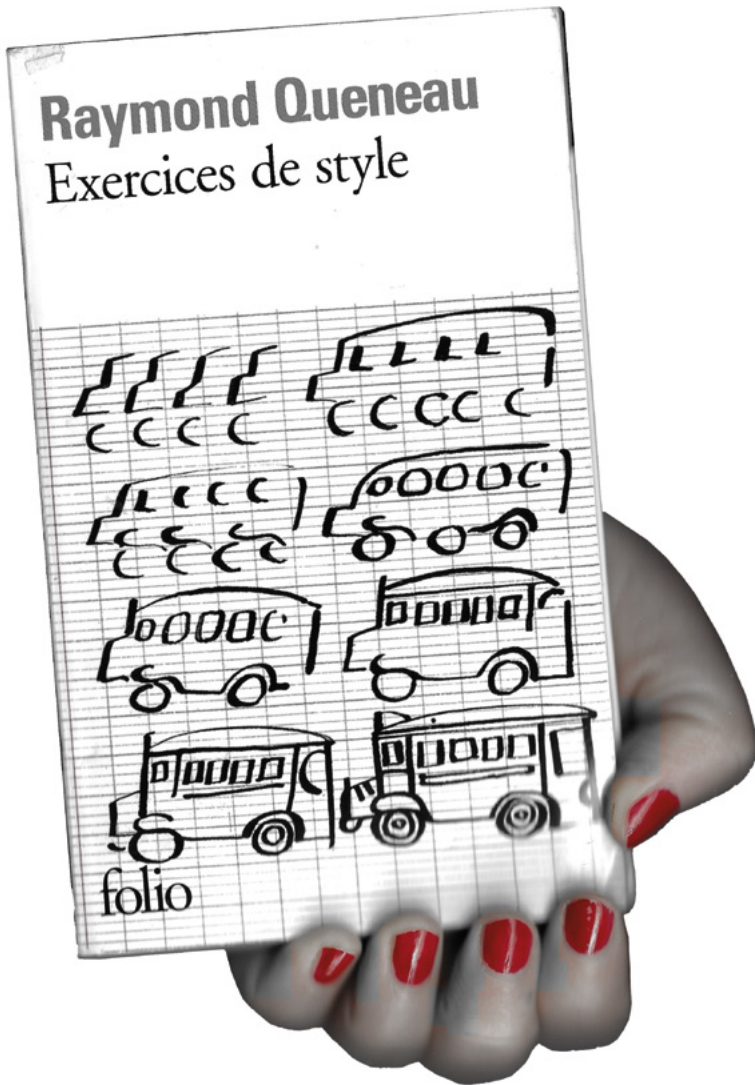
Just as it is impossible to separate the subjective and objective dimensions of the installation *Porte 11, rue Larrey*, it would be reductive to separate the material dimensions from the intentional or signifying dimensions.¹²² All these dimensions are interdependent and emerge from each other perpetually. The question is not whether we should design transversally by interlacing these dimensions. Instead, the challenge lies in grasping the creative potential of this interdependence.

Porte 11 rue Larrey is a fascinating example of an architectural component as a means of communication. The material artefact can be grasped and manipulated in order to step into contact with the world. It has enacting potential. By analogy, a building can be thought of as a relational object that regulates the relationships between more or less connectedness, that suggests apprehension and incites getting in motion.

122. Attempts to understand the place and the role of the physical dimension of space are reflected in contemporary architectural theory in the debate on dynamic ontology, object-oriented ontology and relational ontology, cf. Bruno Latour and Alben Yaneva, "Give Me a Gun and I Will Make All Buildings Move: An Ant's View of Architecture", in R. Gesier (ed.), *Explorations in Architecture: Teaching, Design, Research* (Basel: Birkhäuser Verlag, 2008), 80-89; Graham Harman, "Buildings are not Processes: A Disagreement with Latour and Yaneva", *Ardeth* 1 (2017), 113-122.

Exercices de Style

Raymond Queneau
Release Date: 1947, Gallimard



Creative Constraints, a procedure that is the work and that generates the work

Exercices de Style, by the French writer and mathematician Raymond Queneau, tells the same inconsequential episode, in which a man witnesses a minor altercation on a bus trip in ninety-nine different ways. To do this, the author uses the method of a double creative constraint. The first constraint is to recount a factual story, which is banal and has no a priori meaning, 99 times. The second self-imposed constraint requires to narrate each version in a particular stylistic genre, for example, Metaphor, Retrograde, Surprises, Dream, Hesitations, Precisions, Negativities, Anagrams,

Interrogation etc. *Exercices de Style* is a foundational piece of work for what later became the Oulipo movement.¹²³ At first glance, *Exercices de Style* is a fresh and surprising text, light and enjoyable to read.

In the context of this research *Exercices de Style* is interesting because it provides insight on a number of fundamental questions that arise in the study of creative interaction processes, such as the role of the author and the emergence of a piece of work, the generation of meaning and the handling of constraints.

Reciprocity, Shaping and Being Shaped

Reading *Exercices de Style* makes the two-way relationship of reciprocal interdependencies between the narrator and what they describe comprehensible.

The factual situation does not change, what does change are the parameters for describing the situation such as focal length, spatiotemporal framing, or style. Each of the ninety-nine narratives, influences how the described episode is received, each one evokes a different interpretation of the tan-

gible facts and a different sensation, which would, in turn, lead to different actions if one had to decide to take a stance.

After such a reading experience, it is not possible to believe that there can be such a thing as an objective description of events, that the observer could be neutral and independent of the observed object. But the observer can master to which extent he or she is using material facts to develop a narrative thread.

123. "Oulipo was created as a co-commission of the Collège de Pataphysique bringing together writers and mathematicians and scholars. Its touchstone will be the exploration of the link between mathematics and literature, developed around diverse, evolving and mobile notions... structure, constraint, instruction, axiomatics, manipulation, combinatorics, process, procedure, etc." Hervé Le Tellier, *L'Oulipo: langages et esthétique de la complicité* (Doctoral dissertation, Paris 7, 2002).

Performative Speech

Exercices de Style makes the irreducible link between how something is described and the power of worldmaking experiential. With precision and wittiness, Queneau makes the gap between the factual situation and its multiple representations palpable. The one who describes the world becomes the creator of a world. Choosing how to tell implies depicting the existing in a certain way, shaping what is there, prior to any physical transformation.¹²⁴

Describing the facts in a certain way is already giving direction to what might follow, without knowing what will follow.

Once we have experienced the worldmaking potential of such performative speech,¹²⁵ it is impossible to consider that the creative part of design only begins after the existing has been analysed, a misconception still widespread in many architectural communities.

Intertwining for Opening

Exercices de Style demonstrates that relating something from one framework to something in another framework is opening a creative potential. The technique of creative constraints demonstrates also that the creative act does not need an author's plating of their interpretation on an existing and seemingly insignificant fact. Instead, the technique works through inventing modalities that allow the author to generate friction for sparks to emerge, however banal and or-

dinary the rubbing components. Any factual hook, however anecdotal, can generate a worldmaking-effect when put in relation to another thing.¹²⁶

"The approach... is to follow the constraints by putting all his creative intuition in the background, to literally lend themselves to play the game without having a ready idea of where it can lead."¹²⁷

124. Chora, "How to tell? Taxonomy and Unfolding", 274-345.

125. Barbara Cassin, *Quand dire, c'est vraiment faire* (Paris: Fayard, 2018), differentiates three types of speech, namely "talk about", a descriptive speech on findings, "talk to", the rhetorics of a prescriptive language, and "performative speech", which has a "world-making effect", in the present.

126. A potential world-building effect only arises in putting a thing in relation to something else; Bert Mulder, comparing data and information, data only become potentially significant in relation to a context they in-form, and potentially impact (Amsterdam: Berlage Institute, 1998; Edward R. Tufte, *Envisioning information* (Cheshire, CT: Graphics Press, 1993).

127. Oulipo, *Atlas of Potential Literature*. For Queneau, there is a fundamental opposition between pure chance and chance born of coercion. Members of Oulipo liked to describe themselves as rats who build themselves the labyrinth from which they propose to get out. In this sense, the use of creative constraints is a non-random approach.

*“Make no mistake:
potentiality is uncertain, but not hazardous.
We know perfectly well what can happen,
but we do not know if it will happen.”*¹²⁸

REFLEXION

It is exactly this know-how of creating potentialities that we find in architectural and urban design, and that we should cultivate with rigor! If all things, whether banal or extraordinary, can contribute to imaginative reconfigurations, the ability to activate the potential of a thing becomes as important as the thing activated. How often have we heard architects remark “There is no project, it’s just an analysis!”, when what they mean is that there is no building that can be or has been built.

The ability to activate the potential of things, to demonstrate that describing what is there can be performative and worldmaking, the architectural collective Rotor has exemplified

with much delicacy for the transformation of an old port warehouse in Grindbakken. As creative procedure Rotor followed the rule of withdrawing action and framing rather than adding. Following this rule the old warehouse unveiled itself through its multiple layers of the past and became a new place.¹²⁹

Clearly, considering process (meaning according to what rules are actions being carried out) and outcome in terms of opposition would be reductive. The procedure is the work and generates the work. It is then a matter of knowing how to apprehend an emerging form without detaching it from the field of forces that generated it.¹³⁰

128. Oulipo, *Atlas of Potential Literature*.

129. Emily Chalcraft, “Grindbakken by Rotor”, www.dezeen.com/2012/10/09/grindbakken-by-rotor.

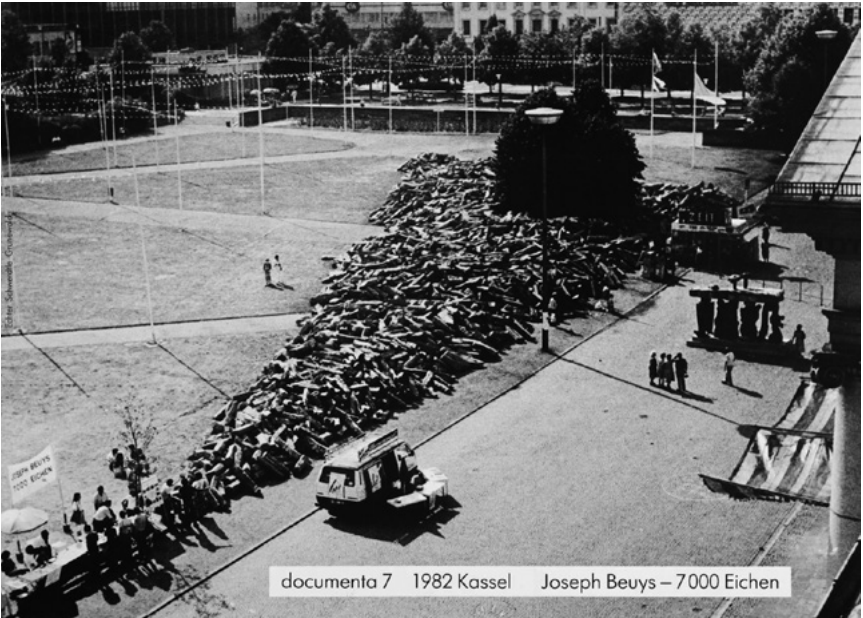
130. Some projects by Junya Ishigami + associates are radical contemporary examples of a creative posture where procedure, outcome and context form an irreducible whole, namely the *Restaurant & Houses*, Ube, Japan (2014-2022), which emerge as much from excavation as from arrangement of matter, “House & Restaurant / junya ishigami + associates”, *ArchDaily*, 19 September 2022; the *Home for the Elderly* project, Tohuko, Japan (since 2012), emerging from the dismantling of traditional wooden houses across the country.

7000 Oaks

Joseph Beuys

Date founded: 1982

Location: Dokumenta 7, Kassel, Germany



A Tangible and Malleable Work Without a Finite Shape

Today, the city of Kassel is planted with oak trees. It is neither the result of a landscaping project nor of an urban design of public space, but the emergent part of an artistic action for the *Dokumenta 7* in 1982 by the artist Joseph Beuys, member of the art-action movement (see above). By relating each oak tree to a basalt column in the city, an imaginative power relationship was originated. At the opening of the contemporary art exhibition, the only visible shape was an enormous pile of basalt columns placed in front of the main entrance of the museum. This pile, which looked more like a ruin than an artwork, caused a scandal for some and was a sensation for others. Beuys defined an action protocol to engage a creative process which called for the transformation of a pile of stones into planting of 7000 oak-trees.

According to the exchange principle, Beuys began planting. For each tree planted, one of the basalt columns was removed and placed next to the tree. In exchange for 500 deutschmarks (approx. 255 euros), whoever wanted could participate in planting a tree, removing the pile of stones in the city centre, and contributing to a kind of green deal.

“My intention is that the planting of oaks is not only an action of necessity of the biosphere, that is to say in a purely material and ecological context, but that these plantations lead us to a much broader ecological concept because we never want to stop the planting action.” The pile of stones in the city centre gradually decreased, and the city of Kassel greened, until today, the action has continued all over the planet.

A Procedure as a Piece of Work and Generating a Piece of Work

If we tried to point at where the original work is located: is it in the installation of a pile of stones in the city centre? In Joseph Beuys' initial performance of planting the first tree in the context of an international cultural event? Does the work's originality lie in the reforestation of the city of Kassel, which only became measurable years after the work's inauguration? Is it in the protocol invented for how actions are to be taken, not only by the

artist but also by the spectator and the public institutions involved?

These aspects are facets of the work, inseparable components forming the whole.¹³¹ The notion of the piece of work is broader, including beyond the material artefact the actions generating a creative process, it considers those directly involved in it, artists and spectators, and the environment in which the work is situated.

131. The Art Action and its associated Fluxus movement, to which Joseph Beuys also belonged, turned to forms of artistic practice guided by creative processes, that were understood as a fluid transition from art to life.

Soziale Plastik

This environment is doubly fertile in the sense of the “terrestrial context”, as Latour would call it nowadays, for the context shapes action, and action shapes the environment. In a relation of reciprocity, all components are fertile resources to each other.¹³² Just as an object, when it calls for repetition and installs a routine, is becoming a carrier of cultural practice (Latour), for Beuys, the act of investing in a situation, engaging with it, is

practice, is relation making, is life, is culture. He calls this expanded conception of the notion of art in life “Soziale Plastik”.¹³³

As everyone can engage in this direct relationship with their environment and thereby recharge a milieu, every human has an irreducible creative power of transforming their environment, and ultimately for Beuys, everyone is an artist.

REFLEXION

A Situated Practice in Touch With the World

From the perspective of an architect or urban practitioner, *7000 Oaks* is an interesting demonstrator within this research for several reasons. The *Soziale Plastik 7000 oaks* exemplifies the notion of a creation being a situated intervention that exists in a fruitful relationship with its milieu, an aspiration we can share in architectural and urban design. It is at the same time a physical transformation of a place and evolving. The material dimension makes it seizable (which does not necessarily

imply being entirely comprehensible) enabling others to relate to, to join in and play a part in the unfolding creative interaction process.

7000 oaks demonstrates a creative practice in its largest possible extent: it is inseparable from the political, economic, or educational fields, engaged with the world of its time, but not only. It is about increasing the resources, augmenting the potentialities of a situation, remaining open to what will happen.

132. François Jullien, *Il n’y a pas d’identité culturelle* (Paris: L’Herne, 2016).

133. Beuys developed the theory of *Social Plastic* in 1967; I prefer to keep the term *Social Plastic* instead of translating it as *Social Sculpture*, as is the case in most translations on Beuys. The reason for this is the dimension of plasticity found in the German terminology, which gets lost with the solid connotation of sculpture.

The Choice of the Format as a Means of Performative Action

Beuys overarching goal of being in touch with the world by setting in motion, activating potentialities, allowed him to pick up any available medium of expression. Anything at hand, indifferent to habitual artistic aesthetic and free of a preconceived idea of artistic format could become a potential resource and a means: fat, his own body, pop music, advertising, politics, he played endlessly with turning dominant representations, political, administrative, and advertising discourses upside down by hijacking languages of expression, transgressing formats.

By changing one letter from *t* to *d*, Beuys calls with wittiness for “Stadtverwaldung statt Stadtverwaltung”, a city forestation instead of a city administration. He was piggybacking on the expansion of advertising billboards to disseminate his work, practising polysemy and wordplay, shortcutting administrative inertia and generating the forestation of the city. The author’s positioning of the work and the choice of the format for creative action are not self-restricted by a disciplinary or institutional framework. On the contrary, the author appropriates an existing operational framework (i.e., the museum space), expands it (including the municipal services of the city of Kassel in the realization of his work), and creates the means that go with it (i.e. the establishment of an economic system for the deployment

of the work), providing access for the citizen to join in.

Founder of the “Free International University (FIU) for Creativity and Interdisciplinary Research”, activist for direct democracy by referendum,¹³⁴ co-founder of the first ecologist party in Europe “Die Grünen”, Pop-singer to campaign against North America’s nuclear policy with “Sommer statt Reagan”, Beuys expands the operational scope on a case-by-case basis, according to needs, opportunities, and potentialities, that present themselves to him.

The concept theorized as Soziale Plastik, even if not explicitly claimed, can be found in many contemporary cultural productions which materialize as spatial interventions anchored in an urban context and engaged in a Polis.¹³⁵ Examples of pieces of such work are present in relational art,¹³⁶ for instance, the piece of work *Musée précaire Albinet* by Thomas Hirschhorn,¹³⁷ or among architectural collectives, such as the *Floating University Berlin* by Raumlabor.¹³⁸ The operational framework utilised for the procedure of creative process just as the format of the tangible aspect of the work are selected beyond disciplinary boundaries, they are means and outcome at the same time. An outcome which is engaged, which is never univocal, which remains open.

134. Organisation für direkte Demokratie durch Volksabstimmung, 1971.

135. Interestingly, the concept of Soziale Plastik emphasises thinginess and plasticity at the same time, while today’s socially engaged creative practices, such as for instance design thinking, service design or social design, emphasis a creative posture or method

136. Nicolas Bourriaud, *Esthétique relationnelle* (Dijon: Les presses du réel, 2001).

137. Thomas Hirschhorn, *Musée Précaire Albinet* (Paris: Xavier Barral, 2005).

138. Raumlabor, *Floating University*, <https://floating-berlin.org/> (2018).

*“Creation (...) involves not merely talent, intuition,
powers of imagination and application,
but also the ability to shape material
that could be expanded to
other socially relevant spheres.”¹³⁹*

139. Joseph Beuys and Heinrich Böll, *Manifesto on the foundation of The Free International University (FIU) for Creativity and Interdisciplinary Research*, 1973.

CHAPTER 5

Tangible Things



Visitors upcycling waste into urban pillows "L'Ispre", in *La Maison du M6tabolisme Parisien*, public event, Paris, 2006.



“The aim of the architecture is then to reach the situation where everyone’s identity is optimal, and because user and thing affirm each other, make each other more themselves, the problem is to find the right conditioning for each thing. It is a question of the right articulation, that things and people offer each other. Form makes itself, and that is less a question of invention than of listening well to what person and thing want to be”¹⁴⁰

5.1 Introduction: Temporary Objects or Design Outcomes

Investigating the process of open inclusive design, we found how using propelling devices ensures the progression of a design process. Investigating the parameters that lead a design development to pivot towards increase in creativity or towards dissipation, we found how the use of spatial settings gives hold to interaction and supports an exchange of information, for the spatial setting has two essential qualities that are significant: it encourages us to change our point of view and to discover new perspectives and, at the same time, it is attaching any thought or lived experience to specific tangible situations. Along these research steps, the importance of the material dimension is increasingly coming to the fore.

During the design development, we arrange material things in such a way that the participants are placed in a spatial situation to each other. This creates environments in which the participants move between other people and objects. These objects are deliberately designed with the intention to engage others or be picked up by them.

140. Hermann Hertzberger, “Montessori primary school in Delft, Holland”, *Harvard Educational Review*, 39.4 (1969), 58-67.

The tangible things, artefacts, deployed in spatial settings or among participants, or both, have a curious quality: at Polimorph, we thought of them as working aids, design tools originally conceived to facilitate participants' engagement in the shared projects, to facilitate the treatment of data we'd crowdsource and to ensure that the development of the proposal keeps advancing. They were created with aesthetic criteria in mind to appeal to multiple senses, to inspire curiosity, and to draw people in. We did not create these things having in mind finished end products that could be presented as design outcomes. They were designed as proposal to stir feedback. This explains why they sometimes display an imperfectly crafted character. These material artefacts indeed contribute significantly to participants' willingness to engage in the co-design process, to participants' coevolution. For example, to propose for starting a game a round dice instead of a habitual square dice usually loosens up the situation, strangers smile and someone makes a comment, the ice is being broken, the interaction can begin. As the previous research steps have shown, valuable results emerge during a creative dynamic in the design process before a building could be constructed.

We noticed that these temporary objects – playing cards, flyers, props, games, spatial installations, performances – seem significant in more than one respect. The director of the medico-social centre recalled “I almost feel like saying that the most interesting moment was not the moment that led us to create new spaces, but it was surely the six months of exchanges, when we really thought about what we lived in the spaces, how we took them over, how we moved around, which spaces were no man's lands (...). The tools that were used at that time were not only adapted to the situations of people with disabilities. They were above all adapted to produce exchange, to produce reference points, how a space could impregnate us and how we could appropriate it. That's probably the best memory we have of it. In other words, we discovered that we had a way of life without realising it. And that, when you renew the spaces and you remove the markers that make up your habits, at first you

don't realise that it's very important, but when someone takes them away from you, you realise that you miss them".¹⁴¹

The objecthood and tangible aspect of situations are attractive things. People express their appreciation, some ask if they can take or buy them. Even though Polimorph invests time, care and resources in the design of the material support structures – be they action protocols to stimulate inquiry or relational objects to formalise intermediate results, be they spatial installations or performative events –, from an architect's point of view these things are merely steppingstones for the development of a spatial design. Until a spatial transformation is built, the final result of the design process is, strictly speaking, still pending.

If we look merely at the format of such props, then comparable formats are found among artists, designers or performers either as cultural artefacts or as part of citizen commissions, sometimes as data sets for research. Within their domain – art, citizen project, research –, such formats are treated as deliverables. Such differences between the meanings and value attached to these material things, point to an ambiguity about what the architect is actually creating with them, temporary objects or design outcomes.

In this chapter we will investigate the nature and role of the tangible things created all along a spatial design development. How did the tangible objects emerge in the process of open, inclusive design? How do these material things impact on grasping and enacting a spatial transformation process? What is the value of the material dimension of spatiality? These are the questions to be addressed with research step 6, where we inquire how tangible props are developed, tested and refined incrementally, from one project context to the next.

141. Interview with Jean-Marc Rigal, director of the Centre médico-social Saint-Martin, delegated project manager for the Architecture & Disability project (Paris, Café Otto le Bal: 10 October 2018).

5.2 Research Step 6: Material Support Structures, To See What We Are Not Looking For

CONTEXT

Case Study 06: Prototyping Material Props for Fieldwork

In the open inclusive development process, there are two classes of material props: action protocols, such as the exploratory tools used for investigating what exists, to see what we are not looking for; and relational objects, tangible formats used for transposing plausible objects into feasible actions. Both facilitate interaction for playing out alternative realities, reframe the existing and reconsider possible futures.

In Polimorph's practice, the method of investigating an existing situation evolved from one project setting to the next, with the tangible dimension becoming more present. In this research action, we explore how the changing contexts bring about adaptations and lead to an evolution of the designed material props until a gradual solidification of methods and techniques for fieldwork is achieved.

METHOD OF INQUIRY

Mapping Iterations of Material Props For Fieldwork

Six project situations between 2004 and 2014 are selected in which significant changes are traced. Each iteration is explained in terms of the changing context, the associated project-related tests, the adjustments made and the observed results.

ITERATION 1

Turning Random Samples for Data Collection into Design of Playing Cards (2004)

The first time we felt the necessity to share data about an existing situation in the form of tangible graspable objects occurred in the context of the first edition of the urban game TabulaRosa produced during an Architecture Festival (Paris, 2004). We used

the technique of random sampling within a sector of Paris that was defined as project perimeter for future transformation, to gather data from 50 randomly selected situations. The random sampling technique consists of distributing a critical mass of samples across the sector of inquiry. As Chora describes, “Playing involves random choices, findings, and discoveries. This randomness generates variety and surprise. Random sampling is the technique of cutting through preconceived categories to reveal the ways that proto-urban conditions affect specific environments. A critical mass of random samplings is needed to see differences in their manifestations and to establish trends”.¹⁴² Randomization can be done in any way, e.g. by throwing beans on a map, superimposing a pattern of lines, or establishing a rule of movement, provided that the pattern has no predetermined meaning in relation to the sector under study.¹⁴³

Test: We designed a set of 50 playing cards, each one describing one situation. The motivation of designing playing cards was to remove the inhibitions of potential participants, unknown passers-by from the public, to facilitate their participation so that they would start to play the urban game *TabulaRosa*.

Adjustment: Five members of our team collected ten samples each, each sample was given a number between 1 to 50. Each sample described one found situation with one photo, one title and four sentences. Each single sentence needs to respond to the minimum set of *Who does what where?* (subject, verb, object, etc.). This can be extended at will with *How? Why? etc.* Observing an existing situation and describing it in four sentences followed a basic set of four processes: Erasure, Origination, Transformation and Migration, EOTM.¹⁴⁴ The first sentence describes what is not there anymore, the second sentence describes what emerged, the third sentence describes what was transformed and the last

142. Chora, *Urban Flotsam*, 158.

143. Georges Perec, a member of the Oulipo, used randomness as a narrative structure in *La Vie mode d'emploi* (1978), with the narrator revealing the lives of the inhabitants by moving through the building following the pattern of a chess knight.

144. Chora and Raoul Bunschoten, *Metaspaces* (London: Black Dog Publisher, 1998); Chora et al., *Urban Flotsam*, 167-202.



Fig. 59: "Entry cards" describing an existing situation each with 1 title, 1 illustration, 1 description in four sentences and 1 unique number transposed on the map (Iteration 1).



Fig. 60: Random Samples of existing situations disposed as "Entry cards" on the wall (Iteration 1).

2004 - Paris 10 - Festival des architectures vivas
 2005 - Tours - Festival Rayons Frais
 2006 - Paris 13 - Parc Proust
 2007 - Enghien - Architecture et handicap: Centre Saint-Martin
 2008 - Enghien - Carte sensible: Centre Saint-Martin
 2009 - Tours - ALIANCE
 2009 - Biogny recroise Biogny
 2009 - Montreal - Un terrain pour tous
 2010 - Saint-Denis-Arthues - Eco-courtois le Champ Foutin
 2012 - Reuilly - Le Pléminaire
 2014 - Paris 13 - Coréolia, Cité aux vitraux
 2014 - Nanterre - Processus de vote St. Etienne
 2015 - Saint-Denis-Arthues - Envois sous mont tout

Diagnostic

Enjeux

Cartes d'entrée Tabula Rosa
 octobre 2004

Festival des architectures vivas

Paris 10 (75) Mapping real situations

SKATEURS +01	COUCOU - COUCOTU +02	PIERRE +03	QUARTIERS +04	TRO-TRO +05	DÉBRICÉ +06	PIEDROLES +07	LES RINGOS +08	OU POU DU YU... +09	TOUR D'ORFÈVRE I +10
YU - OUVI +11	CLAYARD +12	POINT EPANORÉ +13	OSUPO AU LARD +14	CONSTANTIN +15	PETIT PETIT COUDROUPE +16	A LA CARTE +17	BALIGEO BOBO +18	JURÉLO UBRARIO +19	TOSCOU DU RIC +20
AVOC DU SARD ORZ +21	COUDROU CLOPPA +22	PLUS FORT QU'OU +23	BAILL-VIVIS +24	BAILLERS +25	CLARI +26	PRISSO-DINTROBO +27	BOFFER +28	INDOUR +29	RU FO. EL ORU +30
BOUET-EXPOUS +31	CHOUROU AIX BOUDES +32	IRAI DU PAYS +33	PROUDROU +34	LES DOUBREX +35	CHAGOTS +36	APPOUS LA PLOU +37	BOUETTOUO BOUOS +38	BOUVOU TAPAI +39	BOUS +40
SUSPENS +41	ÉCHO OU BOUÉ +42	BOUENNE BOUSTRATE +43	TRO OFFICIEL +44	YISSIS/YISSIS... +45	BOU DU HOTEL +46	PETIT BOUSTRATE +47	PASSAGES +48	TROUS +49	FESTIVEL +50

Fig. 61: Mapping Paris 10, Iteration 1, assemblage in printformat 80 x 90 folded, PRS Ghent, 21.04.2016.

sentence describes what migrated. This principle enables the schematic articulation of complex urban dynamics, wherein each existing situation is described as a mini-scenario and relates to actors. Actors here refers to acting forces, in the physical sense of power and in the grammatical sense of subject (who), be they human beings, institutions, animals or natural forces.

The title and the photo captured each description in a complementary way. All numbers were transferred to the game board of TabulaRosa at the precise location where the situation was observed. The four components for capturing a sample were formatted like a playing card. The back of each card contained only the number and title. The set of cards was displayed on the wall with the back visible. To start the game, the first player had to select an “entry card” (fig. 59-61).

OBSERVATION

We observed that the selection of an “entry card” happened either by the player choosing a number on the game board, that is a particular point on the city map, by choosing a title read on the back of the displayed playing cards, or by randomly picking a number between 1 and 50.

The player with the card in hand then read out the short paragraph whose four sentences simulate the first game round of playing TabulaRosa. The description of the real situation grounded the beginning of the scenario in one spot on the map from where it could unfold. Demonstrating an example of a first round helped participants grasp the rules of the game, which for some remained more intimidating when explained verbally.

The audience, passers-by, and the players who joined on voluntary bases were intrigued by the playing cards. The titles sparked their curiosity, the thingness of the objects made them want to take a card, turn it over and discover what situation it revealed.

For many visitors, the contents of the playing cards, which were descriptions of real existing situations they could relate to, triggered their desire to comment or to develop in more depth the phenomena described, to bring in their own observations and knowledge about the project perimeter. For others, the cards

made them discover facts about their neighbourhood that they did not know. Again for others, the cards initiated discussions about factual phenomena, which they did not perceive in the same way. The playing cards and their contents got strangers talking to each other in a joking and informal way, and at the same time exchanging about real phenomena in a given context, contributing with more information.

As objects in the form of playing cards, the data and descriptions of the phenomena encountered on site had a captivating and engaging effect. They provided several ways of access. Some participants were stimulated by the objecthood, a thing to grasp, others by the familiarity of the situation described, and still others by the wording. Formatted as a playing card, the data set literally became a handheld object, a commodity that could be manipulated with the hands, that engaged people to relate and to enrich what they found with further information.

As each of the five Polimorph team members treated ten samples, we realized that an observer tends to see similar issues after approximately five situations described, regardless of the different spots explored. Oana was inclined to notice aesthetic qualities of urban furniture and signage, I was inclined to see the paradoxes in situations, Jacques-Olivier was inclined to observe and describe situations through the lens of social injustice. What one perceived was influenced by their way of looking.

ITERATION 2

Outsourcing Random Sampling Towards External Observers (2006)

The experience of sharing data and making them accessible in the format of playing cards led to a further development two years later in the project *Pari Passu* (fig. 62). We realized since 2004 that people felt compelled to share their personal observations in the city with us. We have also experienced that what a person tends to see depends on who he or she is.

Test: In this new project context, we decided to test outsourcing the description of random samples by external observers, instead

of Polimorph members only. The idea was to counterbalance an overly biased view. Furthermore, we tried to simplify the formatting of playing cards.

Adjustment: As the photographs turned out to be an effective iconography for drawing people in and for embedding the game in a real context, we gave up on our initial technique of redrawing or cutting out elements from the photos for designing the playing cards (fig. 59, 63). This adjustment proved efficient for the public and saved us production time.

We invited the street artists involved in the project *PariPassu* to join the random sampling and contribute with their descriptions of found situations in the territory.¹⁴⁵ We kept as exploration assignment the format of 1 photo, 4 sentences, and 1 title. In conversation with the artists, we decided not to insist on the basic set of four processes, that is, Erasure, Origination, Transformation, Migration to describe urban phenomena, but we incited the observers to use the narrative structure of four subsequent sentences (fig. 63).

We asked the observers not to use the pronoun “I”, and to instead articulate the quality of the “who” with the third-person subject. The reason for this is twofold: firstly, if an “I” was transposed onto a playing card, it would end the possibility of a subsequent quest, for the “I” does not inform the person retrieving the description through the playing card about the subject doing something to the situation, whereas the third person figure with a character assumes a minimum social function (child, pupil, parent, profession, elective function, etc.); second, it compels the observers to reflect who could be the driving force behind an action leading to a tangible phenomenon in site and to become as specific and factual as possible. The aim is to orient the description towards phenomena that exist in a territory, not towards the observers’ thinking or feeling. Of course, an observer can identify oneself as a driving force. In this case, the observer signifies who “I” is, i.e. “the architect”, “the baker”, “the wind”, “the birds”, “the migrant”, “the policeman”, “the tree”, “the chewing gum”, etc. The call for characterisation encourages the

145. *Décor Sonore*, *Les Ouvreurs de promenade*, *Groupe ici-même*, Joseph K, *Le Théâtre de l’Unité*

observer to be clear about the position from which he or she is acting.

This exploration assignment aims at gaining insights about real phenomena in the territory, including actors and operations attached to them, not to gain insight about the states of mind of the narrator. Our commissioner asked us to expose the produced playing cards in situ visibly to passers-by during the entire duration of the project (fig. 64).



Fig. 62: Project context PariPassu, Villa d'Este-Place de Vénétie, Paris 13 (Iteration 2).



Fig. 63: Outsourcing Random Sampling, simplified text and photo editing (Iteration 2).



Fig. 64: Description of real phenomena exhibited in public space stimulates passers-by to comment, to augment and to adjust the comprehension of the existing context (Iteration 2).

OBSERVATION

The formatting of the database as a set of cards accessible in public spaces confirmed its effectiveness in attracting people, overcoming inhibitions to engage with strangers and stimulating conversation. One factor that has contributed to the attractiveness of these material objects is a degree of familiarity, people can relate to. The content is at least somewhat familiar to people, the format of the playing card is a familiar everyday common object. It suggests the possibility of handling as opposed to a precious format that would have created a greater distance from the audience.

The scaffold for describing one situation (1 photo, 4 sentences, 1 title, situating the observation precisely on the map), made the process of gathering, editing and production of the cards relatively efficient for our team.

Extending the data collection with people outside our team worked well, the invited artists were able to follow the exploration protocol we proposed. The range of descriptions of observed situations was diverse, the observers were curious to compare their discoveries.

The framework for investigating and describing what is there offered contributors the creative freedom of choosing the angle they wished to give to their observation without ever losing the thread of the factual material. The beauty of the factual description is that the subjectivity of the viewer still shines through between the lines, by the choice of the theme, the direction given to the small narrative, the wording. The combination of a critical mass of random samples, a diversity of observers and a scaffold of categories for description without a prior meaning helped to reveal the richness of what exists without reducing its complexity too quickly.

We found a method for fieldwork to include a variety of viewpoints to collect data and to make data accessible, shareable, and interpretable. The set of cards had a hybrid role, as they were an open database for fieldwork and could be used as entry cards for playing TabulaRosa.

From data collection to the creation of an openly accessible database, that is from data input to data output, we needed about two weeks at that time. The data processing procedure

was as follows: The exploration protocols, which had proven successful for citizen participation, allowed us to collect a critical mass of data with a group in a few hours. After that, we needed several days to organise and represent the raw data collected. This was done with PAD and CAD. It was crucial for us to conceive the representation of the raw data in a way that it facilitated interpretations of the observed and at the same time left open further possibilities of interpretation. This allowed us to share and substantiate our findings with the participants, so that they could perfect and correct our interpretation if we had misunderstood contexts.

ITERATION 3

Formalising Tools for Collective Fieldwork (2007/2008)

In developing the Architecture & Disability project, we were in a rural environment, with participants from the medical-social field, most of whom were unfamiliar with experimental urban cultures. The open inclusive approach had to allow residents in situation of disability to contribute to the development of the project. The collective fieldwork session was to be carried out in a workshop of maximum one day. Polimorph had two weeks to transpose the raw dataset into intelligible, shareable formats. The entire collection of findings was then returned to all contributors in a follow-up working session. We knew from previous conversations with mentally impaired residents that they could attribute surprisingly different meanings to common situations, a verification of appreciations was tackled.

Test: Would it be possible to formalise the fieldwork technique to make it accessible and usable by contributors other than peers and artists? The data collection tasks should be such that they are easily understood by members of the health centre community. We have transformed our random sampling technique for collecting data and describing tangible phenomena into playful

action protocol for exploring existing territories through the eyes of the many.

Adjustment: We made three adjustments to the exploration protocol. First, only half of the situations to be investigated were randomly distributed; the second half could be freely chosen by each participant. Second, we added a scale of appreciation to the description. This scale was intended as a security check for participants' interpretation of the described situation. Third, to gain complementary insight into the functioning of the 35-hectare estate, we broadened the exploration beyond the description of material phenomena encountered on site to also capture how people practice their territory and to capture the opinions people have about this same territory.

We named the exploratory tool for describing phenomena, "Odyssée de l'espace, voir ce qu'on ne cherche pas" ("Space Odyssey, seeing what we are not looking for"). We invented a tool to inquire how people practice the site, which we called "Journée idéale, journée cauchemar" ("Ideal day, nightmare day"). It prompted participants to map and describe their best and their worst 24-hour cycle, indicating where and when enunciated activities, events and experiences took place and to draw the trajectories of their unfolding across the site. We felt it necessary not to omit participants' desire to outspoke and to provide a venue to express freely their opinions and thoughts about the Centre, about the project to come, etc. The structure to facilitate participants' reflexion was organized in "Ici", "Ailleurs", "Vous ici", "Et d'ailleurs..." (Here, Elsewhere, You here, And more...).

The first workshop session was dedicated to gather all the raw data for doing collective fieldwork.

Participants could work alone or in pairs. We knew from previous experiences that when these explorations are done in a group, what is said about the discoveries tends to follow stereotypical patterns, the more confident people take the initiative and impose their views or knowledge simply because others are slower to raise their voice or less articulate.

We introduced the technique to first gather each person's opinion independently giving everyone time to explore, map, and reflect. Only then, afterwards, did a group discussion take place.

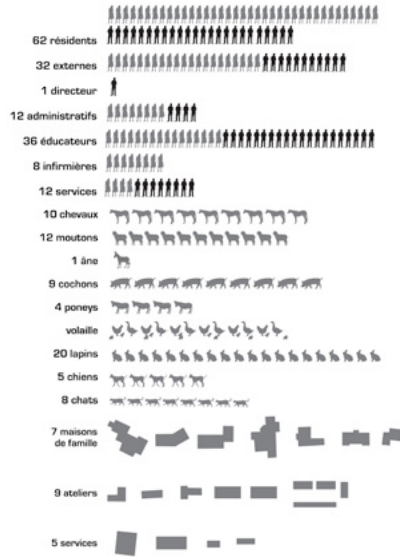


Fig. 65: Project context Centre Saint-Martin Etrepigny: humans, farm animals and buildings on 35 ha (Iteration 3).

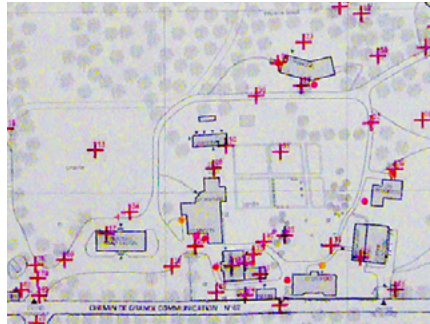


Fig. 66: Adjustment and diversification of tools for inquiry (Iteration 3).



Fig. 67: Adding a scale of appreciation of the described phenomena (Iteration 3).

We suspended a large map of 1,8m×1,8m on the wall of the working space, a working aid to facilitate orientation and whereon every participant placed their observations on the map upon their return (fig. 66, 67).

For the return of the achievements two weeks later, we again transposed the observations into tangible and manipulatable objects: the restitution of the daily practice became booklets compiling the accounts of the best and worst days in the centre, the format of the card sets was reiterated as a restitution of the phenomena observed throughout the site. The opinions were exposed. Polimorph returned an interpreted of the fieldwork while maintaining an access to the database.

It should be added that we deliberately depersonalized the statements, no one knew from whom which statement came. This way, people could discuss the content openly and with less reservation.

OBSERVATION

Capacity of learning how to make use of the support:

This time, describing a situation in four sentences was easy for some people, while others had more difficulties, for instance noting only single words instead of sentences; occasionally participants forgot to give a title to their observation or to add an appreciation.

However, most of them learned very quickly to handle the action-protocols with more precision and inspiration. It usually took a few iterations until participants realised that they are free to decide how they frame a situation, that selecting what to describe means choosing and filtering, they learnt that there is a range of possible descriptions while remaining close and true to the tangible aspects of the situation.

Once the participants became familiar with the proposed collaborative exploration method, we found that the inequality of those who raise their voices weakened: the most reticent people started to speak up, the most extroverted people learned to listen to others. Among the participants, only one person was initially reluctant to explore but changed his mind after seeing how others did it.

Setting and relevance of material agency: In a setting that allowed everyone to contribute to the collective fieldwork, we were able to collect in a single workshop session a sufficient range of quantitative and qualitative data.

The material support facilitated exploration and engagement. Providing direction on how to explore the territory, what to look out for, and distributing tangible tools to handle made contribution easy. For example, the size of the map, which allowed several people to gather around and required moving the whole body, had several advantages: participants could follow the samples growing into a data set, and see how their individual observations potentially informed the whole; they began to assess the density of the samples themselves, to exchange with each other and to self-adjust the procedure by going back to explore further the areas they considered to be underrepresented. For this exchange to emerge, the size of the map was good.

Discovering the raw data samples rendered as manipulable and graspable objects literally gave weight to everyone's contribution. We could observe how transformative it was for the individual contributors and for the whole group when they saw that their contributions produced something they could relate to, something they could share, something they could show, and something that became part of a bigger whole.

Providing Leeway: After fieldwork, once back in the room, we felt from the participants an urge for free exchange. Although we knew that the group had gathered a critical mass of raw data for comprehensive mapping in order to move forward with project development, we took the time to improvise a conversation together. This made us realise a need for leeway. A time of free, undirected exchange after exploring the area was important to internalise the learning experience. We also found that this fostered a sense of belonging. Just as exploring alone or in pairs gives everyone the opportunity to take time to notice, observe or be captivated by something, to decide what to talk about and to share in order to contribute. It also means that participants do not feel they are being watched and scrutinised by the experts.

ITERATION 4

**A Sensitive Map (Carte Sensible),
The Digitisation Of Collaborative Fieldwork To Enable
Real-Time Data Processing (2007/2008)**

After the inventory workshop in the Architecture & Disability project, once we had completed the data collection and started processing the data, more members of the institution, staff and residents, were eager to contribute with their observations. On the one hand, we found it valuable that more people wanted to contribute to the description of the territory from their perspective with the analogue tools we provided and thus to receive more input for the project development. On the other hand, it challenged us to optimise data processing workflows so that more participation does not lead to a greater workload for us (fig. 68).



Fig. 68: Project context Sensitive Map (Iteration 4).

Test: This project situation left us with two questions: How can we design a process of data input, data processing and data output so that the representation of data about an area is updated in real time as citizens add new contributions to the database of a given territory, without increasing our workload? How can we make the database a common open source, integrating the contributions in such a way that this rendering of data helps users deepen their understanding of an area and make decisions?

Adjustment: We have invested in the development of a digital cartographic prototype to search a technique that automates the processing and display of data samples coming from multiple sources. The already proven analogue means for Collaborative Fieldwork, Space Odyssey and Ideal Day, Nightmare Day were translated into a digital interface. For data processing, we used the Virtools software. It collected people's input on an area and generated as output a dynamic 3D representation, a Sensitive Map of situations, movement in time and appreciations. The Carte Sensible, was a data treatment device in form of a dynamic 3D representation generated by the perceptions and assessments people shared of a territory.

The scale of appreciation we had added to the participants' observations as an additional assessment parameter generated a landscape of peaks and valleys. In addition to the 3D representation, we used time to visualize changes in movements at different times of the day. In the sensitive map, quantified data – buildings, vegetation, distances, densities, singularities and recurrences, statistical data on flows – intersected with qualitative data – wordings, interpretations, appreciations. With the Carte Sensible (Sensitive Map), quantitative and qualitative data were combined on an equal value basis in a single cartographic representation.

Using the map, one could freely navigate through a geographical territory, that is, a map of the physical space and a map of the space as it is lived and perceived by its users. one could also zoom in on a specific situation to get more detailed insight, and zoom out the initial raw data at the source of a feature on the map and find out which parameters turned a point on the map into a peak or valley, green or red. The tool was developed to run on standard digital interfaces (see extract making-of 5:01-6:19, fig. 69, fig. 70).

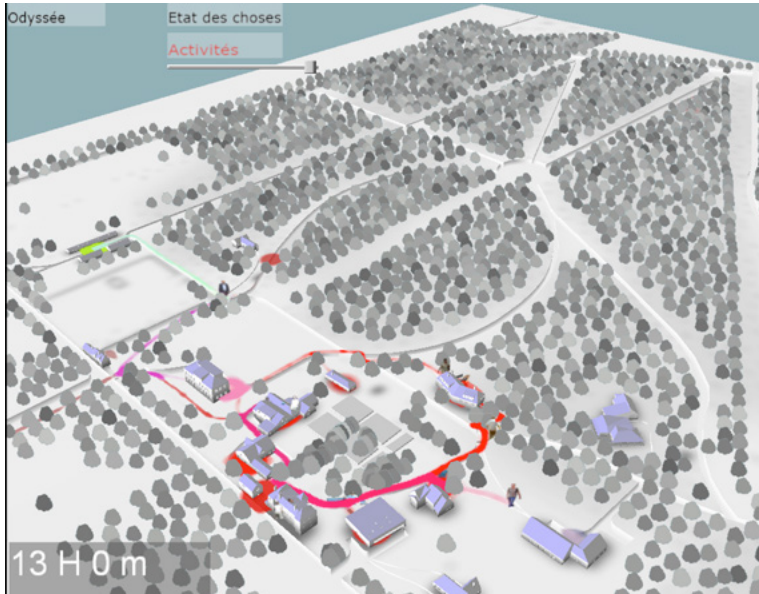
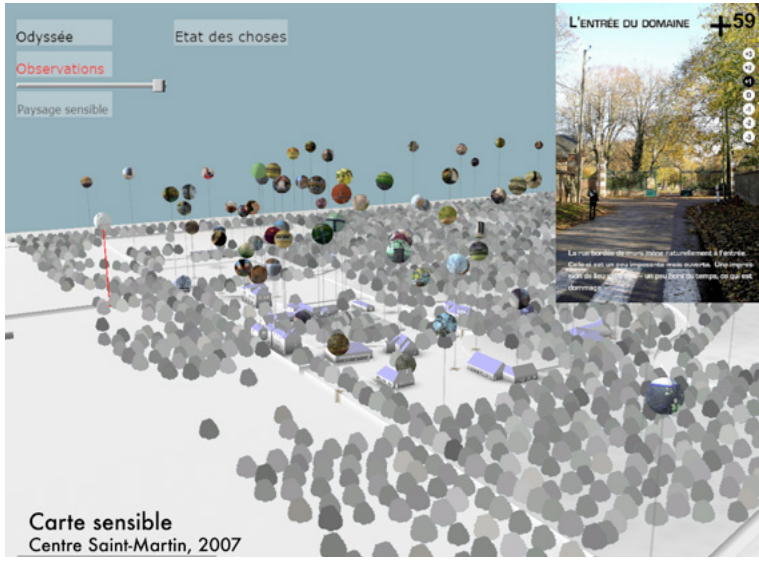
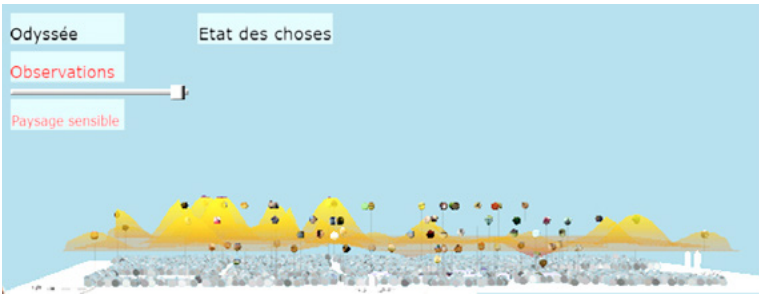


Fig. 69: Carte Sensible / Sensitive Map, extracted visuals (Iteration 4); see Architecture & Disability, making-of (min. 5:01 - 6:19).

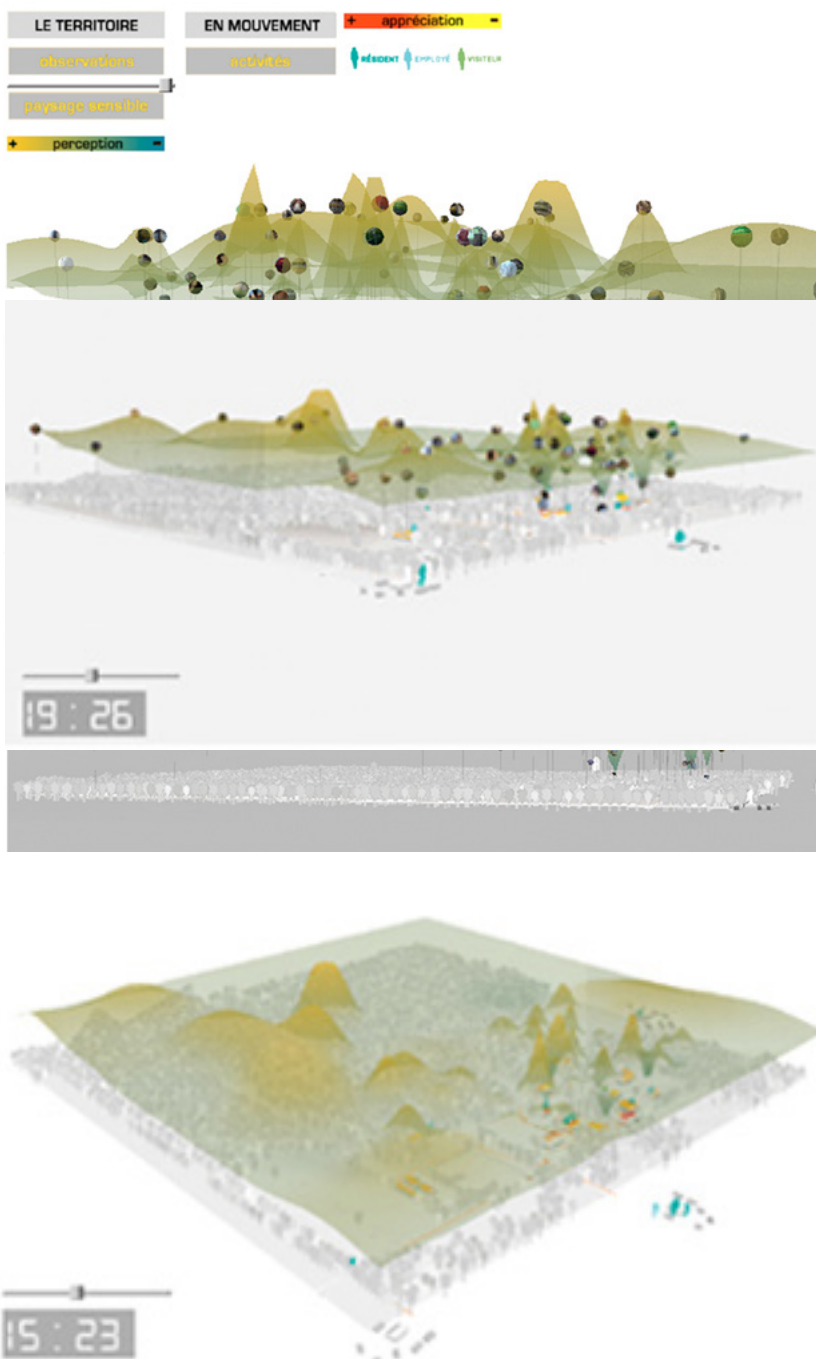


Fig. 70: Carte Sensible / Sensitive Map, extracted visuals (Iteration 4); see Architecture & Disability, making-of (min. 5:01 - 6:19).

OBSERVATION

Instead of 50 to 70 samples we were aiming at, we received about 150 samples. We realized that the observations entered a pattern of repetition from around 50 samples onwards.

By converting our method of fieldwork into a set of rules for data processing, we were able to formulate the principles of a procedural structure for the transmission of data collection from input to treatment to output. It raised our awareness that the process of data selection, visualisation, interpretation, and communication is not a trivial act. Deciding what to show - which also means what not to show - how to show it and how to make it accessible influences users' comprehension of complex issues. These steps in the process of data handling are thus by no means objective. Rather, they set the direction for further sense-making and influence whether and how they increase the users' potential for action.¹⁴⁶

We could not develop the digital version further in a follow up pilot project, but this experiment confirmed to us that the underlying principles for describing the world, filtering the data and transforming it into comprehensible and interpretable objects works, whether in an analogue or digital environment.¹⁴⁷

This iteration of a collaborative mapping consolidated our practical experience of the efficiency of relating any discourse to tangible phenomena in order to get to grips with complex urban dynamics. The use of Sensitive Map, Carte Sensible helped the participants contextualize their own view of an existing situation within an overall view and among others.

We learned that bridging the gap between subjective perception and objective measurement allows making data relevant on a personal level. When subjectivities such as judgements and personal experiences are connected to tangible phenomena, these tangible things serve as medium to vehicle the transition from mere data to understanding, from understanding to decision-making and finally to empowerment. Using tangible things to share among participants, promotes mutual understanding.

146. Gibson, "The Theory of Affordances".

147. With this first pilot, we were able to demonstrate the principle in order to pitch for further funding. The R&D representative of Google, considered that at that time, in 2009, they did not have the technology to develop such a tool as we had envisioned. (Conference on Data Designed for Decision DD4D, organised by the International Institute for Information Design IIID and the OECD, Paris, 2009).

ITERATION 5

Grounding Contradictions in Material Facts (2011)

In the first phase of the Ecohamlet project development, we were confronted with the attitude “Not in my backyard”. Participants generally agreed on an “ecological” development, regardless of the stakeholder group they represented, public and professional institutions, local residents or future candidates for the upcoming co-housing project. But their ideas about what the sustainable village extension should become diverged. They agreed on the problem of urban sprawl and single-family houses, but density was associated with modernist housing estates that are incompatible with the village. While residents agreed on the need to build ecologically, they reminded outsiders that sustainable architecture would not fit in with their local heritage. To support this argument, they referred to the historic village centre and the dry-stone walls typical of the region, while associating sustainable architecture with wood cladding or clay aesthetics. The gap between what people were saying and what they were willing to do became a hurdle.

Test: How could we draw as much as possible on material evidence from the village and the group to make inconsistency between opinions and practices intelligible and move past obstacles? The aim was to test if anchoring contradictions in material facts could be a means to stimulate shifts in imagination and find ways to act.

Adjustment: We used the technique of linking micro-phenomena which the participants could describe, with dynamics on a territorial scale in order to make the relationships between them manageable. Mapping the density within the village demonstrated that the historical core actually had a higher density than the disputed project density, which was perceived as too high. Mapping of villagers’ everyday practices revealed that they already relied on amenities in neighbouring municipalities. Their footprint of everyday life was at odds with the assertion that cooperation with neighbouring municipalities communities

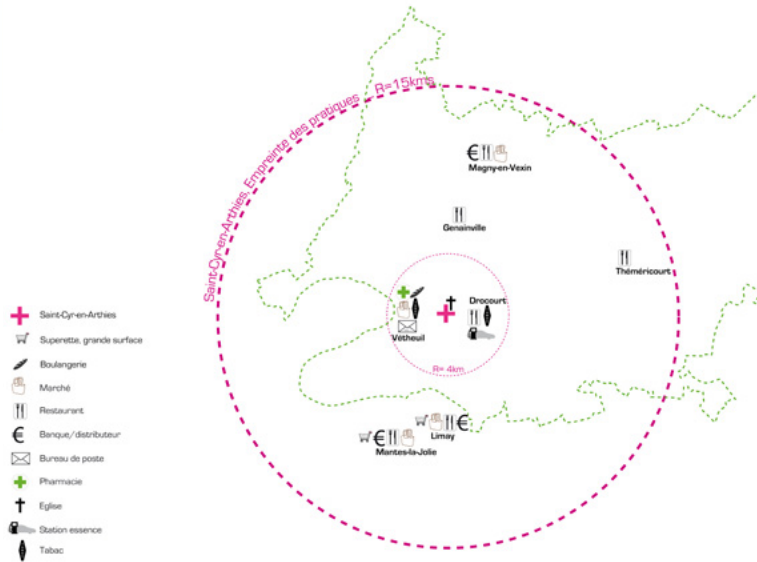
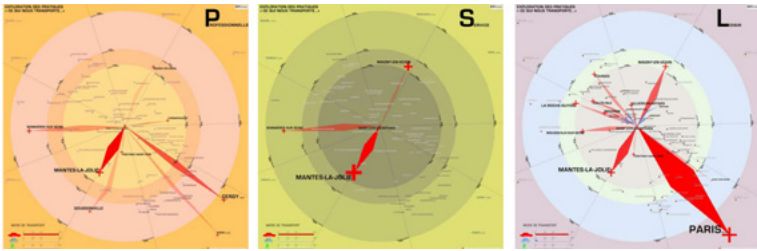
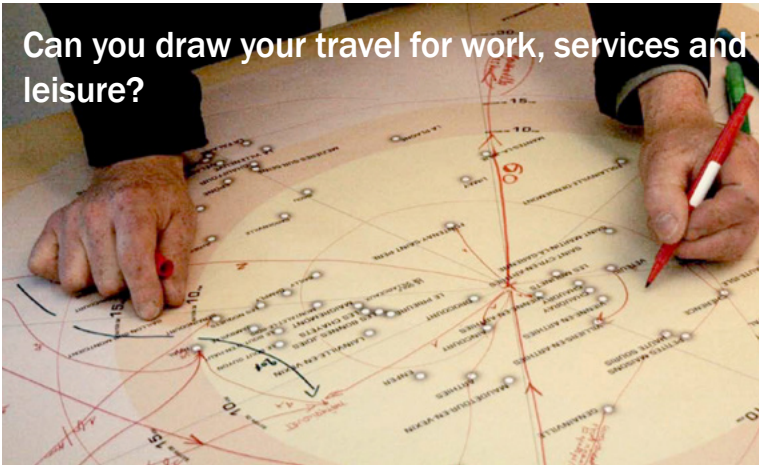


Fig. 71: Mapping of villagers' everyday practices revealed the scope of movement for existential needs and evidenced that they already relied on amenities in neighbouring municipalities (Iteration 5).

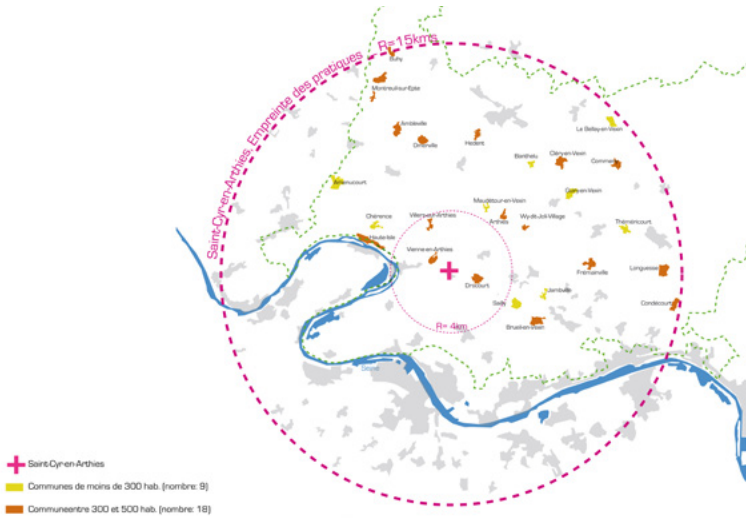


Fig. 72: Nearby municipalities of comparable size potentially in face of similar concerns.

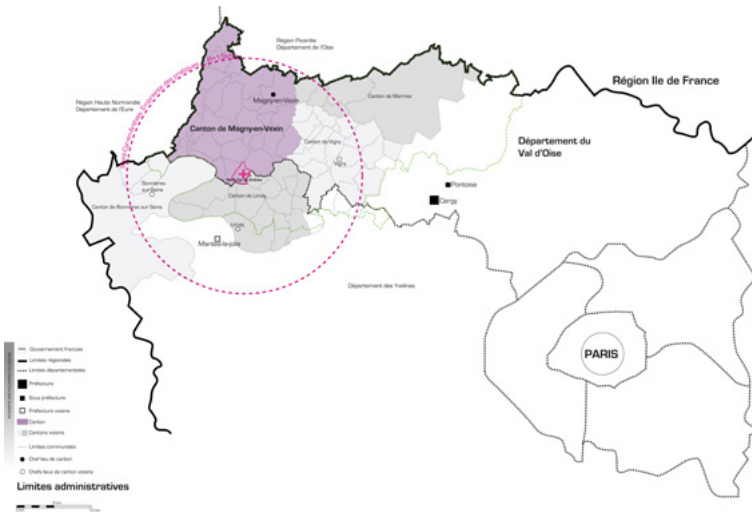


Fig. 73: Connecting territorial practises of everyday life, to administrative organisation of the territory and levels of decision making.

CONTACT URBANISM



Fig. 74: The spatial setting as a support for individual and collective comprehension.

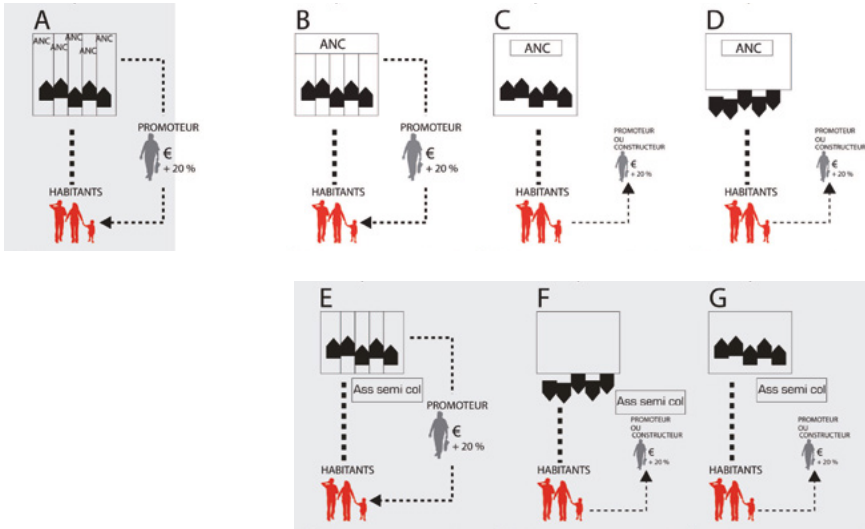


Fig. 75: (above) Relating existing phenomena observed within the private and public domain, to rainwater volumes likely to pass through the site before joining the lower part of the village; (below) Setting out possible solutions for the future water treatment in relation to land tenure management and the impact on outside spaces for humans, flora and fauna in terms of qualities, costs and maintenance; water treatment based on individual private plots (A), on communal land ownership on site (B, C, D) and of-site (E, F, G).

was not possible for them (fig. 70-72). We returned the results of the working sessions in the form of intelligible, shareable and manageable objects that could be manipulated during the public exchange (fig. 73). We created data-visualization tools to debate, evaluate and decide upon strategies in relation to future impact on individuals, communities and the milieu (fig. 74). This allowed for different interpretations. Setting up tangible things in a spatial environment was used to keep the project material within reach throughout the exchange, to allow relating to factual matters and to facilitate decisions making processes.

OBSERVATION

The material evidencing of factual matters facilitated making relations experiential and bringing matters of concern to life.

Leaning on stakeholders' documentations of phenomena such as a flooded road in the valley or cracks in the façade helped to better articulate design questions, such as how to design the village extension in such a way, that it will reduce the problem of flooding. In continuation of a reframing of the design question in close relation to tangible phenomena depicted lead to agreeing upon design decisions. For instance the landscaping of the future extension and permeabilization of the soils would positively affect the lower part of the village and their houses beyond the project perimeter.

The acceptance of a higher building density was not based solely on the rational understanding of comparing presented figures. Acceptance was also facilitated by the fact that these figures could be supplemented by empirical references, experienced examples. The village centre, which all participants could experience directly, served as an example to illustrate the gap between the opinion about a high building density and the material facts. Relating the discussion to tangible things, having a real-life situation within reach to check the congruence of an opinion, and correct it, if necessary, led to a shift in the dynamics of discussion. A re-orientation of the controversy on density occurred and opened a dialogue which allowed for a transformation of positions that would otherwise tended to polarise.

Even if our team proposed an expert interpretation of the raw data, presenting outcomes of a working session in intelligible, shareable, and handy objects allowed the group to position

themselves differently towards them. Providing the possibility of manipulating these elements creates different associations. The interpretation of data becomes a shared inspiring activity. In comparison, reading reports or viewing frontal presentations does not engage the audience in the same interacting bodily manner.

Handling these tangible objects, we manually demonstrated how data can be significant for understanding the existing and informing the design development. Clustering several cards also enabled the group to grasp how phenomena are related and how the transition from looking at individual phenomena to interpreting a set of phenomena can lead to the articulation of an issue. Participants witnessed that components can be reconfigured into different constellations, which could lead to different interpretations.

The material props helped participants to get a grip on how ideas are formed and enabled them to contribute to the re-configuration of data sets by adjusting their interpretations. After a short time, the group usually agreed upon one configuration of observations, an interpretation of the existing, and a conclusion on relevant stakes for the future spatial transformation. The material things we used to support the sharing and discussing of outcomes ultimately played the role of gripping devices within the open inclusive design development.

During the restitution, we realized that there were additional interesting aspects to the material artefacts. Arranging the objects in the working space enticed participants to explore outcomes at their own pace, leaving their chairs, and moving their bodies. The tangible things and spatial settings made it easier to break down hierarchical relations and enabled participants to engage exchanges about the project amongst themselves without our guidance. Interestingly, once in a group, the debates were more grounded in the present situation, based on the material support structures in the room, and inspired by the shared experience of exploratory walks. Whenever someone began to express overly general comments or drifted away from the specific project context, it was easy to bring their thinking back to the reality on the ground in this specific project context. This mediating role was not only embodied by us. People in the group, too, seamlessly began to reach out for the shared experience as common ground to help each other understand better. Finding unthought proposals emerged along this interaction.



Fig. 76: Flyer distributed in the letter boxes to incite residents to join the open building site.

ITERATION 6

Situ-action, Making Space for Taking Place (2014-2015)

CCCT, Côté Cour Côté Tour, was a micro-intervention in a housing estate called Cité Chevaleret in south-east Paris to build a temporary playground for 0 to 99 years old together with the residents, co-financed by the City of Paris, the private housing association, and the Fondation de France (fig. 75). The housing estate was part of the nationwide program “Politique de la Ville”, which made this area with a concentration of residents with little or no income a priority location for development. Approximately 600 people lived in two horizontal blocks of flats on the property that was the focus of this intervention. The estate was owned by a private social housing association, several socio-cultural organizations were already active on-site, and the city of Paris was about to take over the landownership of the outdoor spaces. Part of the property’s problems centred on the courtyard, mainly occupied by teenagers and young men, where non-civic behaviour prevailed and was taken to extremes by drug trafficking and rival gangs. There was a general feeling of tension and insecurity and a lack of appropriation by the residents. The call for proposal to which Polimorph responded came at a moment of transition after residents were told that their property was to undergo a major urban renewal and before the start of the actual regeneration work in 2016.

On the ground, we quickly sensed the residents’ mistrust of outsiders and institutions. Many felt that society had given up on them, that promises were made but rarely followed by concrete action. One comment from the young men who responded to the invitation to join the project, “Why should we join an initiative where you are paid to keep our young people busy while we remain unemployed?” got to the heart of an unspoken shortcoming. Sometimes initiatives in vulnerable communities are supported by organisations in such a way that the own flow of capital keeps their system going, without sufficient concern for bringing about structural improvements for the

affected population.¹⁴⁸ There was a misbalance of power. The goal of Polimorph was to gather the community around the implementation of a physical infrastructure, a playground for the 0 to 99 years old, as a vehicle to reach and empower residents facing the uncertainty of an upcoming regeneration of their social housing estate. On site, the mismatch between the scales at all levels became clear. Viewed from a distance or from the upper floors, the potential size of a playground we were about to develop on a minimal budget would also have been barely perceptible.

Test: Previous experiences have taught us the virtues of a material anchorage for the dynamics of a collective project. This is why our approach was to deploy situ-actions throughout the courtyard from the very start of the co-creation project, in other words to operate directly in the space from the beginning in order to take a place over time. Polimorph's codesign tools needed adjustment, for a group of participants was not being formed at the start, but had to be found and integrated as we went along. What if we move in site on 1:1 scale in form of situ-actions and reduce the work invested in representational formats?

Adjustments: Through repetitive actions we established a physical presence in the courtyard of the estate, to begin to be seen as an intervening and transformative instance and thus attract the inhabitants. First, we drew large signs in the gravel, visible from all the floors and windows of the flats on the upper floors, which signalled that something was beginning to move in the courtyard. We turned the collection, description and appreciation of material phenomena into a full-scale collaborative mapping action called "Confetti". Participating residents tagged the entire outdoor space with coloured stencils, allowing us to see the courtyard and estate through their eyes by zooming in on the spots they highlighted (fig. 76a). The confetti spread

148. For example, in this project, the client representing the city of Paris was willing to suspend the implementation of the project shortly before the start of construction, despite months of on-site work, mobilisation and public communication. "It is not a big deal if the project is not realised this year".



Fig. 77a: Real size collaborative mapping - Distribution of giant confetti during exploratory walks (Iteration 6).

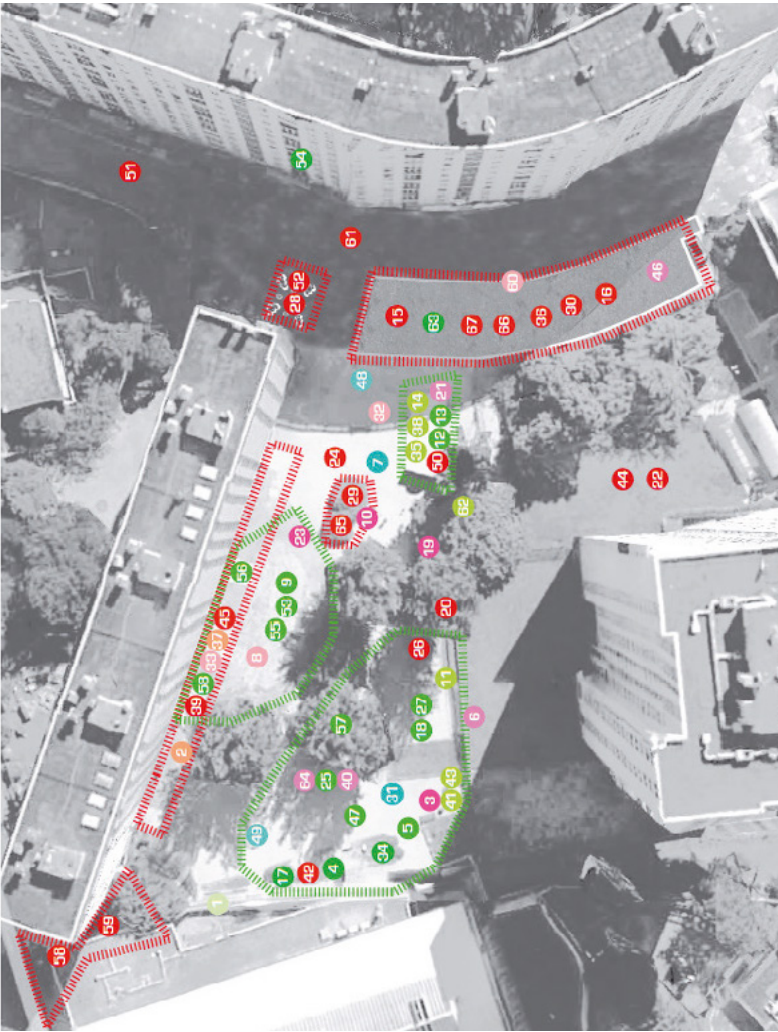


Fig. 77b: Real size collaborative mapping – Assessing stakes and issues based on collective fieldwork (Iteration 6).

throughout the courtyard, visible from the many windows above and at the entrance and exit of the estate (fig. 76b). We designed experiments of what the courtyard could become in the site itself on a real scale, proposing new uses and thus challenging existing ideas and habits. The performative actions we organised in the courtyard over several weeks produced material traces that gradually drew people into the co-construction of the project. Parallel to the actions in the courtyard, we regularly distributed information flyers in the mailboxes and entertained a project-linked Facebook group.

OBSERVATION

The performative actions in physical space had a more profound impact than the other attempts to engage the residents, such as designed flyers distributed via the letterboxes or the Facebook group created to entice residents to join the project. During the in-situ project development, we could observe the behaviours our local partner organisations had told us about during the pre-production phase, but we could also identify slowly changing patterns as the project progressed. Each time we came to work in the courtyard, we first greeted the drug dealers with a handshake one by one. It felt odd and uneasy at the beginning but quickly became a habit. We realized that as the project team moved across the courtyard with interventions, the young men moved as well, always remaining at an equal distance to us and keeping an eye on us. We observed some of their hideouts and knew when we were getting near them.

Although we managed to engage residents in the project by being present and through our performative actions in the courtyard, particularly kids and caretakers, this does not mean it went without tension. One day, we found the on-going work covered with tags and slogans, although not openly turned against us. More profound shifts only occurred during the five days of the open building site, when we began to construct the playground structures with the help of some residents, including older men, mothers, young teenagers, and children who wanted to join and a structural engineer. Some of the young men, usual occupants of the courtyards and most adverse to the

initiative, came to us for the first time to help us with the heavier construction work. The boundaries between adverse groups began to open. Their perception of us slid from threatening outsiders who do not understand their issues to possible allies who worked with them.

The temporary playground was ultimately realized with a mixed group of inhabitants and inaugurated with a celebration. During this event, one of the tough guys who had been particularly hostile towards us and the undertaking for many weeks approached me with the comment, “Thank you for what you have done for our young people”. Looking with my designer eyes, the material objects were not satisfying as final outcomes, as described before. However, this man’s feedback left a lasting experience and showed an impact of our intervention.

5.3 Insights: Gripping devices, for Getting Hold of Change

Contact with the reality on the ground, confrontation with changing conditions from one project situation to the next, accelerates the adaptation and refinement of working methods. Over several iterations, a consolidation of competences takes place that testifies to an increasing anchoring in material dimensions and tangible elements. Insights gained from working in interaction with others affirmed the facilitating quality for collaboration if they are situated in experiences that engage the body with its different senses. Being situated within a context can help individuals to develop their reasoning through growing awareness of themselves and their environment. It contributes to the formation of a frame of reference, with its language and meaning that is shared with others, literally nurturing a common ground.

During an open inclusive design development, the material dimension is instrumental on the scale of shaping handheld, graspable objects and on the scale of arranging a spatial setting. The handheld object influences the way people can use it as support to get hold of change. It gives grip.

The notion of contact as support, a surface for holding, or a possibility for rebounding was only experienced step by step and required several repetitions.

Transposing intentions and thoughts into a tangible thing shifts disembodied modes of exchange to the object present in the group here and now. Putting the material things in the middle among the stakeholders, literally making them graspable within reach of everybody around, plays a role in cutting across established hierarchies and representation. Material props put the unthinkable, more volatile and fragile expressions on the table and make them sustain next to more established certainties. By taking place, they begin making space, and by making space, they begin taking place.

Discourse is shifting towards manageable objects that are in reach of many, and away from an intangible realm of topics that are mastered by those who can communicate fluently. By putting the focus on the object within reach, it facilitates involved parties

to come to a conclusion on describing what exists, and to an enunciation of what the group wants to do.

Distancing expressions, be it ideas, opinions, descriptions, away from the speaker and bringing it closer towards the tangible matter of fact accelerates agreeing on assessing a situation. It promotes a method of trying things out quickly, exposing it for immediate feedback, recording what happens, and being able to make decisions together instantly. According to Max-Neef, the interaction dynamics “travel from an empirical level, towards a purposive or pragmatic level, continuing to a normative level, and finishing at a value level. Any multiple vertical relations including all four levels defines a transdisciplinary action”.¹⁴⁹

During the design process, material props have a double role, as attractors or repulsors they are facilitators for action and witnesses for federating, negotiating, and validating intermediate results (data designed for decisions). Throughout the transformation process, they are pacing and anchoring the design development, as series of creative feedback loops. These objects become reference points for stakeholders to come back to if and whenever necessary.

Providing Hold in Transformative Action

As the architect and theorist Ines Weizmann brought it in a recent talk to the point, material objects have the intrinsic quality of connecting and interlacing different threads into a concise tangible format and simultaneously stimulating openings for new dynamics.¹⁵⁰

The examined cases suggest that such physical anchoring and pacing, plays an essential role for handling complex problems, because it allows getting out of crisis situations, and getting dynamics back on track when they become too chaotic. They

149. Manfred Max-Neef, “Foundations of transdisciplinarity”, *Ecological Economics*, 53 (2005), 5-16.

150. Ines Weizman, “Threads and Hinges: The Geo-History of Architectural Elements”, in *ARCH+ features Stuttgart Talks on Architecture*, vol. 11 (15.02.2021).

become support structure¹⁵¹ for getting hold of change, gripping devices.

The quality of these material things lies in the fact that they remain ambiguous – just as the reference of the door 11, rue Larrey by Marcel Duchamp demonstrates (see interlude 2). These tangible things are finite products, for they come out of a process with a higher degree of specification to a question raised, and they are performative props, for they support further transformation processes. For instance, sometimes, the urban game *TabulaRosa*, which is for Polimorph a support structure within an open inclusive design approach, was perceived as a product: After the first publications in 2005¹⁵², Polimorph received an order for several game kits. At other times, Polimorph got commissioned for producing the game for its performative event-like qualities. Project proposals resulting from playing scenarios and presented in an aesthetic between real estate ads and project sheet were taken as such by other architects. With the design of the format we intentionally played on ambiguity to raise what we considered critical questions. For instance, the first production of *TabulaRosa* which took place in a Gallery space on the Canal Saint-Martin in the 10th arrondissement in Paris during a time of exploding gentrification and when real estate agencies were spreading. Inspired by an emerging behaviour of pedestrians looking at the real estate offers in the shop windows, we decided to present the design proposals as future spaces to invest in, design proposals which were the result of playing sessions. We were also aware that the degree to which the design proposal was specified came close to the outcomes of a programmatic feasibility study or sketch design. Within the expert domain of architects, conventions about the market value of such results do exist. As we saw no reason why the same outcome produced collaboratively in a cultural realm should not have the same market value, we put a starting price to negotiate on each ad and test what would happen (fig. 77). A locally known

151. Celine Condorelli, "Support Structures: An Interview with Mark Cousins", *Afterall*, vol. 24 (2010). doi.org/10.1086/655935.

152. Polimorph, "Réinventer la ville", *Territoires*, September 2009.

architect picking up the advertisement flyers asked with a slight doubt, “I can take the proposals and realize them?”



Fig. 78: Design outcomes playing with intelligible format to draw in and playing with ambiguity for opening spaces for interpretation and appropriation.

Space Odyssey elicited similar responses. Sometimes, participants and commissioners ask for the set of cards for its objectual character – they desire the thing. At other times, the exploration of a territory as an investigative walking assignment is commissioned as an urban walk – a performative product

(i.e. Bobigny raconte Bobigny, 2009). Sometimes, Polimorph deliberately proposes the restitution of collected data as the performance of a fictitious play, such as a guided tour in Montreuil (*Un terrain pour tous*, Friche Branly-Boissière Montreuil, 2009), or proposes a transposition into spatial installations that are experiential prototypes, such as in *PariPassu*, the *Ecohamlet*, the *CCCT* playground.¹⁵³

After experimenting with collaborative design tools in various project situations, we came to the conclusion that for the time being we did not want to design a kit or toolbox that could be handed out without the guidance of a trained person. We had become aware that an understanding alone of a method, or following a set of rules, is not sufficient to guarantee a successful outcome. Successful open inclusive design productions still depended on some expertise we had. Based on our experience we can establish a number of recommendations to follow for open inclusive spatial design. But before we could pass the tools on to others in the form in which we use them, some practical training would be required for apprehending the fundamentals of a dynamic spatiality, the interdependence of the material dimension, the lived dimension and the representation of space. To refine such skills needs practice.

Setting Up Gripping Devices

Conceiving a gripping device implies considering the framing (i.e., setting a field of operations), the players (i.e., setting who is invited to play a role in the creative development), a frequency (i.e., setting a range of possible movements), feedback loops (i.e., arranging material components for setting of relational rules to weave between territory, users, and their actions).

Framing is a conscious act of selecting what will be taken into consideration for the interaction. For instance framing a perimeter constitutes a momentary porous boundary that selects what will be inside and focused on versus what will be outside and ignored for the time being. What is shown in the frame is filtered and represents only a facet of the situation that is

153. In writing these observations, I realise that I work in a similar way with private clients and construction firms in the design of their architectural projects.

described. The momentary boundary of the frame is a means of perception. As a reminder of the subject's continuity beyond the frame, the line of the frame is usually dotted in Polimorph's graphic conventions. Framing also happens when selecting the material support for interaction (e.g., its size, proportions), for it conditions what can be grasped. Framing already conditions a scope and direction of what can be seen and impacts further action. A delicate example of framing as a creative measure has been realised in the Grindbakken project by the architects collective Rotor (fig. 78).¹⁵⁴

Being used to manipulate architectural tools such as plan, section, details etc. architects are familiar with the instrumental quality of framing and of shifting frames. It is most interesting how the architectural practice Forensic Architecture is using conventional architectural devices of framing and describing tangible facts in space and putting them in relation to time for evidencing what is invisible at first sight and obtaining with this technique powerful new insights on sociopolitical situations, which lead to a critical questioning of established relations of power (fig. 79).

One possible approach to framing is random sampling. Instead of guiding our view in what to look at and what to represent, random sampling is a framing technique to bypass being guided by signification and to apply an approach of randomness and critical mass.

Shifting and combining several frames is necessary. Framing requests a reflexion on the position of the observer, whether he or she is included in the frame or outside the frame. Taking the example of actors and agents for instance: An actor is considered inside the frame when it is a driving force which can be regulated for having direct impact on the situation (endogenous). An agent is considered a driving force outside of the frame (exogenous) when this force has impact on what is inside the frame, but when we don't have control upon the force. For example, the municipality of the village of Saint-Cyr-en-Arthies, is exposed to the pressure of the real estate market of Greater Paris Region.

154. Chalcraft, Emily. "Grindbakken by Rotor". www.dezeen.com/2012/10/09/grindbakken-by-rotor.

It is an external force, impacting on the village but on which the municipality has no direct control. Being able to map potential actors and agents relevant for our field of operations, allows then to ask the questions what would potential actors and agents require to be able to relate, to step into the field of operations and play, engage. And the other way round, what components can be imagined to sustain a situation and regulate the potential impact of outside forces on which we don't have direct influence.

Graspability: The aesthetics of the tangible things developed in the project situations described, experimented with how to make it easier for an observer to relate to, to engage with, and to step into a situation. The primary purpose of the created thing is not only a one-directional communication in the sense of seducing the public by showing an object of desire. Increasingly, the shaping evolves from a representation to an artefact, searching for intelligibility, appropriability, and interpretability, to turn it into a gripping device.

Transformative potential: The common quality of the tangible things lies in the fact that they do not focus on representing a future state only, that will occur after transformation, but also on their transformative potential, an action script to be followed, or a spatial score to be performed, in order to bring about a transformation or entertain a situation of relations.

Overall, situational and material settings of the support structures we introduced contributed to the individual and collective process of sensemaking. Gradually, what we were doing together became more meaningful. The discussions became deeper, more knowledgeable, and more creative despite the different statuses and backgrounds of individual participants. Everybody learned to sharpen their own criteria for evaluating proposals and their capacity of decision-making increased. As an example, in *Architecture & Disability*, we were surprised by how quickly a discussion could evolve from disagreeing about a choice of colour, without knowing why one colour would be better than another to discussions about spatial and material parameters, which at this stage of the project development would come to shape their future practice of space.



Fig. 79: Rotor, Grindbakken, Ghent, 2012; Framing was utilised as a creative device to intervene in a spatial transformation already on-going.

Fig. 80: Forensic Architecture, 77sqm_9:26min, Kassel. The murder of Halit Yozgat in Kassel took place in 77 square metres within 9 minutes and 26 seconds. The architects combine several investigative methods of time, space and material properties for restoring the factual in the post-factual age. It includes the reconstruction of the sequences of events from the log files of the visitors to the Internet café, a physical model of the Kassel internet café on a scale of scale 1:1, the study of material properties of the gun and the bullet put in relation to the accounts and actions of people being present.

INTERLUDE 3

Knots : Solidifying Spatial Dynamics

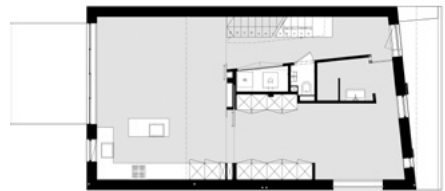
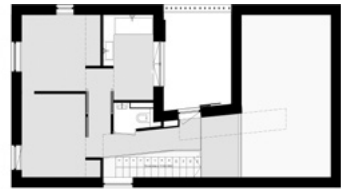
The topology of knots, in particular its simplest version to start with, the trefoil knot, is an medium to manage dynamic spatiality. As a diagram it helps organise thinking objects in a way that keeps them manageable.

Knots also enable the organisation of space that remains open to reconfiguration despite being solidified in built matter. This principle is explored in spatial typologies, such as the house MMT.

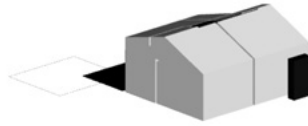
In a trefoil one loop connects to at least two other loops - as does the corner door by Marcel Duchamp (interlude 2). The loops can be qualities, they can be zones, they can be programme, they can be directions.... Each connection offers at least two choices to switch between. In the MMT house, each zone (except the upper and lower WC), connects to at least two adjacent zones. The crossing points or connection points can be regulated, but they cannot be undone, they are invariant.

This invariance of entanglement means that a continuous reconfiguration of spatial constellations remains open to be played out. This smallest organisational unit of at least two crossing points, which cannot be undone, ensures spatio-temporal continuity.

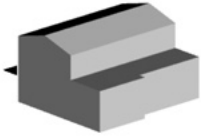
It is a composition of interlacing and spacing.



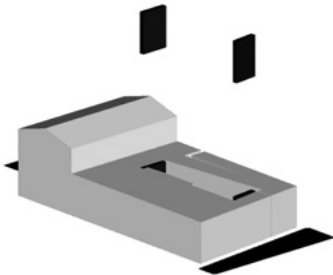




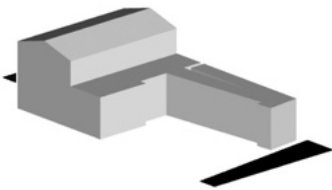
TOP HOUSE ISOLATED



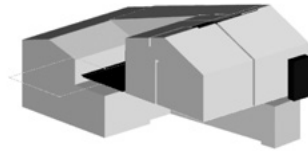
LIVING & BACK GARDEN ISOLATED



LOWER HOUSE AS A HORIZONTAL RING
(SPATIAL REGULATORS OPEN)



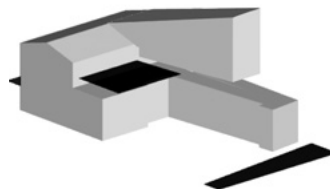
TRANSVERSAL LIVING SPACE
(FRONT & BACK GARDEN)



RINGHOUSE VERTICAL



FRONT ROOM &, BATH ISOLATED
(& FRONT GARDEN)



VERTICAL LOOP & TOP HOUSE SEPARATE
(FRONT & BACK GARDEN & TOP TERRASSE)

CHAPTER 6

Conclusion: Dynamic Balance, a Play of Interlacing and Spacing





6.1 Summary of Findings

Urban complexity challenges the design practice and working methods of all those involved in the design of our living space and built environment. Architects and urban planners, but also clients, scientists or public authorities, in short, all citizens concerned with or affected by the environment in which we live, are confronted with wicked problems and unforeseen disruptions during projects that could not have been anticipated. This is how a stakeholder finds oneself regularly confronted with newly emerging conditions. For many stakeholders, such constant change and uncertainty is labour-intensive, resource-consuming and, in short, not very sustainable.

One way to reduce the complexity of an uncertain context is to eliminate disruptive interference. With the spatial design practice Polimorph, we have chosen to experiment with the opposite approach. Going for contact, exposing ourselves to the messiness of real-world situations, looking for friction and staying with the trouble became a project driver, a deliberate choice to challenge how to intervene in and transform spatial situations despite an evolving context of seemingly controversial, incoherent, and impermanent phenomena.

This doctoral research explored, from the position of an architect and urban designer, how exactly spatial design processes unfold and are managed in the face of unexpected influences? How do we manage a spatial transformation process when the context is constantly evolving? It addressed the following question: how does intensifying contact with unfamiliar situations lead to a rethinking of the way we conceive

architecture and the city, and how does it also benefit a reflexive spatial design practice.

The research evolved from inquiring first person experience as practitioner, describing our creative process in terms of what we do and how we work in architectural settings when solving ill-defined problems. The research material consisted of a selection of projects from the researcher's architectural and urban design practice that share an open, inclusive approach to design. This design approach was motivated either by a client's inability to define a clear project goal, or by a conscious decision to involve other people in the spatial design process, or by a desire to avoid obvious solutions and thus use obstacles as a means of bypassing habitual responses. The latent conflict potential of open inclusive working methods was consciously accepted and sought.

The research identified that designers are looking for tensions and relying on play tactics to turn such potentially inhibiting situations into advantages for creative dynamics. From these cases, we have investigated which mechanisms impact the engenderment, sustaining or inhibition of the creative process. We have examined the factors responsible for whether dilemmas and unforeseen influences have a stimulating effect on the spatial design process or whether they lead to an interruption of the creative development. This clarified methods and tools which make it possible to gain sufficient understanding on things to be able to take a position and engage action, despite the moving quality of situations we are treating and without bringing the livelihood of the milieu to a standstill with our interventions.

The research revealed a couple of unexpected findings which were not imagined priorly, and which do impact on how to conceive Architecture and Urban Design.

- **Disjunction patterns - Instability and disjunction patterns that affect spatial transformation projects on the ground include personal and intersubjective inconsistencies:** Incongruities in the urban fabric - phenomena that can be identified and mapped in an area and to which spatial designers can typically respond - are

compounded by disruptions in organisations and institutions, but also by seemingly contradictory or unreliable behaviour of individuals (see research step 5).

- **Three transmission channels to form and to be informed - Bodies act as cognitive vehicles, weaving filaments between the environment, the actions, and the conceptions:** Participants take in information from an environment through their direct personal lived experience, through witnessing another person's experience, through documentation or through a combination of all three transmission channels. Thus, the way in which one comes into contact with a context influences how the context informs one and how an interaction can unfold.
- **Multiple identities - if given leeway, participants tend to automatically navigate between their multiple identities, to activate and combine divers levels of knowing to respond to unfamiliar situations** (see research steps 3 and 4). If this is the case, the question is how to access and incorporate these capacities to inform a transformational dynamic.
- **Dilemma accelerator - Uncertainty as a creative driver can be nurtured and taught, provided that a minimum level of security is guaranteed** (see research steps 3, 4 and 5).

Furthermore, the research has identified five parameters that shape an open, inclusive design approach.

- **Contact can trigger transformation:** A plurality of viewpoints deepens design development with additional influences that can be both beneficial and detrimental.
- **Situating Interaction offers Hold against Dissipation:** Beyond specification of spatial transformations, anchoring interaction processes in a shared tangible reality fosters mutual understanding and decision-making.
- **Propelling Devices conduct Progression:** A basic sequence of actions to hold and repeat, consisting of a rhythm of opening and closing a range of possibilities, suspending actions, and making choices, keeps the materialisation of proposals dynamic and adaptable.

- **Interlacing and Spacing:** Maintaining the interaction dynamic and directing it into increasing specification requires methods that alternate between releasing creativity and reducing the range of choices for further action. Tangible Things allow Getting hold of Change.
- **Play:** Providing leeway in the interaction, allowing the ineffable to be put on the table accelerates testing out limits of possible reconfigurations of things.

A combination of these components ensures that a creative interaction process for spatial design unfolds over time. A spatio-temporal framework that marks a beginning, an end and a horizon for the process helps to motivate participants to take part in the development from the outset and increasingly consolidate their commitment. In the long run, this leads to growing attachment and sense of belonging.

6.2 Interpretation of Findings

Developing knowledge on how to design spaces which balance personal and communal needs from within the places we inhabit, to nurture a know-how of being well alone and of being well among others at the same time, needs reaching out and getting in contact. The doctoral research led to the following interpretations of findings that trigger a change in the understanding of architecture as a discipline and as a practice, including our own practice. The set of tools and methods deriving from this are brought together under the heading of *Contact Urbanism, Play as Creative Driver in Spatial Design Practice*. Its foundations are contact for creative distancing, dynamic spatiality, situatedness, performative moves and play for regulating creative drive.

Contact for Creative Distancing

Contact, a dilemma accelerator creating shifts on personal, interpersonal and territorial level...

Contact with otherness, be it an encounter with another person, a peculiar thing, or an unusual situation, generates a moment of

decentring that can lead to a standstill or to a growing dynamism. When one goes off track and is confronted with another sight, attention jumps and leads to a discrepancy of perception. Positive effects of displacement occur, such as breaking down boundaries, enhancing creativity and opening up new horizons not previously thought of. However, negative effects have also been found, such as increased vulnerability, loss of reference, which can lead to a standstill or termination of such a dynamic process. Being exposed with other perspectives is a creative disruption insofar as it pushes us to re-evaluate the situation and the way we respond to it.

Research has shown that in the creative process of spatial design, multiple perspectives occur not only on an intersubjective level when getting in contact with other people or on a territorial level between a distant and a close-up view (see understanding the dependencies between a practice of ploughing the fields, the hillside, the muddy roads, and the cracks in the wall, research step 3 and 6), but also on an individual level within a single person (see the official who ignores existing facts, research step 5). Depending on the position of the observer, an issue appears differently, insights turn out differently when one is in a situation and experiences it oneself, or when one views it at a distance from the outside; each person struggles between contradictory perspectives depending on whether he or she is viewing at a phenomenon with the eyes of an expert, of an interest group, a personally affected citizen or with the eyes of a poet.

To overcome contradictory positions of looking at things, it is possible to reduce the number of options in favour of one point of view and to suppress disturbing interpretations. This pattern is often observed in groups, under pressure or simply due to habitual practice (see research step 5). But when participants are momentarily freed from their predefined roles, whether self-imposed or externally imposed by society, interestingly such a reduction of incompatible viewpoints does not take place immediately. Rather, people keep changing the place from where they choose to look and to speak. A person then switches viewpoints, navigating back and forth between a range of ways of looking at things, trying out interpretations and empathising with them. In doing so, she draws on her knowledge from several disciplines, which she relates to personal experience and

experiential knowledge (see Juggling multiple identities, the role of player mechanics, research step 4).

When participants are given leeway for how to respond to when facing controversial perspectives, they draw on a range of resources to find a grip, which they can hold on and use to move forward. Boundaries of one reference system are becoming porous, opening towards other expertise, skills, and feelings as alternative frames of reference which are freely associated and creatively linked until pathways emerge (see research step 3 and 4). Nurturing an environment in which a person can self-regulate the frames of reference they call upon and the type of abilities they mobilize is a creative driver that also develops confidence and trust. Over time, engagement becomes easier.

In a design method, intensifying contact as a search for diversity is used to accelerate the emergence of alternative frames of reference. Tactics provoking displacement involve transgression, immersion, situationist action protocols or any other creative constraints.¹⁵⁵ What matters is their potential to catalyse serendipitous encounters than can shake entrenched positions and open up imagination.

The research shows that shaking up entrenched positions and the opening of perspectives are important prerequisites for breaking habits, learning anew and transformation, both for the people involved and for the progression of a creative process. It also shows that the ability to transform unfamiliar, destabilising and potentially off-putting circumstances into creative stimuli can be trained and learned.

... and ways of coping with discrepancies of perception and uncertainties of action

In face of a multiplicity of possible responses to a situation, when certitude and automatisms are challenged, when gaps arise and the course of things vacillates, the research has found that there are ways of coping. Among the participants in the cases of open inclusive design studied, three styles of coping with gaps appear: by measuring the distance between stakeholder positions, by sounding out and by moving one's body in space.

155. Oulipo.

- **Measuring distance between positions (fig. 83):** The possibility to relate one's own position to that of another, as opposed to an absence of another position, enables a stakeholder to measure the distance and interpret the gap. This leads to new insights, to a deeper understanding, and an updating of perspectives (for example case studies Architecture & Disabilities, temporary playground). A mixed group with different actors increases the circulation of knowledge, but only if a relationship can be established and maintained between them, e.g. through a common concern about a situation or a common interest in a topic, or a common goal to reach. The respective motivations for this concern are secondary. While each of these three means is effective in engaging different actors and stimulating knowledge exchange between them, there are several advantages to relating actors through a situation, as will be explicated below. It is preferable to refer to the divergence between viewpoints in terms of distance rather than difference, because the term difference focuses on the opposition of the respective positions, whereas the notion of distance focuses on the relationship between them.¹⁵⁶ Thereby, augmenting the distance enhances the dynamics of the controversy, while decreasing the distance tends to solidify positions and stabilise a configuration of things. When we address the relationship between different positions (which we can activate as creative driver by increasing and decreasing distance), rather than contesting co-existing subjectivities, the likelihood of developing hybrid forms that integrate both positions, one and the other, increases (see outcomes in the case of the Ecohamlet). This quality is interesting for the creative process in design, and it is also interesting for creating communities.
- **Sounding out, the body as measure and medium (fig. 82):** Everyone embodies spatial knowledge without having to reflect on it. But unravelling tacit knowledge, and sharing it, is not a simple and straightforward endeavour for anyone taking part in the open, inclusive design process. We stutter and search

156. François Jullien, *L'écart et l'entre* (Paris: Galilée, 2012).

for the right words, the right gesture, we feel our way forward by testing modes of expression, we try again because we feel we have not expressed ourselves quite right. If one relies on a single mode of communication, as for instance linguistic fluency, other levels of knowing are simply missed. (e.g. a phenomenon observed each time one instance is monopolising speech, each time stakeholders use jargon without verifying the scope of significations a terminology may hold, the probability of falling into habitual patterns of association is high). For most participants, the transition between sensing, thinking, sharing, and translating embodied knowledge into action is stumbling. However, if several aesthetic modes of expression are made available, if trial and error and reformulation are allowed, groping is set in motion. Sounding out between the various levels of knowing, holding the fragments, and relating them until it feels right takes time, such groping takes place at the individual level as well as in a group among participants in a design process. The experiential body then becomes a regulating body weaving filaments between fragments of knowing, gradually excavating sense from the coherences or discrepancies. Immersion in a bodily experience is a way of sounding out tacit knowledge. Sounding out between experience, observation and understanding, trial and error, using the experiencing body as a measure and medium, helps to find a close language,¹⁵⁷ that is a language close to heart, that feels congruent, that is becoming meaningful along the process. It calls for a safe place where people can rephrase and improve what they are trying to say or to do without fear of repercussions.

- **Moving (fig. 84):** A third coping tactic in the face of an unclear frame of reference is to move around, to change one's position on the ground and in relation to other bodies, to physically reconfigure the situation one is in. Such a practice sets in motion a subtle mechanism whereby one tests alternative constellations in the surrounding until one finds a position that gives one better hold or that helps one in decision-making.

157. Donata Von Schoeller, "Close Talking. On the remarkable Unfolding of Experiential Backgrounds", 4th European Summer Research Institute ESRI, *Exploring Experience*, 2017.

The ability to shift attention from inner personal experience to changes in the environment reveals spatial competence that has significant potential for architecture and urban design in two aspects: as soon as one can connect highly personal and subjective experience to tangible phenomena in the surrounding, the tangible elements can turn into instruments to alter future experiences. Furthermore, they are a medium in the process of constituent intersubjectivity. For instance, creating shared experiences, doing something together first, facilitates exchange between people who are not used to meet, who neither speak the same language nor share the same interests, for they can then rely on a common reference to make a personal viewpoint comprehensive.

These coping mechanisms make gaps performative. In situations of instability the positive effects of displacement, such as breaking down boundaries, enhancing creativity and opening up new horizons can be overwritten by negative effects where loss of reference, increased vulnerability, can lead to a standstill of a dynamic process spurred by exchange. Indeed, when a shift occurs, a gap is created that feels unstable first and makes us lose ground. But as the metaphor of walking illustrates, we are capable of dealing with unstable situations, we literally embody them. When we lift one foot and take a step forward, there is a moment of instability: our centre of gravity is no longer on one leg and not yet stable on the other. The centre of gravity hovers in a liminal state.¹⁵⁸ A gust of wind, a push and we are off course. And yet most of us master taking the risk and moving across the gap.

Indeed, “certain cognitive and perceptual problems are more quickly, easily, and reliably solved by performing actions in the world, than by performing computational actions in the head alone”. These actions “are not used to implement a plan, or to implement a reaction; they are used to change the world in order

158. Victor Turner, “Betwixt and between: The liminal period in rites de passage”, *The forest of symbols* (New York: Cornell University Press, 1967); Chora, *Urban Flotsam*, 348; Bjorn Thomassen, “The Uses and Meaning of Liminality”, *International Political Anthropology*, 2(1) (2009), 5-28. <http://www.politicalanthropology.org>.

to simplify the problem-solving task”. They “are best understood as actions that use the world to improve cognition.”¹⁵⁹

Dynamic Spatiality, A Model For Investigating, Conceptualizing And Practising Spatial Transformation

Spatial formation processes are described as a perpetual oscillation between four states. It is a process of becoming. The state refers to the position of the observer in relation to his environment. In the state of investigation, the observer turns to an existing, describing what is there, while in the state of projecting, he turns towards the future, as a visionary imagining possibilities. In the state of building or reshaping, the observer becomes an interventionist who translates intentions into actions that bring about a change in matter. In the state of inhabiting, the observer is a component of the milieu, which he experiences, and practices.

A method for spatial design requires a knowledge of the process of becoming. In contrast to a static model of space, this doctoral thesis proposes Dynamic Spatiality, a model for inquiring, conceptualizing and practising spatial transformation which allows to schematize space as a milieu of interdependent components interacting in time. The framework of Dynamic Spatiality focuses on the interactions between the physical, imagined and lived dimensions of space. The distinction of spatial dimensions as Lefebvre proposed with the Spatial Triad (Lefebvre, 1974) for the production of space and their connecting into an irreducible entity including the parameter of time creates a performative framework for spatiality as a process of becoming. This is crucial for capturing the plasticity of a milieu and understanding the mechanisms at work in spatial formation (see research step 1, and chapter 1).

In contrast to a static model, the paradigm of Dynamic Spatiality brings to the fore two aspects that often remain implicit

159. David Kirsh and Paul Maglio, “On distinguishing epistemic from pragmatic action”, *Cognitive Science*, Volume 18, Issue 4 (1994), 513-549.

or unconsidered in spatial design. In the state of inhabiting, a person shapes the milieu, whether this influence is intentional or not. Given that any fellow living being inhabiting a territory is a latent transformative force, it is a logical conclusion to consider them as potential agents of change. Furthermore, the model of Dynamic Spatiality makes the dual role of each building comprehensible. The materialised artefact is at the same time the result of a development and the regulatory instrument with which the development of social, spatial and urban contexts is influenced. This change of perspective shifts the role of architecture and expands the designers' scope of action in that it gives fellow living creatures and also material artefacts agency, a driving force that can benefit processes of change.

From within the paradigm of dynamic spatiality tools are developed offering the designer a range of possibilities that are not addressed in a static model of space. They allow the designer to understand, through the material, tangible phenomena that are visible on the surface, some of the deeper, more hidden, intangible dynamics that influence a situation. They help the designer to distinguish opinions from facts and to represent how they impact each other. Viewing spatiality as a network of interdependent relationships between actions, representations, and matter allows the designer to identify the positions in the system where we can or should intervene, with whom to collaborate, what we can do to protect resources, and when we should act to initiate change and promote transformational processes.

At present, the topology of knots, in particular the trefoil knot to start with, is an instrumental medium to manage the complexity of dynamic spatiality. It is useful as a topological diagram to organise thinking objects which remain manageable. It is also useful to create spatial relations that will remain dynamic despite their solidification in built matter, in that a connection point can be regulated, but it can't be undone (see exemplification of Marcel Duchamp's door).

Situatedness, The Value of Material Structures for Stakeholder Engagement and Creative Interaction

To handle the complexity of an evolving milieu, it is essential for the designer to rely on specific situations. Places, people and processes are inextricably linked in the physical dimension. Habits, representations, ideas, emotions, are manifest both in concrete action and in the material environment. Creative processes are physically located, and the tangible environment influences creative processes. Since creative processes always generate manifestations in situations, and since the tangible environment influences creative processes, the designer draws on tangible phenomena to understand its underlying dynamics and relies on physical structures to support stakeholder engagement and creative processes. Tangible phenomena present the visible part of a broader system of interacting forces. Being just the visible part of interacting forces that and, it is yet the through the situatedness of tangible phenomena that a designer can intervene in the complexity of perpetual interaction (see chapter 4 and 5).

These observations on the reciprocity between material things and its perpetually evolving milieu, resonates with the embedded, embodied and enacted cognition thesis from creativity research and cognitive science, according to which spatial configurations support interaction and creative transformation. They are arousing.¹⁶⁰ “Participants draw on features of their physical and social environment to optimise their understanding (thesis of embeddedness). The ability of participants to position themselves in a spatial setting and potentially develop responsiveness involves the mind and body (thesis of embodiment). A person’s interaction with their environment influences their perception and behaviour (thesis of enaction)”.¹⁶¹ The designer takes care to anchor all phenomena and processes, even those that at first sight appear immaterial or temporary, in the physical

160. Laura H. Malinin, “Creative practices embodied, embedded, and enacted in architectural settings: toward an ecological model of creativity”, *Frontiers in psychology*, vol. 6 (2016), 1978.

161. *Ibid.*

structures of a situation. This applies to his own creative practice as well as to his collaboration with others. “Referring to physical structures helps with thinking and reasoning and facilitates the transformation of problem spaces (cognitive niche constructions)”. Situatedness is made instrumental as scenic device to get hold of dissipation (see research step 4 and 5), it is furnished with tangible things providing support to take hold of the change (see research step 6).

Performative Moves, for Practising Dynamic Spatiality

Dynamic Spatiality sets the frame for a reflexive design practice, that engages the designer in three kinds of movements – stepping into a situation and stepping out, stepping sideways, and stepping back and forth (fig. 80). They bring about creative shifts in the design process while strengthening the relation to an existing milieu. Stepping in and out consists in playing with distance and proximity to a material reality on the ground; stepping sideways consists in playing with changing the angle of view and looking at a situation from a different position, from the position of someone or something else; stepping back and forth in time consists in playing with different temporalities to orchestrate long term visions, immediate action and mid-term milestones, to inscribe future action within present dynamics (see for example orchestrations of interventions connecting short, mid and long term thinking in case studies 2 and 3). These performative moves can be practised individually and collectively.

Pursuing spatial design development through the entanglement of the temporal, the plural and the situated perspectives, without excluding any of them, is beneficial for both the design and stakeholders. It lays the foundation for a design development that is reflexive, that is deeply rooted in an existing milieu and that emanates from its capacities, by simply being open and inclusive of what there is. In doing so, it guides the designer to answer very concrete questions such as “Where to choose the sites of intervention?”, “Who to work with to promote production?”, “What to do to protect the resources?”, “When

should which action be taken?”, while maintaining the liveliness of the environment that is about to be changed.

By following some principles of Staging, Rhythmic loop and Grip, we can ensure that the design process both progresses and remains responsive to changing parameters.

Staging - a scenic device offers hold against dissipation

The principle of staging consists of anchoring every exchange, every interaction to an actual location. Let us call this a situation.

Spatial staging facilitates making ephemeral or intangible influences both palpable and malleable, be they ideas or reflexions, experiences or emotions, societal trends or environmental incursions. The tangible, experiential situation is important at every stage of the design process. As from the beginning of the design, the conscious linking to a situation in the present serves to train the attention to phenomena that have not been thought of and thus to update existing knowledge in the confrontation with an external circumstance. The German notion of “Vergegenwärtigung” (presencing) would be the point to capture this practice of bringing the attention to the present and raising awareness.

During the design process, the staging of a proposal in an actual spatial constellation serves of examining the implications of a change directly in its environment. To find oneself in a spatial constellation and to experience it through movement enables holistic insights that do not happen in this way in a visualisation that is viewed frontally or with a smaller scale model that can be circumvented.

The principle of staging proves to be particularly effective in design processes involving a variety of participants, which is the case for most architecture and urban design projects. Enactment creates a shared experience for the participants that drastically accelerates mutual understanding. This is noticeable when, for example, a controversy falters, misunderstanding clouds the debate, then the participants naturally fall back on the common reference to better illustrate their position to the other party. The spatial experience expands the range of possibilities for reaching insights other than rational understanding, and helps participants form opinions individually and articulate personal

insights among others. The participants gain confidence, stereotypical interpersonal roles are loosened. Different opinions or misunderstandings are negotiated based on common ground, thus simplifying decision-making processes. Step by step, by reiteration of staging, different reference systems, which each participant embodies due to their different past experiences, are overwritten by new, shared experiences. This process is constitutive of meaning. The object of exchange and the shared experiences become more important for the individual, the individual and the group increasingly identify with the object and the others.

The principle of staging enacts design processes and makes them experiential together. “Organisms do not passively receive information from their environments, which they then translate into internal representations. Natural cognitive systems (...) participate in the generation of meaning (...) engaging in transformational and not merely informational interactions: they enact a world.”¹⁶²

When stepping sideways activates a pluralistic perspective, the staging principle serves as a medium to connect personal and collective insights in a reciprocal relationship. Or, expanding on the remark “the head is round so that man can change his thinking”, which is attributed to Francis Picabia, one could add: the earth is round so that man can share his opinion and nurture the formation of a common ground.

Rhythmic Loop - a propelling device for getting hold of progression

The rhythmic principle consists of a basic sequence of four operations that the designer holds to and repeats to steer an open, comprehensive design process towards increasing specification. The rhythm of this basic sequence is to open, to rarefy, to pause, to close. For entertaining a dynamic equilibrium of alternately releasing creativity, constraining further action, and consolidating decisions over time the designer draws upon tools. For instance, to set an operation in motion, the designer

162. Francisco Varela, Evan Thompson, And Eleanor Rosch, *The Embodied Mind* (Cambridge, Ma: MIT Press, 1991).

relies on action protocols, to consolidate intermediate findings, the designer relies on relational objects. Action protocols are instructions on how to perform a certain action, how to play. Relational objects, on the other hand, define the format for returning the findings in a traceable, shareable, and appropriable medium. This basic rhythm of opening and rarefying a range of possibilities, allowing time before making decisions and closing a sequence by maintaining the outcomes accessible to the public keeps the materialisation of proposals evolving, adaptable and rooted in a community, and nurtures a sense of belonging.

- **Opening – Critical Gathering:** The subject of critical gathering consists of opening a field of investigation in such a way to uncover questions of concerns in a given area. The purpose lies in identifying, articulating and agreeing what is at stake and in transposing questions of concern into design problems. The operations of collecting and crossing datasets are conceived to establish an inventory which accelerate the emergence of dilemmas. By relating different data sets to each other, the designer increases the chance of dilemmas or unforeseen phenomena to emerge, which in turn helps to ask better questions (for instance providing evidence that a situation is positive and providing evidence that the same situation is problematic allows to better reframe the problem together). Action protocols providing guidance for how collecting and relating facts, behaviours and ideas have proven to be extremely productive in identifying underlying sources of potential conflicts and transforming them into design challenges. The relational objects to synthesise these in a comprehensible, shareable and appropriable medium are any kind of inventories or mappings that identify the existential zones as well as their areas of collision. The latter, in turn, can be made even more explicit in the form of oxymoron mappings.
- **Rarefying – Playing out urban prototypes:** The subject of playing out urban prototypes is about testing design hypotheses directly embedded in a context as opposed to talking about and rarefy the range of possible responses. The purpose is

to bring up onto the table most different reconfiguration of things to envision the impact of alternative scenarios in the respective environment and then refine design proposals for intervening among concerned parties. The operations of testing hypotheses and embedding potential changes in the immediate environment, either among stakeholders or on the ground or both, unforeseen impacts can be triggered. By linking issues, areas, or people without controlling exactly what comes out, the designer explores the opportunities and limitations of potential change, which in turn helps to better assess the relevance of future projects. Action protocols provide guidance on how to play out possible scenarios together without making preconceived judgements (for example in the form of radical fictions). The relational objects are designed as feedback to give a more in-depth view of potential projects and their impacts. The basic idea is maintaining the evaluation of different proposals in terms of their responsiveness to the identified stakes among the many and thereby support a decision-making that is backed up and improved by the contributions of the concerned parties.

- **Pausing – Maturation time:** Following the presentation of intermediate outcomes, the pause is about introducing space and time not intended to anything in particular. The withdrawal of action allows maturation, contemplation to consider and reflect on the proposals in more detail at their own pace. The designer, after clearly explaining which aspects of the design are expected to be decided upon, then temporarily steps back in favour of an opinion-forming process among the participants, including the designer. He or she ensures that participants still have access to the project proposals to review them independently and possibly reflect on them with people of their choice. This assumes that the work stays accessible and that participants can feel concerned. The design team is available for follow-up questions without interfering in the opinion-forming process. The research found that for the further development of the project, it is beneficial to reduce the pressure to express opinions and to allow time for maturation, because if the proposal makes

sense, the participants then tend to agree on the best option on their own, even if this proposal is further away from, or more ambitious than, what the participants originally had in mind. Explicating issues of concern, giving open access and allowing time increases the likelihood of a variety of actors supporting the work done.

- **Repositioning – Feedback and Commoning:** The subject of Repositioning of commoning is about formally validating achievements which were agreed upon and closing a sequence of project development in such a format that other people can take over. It's purpose is feedback and commoning. The purpose is to make the stages in project development explicit, publicly accessible and thus consolidated. Within an on-going design process, closing a basic sequence equals establishing a new reference, settling a new point of departure. The operation of making outcomes available is intended as a milestone. Others can pick up on the milestone as a resource and continue the work from where it stopped or use it as a starting point to take it elsewhere. In an open inclusive design process, the milestone serves as a point of reference that participants can refer back to at any time if the process gets out of hand or if people from outside join the project development. Action protocols aim to disseminate the results in a shared space so that the public knows of the existence of this resource and how to access it. The relational objects are designed to be accessible and graspable. The format of the object itself should be designed as an instrument to facilitate further actions rather than as a medium to represent past actions only. The content should be conveyed in such a way that the relevance of the subject matter is made clear to the potential audience and that they are offered points of reference to make use of the material as support for rebounding, a stepping stone.

When moving back and forth activates a temporal perspective, the basic rhythm of opening, rarefying, pausing, Repositioning represents a means to ensure progression of design development. It alternates between opening up towards outside interference,

never mind its quality, be it controversial needs, new parameters that emerge during design development, or a changing context and pivoting towards closing down and making choices.

Grip - tangible things for giving hold to change

The research evidenced that creative interactions are affected by participants' capacity to establish a relation to an environment, to get hold of and engage in ongoing developments and exchange. The principle of grip consists of providing material affordances¹⁶³ that enable someone engaging with it for some purpose. Grips or material affordances are actionable properties between the physical world and a person or animal.¹⁶⁴ In open inclusive design the potentiality of grips is relevant for facilitating people to step into a context and engage in an experience, for facilitating people to step into an ongoing design development process and engage in an ongoing exchange among others.

The spatial setting, the situation, wherein an interaction takes place impacts on participants' capacity for grasping, reconsidering a viewpoint and deploying a response. Being in an environment, activates tacit knowledge that is usually acquired through practice and helps to formulate this tacit knowledge in an explicit way. We do not need to describe it "in terms of atoms or galaxies. Instead, we point to objects (rooms, furniture, trees, paths, streets, hills, etc.) that commensurate with us as animals of a certain size and having certain action capabilities".¹⁶⁵

Play, For Regulating Creative Drive

Game and Play as Performative Spatial Practice

In the field of urban game design, the city is sometimes used as a playground to collect data, games are experimented with as a form of behaviour change, and serious games are experimented

163. Gibson, *Affordances*, 1977.

164. Hugo Lettich and Michael Lissack, "Making Room for Affordances", *Emergence: Complexity & Organization*, vol. 11 issue 3 (2009), 61-72.

165. Gibson, *Affordances*, 1977.

with as tools for urban planning, decision-making, or policy making.¹⁶⁶ Playfulness is explored to achieve cooperation and build trust.¹⁶⁷ There are urban cultures, such as art in public space,¹⁶⁸ or urban subcultures, which use the city as a playground, exploring our daily relationship with the living environment by seemingly off-the-wall forms of practising the city and playful diversion. Entire cities for thousands of people emerge literally out of the desert for the time of a fest, one example being Black Rock City during the Burning Man Festival in the Nevada desert. The Giants, spectacularly huge puppets by Royal de Luxe transform the entire city into a stage inhabited by characters as tall as five-story buildings, who live in and move through towns among us humans. For the time of the play, which usually lasts several days, we become Lilliputian servants to the Giants.¹⁶⁹ There are also works such as the project Trans305 in Ivry-sur-Seine that play with the very process of urban production by intervening in the construction process and playfully shifting the relationship between the making, the form, and the actors.¹⁷⁰

The game for city making or the city as playground

The purpose and motivations of urban games, the position of the players, and the role of the city as a setting for playing is not self-evident: Is it a game of leisure, a game to collect data, an educational game, a negotiation game, a team-building game, a game for invention, a strategic game, or a game of power? Gamification, Nudging, Cultural Urbanism,¹⁷¹ in the game for city making or the city as a playground, the question, “are we going to play or are we being played?”¹⁷² remains open for debate. Is the idea to entice a person playfully to behave in a certain

166. Play the City, www.playthecity.eu.

167. European School of Urban Game Design, www.trustinplay.eu.

168. Polau, www.polau.org; www.pascalbruncordier.tumblr.com; Léa Donguy, “Le projet, le terrain, le joueur et le consultant dans le quartier Pleyel (Saint-Denis)”, *Journal des anthropologues*, 162-163 (2020), 169-186.

169. Les Géants: Royal de Luxe, www.royal-de-luxe.com/fr/les-creations/saga-des-geants.

170. Stephan Shankland, www.trans305.org.

171. Polau, “Académie de l’Urbanisme Culturel” (accessed on 11.11.2022), polau.org/ressources/academie.

172. Michael Nagenborg, “To play or to be played”, *Games for Cities Training School, Cyberparks Project, Lectorate of Play & Civic Media, Amsterdam University of Applied Sciences* (10-14 October 2016).

way, stimulate their imagination through playfulness, encourage exploration without serious damage, without imposing loss of credibility or legitimacy – in short, allowing the drift to happen despite an uncertain outcome? These are not the same types of games at play.

Playing as Creative Drive in Spatial Design Practice

Playing is an essential component for regulating creativity, in that it stimulates divergent and convergent design dynamics simultaneously (fig. 81). It serves to drive change, but also to defuse confrontational situations when the creative process threatens to fail. This is achieved by creating settings for playful interaction which contain a mixture of the open play without a specific goal (*paidia*), and the game with a goal to be achieved (*ludus*). In the open play drifting is allowed, one can be carried away from moment to moment by what is going on. There is a principle of turbulence, free improvisation, and carefree flourishing, which manifests a certain uncontrolled fantasy. A game is structuring play in constellations to be taken, to converge threads to reach a goal, to reach reconfiguring into another constellation.

For the management of creative processes, it is essential to understand the regulatory potential inherent in play. One such regulatory potential, lies in the property of granting leeway.

- Play is giving leeway for creating alternative realities where habitual guidelines are temporarily suspended. Playful interaction settings encourage to do things differently than usual, provided we know when we are in the space for play and when we are no longer there. When we play together with others, this must be clear among the participants, otherwise there is a danger that the interaction will break down.
- Play is giving leeway for breaking habits and learning a-new. A person in playing mode can do “as if” different rules and principles apply to the world, how we normally see, live and act in a given situation. In playing mode uncertainty of an outcome is easier to accept, displacement is easier to be experienced as joy, which in turn reinforces a pattern of breaking habits. This quality of play accelerates unlearning, i.e. breaking habitual patterns of thought or action and learning anew, configuring the components of a situation differently, establishing new

relationships. It leads to seeing and understanding a situation with new eyes.

- Play gives a person the leeway to navigate between multiples identities. In a setting that liberates participants from predefined roles, a person can self-regulate on which part of their multiple identities and affiliations they thrive, which part of their competences they mobilize. This in turn is a creative driver, enhancing confidence and trust building, engagement becomes easier.

Another such regulatory potential lies in the property of considering play in terms of the rules of the game. Approaching the an open inclusive spatial design development in terms of indications of who does what where when how... in the manner of a score, incites the designer to define the framework for interaction. Instructions that orchestrate how to play and that qualify movement for playing together, implies designing who should be invited to play (or not to play), how to provide access to the game and how to ensure that playing can succeed. The ability to grasp the score, i.e. the rules of action, in order to play is therefore central in the passage from an intention to an interpretation, from the articulation of a desire into a collective action.

Finally, it is interesting to look at play from the point of view of performance, that is the capacity to interpret (the instructions given). In the design context, the question of how an actor does what he or she does thus comes to the table for discussion, addresses value and ethics, complementary to the question what he or she is capable of producing. Furthermore, as with any training, the performative capacities of playing are getting better through re-playing, iterative practice.

from tacit knowledge to explicit knowledge
**PERFORMATIVE MOVES – FOR PRACTISING
DYNAMIC SPATIALITY**

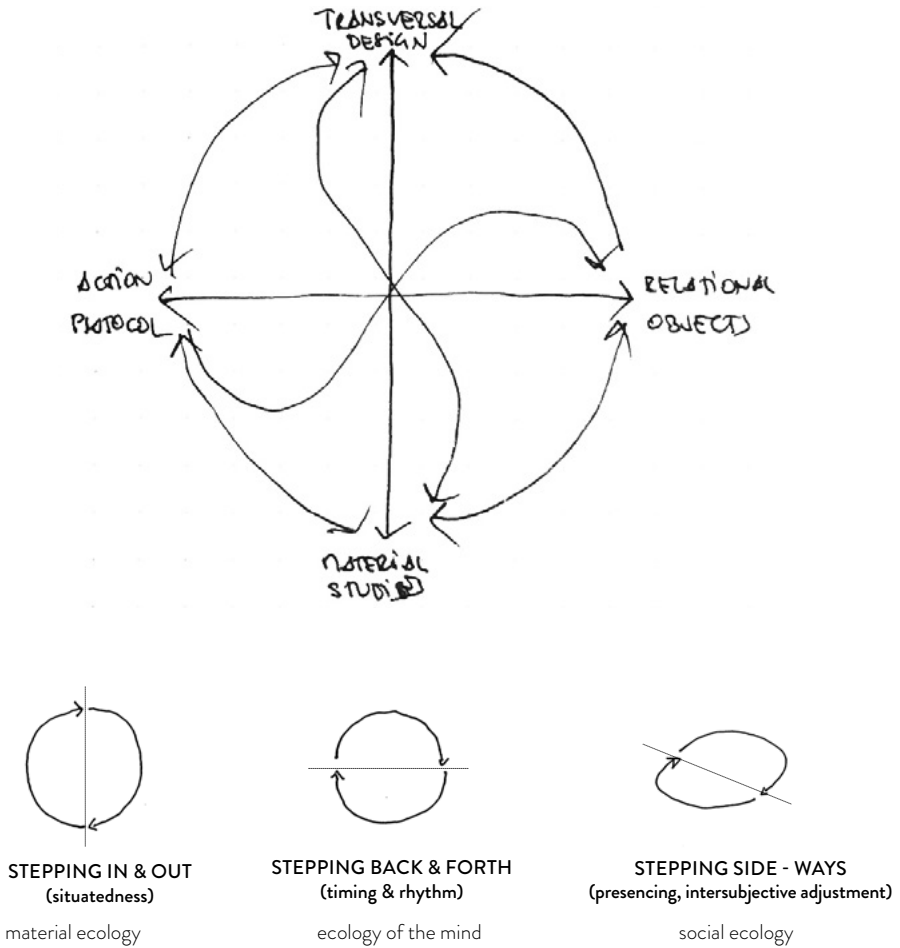


Fig. 81: Dynamic Spatiality Framework: entanglement of the situated, the temporal, and the plural perspective for a reflexive design practice.



from tacit knowledge to explicit knowledge
**INSTRUMENTS FOR TRANSFORMATION –
 PRODUCTIVE GAPS**

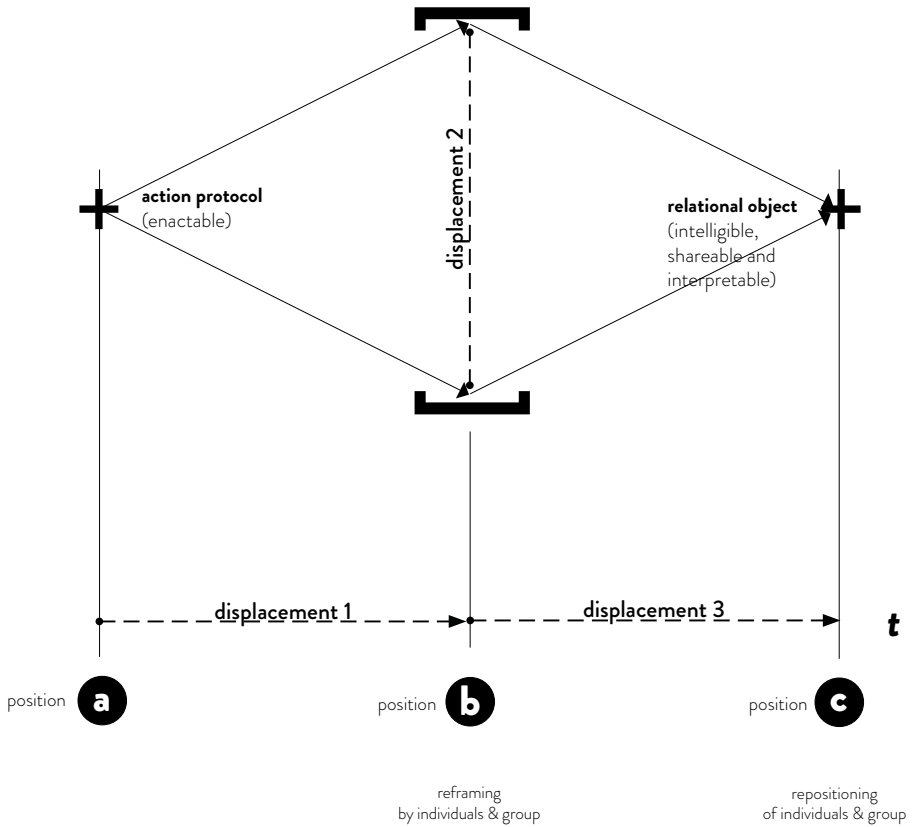


Fig. 82: Action protocols are utilised for opening gaps and making them perceivable (displacement 1). Measuring the gaps allow for a reframing of a situation (displacement 2). Relational objects introduce repositioning towards gaps and generate change (displacement 3).



from tacit knowledge to explicit knowledge

PRODUCTIVE GAP 1

(personal level)

SOUNDING OUT

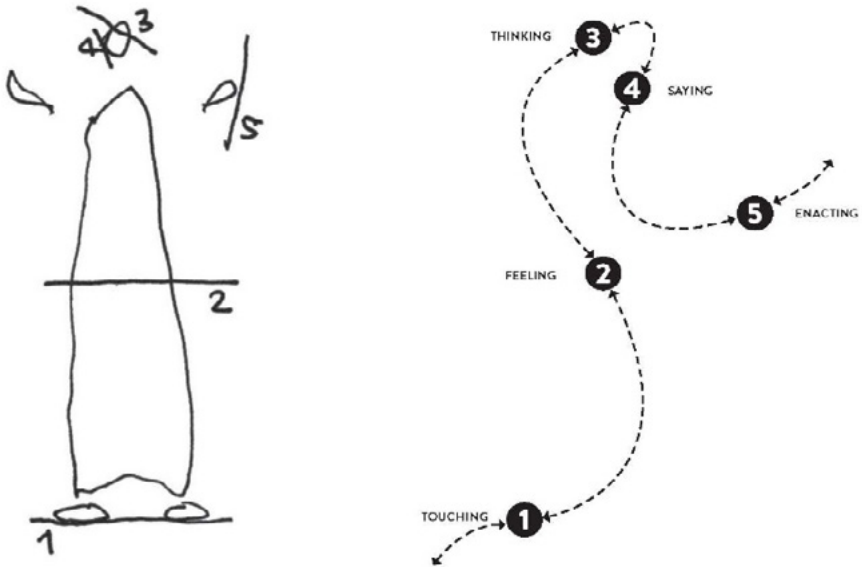


Fig. 83: Sounding out, productive play on personal level – for balancing an ecology of the intimate: putting into perspective distinct modes of knowing and measuring the distance among them: touching a situation with the feet, immersion (1), sensing into how it feels being in a situation (2), thinking upon the insights provided by the experience of being in a situation (3), translating the insights gained from the experience into words (4), transposing insights into action (5) (Schoeller 2017, Dunne 2017).

from tacit knowledge to explicit knowledge

PRODUCTIVE GAP 2
 (intersubjective level)
MEASURING THE DISTANCE

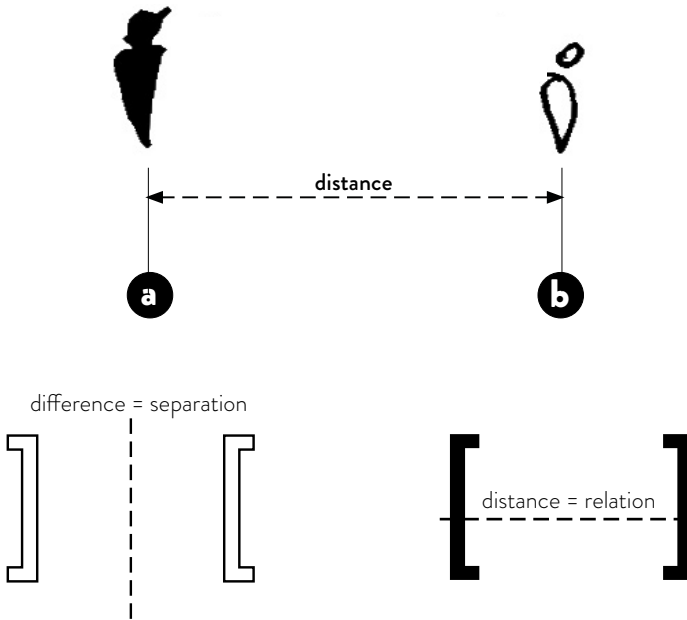


Fig. 84: Measuring the distance, productive play on intersubjective level – for balancing a social ecology: gaps* between different positions are made productive by focusing on the distance between positions, rather than on the difference between positions. Describing the distance qualifies the relation between positions, whereas focusing on the difference qualifies each position. Opening up a relation tends towards more vitality, whereas closing down a relation tends towards solidification of positions. For nurturing transformation processes, we can play with increasing and decreasing the distance, taking care of maintaining the relation.

* The notion of “gap” is used in terms of *écart* as by François Jullien.

from tacit knowledge to explicit knowledge

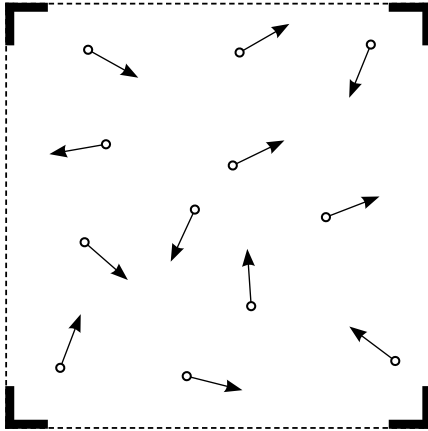
PRODUCTIVE PLAY 3

(territorial level)

MOVING BODIES

experiencing

(observer inside the observational frame)

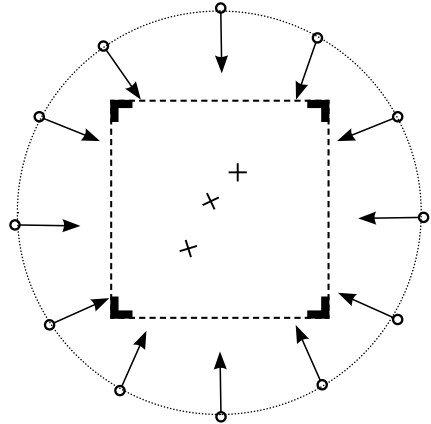


COMMON GROUND 1

moving bodies in physical space

enunciating

(observer outside of the observed frame)



COMMON GROUND 2

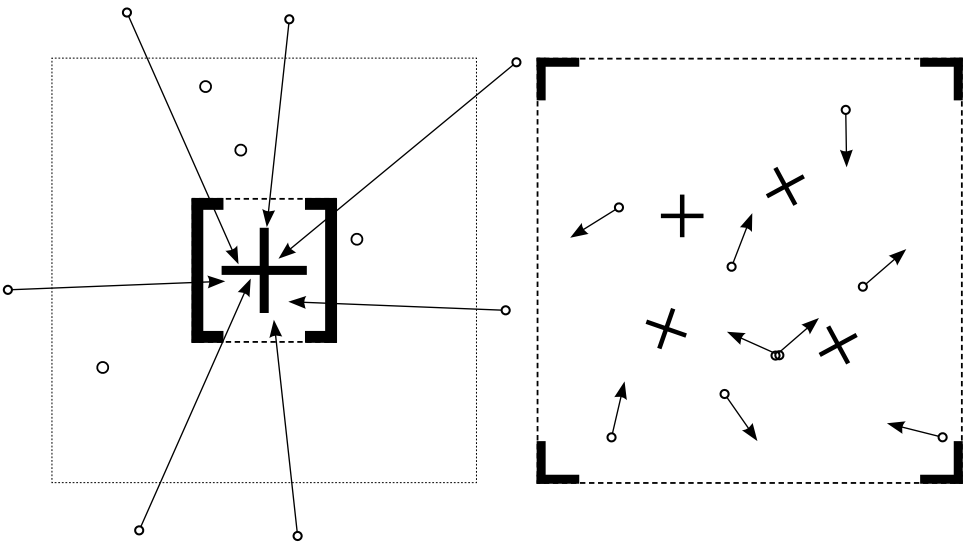
describing observations, rather than experience, in order to maintain the focus on outside phenomena rather than personal inside phenomena, measuring the gap between them.

projecting

(observer outside of the observed frame)

re-embedding

(observer inside the observational frame)



COMMON GROUND 3

moving the observed things and changing the relations between them, playing with distance and proximity

COMMON GROUND 4

testing project in real conditions – scale 1:1

Fig. 85: Moving bodies, productive play on territorial level – for balancing a material ecology. Gaps emerging between the representations people have of a territory and the tangible reality of that same territory are made productive by establishing a direct relationship between the ability to experience, to signify and to enact. This is incited by changing positions of the body and moving the point of view among other bodies. Changing the position of the observer accelerates breaking habits and learning a-new.

6.3 Originality, Potential Impacts and Benefits

The originality of the research lies in the proposal of an extended model of space, a dynamic paradigm as opposed to a model that considers space as static. The value of the model of dynamic spatiality lies in that it provides a single framework which unifies investigating, conceptualizing and practising spatial transformation, including methods and tools which make the model instrumental to switch between comprehension, action and transmission. The approach is summarized as Contact Urbanism.

From a dynamic paradigm the environment is seen as a milieu in perpetual transformation. The challenge a designer is facing can thus be reformulated in terms of “How to intervene in a milieu to maintain its vivacity and to keep it alive?”, instead of “what solution to a given problem?”. Dynamic spatiality is not so much an alternative as an extension to a static paradigm, for it helps us to comprehend a spatial situation in terms of its complex interrelationships. If architecture and urban development are to design spatial interventions in a way that sustain and, if possible, improve its ecosystem, it is relevant to comprehend the ecosystemic nature of the milieu, and how the material thing plays a role within that system of interactions.

In this context Chora’s concept of Urban Gallery should be mentioned. As Contact Urbanism, it also offers a methodological framework for dealing with constantly changing conditions in an urban environment. It also comprises grasping the complexity and dynamic nature of phenomena as well as grasping how to intervene by means of urban prototypes and the development of strategic action plans. Both approaches are transscalar in the sense that they relate micro- and macro-phenomena. While today the urban gallery framework supports urban curation of large-scale regional and trans-regional planning strategies, the method of Contact Urbanism inquires the shift between description, transmission and enaction of spatial transformations.

Another particularity of the work lies in integrating human actors through the messiness of singular individualities who act according to free associations, and whose behaviour may not follow a linear seemingly logical pattern. Consequently, when

collaborating in groups, as is usually the case in spatial design undertakings, the methodological framework is seeking to break open the rigidity of preconceived actor categorisations in favour of allowing a broader scope of multifaceted contributions to a subject matter.

It leans on Guattari's ecosophical perspective or extended or deep ecology, which includes the entanglements of individual subjectivities and micro-gestures in interaction among others and within a field. It also resonates with Latour and Callon's call for an agnostic cartography as a practice of describing without preconceived categories. While the cartography of controversy, which is part of the actor-network theory, focuses on mapping friction between actors to be put up for debate, the mapping to see what one is not looking for relating behaviours, representations and situations focuses on identifying unresolved issues and conflicts of interest, through how they manifest as tangible phenomena in a territory – for controversy inevitably occurs either as a tangible trace or as a tangible practice (see case study 5). The controversy is attached to and debated through tangible things for reframing the issue that wants to be tackled.

The research points to parameters that boost or hinder creativity. It provides insight on creative processes and creative leaps that occur in the interaction of the designer embedded in a situation among other actants, this is within a material and sociocultural context. In this respect it contributes to research in architectural creativity which is substantially looking at the processes and creative leaps that lead to “design excellence” from within the perspective of an individual designer.¹⁷³

Implications and Benefits for the Field of Architecture and Urban Design

The knowledge gained through this research offers direct practical implications and benefits for architecture and urban design. The methodological framework proposes techniques

173. Matthew Hynam, “Introduction to Divergent Convergent Thinking”, www.designleap.org/159, 30 April 2014.

to spatialize complex problems and make them manageable in terms of design problems.

It suggests techniques for not sweeping dust under the carpet but drawing upon discrepancies as a two-way resource. Holding on to phenomena that raise questions and to which no answer imposes itself makes it possible to gain a deeper understanding of what is actually at stake, and thus to better reframe the question to be addressed. It also serves as a creative driver to fathom relationships between things that may seem irreconcilable at first glance.

Embedding a material thing in a dynamic milieu helps to conceive a project in relation to existing and future agencies and representations. Its groundedness allows the designer to face practical questions such as: Where can and should we intervene? How can and should we act? With whom can and should we do it? When can and should we do it? The responses deliver a set of tangible structural parameters that the spatial designer can compose with. Playing with the set of parameters shapes what can and should be designed without reducing the possibilities to one finite solution.

Now, extending the object beyond the realm of the architect and a disciplinary debate and bringing it closer to the complexities of a lived situation entails a shift in the focal point of the project. The value of the material thing lies not only in terms of coming up with a solution, but also in its leveraging quality to establish the potentiality for new relations to occur. For the tangible thing – be it a material artefact, an architecture, also becomes the raw material to structure or change practices, to influence behaviours, to incite gestures –, in short to create or inhibit the potential for other, for new actions to happen in a perimeter. It also becomes the raw material for shaping intelligibility, graspability and appropriation – in short, to modulate how the thing represents itself to others, the qualities for how others are given the possibility to relate and to engage with the material thing and thus in a situation.

Without failing to recognise the relevance of disciplinary assessment and a client relationship, the framework established with Dynamic Spatiality and Contact Urbanism suggests how spatial transformation, can be discussed in terms of its affordance,

i.e. the creation of possibilities to engage in action, to practice a territory. This includes the level and quality of access that is created, the potential hold it offers to others to seize the thing, to relate through the thing, to appropriate it and to integrate it. When it comes to structure spatio-temporal organisation, architecture has a favourable precondition in that it can rely on the medium of geometry, physics and thermodynamics.

Open and inclusive spatial design becomes relevant as pragmatic action, in that it increases the variables to test to which extent others can relate to and engage with a development. It is a form of prototyping in an urban, terrestrial context.

With the experience of a certain number of open, inclusive productions, the relevance of participation is, in our understanding, much better discussed for its transformative triggers, for the elaboration of a common concern that emerges through collaboration, than merely in terms of the immediate material impact on the design. For it still depends on the designer's ability to use the confrontation with an Otherness as creative interaction to inform, adapt and refine a proposal.

Nonetheless, for us, the insights gained lead to a set of principles of conduct that favours creative collaboration which can be beneficial to participatory practices: an initial blending out of the participant profiles promotes the permissiveness of the exchange, spontaneity increases. The use of experiential and situational interaction environments expands the possibilities for alternative ways to engage, the participation of those who tend not to speak up increases, the gap between experts and layman, between people feeling more or less in power decreases.¹⁷⁴ Holding on to the completion of a rhythmic loop of opening, sorting out, pausing, closing is necessary to leverage the development on a higher level of specification and to ensure that the interaction and can be made meaningful.

174. People who won't speak up publicly are given alternative channels for expression, people who tend to monopolise speech can be constrained by any other participant, spontaneous adjustments which occurred in the group exchange for instance with the mayor of Saint-Cyr-en-Arthies in the case of the Ecohamlet and the director of the Centre Saint-Martin in the case of Architecture & Disability. The positive experience participants express afterwards lies in the fact that in time the way participants speak up and listen to each other clearly evolves.

These principles may seem obvious, yet in spatial design projects with a participatory approach the way interactions are conceived does not necessarily go this way. Sometimes the mixing of actors with opposing interests is avoided, stakeholders are approached separately. Sometimes the framework for communication between different stakeholders is such that it consolidates the existing roles of senders and receivers, which tends to increase preconceived positions and reduce the likelihood that stakeholders can take in new information which would shift their position.

Often a rhythmic loop is broken. If participants are invited to contribute, but they are not given access to the updated version of a proposal, neither can they trace how their contribution informs a subject matter, meaningfulness risks to dilute. In line with the notion of “Paroles données, Paroles rendues”,¹⁷⁵ contributions received require responses in return. It is not about a give-and-take, it is not a gift for a gift, nor is it a restitution in the same way. It is a feedback, but with a difference. It is giving back a contribution, but in a different form. It is literally about making a difference.¹⁷⁶ The creative interaction operates in this communication space. If participatory design projects are carried out with communities, where the implementation of the proposal is given as the horizon for closing the loop, and for manifold reasons, implementation either does not take place or the time span between the invitation to participate and the closing of the creative loop is too extended, at best, the contributors get lost, at worst, they lose trust. To prevent this to happen, just make the rhythmic loop smaller, and reiterate.

The open inclusive design approach of Contact Urbanism is not primarily driven by the desire of turning top-down working procedures into bottom-up participatory approaches, but to accelerate creative displacement through proximity with real life situations. However, as the tools allow a variety of participants from different cultures to join the conversation and as it

175. Pascal Amphoux and Nicolas Tixier, “Paroles données, paroles rendues. La marche collective comme écriture du projet urbain”, *Europe. Revue littéraire mensuelle*, n° 1055 (2017), 196-215.

176. *Ibid.*

introduces actions to change a situation to facilitate the problem-solving task, actions taken to uncover information that is hidden or difficult to calculate mentally,¹⁷⁷ these methods do touch upon power relations. For participatory design in institutional practice and in urban planning bodies, including policy makers, a fundamental question arises: do we really want contact? Are we aware of what it sets in motion? Are we ready to expose contradictions? Are we ready to respond to them? Because it is about letting ourselves be moved by what emerges. It is about creating a space where change of position is allowed, that encourages experimentation, where ambiguity, contradiction and paradox are treasured.

6.4 Limits And Future Investigations

In the course of this research, some questions have arisen which could not yet be settled definitively and which will deserve to be investigated in more detail in the future.

In participatory design commissions we notice recurring hurdles when it comes to transposing the design proposal into building. They may point to unresolved issues regarding the legal and the economic model. At the latest when it comes to the construction of a project, the continuation of a participatory working method challenges conventional contractual relationships. Who bears what responsibility? Who is the author and where does the value of intellectual property lie? What economic model to adequately take into account the commitment and working hours of the different actors? For instance, the approach whereby, in a community with economically vulnerable actors, external professionals are paid while residents, who are often themselves in the construction industry, participate on a voluntary basis is debatable. These questions may seem petty at first glance, but presently they involve rights, obligations and responsibilities that challenge common contractual relationships in the construction industry.

177. David Kirsh and Paul Maglio, "On distinguishing epistemic from pragmatic action", *Cognitive Science*, vol. 18, issue 4 (1994), 513-549.

Whether such hurdles in the implementation of inclusive spatial transformation could be overcome with changing frameworks of institutionalised participation (innovative approaches are being developed in France by Patrick Bouchain and the communities of practice that have formed around his former students and younger collaborators), or whether they are better overcome as artistic and cultural productions (e.g. as cultural urbanism), or when simply incorporated by architects into their working methods (e.g. practitioners such as Anupama Kundo or Whan Shu.), or imposed by citizens' direct action (e.g. ZAD, Zone à défendre), as the research step 2 would suggest, would need further inquiry.

Another question that needs to be explored further is how projects can be represented in terms of dynamic spatiality and, more fundamentally, what do we as spatial designers actually expect from the medium of representation?

Graphic conventions in architecture codify the material dimension of space. However, if spatial design is understood as a relational organisation between the material, imagined and practised dimensions of space, what representational techniques are there to go beyond fixed objects and stable situations to include the parameters of time, practice and relationships? In our project practice, we experiment and revisit drawing and illustrations as a medium for communication from one project situation to the next and so far could not find a "codified language", that would be entirely satisfactory. We test how to represent design that is unfolding in time (Orchestration in Time), how to represent a situation as a dynamic plan of relationships and interdependencies rather than a static plan of frozen objects (Dynamic Fields), and how to convey the inclusion of the viewer, to relate the observer into the drawing and move him or her to action. These representations attempt a physical engagement (Body Drawings) (see Drawing Explorations 1, 2 and 3). Since it has been found that rhythmic, situational and grasping devices facilitate contact, regulate creative interaction, ensure further development and transition to higher levels of specification of a project – in short, since these mediums are instrumental for creative development across states, what ramifications does this entail for the means of representation? Further research regarding the medium for

exchange in the spatial design would explore the performative potential of the representational language.

In this respect the work on “Architectural Behaviorology” by Atelier BowHow is relevant, which “in essence (...) tries to find existing barriers and deficits and then challenge them in order to create better accessibilities to local resources. The aim is to activate the behaviours of actors, both human and resource, to create commons and rejuvenate community livelihoods”.¹⁷⁸ It is extended in an approach called “Architectural Ethnography” stating: “Life obviously exceeds architecture, yet at the same time it is the basis and essence of architecture. Understanding its different forms, as ethnography shows, is the precondition of engaging with it. But, what does this mean for architecture? How can the myriad situations that both feed into and result from the design of a building be effectively mapped? How does one address architectural drawings, not just as simple notational systems but as instruments to document, discuss, and evaluate architecture? How can they work to explore people’s actual usages, needs, and aspirations, and moreover to give shape to individualized life forms in today’s globalized society?”¹⁷⁹

For further exploration, we’d inquire representations for spatial transformation through the prism of spatial scores. In analogy to a score in music notation, which mediates between the composer’s intention for acoustic actions to be performed and the performer’s ability for interpretation, a spatial score would inquire how a spatial designer can arrange signs to stimulate a performer to pick up on them and engage in spatial (trans-) formation. This would go together with a more fundamental inquiry in topology and knots, for gaining deeper insight on the relations between variants and invariants in network organisation. This would also go together with deeper research in embodied and enacted cognition from a spatial and trans scalar perspective. It would critically inquire the role of representation as a medium for exchange by shifting the focus first of all on practice as a means of re-creating precedents, for example through iteration of fieldwork stations, prototypical project situations.

178. Atelier Bow-Wow, Momoyo Kajijima, “Chair of Architectural Behaviorology”, www.kajijima.arch.ethz.ch/?page_id=26, 02.10.2017.

179. *Ibid.*

*The wheel's hub holds thirty spokes
Utility depends on the hole through the hub.
The potter's clay forms a vessel.
It is the space within that serves.
A house is built with solid walls
The nothingness of window and door alone
renders it usable,
That which exists may be transformed
What is non-existent has boundless uses.¹⁸⁰*

180. Lao-Tse, in Papanek V., *Design for the Real World: Human Ecology and Social Change* (New York: Pantheon Books, 1972).

Appendix



Shelves for 69 meter of books, 360×433×25cm, 3mm steel sheets, welded and screw-fitted (Petra Marguc Polimorph, 2012).



MAD IN FRANCE
2009

la ville

BARTHES

NOX

ROYAL
BENZ

S.M.L, XL

PROJECT JAPAN

STATICS
KMB
MVRDV

SCHOCK

the global city
Postmetropolis

Peter Shureddy
Peter Shureddy
Peter Shureddy
Peter Shureddy

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Archives

(in order of appearance in the text)



[Case study map \(pdf\)](#)



[Architecture & Disability,
making-of, 2008, 12'
\(mov\)](#)



[TabulaRosa 1st -VJ live,
2004, 4' \(VOD\)](#)



[Embodiment map \(pdf\)](#)



[Ecohamlet making-of 2011
short version, 20' \(mp4\)](#)



[PariPassu video making-
of, TabulaRosa 4th
2006, 12' \(wmv\)](#)



[Communities of
practice in 6 acts \(pdf\)](#)



[Ecohamlet
Archives Vives project -blog](#)



[PLU / PADD Tours,
TabulaRosa 6th,
2009 \(mp3\)](#)



[Trefoil Mutation
2015 \(pdf\)](#)

Project Data

(in chronological order)

Sarajevo University 1998

International competition for the reconstruction of the university after the Yugoslav war.

1st prize categorie process

Location : Sarajevo, B & H

Date : 1998

Commissioned by: City of Sarajevo, Sarajevo University.

Project development: Tom Broekaert, Silvia Forlati, Petra Marguc, Zvonimir Prlic.

1st follow up project

Sarajevo Concert Hall

International competition.

Location : Sarajevo, B & H

Date : 1999

Commissioned by: City of Sarajevo, Sarajevo University.

Project development: Tom Broekaert, Petra Marguc, Chris Rankin, KSK Tamura.

2nd follow up project

Sarajevo Masterplan Marjin Dvor

International competition for the urban regeneration of the railway station area and the site of the former military base.

Honourable mention

Location : Sarajevo, B & H

Date : 2000

Project site area: 40 ha

Commissioned by: City of Sarajevo.

Project development: petra marguc (architecture and urban design), atelier one (engineering); ove arup environmental (environmental engineering)

Windowbox 2003-2004

Towerblock regeneration of a social housing estate. Two stage international competition shortlisted project - 2nd stage

Location : London Newham, UK.

Date : 2003 - 2004

Surface area: 5 5005m²;

Cost estimation: 8,8 Mio € TTC

Commissioned by: Newham Council, RIBA.

Project development : petra marguc (architect urban designer), Aran Chadwick (structural engineering atelier one), Jim Grace (environmental engineering atelier ten), EC Harris (economy), Véronique Helmer (3D visualisation).

Cuisine Centrale & Restaurant 2004 – 2006

Central kitchen for 300 meals and adjacent restaurants for residents and staff.

AMC the 100 buildings of the year 2006

Location : Etrepagny (27), F.

Date : 2004-2006

Surface area: 380 m²;

Construction costs: 819.000 € TTC

Commissioned by: Association Médico-Sociale Centre Saint-Martin

Project development : petra marguc (architect urban designer) for Drôles de Trames, Ced'Ex (engineers)

TabulaRosa 2004 – 2010

Urban game development in seven productions, derived from scenario game techniques experimented with Chora and students from the Architectural Association London (1998 – 2001).

Polimorph project development: Petra Marguc (architect urban designer), Pierre Lemaire (architect urbanist), Marine Roman (architect), Laurence Hartenstein (artist), Jacques-Olivier David (mediator-art historian), Olivier Lannuzel (editor)
Scientific advisory: Sylvaine Bulle (social scientist)

1st production

Festival des Architectures Vives

Date: 2004
Location: Paris (75), France
Commissioned by: A-Pack
Team: Petra Marguc, Pierre Lemaire, Marine Roman, Jacques-Olivier David, Laurence Hartenstein, Olivier Lannuzel
Collaborators: Thomas Baldner (webmaster), Thomas VanKeerebroek (technique), Jonathan Guirma (sound installation), Bruno Tait (VJ), Ed Alcock (photography)

2nd production

Printemps de la Démocratie

Date: 2005
Location: Paris (75), France
Commissioned by: Ville de Paris
Production team: Petra Marguc, Marine Roman, Jacques-Olivier David, Juliette Blondelle, Olivier Lannuzel.

3rd production

Festival Rayon Frais

Date: 2005
Location: Tours (37), France
Commissioned by: pôle des arts urbains PoLAU
Team: Petra Marguc, Pierre Lemaire, Marine Roman, Jacques-Olivier David, Laurence Hartenstein, Olivier Lannuzel.

4th production

Pari Passu

Date: 2006
Location: Paris (75), France
Commissioned by: 2Rue2Cirque (Remy Bovis, Maude LeFloch), Ville de Paris
Team: Petra Marguc, Marine Roman, Juliette Blondelle, Jacques-Olivier David, Laurence Hartenstein, Olivier Lannuzel.
Contributors: Decor Sonor, Groupe Ici-Même, Joseph K, Le Théâtre de l'Unité, Les Ouvreurs de promenade, Marq Bailey (photography)
Video making-of: Naël Marandin

5th production

Architecture & Disability

Date: 2008

Location: Etrepagny (27), France
Commissioned by: Association Medico-Sociale Centre Saint-Martin
Team: Petra Marguc, Juliette Blondelle, Laurence Hartenstein, Jacques-Olivier David, Olivier Lannuzel;

6th production

Situating the PLU / PADD Tours

Date: 2009
Location: Tours (37), France
Commissioned by: Ville de Tours, agglomération Toursplus, pôle des arts urbains PoLAU
Team: Petra Marguc, Marine Roman, Laurence Hartenstein, Jacques-Olivier David, Olivier Lannuzel, Stephane Amour.
Collaborators: Reine Wekstein (sound installation), Barbara Spitzer (photography)

7th production

Ecohamlet

Date: 2010
Location: Saint-Cyr-en-Arthies (95), France
Commissioned by: Association Medico-Sociale Centre Saint-Martin
Team: Petra Marguc, Chihab Bakhadda, Marine Favennec, Edouard Sors, Marine Roman, Jacques-Olivier David, Olivier Lannuzel.

Architecture and Disability, allowing stories to be written before walls begin to rise. 2007 - 2010

Collective definition study to specify the future architectural transformations (both restructurings and new constructions) for the Centre Saint-Martin, a medico-social association for people with mental dispair. The project, action research with experts from the building industrie, staff and residents, leads to a set of recommendations for future architectural project and the guiding principles for the overall project of the Centre Saint-Martin. Development of the first architectural design begins with the follow up commission for the restructuring of the Saint-Jérôme residential pavilion. Honorable mention Prix du projet citoyen 2008 (UNSAFA)

Location: Etrepagny (27), France

Date: 2007-2008

Project site area: 35 ha

PROJECT DATA

Commissioned by: Association Médico-Sociale Centre Saint-Martin

Polimorph project development: Petra Marguc (architect urban designer), Juliette Blondelle (architect scenographer), Laurence Hartenstein (artist), Jacques-Olivier David (mediator), Olivier Lannuzel (editor)

Photography and Making of: Maja Bialon

Project partners : Benjamin Cimernan (rfr. éléments environmental engineer), Perrine Vigneron (design ergonomist), Gilles Belley (design ergonomist), Eric Chazelle (architect), Henri Raynaud (architect)

Co-design tools used : Odyssee de l'Espace, Journée idéale – journée cauchemar, Menu au choix, Fictions, Programmation enrichie, Tabula Rosa, Carte Sensible.

1st follow-up commission :

Pavillon Saint-Jérôme

Restructuration of an existing residential housing pavilion, all design phases until tender.

Location: Etrepagny (27), France

Date: 2009-2010

Floor area: 750 m²

Cost estimation: 1,07 Mio € HT

Polimorph project development: Petra Marguc (architect urban designer), Marine Roman (architect), Juliette Demesteere (architect)

Project partners: Jean-Marc Castera (artist, mathematician), Derek Metz (structural engineer), Christian Morin (Ced'Ex fluid engineering), Jean-Claude Njoumeck (NUC Conseil, economist)

Carte Sensible (Sensitive Map), 1st prototype 2007 - 2008

A digital cartographic device for multi-perspective territorial assessment combining qualitative and quantitative data in a single representation. 1st prototype created within the framework of the project Architecture & Disability».

Location : Etrepagny (27), France

Date : 2007-2008

RD budget: 5000 € HT

Commissioned by: Association Médico-Sociale Centre Saint-Martin

Polimorph project development: Petra Marguc (architect urban designer), Xavier Boissarie (game developer), Maja Bialon (graphic designer, webmaster), Aline Ramat (database backoffice).

Contributors: Juliette Blondelle, Laurence Hartenstein, Patrice Tardif Polygun, Alek Thanenbaur, Olivier Lannuzel (editing)

Scientific advisory: Sylvaine Bulle (social scientist), Janina Marguc (social and cognitive psychologist)

Memorial Parc 2009-2015

Places of memory(s), places of urbanity - The former deportation station of Bobigny: Conceiving a heritage institution as a space of interactions in a changing city. Action research on intercultural practices in heritage organisations. Polimorph is in charge of orchestrating a co-creative development among local actors, institutions and scientists aiming at shared visions for the transformation of the former railway station site into a living heritage site.

Location : Bobigny (93), France

Date : 2013-2015

Commissioned by: Ministère de la Culture et de la Communication, Ville de Bobigny

Polimorph project development: Petra Marguc (architect urban designer), Benjamin Leclerc (architect sociologist), Jacques-Olivier David (mediator, art historian), Olivier Lannuzel (editor)

Contributors: Aliénor Sarrauton (project engineering), Guillaume Buleté (graphic designer)

Project partners: Anne Hertzog (geographer, Laboratoire MRTE Université de Cergy-Pontoise, Anne Bourgon (project manager Ville de Bobigny)

1st complementary commission:

Urban study for the territorial insertion of the development of the former deportation station.

Location : Bobigny (93), France

Date : 2014

Commissioned by: Ville de Bobigny,

Polimorph project development: Petra Marguc (architect urban designer), Morvan Rabin (urbanist)

Preceding research-action:

Bobigny recounts Bobigny

Prior to the Memorial Parc Project a participatory research-action explored cross-views on the site of the former deportation station.

Location : Bobigny (93), France

Date : 2009

Commissioned by: Ville de Bobigny, Anne Bourgon (project manager) in the framework of Assises de la Ville

Polimorph project development: Petra Marguc (architect urban designer), Marine Roman (architect), Jacques-Olivier David (mediator art historian), Olivier Lannuzel (editor)

collaborators: Catalina Martin-Chico, Juliette Demesteere

tools utilised: «Space Odyssey»

environmental engineering), Michel Ducroux (MCJECT economist), Thierry Stringat (MDETC urban management).

Co-design tools used : Odyssée de l'Espace, Carnet de Bord, Les Rythmes, TabulaRosa, programmation enrichie, project-blog, vidéo making-of.

Development principles: global approach (participative project, eco-construction, phyto-water purification, grouped housing, etc.)

Ecohamlet Le Champ Foulon 2010 – 2016

Urban and architectural participatory study with a master plan and grouped housing for 40 households. The Ecohamlet in Saint-Cyr-en-Arthies is one of six pilot-projects initiated by the Parc Naturel régional du Vexin français, addressing stakes on land-use in relation to architectural and urban design. Situated in a periurban area and grouping together a community of around forty households, the eco-hamlet project is both small enough to allow a study of details and materials on an architectural scale and large enough to be treated as an urban entity, rooted in a broader territory of rural communities to allow different hypotheses to be studied in terms of societal implications. The participatory definition study was completed in July 2011, operational phases of the project followed from 2012 onwards. Location : Saint-Cyr-en-Arthies (95), France

Date: 2010-2011

Project site: 2,4 ha

Floor area: 8100 m²

Estimated costs for urban development: 1,56 Mio € HT

Commissioned by: PNR - Parc naturel régional du Vexin français, Commune de Saint-Cyr-en-Arthies

Polimorph project development: Petra Marguc (architect urban designer), Chihab Bakhadda (architect), Marine Favennec (architect), Edouard Sors (architect specialised in hydraulic systems),

Contributors: Jacques-Olivier David (mediator, art historian), Benjamin Leclerc (architect sociologist), Olivier Lannuzel (editor), Marine Roman (architect).

Video making-of: Florence DeComarmond
Project partners: Christine Alban (Arpentspaysages landscape designers), Benjamin Cimermann (rfr-éléments

1st follow-up commission:

Ecohamlet Le Champ Foulon, Modification of the local plan for urban development PLU Saint-Cyr-en-Arthies

Project management assistance

Date : 2012

2nd follow-up commission:

Co-housing Project Development Ecohamlet Saint-Cyr en Arthies

Project management assistance for the realisation of nine co-housing projects, minihamlets

Date : 2015-2016

Commissioned by: SEMAVO, Val-d'Oise Habitat, PNR - Parc naturel régional du Vexin français, Commune de Saint-Cyr-en-Arthies

Project Partners: Polimorph (Edouard Sors, Petra Marguc), P.C.U. promoteur de Courtoisie urbaine, Antibrut, ACMG architects.

Le Pilomètre 2012-2013

Redevelopment of the Le Pile area in Roubaix (PMRQAD project, dialogue compétitif). Polimorph is in charge for the cross-disciplinary co-creation of the urban design project and involved the design of the pilot homes.

2nd prize

Development principles: BBC, participation, materials recycling, job creation, green grid.

Location : Roubaix (59), France

Date : 2012-2013

Project area: 10 ha

Cost estimation : 6,2 Mio € HT

Commissioned by: SPLA La Fabrique des Quartiers

Project partners: Parc Architectes, Polimorph, A-typic, Sempervirens, Elioth, Setu, M.Jarvin

PROJECT DATA

Polimorph project development : Petra Marguc (architect urban designer), H el ene Delpeyroux (cultural urbanism)

Les Girafes 2013

Giraffes at school, an urban situ-action in defence of the elephants. A Play on the wall of the Louis Blanc school complex.

Location : Paris (75), France

Date : 2013

Commissioned by: self-initiated.

Situ-action team : Dora Borst, Guillaume Bulet e, Julien Cr egut, David Lopez, Petra Marguc.

Maison MMT 2013-2015

Detached house based on a ring-chain typology for spacing and interlacing.

Location : Montreuil (93), France

Date : 2013-2015

Living area: 111m²

Construction cost: 220 000   HT

Commissioned by: private.

Project development: Polimorph Petra Marguc

C t  Cours C t  Tours, a temporary playground for children aged 0-99, 2014-2015

Co-design and co-construction project with the residents and community organisations of the Cit  Chevaleret. Encourage a wider appropriation of the Cit  Chevaleret courtyard by its inhabitants through a collective definition of the needs to be integrated into the future transformations; reduce the inhabitants' distrust towards their housing administrators. Support the regeneration project led by the public housing office, the City of Paris and local community groups.

Location : Paris 13 (75), France

Date : 2014-2015

Commissioned by: Ville de Paris, Mairie du 13e, Elogie, Fondation de France

Polimorph project development: Guillaume Bulet e (graphic designer), Thibault Zambeau (designer), Petra Marguc (architecte urban designer), Benjamin Leclerc (architecte social scientist)

Collaborators: Ali nor Sarrauton (project engineering), Oumou Kalsoum Cisse (architect) Jacques-Olivier David (mediation),

Ivana Pranjic (mediation), Editing : Olivier Lannuzel (editing).

Photos: Julien Cr egut, Daniel Mounouri, Olivier Pezzot

Project partners : Guillaume Desjonqu eres (engineer), Artibois (wood construction) ;

Local Community organisations: CAF de Paris, La Maison de Sagesse, Association Jean Cotxet, Compagnie   l'Aff t!, Paris Sant e, Centre d'animation Oudine, Vagabond Vibes, Rei 2000, Ping sans fronti eres, Maison des volontaires, D brouille

Fosses Village Centre 2015-2016

Development and regeneration of the village centre of Fosses (feasibility study). Polimorph is in charge for the cross-disciplinary co-creation of the urban design project.

Location : Fosses (95), France

Date : 2015-2016

Commissioned by: Commune of Fosses

Project partners: T.e.rau (Morvan Rabin), La forme et l'usage (landscape), Polimorph, transversal (programming and urban management), nunc (heritage and mus eography), terre des liens (agriculture).

Abrégé en français

Urbanisme de Contact, le jeu comme moteur créatif dans la conception spatiale

Cette recherche doctorale en architecture, intitulée «L'urbanisme de contact» porte sur le jeu comme moteur créatif dans la pratique de la conception spatiale. Il y est question d'échange et de friction, de langages partagés, d'exploration collective de l'inconnu, de perception du sensible, de restitution et de remise en jeu, de déplacement individuel et de créativité collective.

À une époque où de plus en plus de communautés humaines répondent aux craintes d'un avenir incertain par la protection, la distanciation et l'exclusion de ce qui leur est étranger, ce qui se manifeste dans l'organisation du territoire et de l'environnement bâti, ce travail part d'une hypothèse inverse: comment l'intensification du contact avec des situations inconnues, par nature déstabilisant, peut-elle stimuler favorablement la transformation spatiale et constituer un terrain propre à nourrir une culture de l'urbanité? Comment nous conduit-elle à reconsidérer la manière dont nous concevons l'architecture et la ville?

L'exploration porte sur une sélection de cas, de projets produits par Polimorph, la structure au sein de laquelle s'est développée ma pratique professionnelle. Il s'agit donc d'une recherche par le projet, ancrée dans mon expérience en tant qu'architecte, urbaniste et enseignante, sur une période de deux décennies.

Pourquoi une recherche par la pratique de projet ?

Il y a de nombreuses années, j'ai été confrontée à un dilemme qui a fondamentalement changé ma vision de l'architecture.

Lors d'un concours international en 1997 pour la reconstruction de l'université de Sarajevo après la guerre de Yougoslavie, nous nous sommes heurtés à un cadre opérationnel où il était évident qu'il n'y aurait pas de projet réalisé, en dépit de sa nécessité et de son urgence. Les obstacles auxquels nous faisons face nous ont fait prendre conscience de certaines limites, de certains angles morts de notre approche de la conception.

Tout d'abord, nous avons abordé la situation avec des outils architecturaux pour construire des bâtiments, alors que nous étions confrontés à des problèmes tant de nature systémique, politique qu'émotionnelle.

Le travail de terrain nous a permis de nous ouvrir à différentes perspectives, d'améliorer notre interprétation de ce qui se présentait à nous, de mieux saisir les enjeux. Nous pouvions identifier un grand nombre de ressources matérielles et humaines à même de nourrir le projet de conception et de porter des transformations. Or, le cadre opérationnel ne permettait pas d'intégrer ces ressources déjà-là.

Certes, une ville après-guerre est un cas extrême, mais il n'est pas exceptionnel. Des situations de dilemme, c'est-à-dire des types de problèmes pour lesquels il n'existe pas une réponse simple et unique, se rencontrent par ailleurs. De tels phénomènes sont caractéristiques des sociétés en transition. Ils impliquent de la complexité, de l'incertitude et des conflits. La plupart des situations auxquelles nous sommes confrontés aujourd'hui sont de ce type. Travailler dans de telles situations nous oblige à remettre en question nos outils de pensée et de pratique de l'architecture et de la ville.

Une possibilité de réduire la complexité d'un contexte incertain consiste à exclure les interférences perturbatrices et à figer la situation à traiter.

Avec Polimorph, nous avons choisi d'expérimenter l'approche inverse. Aller au contact, s'exposer au désordre des situations du monde réel, rechercher les frictions et rester dans le trouble est devenu un moteur du projet, un choix délibéré de remettre en question la manière d'intervenir et de transformer des situations spatiales à partir d'un contexte en mouvement et de phénomènes qui peuvent paraître contradictoires, incohérents et impermanents.

Par l'expérience, nous avons appris que, face à toute situation, a fortiori complexe, l'espace ne peut être compris dans sa seule dimension physique à l'instant t. Pour mieux voir ce qui se joue, il nous faut l'appréhender dans sa dimension temporelle et dans ce que Lefebvre appelle la triple spatialité : l'espace physique, l'espace vécu et l'espace de représentation. Pour tenter de saisir la relation irréductible de ces dimensions dans les situations concrètes de projet, nous nous sommes attachés à développer des outils à mettre en œuvre dans notre pratique de la conception, en intensifiant les situations de contact.

Ce doctorat explore la manière dont l'intensification du contact avec des situations inconnues conduit à reconsidérer la manière dont nous concevons l'architecture et la ville, ainsi que les avantages d'une pratique de conception spatiale réflexive.

Structure du document

Le manuscrit se compose de six chapitres complétés par trois interludes et d'annexes.

Dans les chapitres 1 et 2, nous présentons le contexte et la méthodologie de la recherche. Nous revenons sur la pratique expérimentale de Polimorph en matière de conception, pour mettre au jour, par une série d'investigations, la quête sous-jacente qui court comme un fil rouge à travers ses projets. Cette partie définit le cadre du projet de doctorat et conduit à sélectionner une série de cas d'étude à explorer plus avant.

La recherche fondée sur les études de cas court du chapitre 3 au chapitre 5. Le « processus » de production d'un espace en tant que conception ouverte et inclusive est étudié dans le troisième chapitre. Dans le quatrième chapitre, intitulé « Pivots », nous nous penchons sur les conditions qui font bifurquer le processus

créatif. Dans le cinquième chapitre, «Les choses tangibles», nous nous interrogeons sur le rôle des éléments concrets, saisissables, introduits et mis à disposition des acteurs en cours de projet pour une dynamique créative.

Trois interludes complètent le parcours de recherche sous la forme de contrepoints ou de pas de côté. L'interlude I explore dans quelle mesure une structure de soutien est nécessaire pour faire advenir des processus créatifs. L'interlude II fait une excursion dans d'autres pratiques spatio-temporelles pour étudier le rôle des artefacts dans les processus créatifs. L'interlude III examine comment une organisation spatiale basée sur la topologie des nœuds consolide le potentiel de reconfiguration d'un bâtiment dans le temps.

Le sixième et dernier chapitre résume les connaissances acquises au cours de cette recherche, transposées dans ce qui constitue la thèse en tant que telle, à savoir un cadre pour l'exploration et la pratique de la conception spatiale dans un contexte en perpétuel mouvement. Il s'agit d'un cadre méthodologique, qui propose un ensemble d'outils et de techniques pour cette pratique, ramassé sous le terme général d'«urbanisme de contact». Il s'agit également d'un cadre épistémologique, car il propose un modèle conceptuel pour cette pratique, posant le jeu comme un outil créatif efficient dans la perspective de la spatialité dynamique. Ces propositions sont discutées dans leurs implications possibles pour la discipline, pour le rôle de l'architecte et pour les questions qu'elles soulèvent.

Les annexes contiennent, outre la table des figures et la bibliographie, des archives vidéo, audio et cartographiées des projets étudiés.

L'«urbanisme de contact» et ses outils

Cas d'étude

Les productions ayant servi de cas d'étude sont: le jeu urbain TabulaRosa, trois commandes de projet participatif – Architecture & handicap à Étrépagny, l'Écohameau à Saint-Cyr-en-Arthies, et le Parc mémorial en Île-de-France –, des protocoles d'exploration d'un territoire et la maison MMT à

Montreuil. Tous ces projets sont des variations sur les stratégies de jeu dans la conception architecturale et urbaine.

Le processus

Tout d'abord, nous avons interrogé le processus de la conception spatiale, sa dimension temporelle, et les actions de Polimorph pour assurer sa progression. Nous avons comparé deux projets caractérisés par leur démarche de coconception : Architecture & handicap à Étrépany, et l'Écohomeau à Saint-Cyr-en-Arthies.

Nous avons identifié deux aspects importants pour la conduite du processus créatif :

- des stratégies sont développées pour démultiplier et croiser les points de vue et les perspectives ; l'une des visées est de permettre de voir ce que nous ne cherchons pas. Cette méthode passe par le développement d'outils de déplacement et d'outils de cocréation.

- Pour assurer la progression du processus, nous alternons deux dispositifs complémentaires : des protocoles d'action pour ouvrir l'exploration, puis des objets relationnels pour ramasser et transposer une sélection de choix dans un format saisissable et partageable.

En couplant ces moyens de propulsion, nous maîtrisons la progression, même si nous ne pouvons pas prédire exactement où l'interaction nous mènera et ce qu'elle produira. Si l'on dissocie ce couple complémentaire d'impulsions divergentes puis convergentes, le concepteur fait face à un risque de dissipation du processus créatif et de blocage.

Le jeu est une composante essentielle de la régulation de la créativité, en ce sens qu'il stimule simultanément des dynamiques de conception divergentes et convergentes. Il sert à conduire le changement, mais aussi à désamorcer les situations conflictuelles lorsque le processus créatif menace d'échouer. Pour ce faire, on crée des cadres d'interaction ludique qui contiennent un mélange de jeu ouvert sans but précis (paidia) et de jeu avec un but à atteindre (ludus). Dans le jeu ouvert, la dérive est permise, on peut se laisser emporter d'un moment à l'autre par ce qui se passe. Il y a un principe de turbulence, d'improvisation

libre, d'épanouissement insouciant, qui manifeste une certaine fantaisie incontrôlée.

Pivots

Pouvons-nous, en tant que concepteurs, orienter les dynamiques d'interaction dans un mouvement de convergence vers l'élaboration d'une proposition? Pouvons-nous empêcher la dissipation?

Nous avons exploré les situations d'échange et les dynamiques d'interaction dans le jeu urbain «Tabula Rosa», pour élucider les mécanismes créatifs à l'œuvre et identifier des éléments jouant un rôle de pivot permettant de basculer vers un niveau de spécification plus élevé de la conception. En miroir, nous avons tâché de démêler les schémas perturbateurs qui ont conduit à des impasses et au blocage dans le projet «Parc mémorial».

Nous en tirons plusieurs constats.

Le contact avec l'altérité, qu'il s'agisse d'une chose étrangère, d'une situation non familière ou d'une personne inconnue, entraîne un trébuchement, un moment de décentrement, un décalage dans la perception. Un tel décalage cognitif brouille notre cadre de référence, nous ne savons pas comment interpréter la situation, ce qui entraîne une incertitude quant à l'action.

Ce moment de vacillation peut être créatif. Il est enthousiasmant de noter que, lorsqu'on donne aux gens un espace de jeu (Spielraum), la répression des perspectives conflictuelles n'intervient pas immédiatement. Au contraire, les gens continuent d'explorer, de se déplacer, de tâtonner, de tester une série de perspectives et de s'exprimer jusqu'à ce qu'ils trouvent une configuration qui leur donne suffisamment de prises pour arrêter des décisions. Jouer, donner du jeu comme marge de manœuvre, stimule le processus créatif.

La condition pour mener à bon terme un tel processus créatif est qu'il y ait un environnement d'interaction où le changement de position est possible et autorisé, où l'on laisse à tous les acteurs de l'espace et du temps pour tâtonner. Où l'on accepte que le processus ne soit pas verrouillé et que le résultat ne soit pas «joué» d'avance. Faute de quoi on aboutit à un retrait des acteurs et à une impasse.

Nous avons constaté que la mise en situation des échanges dans un cadre spatial concret permet de contrer le risque de dissipation. Dans une configuration spatiale, les choses tangibles sur lesquelles s'accrochent les résistances conduisent à affiner la dynamique d'interaction et stimulent le processus transformatif. Le cadre spatial devient un médium.

Les choses tangibles

Enfin, nous avons étudié le rôle des choses tangibles introduites dans la conception permettant à toutes les parties d'avoir prise dans le processus créatif et de s'inscrire dans l'échange. Nous avons examiné les protocoles d'action que nous avons déployés et affinés entre 2004 et 2015, et les motivations de leur évolution dans le temps.

Il s'agit d'abord d'outils d'exploration collective de l'existant, qui ont abouti par exemple aux protocoles d'action intitulés «l'Odyssée de l'espace» ou «la Carte sensible».

Nous avons observé que le degré d'entrée dans l'échange dépend de la capacité de chacun à se situer par rapport à une situation. Des dispositifs matériels, des objets relationnels, comme des prototypes urbains ou des installations, sont plus efficaces pour susciter l'engagement que, par exemple, de simples illustrations, générant plus de passivité. Parce qu'ils sont concrètement manipulables, ils offrent littéralement prise, ont le potentiel de porter une action transformationnelle dans le cadre d'efforts collectifs.

Dans la mise en œuvre de ces dispositifs, le concepteur veille :

- à inscrire tous les phénomènes, même ceux qui semblent immatériels ou fugaces, dans la dimension concrète et matérielle d'une situation,
- à toujours relier les éléments matériels d'un territoire aux pratiques et aux imaginaires qu'il suscite, pour saisir les dynamiques urbaines sous-jacentes en jeu,

Quels enseignements tirons-nous de cette recherche pour notre pratique de l'architecture et de l'urbanisme, et pour la discipline ?

Du point de vue de la discipline, cette thèse propose un modèle dynamique de l'espace. La spatialité dynamique, à la différence d'un modèle qui considère l'espace comme statique, examine comment une transformation spatiale se déploie dans le temps, comment une transformation spatiale est conçue comme un système de relations à travers une interaction perpétuelle entre les dimensions physiques, imaginées et vécues de l'espace.

Dans un paradigme dynamique, le contexte est considéré comme un milieu en constante évolution. Le défi auquel est confronté le concepteur peut donc être reformulé en termes de «comment intervenir dans un milieu et changer une situation en préservant sa vitalité?», plutôt que simplement: «quelle solution pour construire un bâtiment?»

La valeur de la spatialité dynamique tient en ce qu'elle fournit un cadre unique qui unifie la recherche, la conceptualisation et la pratique de la transformation spatiale comme un continuum.

Pour appréhender, dans notre pratique, une situation caractérisée par l'incertitude, l'instabilité, dont nous ne maîtrisons pas tous les paramètres, nous avons besoin de contact, nous avons besoin de jeu et nous avons besoin de prise.

- Nous déployons le contact pour générer des perspectives contradictoires et accélérer l'apparition de cadres de référence alternatifs – c'est déstabilisant, et c'est ce qui est bon!
- nous introduisons du jeu pour franchir ces turbulences et utiliser les écarts perturbateurs pour stimuler la créativité.
- et nous nous appuyons sur des constellations spatiales et des structures matérielles pour établir des liens, des relations et un point d'ancrage pour faciliter l'engagement.

Laisser place au jeu, dans ses différents sens, permet de prendre des positions différentes, d'appréhender les divergences et de stimuler une transformation profonde de la façon dont nous percevons et façonnons notre cadre de vie. Comprendre le potentiel du jeu comme moyen créatif de gérer des

perturbations de détourner les incohérences et de s'engager dans un environnement partagé avec l'autre, humain et non-humain, aux intérêts, besoins et désirs différents, conduit à l'élaboration d'un cadre pour la conception et la pratique de l'architecture et de l'urbanisme. Cette pratique considère la transformation de l'espace comme un système de relations dynamiques. Le cadre de la spatialité dynamique tisse la dimension physique, les représentations pluralistes et les actions dans le temps en une seule entité irréductible. Des outils spécifiques – des protocoles d'action, des objets relationnels et des techniques de mise en situation, le rythme et la préhension – sont appliqués dans cette pratique de conception spatiale dans le but d'engager des projets tout en restant sensible aux fluctuations de notre environnement. L'architecture s'avère alors apte à créer des situations à partir desquelles l'urbanité peut être pratiquée et des transformations peuvent se produire.

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cover image:

Côté cour, côté tours, action 1, Polimorph,
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