

Urban co-creation

Community planning, bottom-up and participation tools

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Doctoral school programme: Architectural, Civil and Urban Heritage
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*To my daughter Nayaa and to all the children of the world.
A small step towards a society that respects others and nature.*

*A mi hija Nayaa y a todas las niñas y niños del mundo.
Un pequeño paso hacia una sociedad respetuosa con las demás personas y con la
naturaleza.*

*À ma fille Nayaa et à tous les enfants du monde.
Un petit pas vers une société respectueuse d'autrui et de la nature.*

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ABSTRACT

Keywords: bottom-up, participation, community design, participatory tools

For whom do we transform our built environment? The answer may seem obvious, since architecture, in theory, is conceived for humans and for the emancipation of communities. However, it is clear that architecture has moved away in many ways from this initial purpose. Making our cities increasingly attractive through ambitious urban renovation campaigns, with renewed public spaces and neighbourhoods, has led to issues that are the consequences of an urbanism of exclusion. These include gentrification, social tensions and mass tourism. Recently, this situation has caused some to consider architecture and urbanism in a more inclusive way, from the perspective of neighbourhood communities and for the common good. Inherited from the twentieth century, participation processes, which are related directly with reclaiming the city, are now re-emerging in urban and architectural processes in democratic administrations. Sustainable, resilient, inclusive urban regeneration means working with inhabitants when cities are transformed, giving them the opportunity to collaborate in the city's creation. Today, these processes are evolving. New creative artistic tools are emerging that are changing the *modus operandi*.

However, there are many gaps, with so-called participatory processes that do not guarantee the real participation of local communities. It seems that there are still many doubts and misunderstandings about how to define participatory architecture and its processes, and there is a real need for a paradigm shift. The aim of this research is to provide an updated definition and interpretation of participation in architecture in urban spaces. The thesis is organised into three parts: (1) Retrospective, (2) Tools and (3) Co-creation Experiments.

The first part (1) consists of an organised retrospective of participation in history, to clarify the concept and understand all its facets. The second part (2) examines the creation of methodology for participatory action with new and traditional tools (information and communication technology, mapping, big data cartographies, artistic and creative tools such as urban sketching, tactical planning, opinion polls and collaborative websites, among others). This is achieved by classifying the tools into a taxonomy, generated through an analysis of several past and recent case studies in which the real stakeholders in urban planning – its users – co-designed the project. By combining the tools, we should be able to build a methodology or a guide for co-creation workshops. Finally, the last part (3) describes experiments in which our students collaborated with the local community, hopefully to encourage a change in habits and mindset. In fact, we show how the momentum should start from universities and education, relying on artistic co-creation as a participatory and project medium. In other words, the idea is to work creatively together for the common good.

RESUMEN

Palabras claves: Bottom-up, participación, diseño comunitario, diseño colaborativo, instrumentos de participación.

¿Para quién hacemos arquitectura y ciudad? la respuesta puede parecer obvia, ya que la arquitectura, en teoría, se dedica a construir para la humanidad y la emancipación de sus comunidades. Sin embargo, está claro que también se ha alejado en muchos aspectos de este primer objetivo. Hacer que nuestras ciudades sean cada vez más atractivas a través de ambiciosas campañas de renovación urbana, con espacios públicos y vecindarios renovados, también ha llevado a problemas emergentes, consecuencias de un urbanismo de exclusión. Este último se expresa a través de la gentrificación, tensiones sociales, y turismo de masas. Afortunadamente, esto ha llevado recientemente pensar de una manera más inclusiva desde las comunidades locales. Heredados del siglo XX, los procesos de participación, que están directamente relacionados con la recuperación de la ciudad, ahora están resurgiendo en procesos urbanos y arquitectónicos en administraciones democratizadoras. La regeneración urbana sostenible, resiliente e inclusiva significa trabajar con los habitantes cuando las ciudades se transforman, dándoles la oportunidad de colaborar en la creación de la ciudad. Hoy en día, estos procesos evolucionan: emergen nuevas herramientas artísticas creativas que cambian el modus operandi.

Sin embargo, hay muchas brechas actuales, con los llamados procesos participativos que no garantizan la participación real de las comunidades locales. Parece que todavía hay malentendidos sobre lo que es la arquitectura participativa, así como sus procesos, mientras que existe una necesidad real de cambio paradigmático. Esta investigación propone dar una respuesta y una interpretación renovada de la participación en la arquitectura, y más exactamente en los espacios urbanos, organizadas en tres partes: (1) retrospectiva, (2) herramientas y (3) experimentos de co-creación.

La primera parte (1) consiste en una retrospectiva organizada de participación en la historia para aclarar su concepto y comprender su diversidad de facetas. La segunda parte (2) revela la creación de una metodología para la acción participativa con herramientas nuevas y tradicionales (tecnología de la información y las comunicaciones, mapeo, cartografías de big data, herramientas artísticas y creativas como bosquejos urbanos, planificación táctica, encuestas de opinión y sitios web colaborativos, entre otros), a través de su clasificación en una taxonomía. La taxonomía se ha generado a través de un análisis de varios estudios de casos históricos y recientes en los que sus usuarias y sus usuarios, co-diseñaron el proyecto. Al combinar las herramientas, deberíamos ser capaces de construir una metodología o una guía para talleres de co-creación. Finalmente, la última parte (3) involucra experimentos en los cuales nuestras y nuestros estudiantes colaboran con la comunidad local, con la esperanza de alentar un cambio en los hábitos y la sensibilidad. De hecho, mostraremos cómo debe comenzar el impulso desde las universidades y la educación, confiando en la co-creación artística como medio participativo y proyectual. En otras palabras, trabajar creativamente juntos por el bien común.

RÉSUMÉ

Mots-clés: Bottom-up, participation, conception communautaire, conception collaborative, instruments de participation.

Pour qui transformons-nous notre environnement bâti ? La réponse peut sembler évidente puisque l'architecture, en théorie, conçoit pour l'être humain et pour l'émancipation de ses communautés. Néanmoins, il est clair qu'elle s'est également éloignée à bien des égards de ce premier objectif : la transformation de nos villes afin de les rendre plus attractives, à travers d'ambitieuses campagnes de rénovation urbaine, avec des espaces publics et des quartiers renouvelés, a également conduit à des enjeux émergents, qui sont les conséquences d'un urbanisme de l'exclusion. Ce dernier s'exprime à travers la gentrification (ou embourgeoisement), l'augmentation des tensions sociales ou encore l'abandon à un scénario de tourisme de masse. Ces conséquences ont récemment amené à penser l'urbanisme d'une manière plus inclusive en travaillant avec et depuis les communautés d'un lieu donné. Hérité du XXème siècle, les processus de participation, directement liés à la récupération de la ville, apparaissent désormais dans les outils d'urbanisme reconnus par les administrations démocratiques. Une régénération urbaine durable et flexible, exige de travailler avec les habitants, en leur donnant la possibilité de collaborer directement à la création de la ville. Aujourd'hui, ces processus évoluent : de nouveaux outils artistiques et technologiques créatifs émergent, ce qui change le modus operandi.

Cependant, il existe actuellement de nombreuses lacunes, avec des processus soi-disant participatifs qui ne garantissent pas une participation réelle des communautés locales. Il semble qu'il existe encore de nombreux doutes et malentendus sur ce qu'est l'architecture participative ainsi que sur ses processus, alors qu'il y a un réel besoin de changement paradigmatique. Cette recherche a pour objectif d'apporter une réponse et une interprétation renouvelée de la participation appliquée à l'architecture et aux espaces urbains. Cette thèse est organisée en trois parties : (1) Rétrospective, (2) Outils et (3) Expériences de cocréation. La première partie (1) consiste en une rétrospective organisée de la participation qui permet de clarifier son concept et de comprendre la diversité de ses facettes. La deuxième partie (2) met en évidence la création d'une méthodologie d'action participative avec des outils nouveaux et traditionnels (technologies de l'information et de la communication, cartographie, big data, outils artistiques et créatifs tels que l'esquisse urbaine, la planification tactique, les sondages d'opinion et les sites collaboratifs, entre autres). Ces instruments ont été classés dans une taxonomie générée par l'analyse de nombreux cas d'études dans lesquelles les véritables acteurs de l'urbanisme - ses utilisateurs et ses utilisatrices - ont conçu ensemble le projet. En combinant les outils, nous devrions pouvoir construire une méthodologie à l'image d'un guide pour les ateliers de cocréation. Enfin, la dernière partie (3) implique des expériences dans lesquelles nos étudiantes et nos étudiants collaborent avec la communauté locale, dans l'espoir d'encourager un changement d'habitudes et de sensibilité. De fait, nous montrerons comment cet élan devrait commencer depuis l'éducation et le monde universitaire, en s'appuyant sur la cocréation artistique comme médium participatif. En d'autres termes, travailler ensemble, de manière créative et positive, pour le bien commun.

FOREWORD

This work is the result of a study undertaken by Bruno Sève, under the supervision of Ernest Redondo, PhD, from the Department of Architectural Representation at the Barcelona School of Architecture (ETSAB), Universitat Politècnica de Catalunya (UPC), and Roberto Segal, PhD, from the Urban Planning Laboratory of the École Polytechnique Fédérale de Lausanne (EPFL).

As a doctoral thesis for the Department of Architectural Representation at the UPC, this research should be read with an understanding of several complex facets that should be clarified. Although we mention participation repeatedly, the research is more about Architecture (with a capital letter). Or at least, it is about an interpretation and a shared vision of what architecture should be. We mean sustainable architecture for the common good, which works with its users to transform, protect and improve the built and natural environment. These are complicated times, in which we can no longer submit architecture to the nefarious, vicious effects of an ultra-productive society that often overlooks vulnerable groups and has led us to a palpable climate emergency. In this context, this study is presented as a step towards the paradigm shift that has already been initiated by numerous groups in the twentieth century, and even earlier, as we will see. However, this research also aims to provide a constructive, positive vision of the subject, based on several themes. Hence, the need to bring together two thesis directors specialised in different fields, as well as many other groups working on these issues, such as Dr. Zaida Muxi, a specialist in architecture from a gender perspective, and artists and designers working on social issues, such as the ETSAB thematic project workshop Arquitectes de Capçelera, Makea, Ya + K, or the Open Space Workshop (Taller Espacios Abiertos). In addition, working in different contexts seemed essential. That is why we worked actively for three years in Mexico, with the Faculty of Architecture, University City of the Universidad Autónoma Benito Juárez de Oaxaca (UABJO), with the research professors Fabricio Lázaro Villaverde and Juan Manuel Gastéllum Alvarado, and in Switzerland with the École Polytechnique Fédérale de Lausanne (EPFL).

Thus, our study represents an interpretation of Architecture that is based on several pillars: urban and territorial transformation, of course; sociology and anthropology; the notion of community and architecture without architects; pedagogy and education, for a paradigm shift in universities; sustainability and environmental education; and, above all, creation, specifically artistic and architectural expression. We consider the latter the mediating factor in the process, to generate continuous interest in the participatory architectural process and build concrete urban transformation actions.

PRÓLOGO

Este trabajo es fruto de la investigación realizada por Bruno Sève, bajo la dirección del Doctor Arquitecto Ernest Redondo, del departamento de Representación Arquitectónica de la ETSAB (Escuela Técnica Superior de Arquitectura de Barcelona) de la UPC (Universidad Politécnica de Cataluña), y el Doctor Arquitecto Urbanista Roberto Segá, del laboratorio de Urbanismo de la EPFL (École Polytechnique Fédérale de Lausanne).

Su lectura como tesis doctoral, para el departamento de representación Arquitectónica de la UPC (Universidad Politécnica de Cataluña), debe entenderse desde varias facetas complejas. En este sentido, debemos aclarar esta cuestión al lector. En sí, aunque hablaremos una y otra vez de participación, aquella investigación trata más bien de Arquitectura (con una mayúscula). O por lo menos de una interpretación y una visión compartida de lo que debería ser la arquitectura. Es decir, no trata en su esencia de arquitectos, y tampoco de arquitectas, sino de aquella arquitectura sostenible para el bien común, que se trabaja con sus usuarios y sus usuarias para transformar, proteger y mejorar el entorno construido y natural. Son tiempos complicados, en los cuales no podemos someter más la arquitectura a los efectos nefastos y viciosos de una sociedad sobre productiva que deja demasiadas veces de lado colectivos vulnerables y nos ha llevado a una emergencia climática palpable. En este contexto, este trabajo se presenta como un avance en el cambio de paradigma ya iniciado por numerosos colectivos en el siglo XX (e incluso antes, como lo veremos). No obstante, aquella investigación pretende aportar una visión constructiva y positiva del tema, basándose en varias temáticas. De ahí la necesidad de reunir a dos directores de tesis especializados en diferentes campos, así como a muchos otros colectivos que trabajan en estos temas, como la doctora Zaida Muxi, especialista en arquitectura con perspectiva de género, o artistas y diseñadores trabajando en cuestiones sociales, como el taller temático de proyecto “Arquitectes de Capçalera” de la ETSAB, las asociación Makea, Ya+K o el Taller Espacios Abiertos. También, trabajar en contextos diferentes nos pareció primordial: es la razón por la cual hemos trabajado estos tres años activamente en México, con la facultad de Arquitectura Ciudad Universitaria de la UABJO (Universidad Autónoma Benito Juárez de Oaxaca) con los profesor investigadores Fabricio Lázaro Villaverde y Juan Manuel Gastéllum Alvarado, pero también en Suiza, con la EPFL (École Polytechnique Fédérale de Lausanne). Así, nuestro trabajo representa una interpretación de la Arquitectura, que se apoya en varios pilares: la transformación urbana y territorial, por supuesto; la sociología y la antropología; la noción de la comunidad y la arquitectura sin arquitectos y sin arquitectas; la pedagogía y la educación, para un cambio de paradigma en las universidades; la sostenibilidad y la educación ambiental; pero sobre todo la creación, y más bien la expresión, representación artística y arquitectónica. Consideramos esta última como la clave mediadora en el proceso para generar un interés continuo en el proceso arquitectónico participativo y construir acciones concretas de transformación urbana.

PROLOGUE

Ce travail est le résultat d'une recherche menée par Bruno Sève, sous la direction du Docteur Architecte Ernest Redondo, du Département de Représentation Architecturale de l'École d'Architecture de Barcelone "ETSAB" (Escuela Técnica Superior de Arquitectura de Barcelona) de l'UPC (Université Polytechnique de Catalogne), et du Docteur Architecte urbaniste Roberto Segal, du Laboratoire d'urbanisme de l'EPFL (École Polytechnique Fédérale de Lausanne).

Sa lecture en temps que thèse de doctorat pour le Département de Représentation Architecturale de l'UPC (Université Polytechnique de Catalogne), doit se comprendre sous plusieurs facettes complexes. En ce sens, nous devons clarifier cette question au lecteur. Bien que nous parlions à maintes reprises de participation, cette recherche porte davantage sur l'Architecture (en majuscule), ou, du moins, sur une interprétation et une vision partagée de ce que devrait être l'architecture. Il s'agit d'une architecture durable pour le bien commun, qui travaille avec ses utilisateurs et utilisatrices pour transformer, protéger et améliorer l'environnement bâti et naturel. Nous vivons des temps complexes, dans lesquels nous ne pouvons plus soumettre l'architecture aux effets néfastes et vicieux d'une société ultra productive qui laisse souvent de côté les groupes vulnérables et nous a conduits à une urgence climatique palpable. Dans ce contexte, ce travail est présenté comme une avancée dans le changement de paradigme déjà amorcée par de nombreux groupes du XXe siècle (et même antérieurement, comme nous le verrons). Cependant, cette recherche vise à fournir une vision constructive et positive du sujet, basée sur plusieurs thèmes. D'où la nécessité de réunir deux directeurs de thèse spécialisés dans des domaines différents, ainsi que de nombreux autres groupes travaillant sur ces questions, comme la Dr. Zaida Muxí, spécialiste en architecture avec une perspective de genre, ou des artistes et designers travaillant sur des questions sociales, comme l'atelier de projet thématique ETSAB "Arquitectes de capçelera", Makea, Ya + K ou l'Open Space Workshop (ou Taller Espacios Abiertos). En outre, travailler dans des contextes différents nous a semblé essentiel: c'est la raison pour laquelle nous avons activement collaboré ces trois années au Mexique, avec la Faculté d'Architecture, Ville Universitaire de l'UABJO (Universidad Autónoma Benito Juárez de Oaxaca) avec les professeurs chercheurs Fabricio Lázaro Villaverde et Juan Manuel Gastéllum Alvarado, mais aussi en Suisse, à l'EPFL (École Polytechnique Fédérale de Lausanne). Ainsi, notre travail représente une interprétation de l'architecture, qui repose sur plusieurs piliers: la transformation urbaine et territoriale, bien sûr; la sociologie et l'anthropologie; la notion de communauté et d'architecture sans architectes, c'est à dire une vision pré-industrielle ou traditionnelle; la pédagogie et l'éducation, pour un changement de paradigme dans les universités; la durabilité et l'éducation environnementale; mais surtout la création ou l'expression artistique et architecturale. Nous considérons cette dernière comme la clé de médiation du processus pour susciter un intérêt continu dans le processus architectural participatif et construire des actions concrètes de transformation urbaine.

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The number of people who have influenced, assisted and shaped this thesis is great for a simple reason: research in participatory and community architecture can only be undertaken with a considerable number of groups and people. Of the many that have influenced this thesis, two people stand out in particular.

The first is Ernest Redondo, PhD, my first thesis director. I would like to express my deep gratitude for his positive energy, advice on writing articles, infinite patience and ideas for the creation of avant-garde participation projects. The second is the urbanist Roberto Segal, PhD, my second director, with whom we had numerous online meetings between Lausanne and Barcelona. I am sincerely grateful for all the contributions, added value and clarifications.

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Todas las influencias, ayudas que han dado forma a esta tesis son numerosas por una razón simple: la investigación en arquitectura participativa y comunitaria solo se puede hacer relacionándose con un número considerable de colectivos y personas. De las muchas que han dado forma a esta tesis, debo reservar dos lugares especiales:

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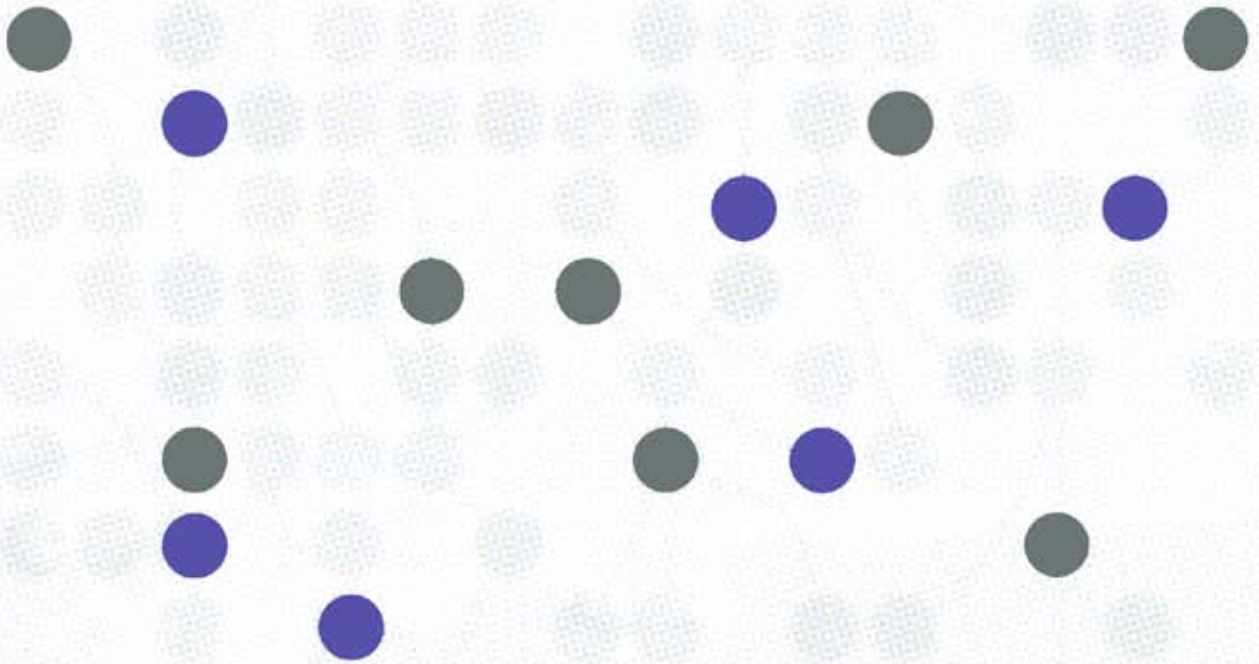
Je souhaite également remercier, au Mexique, les architectes Fabricio Lázaro Villaverde, Juan Manuel Gastéllum Alvarado et l'architecte Mireya Márquez López, pour leurs implications respectives dans la recherche connexe et d'autre part, les groupes d'architecture, d'art et de sociologie qui ont participé, comme «Raons Publiques» avec Carlos López et Anna de Torrontegui, «Col·lectiu Punt 6», Albert Flores de «Makea», Carla Boserman, les «Iconoclasistas » avec Julia Ares et Pablo Ares, « Colectivo Tomate », « Quirhort », « BAM » (« bioarquitectura mediterránea »), « taula pere eix IV » parmi tant d'autres. Je n'oublie pas non plus mes groupes d'étudiants et plus précisément cette fraction qui aspire à construire un monde meilleur ainsi que toutes les personnes qui ont participé aux ateliers et aux interviews, comme les commerçants de Tlacolula de Matamoros au Mexique.

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ACRONYMS

AAA	Atelier d'Architecture Autogérée
AR	Augmented Reality
BAM	Bioarquitectura Mediterránea Mediterranean Bioarchitecture
BC	Before Christ
BCE	Before Common Era
BCN	Barcelona
CIAM	Congrès internacionaux d'architecture moderne
CSOA	centro social okupado autogestionado
DIY	Do It Yourself
DT	Digital technology
ENSAPB	Ecole National Supérieur de Paris Belleville
EPFL	Ecole Polytechnique Fédérale de Lausanne
ETSAB	Escuela Técnica Superior de Arquitectura de Barcelona
FAHHO	Fundación Alfredo Harp Helú Oaxaca
ICT	Information and Communications Technology
IS GLOBAL	Instituto de Salud Global
GATPAC	Grup d'Arquitectes i Tècnics Catalans per al Progrés de l'Arquitectura Contemporània
GIS	Geographic Information Systems
HUL	Historic Urban Landscape
OSW	Open Space Workshop
MOMA	Museum of Modern Art
MSU	urban social movements
PGM	Plano General Metropolitano
PPGIS	Participatory Planning Geographic Information
RSVP	Resources Scores Valuation Performance
RTS	Reclaim The Streets
SMT	Sistema de Mercados Tradicionales
TEA	Taller Espacios Abiertos
VR	Virtual Reality
UABJO	Universidad Autónoma Benito Juárez de Oaxaca
USK	Urban SKetching
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPC	Universidad Politècnica de Catalunya
WHO	World Health Organization
XML	eXtensible Markup Language



Introduction

Research summary: highlights

In one sentence, the thesis of this research is to update the interpretation of participatory and bottom-up architecture¹, specifically in urban projects, through the study of historical and recent experiences, to understand which creative tools are at our disposal, study them and experiment with them in what we call “co-creation workshops”. We define creative tools as all the practices that allow involvement of the local population in diverse ways, not only to understand their needs but to involve them actively. These tools include self-construction, participatory games and new information and communication technologies. Although it may seem surprising, this is not a study on citizen participation. Instead, we examine and call for real artistic and architectural creation applied for the purposes of social and ecological inclusion, working directly not only for but most of all with the local community. The introduction to this research, contains the main elements for its understanding in English, French and Spanish. The highlights of this research are:

- Clarification of the concept of genuine participation in urban processes, with differentiation of three participatory architecture paradigms:

- (1) Architectural practice without an architect, associated with self-organised and historical communities.

- (2) The set of participatory actions in the urban space that has emerged with urban struggles, in the middle of the last century.

- (3) Participatory urban planning methodologies created since the second part of the twentieth century.

- The creation of a taxonomy, with an intelligible graphic matrix, drawn up from various case studies based on the three groups of practices above. The taxonomy is used to determine the four main characteristics of a participatory project:

- (1) Its creative tools, such as the use of drawing, notes, images, interviews, surveys and assemblies. The direct occupation of an urban space through community gardening, self-build or self-intervention, with tactical urbanism through urban DIY. Exploratory routes, traditional markets, participatory games, models, mappings and digital technology.

- (2) The time needed to undertake the experience, counted in multiple of hours, days or months.

¹ And by extension, community architecture and bottom-up processes.

(3) The urban space involved, such as a building (generally abandoned or in poor condition), a public space claimed by the local population, an empty plot or other residual space, reclaimed and used by the neighbourhood, an entire neighbourhood, etc.

(4) The purpose of the participatory action, from understanding the community's needs to the construction of the project. This could involve exploration and observation, diagnosis or data collection, which is normally used at the beginning of the urban project. It could also mean claiming a place, creating or reinforcing a local community and co-creation, that is, the design of the project collectively. In addition, it could mean testing the project with some temporary architecture, environmental education or self-construction and direct use, if possible in the context of the project.

By finding the common denominators of the case studies, we can imagine different combinations that allow the analysis of new case studies and the development of new experiences, in the manner of a concise guide.

- The incorporation of cases studies of good practices and our own experiments, carried out with several architecture schools and taking the ETSAB as a reference, with the Open Spaces workshop (Taller Espacios Abiertos) and Arquitectos de Cabecera. Exercises of tactical urbanism, including the transformation of an old train station and its wagons into a cultural centre for the neighbourhood in Oaxaca de Juárez, and the transformation of a public parking space with temporary architecture in Barcelona to test and reclaim it for civic use. In addition, we have carried out an artistic exercise for observation and data collection with our new elective course called Urban Notes, specially designed for the ETSAB. It involves exploratory routes with members of communities and students, urban drawing and collective maps. On this occasion, it was possible to develop our own methodology for its use in architecture schools, with quantitative and qualitative results that demonstrate the motivation of the student body. In addition to the community and moral aspect, these activities demonstrate cross-cutting learning about real cases that involves many aspects of the profession such as urban planning, architecture, construction, sketching and the creative process.

Finally, we have to consider that this research must continue beyond our doctoral thesis to train urban planners, architects, landscape designers and citizens of tomorrow. We believe that participatory research should not only be developed in the professional world, but also start directly in the university. Taking our students onto the streets to act directly on urban reality means that they will someday improve their practice by incorporating co-creation into it. Thus, they will participate in the construction of a better natural, architectural, built and social environment.

Síntesis de la investigación: resultados clave

La tesis de esta investigación, en una frase, propone una evolución en la interpretación de la arquitectura participativa, y más peculiarmente, en el proyecto urbano, a través del estudio de experiencias tanto históricas como recientes. Pretende visualizar cuáles son las herramientas creativas a nuestra disposición, estudiarlas y experimentar con ellas en talleres que llamamos “co-creación”. Entendemos como herramientas creativas todas aquellas prácticas que permiten implicar a la población local de maneras muy diversas, no sólo para comprender sus necesidades sino involucrarla de una manera activa. Aquellas herramientas van desde la autoconstrucción, pasando por los juegos participativos, hasta las nuevas tecnologías de la información y comunicación. El lector encontrará en la introducción de esta investigación, escrita en tres idiomas inglés, francés y castellano, los elementos principales para su comprensión. Los resultados destacables de esta investigación son:

- La aclaración del concepto de la participación genuina dentro de los procesos urbanos, con la diferenciación de tres paradigmas de arquitectura participativa:

- (1) La práctica arquitectónica sin arquitecto, asociada a comunidades autoorganizadas e históricas.
- (2) El conjunto de acciones participativas en el espacio urbano que han aparecido con las luchas urbanas, a mediados del siglo pasado.
- (3) Las metodologías de planificación urbana participativas.

- La elaboración de una taxonomía, con una matriz gráfica inteligible, elaborada desde casos de estudios diversos (procedentes de los tres grupos de prácticas enunciadas) para determinar las cuatro principales características de un proyecto participativo:

- (1) Sus herramientas creativas, como la utilización del dibujo y de otros apuntes y notas, tanto para descubrir un lugar como para lluvia de ideas colectivas. Las entrevistas a personas clave y en dinámicas colectivas, pero también las encuestas y las asambleas. La ocupación directa de un espacio urbano y particularmente, la jardinería comunitaria, la autoconstrucción o la auto-intervención, con el urbanismo táctico a través del bricolaje urbano. Las rutas exploratorias, el intercambio -y la venta- de servicios y bienes tradicionales y locales, los juegos participativos, la utilización de la imagen, modelos, mapeos y la tecnología digital.
- (2) El tiempo necesario para desarrollar la experiencia, contado por múltiples de horas, días o meses.
- (3) El espacio urbano involucrado, como un edificio (generalmente abandonado o en mal estado), un espacio público reclamado por la población local, una parcela vacía u otro espacio residual, reclamado y utilizado por la vecindad, un barrio entero, etc.
- (4) El propósito de la acción participativa, desde el entendimiento de las necesidades de una comunidad hasta la construcción del proyecto. Es decir, la exploración y la observación,

el diagnóstico o la recolección de datos, normalmente utilizado al principio de proyecto urbano. La reivindicación de un lugar, la creación o el refuerzo de una comunidad local, la co-creación, o lo que es lo mismo, el diseño del proyecto de manera colectiva. También la prueba del proyecto con alguna arquitectura efímera, la educación ambiental, pero también la autoconstrucción y la utilización directa, si el contexto, por supuesto, lo permite.

Al encontrar los denominadores comunes de los casos de estudio, podemos entonces imaginar combinaciones diversas, que permiten tanto el análisis de nuevos casos, como la elaboración de nuevas experiencias, a la manera de una guía sintética. Cabe mencionar, por supuesto, algunos límites de nuestra taxonomía, que no permite una explicación exhaustiva, y que debe acompañarse por tanto de la redacción de textos anexos.

- La integración de casos de estudio de buena praxis, y de experimentos propios, elaborados con varias escuelas de arquitectura, con la ETSAB como referente, con el Taller Espacios Abiertos (Open Spaces workshop) y Arquitectxs de Capçalera. Ejercicios de urbanismo táctico, con la transformación de una vieja estación de tren y de sus vagones en centro cultural para el barrio en Oaxaca de Juárez, y ocupación de espacios viales con arquitectura efímeras en Barcelona. También ejercicios artísticos para la observación y la recopilación de datos con la optativa elaborada “Urban Notes”, concebida especialmente para la ETSAB, que involucra rutas exploratorias con las comunidades y los estudiantes, dibujo urbano y mapas colectivos. En esta ocasión, se ha podido elaborar una metodología propia para su utilización en las escuelas de arquitectura, con resultados tanto cuantitativos como cualitativos que demuestran la motivación del cuerpo estudiantil. Además del aspecto comunitario y moral, estas actividades demuestran un aprendizaje transversal sobre casos reales que involucra muchos aspectos de la profesión como el urbanismo, la arquitectura, la construcción y el proceso creativo.

Finalmente, tenemos considerar que esta investigación debe seguir más allá de nuestra tesis doctoral para formar urbanistas, arquitectos, paisajistas y ciudadanos del mañana. Es decir, creemos que la investigación participativa no solo debe desarrollarse en el mundo profesional, sino que debe empezar directamente en la universidad. Sacar nuestro cuerpo estudiantil a la calle para actuar directamente sobre la realidad, integrar naturalmente la co-creación significa que podrán en su momento mejorar la praxis y nuestro entorno natural, arquitectural, construido y social.

Résumé de la recherche: points principaux

La thèse de cette recherche, en une phrase, propose une évolution de l'interprétation de l'architecture participative d'approche ascendante (bottom-up) et plus particulièrement du projet urbain, à travers l'étude d'expériences historiques et récentes, pour comprendre quels sont les outils créatifs à notre disposition, les étudier et les expérimenter dans des ateliers que nous appelons «co-création». Nous comprenons comme outils créatifs toutes ces pratiques qui permettent d'impliquer la population locale de manières très diverses, non seulement pour comprendre leurs besoins mais aussi pour les impliquer de manière active. Ces outils vont de l'auto-construction, en passant par les jeux participatifs aux nouvelles technologies de l'information et de la communication. Bien que cela puisse sembler curieux, il ne s'agit pas d'une recherche sur la participation citoyenne, mais plutôt d'étudier et de revendiquer une authentique création artistique et architecturale appliquée aux fins de l'inclusion sociale et écologique en travaillant directement non seulement pour mais surtout avec la communauté locale. Le lecteur trouvera dans l'introduction de cette recherche, les principaux éléments de sa compréhension. Les points principaux de cette recherche sont:

- La clarification du concept de véritable participation aux processus urbains, avec la différenciation de trois paradigmes d'architecture participative:

- (1) Pratique architecturale sans architecte, associée à des communautés auto-organisées et historiques.
- (2) L'ensemble des actions participatives dans l'espace urbain ayant émergé avec les luttes urbaines, au milieu du siècle dernier.
- (3) Méthodologies d'urbanisme participatif créées depuis la seconde partie du XXe siècle.

- L'élaboration d'une taxonomie, avec une matrice graphique intelligible, élaborée à partir de divers cas d'études (des trois groupes de pratiques cités) pour déterminer les quatre principales caractéristiques d'un projet participatif:

- (1) Ses outils créatifs, comme l'utilisation du dessin, des notes, des images et des interviews, mais aussi des sondages et des assemblées. L'occupation directe d'un espace urbain et plus particulièrement le jardinage communautaire, auto-construit ou auto-intervention, avec l'urbanisme tactique à travers du bricolage urbain (DIY). Itinéraires exploratoires, marchés traditionnels, jeux participatifs, modèles, cartographies et technologie numérique.
- (2) Le temps nécessaire pour développer l'expérience, compté en heures, jours ou mois.
- (3) L'espace urbain concerné, tel qu'un immeuble (généralement abandonné ou en

mauvais état), un espace public revendiqué par la population locale, une parcelle vide ou tout autre espace résiduel, récupéré et utilisé par le quartier, tout un quartier, etc.

(4) Le but de l'action participative, de la compréhension des besoins d'une communauté à la construction du projet, à savoir l'exploration et l'observation, le diagnostic ou la collecte de données, normalement utilisés en début de projet urbain; la revendication d'un lieu, la création ou le renforcement d'une communauté locale, la co-création, c'est-à-dire la conception du projet lui-même collectivement; également le test du projet avec une architecture éphémère, une éducation environnementale mais aussi une auto-construction et une utilisation directe, si le contexte du projet le permet.

En cernant les dénominateurs communs des études de cas, on peut alors imaginer différentes combinaisons, qui permettent à la fois l'analyse de nouvelles études de cas et le développement de nouvelles expériences, à la manière d'un guide synthétique.

- L'intégration d'études de cas de bonnes pratiques et d'expériences propres, élaborées avec plusieurs écoles d'architecture, avec l'ETSAB comme référence, avec le "Taller Espacios Abiertos" et «Arquitectxs de capçelera». Il s'agit notamment d'exercices d'urbanisme tactique, avec la transformation d'une ancienne gare et de ses wagons en centre culturel pour le quartier d'Oaxaca de Juárez, et la transformation de stationnements en superficie dans l'espace public avec des architectures éphémères à Barcelone pour le tester et le récupérer pour un usage civique. En outre, nous avons exécuté un exercice artistique d'observation et de collecte de données avec un nouveau cours optionnel intitulé "Urban Notes", spécialement conçu pour l'ETSAB. Il s'agit d'itinéraires exploratoires avec les communautés et les étudiants, de dessins urbains et de cartes collectives. À cette occasion, il a été possible de développer notre propre méthodologie pour son utilisation dans les écoles d'architecture, avec des résultats à la fois quantitatifs et qualitatifs qui démontrent la motivation des étudiantes et étudiants. En plus de l'aspect communautaire et moral, ces activités démontrent un apprentissage transversal sur des cas réels qui impliquent de nombreux aspects de la profession tels que l'urbanisme, l'architecture, la construction, l'esquisse et le processus créatif.

Enfin, il faut considérer que cette recherche doit se poursuivre au-delà de notre thèse de doctorat pour former urbanistes, architectes, paysagistes et citoyens de demain. Autrement dit, nous pensons que la recherche participative ne devrait pas seulement être développée dans le monde professionnel, mais devrait commencer directement à l'université. Emmener nos élèves dans la rue pour agir directement sur la réalité urbaine, qui à leur tour pourront intégrer ces outils dans leur pratique et ainsi participer à leur tour à un meilleur environnement naturel, architectural, bâti et social.

Objectives

The aim of this study was to find new community, participatory and bottom-up mechanisms, which act at local level and together have regenerative power at global scale. The idea was to move towards inclusive, participatory, sustainable urbanism. This type of urban planning is characterised by direct participation and the participants' personal commitment to transform spaces that are full of latent opportunities into new places for community bonding and social attraction. The places could be urban voids, poorly managed public spaces or abandoned buildings. The collaboration involves residents and neighbourhood groups, as well as technicians such as architects, urban planners and sociologists. The use of these methods is intended to ensure that the voice of citizens is heard and that they are involved as responsible stakeholders, inducing a change in thinking and habits. The focus of this research is to distinguish between the idealised perspective of the Architect (seen from above or the top), and that of the inhabitants, from below, which is the perspective of the lived-in city, with which metaphors, meanings, images, memories and desires are associated (from below or the bottom).

The main objective is to define, analyse and clarify the participatory mode of action and its many facets. How can we propose real participation in urban regeneration? First, we must define what participation is. Indeed, it is important to note the difference between passive participation, such as citizen participation, and genuine participation, which also includes bottom-up processes and grassroots movements. Participation should be much more than simply consulting the population. It requires inhabitants to be direct actors in the urban regeneration project. Although it is impossible to avoid completely, we will not enter the political sphere of what is known as citizen participation, which is usually a complex process. Instead, we will focus on the essence of participation, defined in the second chapter of this study. In France, for example, citizen participation in ambitious urban projects is a complex process, governed by well-defined laws. However, this participation is expressed more as communication or agreement than true, active participation. For this reason, here we include not only public projects, but also local community architecture generated without architects.

How do we encourage this participation? What creative, representative and expressive tools are available for planning urban regeneration? Is it also possible to provoke, like a chemical reaction, the emergence of bottom-up processes for urban transformation? These questions lead to the second purpose of this research: to examine in depth the creative mechanisms of participation in urban regeneration. From the classification of numerous case studies, we drew up a taxonomy of creative mechanisms. We identified and verified several creative tools, which can take place in the form of workshops or activities such as participatory drawing, writing (as a brainstorming method), interviews, surveys, assemblies and meetings, the direct occupation of an urban space, urban gardens, urban DIY and tactical

urbanism, exploratory routes, the exchange of services or products, participative games, the use of images or models as a means of communication, and digital technology or mapping. Artistic creation stands out as a common point in many participatory experiences, as do games and other community activities that we try to probe for field work. Let us remember that in *Homo Ludens* (1938), the Dutch philosopher Johan Huizinga analysed the social and cultural importance of play and stated that the act of playing is inherent to human culture. As for artistic creation, drawing, for example, is a mode of expression that, without the need for words, represents an obvious universal language.

The third objective is to experiment, re-analyse and propose practices that the author and other collaborators have developed, using some combinations of reinterpreted tools. In our case, we have worked extensively in our co-creation workshops with urban sketching, assemblies, brainstorming and urban DIY or tactical urbanism, in collaboration with associations and involving our students in the experiments. Beyond the experiment, the interest lies in proposing pedagogical and teaching methods for schools of architecture and urban planning.

Finally, the last objective was to establish a creative method for urban regeneration. The method had to be ordered, concise and understandable so that it could be used by those who want to undertake a timely urban regeneration process. The aim was also to create a thesis with the utmost academic rigor that is accessible to various groups. However, it should also have sufficient scope to be adopted in universities, as a pedagogical and educational means and to propose an alternative way of understanding architecture.

Objetivos

Este trabajo tiene como objetivo encontrar nuevos mecanismos comunitarios, participativos y ascendentes, que actúen a nivel local y que, en conjunto, tengan un poder regenerativo a escala global. Se trata de abordar un urbanismo inclusivo, participativo y sostenible. Esta planificación se caracteriza por la participación directa y el compromiso personal de los participantes para transformar espacios llenos de oportunidades latentes, como vacíos urbanos, espacios públicos mal administrados o edificios abandonados, en nuevos lugares de vinculación comunitaria y atracción social. Es entonces una colaboración entre los habitantes y grupos de un barrio, y por otro lado los técnicos, como arquitectos, urbanistas, sociólogos, etc. El uso de estos métodos no solo pretende escuchar la voz de los ciudadanos sino también que se involucren como actores responsables, induciendo un cambio en el pensamiento y los hábitos. Esta investigación quiere distinguir entre la perspectiva idealizada del Arquitecto (vista desde arriba), y la de los habitantes, desde abajo, de la ciudad practicada, a la que se asocian metáforas, significados, imágenes, recuerdos y deseos (desde abajo).

El objetivo principal es: definir, analizar y aclarar el modo de acción participativo y sus numerosas facetas. ¿Cómo plantear una participación real en la regeneración urbana? Esto significa primero definir qué es la participación. En efecto, es importante notar la diferencia entre una participación pasiva, como lo suele ser la participación ciudadana, y una participación verdadera, que incluye también los bottom-up processes. Digamos sencillamente que la participación debe ser mucho más que una simple consulta a la población, sino que exige a los habitantes ser unos actores directos en el proyecto de regeneración urbana. Por otra parte, aunque la rozaremos inevitablemente es importante apuntar que no entraremos en la esfera política de la llamada participación ciudadana, que suele ser un proceso complejo, sino que nos concentramos en la esencia de la participación, definida en el segundo capítulo de esta investigación. En Francia, por ejemplo, la participación ciudadana en los proyectos urbanos ambiciosos es un proceso complejo regido por leyes muy definidas. No obstante, esta participación se manifiesta más en una comunicación o en una concertación que una verdadera participación activa. Por esta razón, aquí no solo tratamos de estudiar proyectos públicos, sino arquitecturas comunitarias generadas sin arquitectos o arquitectas.

¿Pero entonces, cómo animar a esta participación? ¿Qué herramientas creativas, representativas y de expresión disponemos a la hora de proyectar una regeneración urbana? También, ¿es posible provocar, como una reacción química, la aparición de procesos ascendentes para la transformación urbana? Estas cuestiones hacen que se plantee el segundo objetivo: profundizar en los mecanismos creativos de la participación en la regeneración urbana. Desde la clasificación de numerosos casos de estudio, elaboramos una taxonomía de mecanismos creativos. Se ha podido comprobar y aislar varias herramientas creativas,

que pueden tener lugar en forma de talleres o actividades variadas, como son, por ejemplo: el dibujo participativo, la escritura (como método de brainstorming), las entrevistas, las encuestas, las asambleas y reuniones, la ocupación directa de un espacio urbano, los huertos urbanos, el bricolaje urbano y el urbanismo táctico, las rutas exploratorias, el intercambio de servicio o de productos, los juegos participativos, el uso de la imagen o los modelos como medio de comunicación, pero también la tecnología digital o el mapeo. Destaca como punto en común entre numerosas experiencias participativas la creación artística, pero también el juego, y otras actividades comunitarias que tratamos de sondear para el trabajo de campo. Recordemos que en su libro *Homo Ludens*, el filósofo holandés Johan Huizinga analiza la importancia social y cultural que conlleva el juego, y que el acto de jugar es consustancial a la cultura humana. En cuanto a la creación artística, el dibujo, por ejemplo, es un modo de expresión que, sin necesidad de palabras, representa un lenguaje universal evidente.

El tercer objetivo es experimentar, volver a analizar y proponer prácticas que el autor y otros colaboradores han desarrollado, utilizando algunas combinaciones de herramientas reinterpretadas. En nuestro caso, hemos trabajado ampliamente nuestros talleres de co-creación con el dibujo urbano (urban sketching), las asambleas, los brainstorming y el bricolaje urbano (Urban DIY o urbanismo táctico) colaborando con asociaciones, e involucrando nuestro cuerpo estudiantil a experimentar. Pero más allá del experimento, el interés reside en una propuesta de métodos pedagógicos y de enseñanza para las escuelas de arquitectura y de urbanismo.

Finalmente, el último objetivo será establecer de manera concisa un método creativo para la regeneración urbana. Este será ordenado, conciso y entendible para que pueda ser utilizado por los que quieran emprender un proceso de regeneración urbana puntual. Esta tesis pretende por igual aportar el mayor rigor académico y ser entendible por varios colectivos. Pero el objetivo final será también el de instaurarse en la universidad, como medio pedagógico y educativo y proponer una manera alternativa de entender la arquitectura.

Objectifs

Ce travail vise à trouver de nouveaux mécanismes communautaires, participatifs et ascendants, qui agissent au niveau local et qui ont ensemble un pouvoir régénérateur à une échelle globale. Il s'agit d'approcher un urbanisme inclusif, participatif et durable. Cette planification est caractérisée par la participation directe et l'engagement personnel des participants à transformer des espaces pleins d'opportunités latentes, tels que vides urbains, espaces publics mal gérés ou bâtiments abandonnés, dans de nouveaux lieux de lien communautaire et d'attraction sociale. C'est alors une collaboration entre les habitants et les groupes d'un quartier d'une part, et les techniciens, tels que les architectes, les urbanistes, les sociologues, etc., d'autre part. L'utilisation de ces méthodes n'est pas seulement destinée à écouter la voix des citoyens mais également à les impliquer en tant qu'acteurs responsables, induisant un changement de mentalité et d'habitudes. Cette recherche veut distinguer la perspective idéalisée de l'Architecte (vue d'en haut - haut), et celle des habitants, d'en bas, de la ville pratiquée, à laquelle sont associées métaphores, significations, images, souvenirs et désirs (du dessous - bas).

L'objectif principal est de définir, analyser et clarifier le mode d'action participatif et ses multiples facettes. Comment proposer une réelle participation à la régénération urbaine? Cela signifie d'abord définir ce qu'est la participation. En effet, il est important de noter la différence entre une participation passive, telle que la participation citoyenne, et une véritable participation, qui inclut également les processus ascendants et les mouvements populaires. La participation doit être bien plus qu'une simple consultation de la population et oblige les habitants à être des acteurs directs du projet de régénération urbaine. D'autre part, bien que nous en discutons inévitablement, il est important de souligner que nous n'entrerons pas dans la sphère politique de la soi-disant participation citoyenne, qui est généralement un processus complexe, mais plutôt que nous nous concentrerons sur l'essence de la participation, défini dans le deuxième chapitre de cette enquête. En France, par exemple, la participation citoyenne à des projets urbains ambitieux est un processus complexe régi par des lois bien définies. Cependant cette participation se manifeste plus dans une communication ou une concertation qu'une véritable participation active. Pour cette raison, nous essayons ici non seulement d'étudier des projets publics, mais aussi des architectures communautaires locales générées sans architectes.

Mais alors, comment encourager cette participation? De quels outils créatifs, représentatifs et d'expression disposons-nous pour projeter une régénération urbaine? Est-il possible de provoquer également, telle une réaction chimique, l'émergence de processus bottom-up pour la transformation urbaine? Ces questions conduisent à un second objectif: approfondir les mécanismes créatifs de participation à la régénération urbaine. À partir de la classification de nombreuses études de cas, nous avons élaboré une taxonomie des mécanismes créatifs. Il a été possible de vérifier et d'isoler plusieurs outils créatifs, qui peuvent prendre la

forme d'ateliers ou d'activités diverses, tels que le dessin participatif, l'écriture (comme méthode de remue-méninges), des entretiens, des enquêtes, des assemblées et des réunions, l'occupation directe d'un espace urbain, des jardins urbains, le bricolage urbain et l'urbanisme tactique, des itinéraires d'exploration, l'échange de services ou de produits, des jeux participatifs, l'utilisation d'images ou de modèles comme moyen de communication, mais aussi la technologie numérique ou la cartographie. La création artistique se démarque comme un point commun parmi de nombreuses expériences participatives, mais aussi les jeux et autres activités communautaires que nous essayons de sonder pour le travail de terrain. Rappelons-nous que dans *Homo Ludens* (1938), le philosophe néerlandais Johan Huizinga analyse l'importance sociale et culturelle du jeu, et que l'acte de jouer est inhérent à la culture humaine. Quant à la création artistique, le dessin, par exemple, c'est un mode d'expression qui, sans besoin de mots, représente un langage universel évident.

Le troisième objectif est d'expérimenter, de ré-analyser et de proposer des pratiques que l'auteur et d'autres collaborateurs ont développées, en utilisant quelques combinaisons d'outils réinterprétés. Dans notre cas, nous avons travaillé sur nos ateliers de co-création avec des croquis urbains, du brainstorming et du bricolage urbain (Urban DIY ou urbanisme tactique) en collaboration avec des associations, et en impliquant nos étudiants. Au-delà de l'expérience, l'intérêt réside dans la proposition de méthodes pédagogiques pour les écoles d'architecture et d'urbanisme.

Enfin, le dernier objectif sera d'établir de manière concise une méthode créative de régénération urbaine. Celle-ci sera ordonnée, concise et compréhensible afin qu'elle puisse être utilisée par ceux qui souhaitent entreprendre un processus de régénération urbaine en temps opportun. Cette thèse vise également à apporter la plus grande rigueur académique et à être compréhensible par différents groupes. La portée de ces pistes pourra s'installer à l'université, comme moyen pédagogique, ce qui signifie une manière alternative de comprendre l'architecture.

Structure of the thesis

In this section, we provide a more exhaustive summary of the research. The study is divided into three parts: **Architecture city and participation. A retrospective (1), Bottom-up and participatory tools (2), Experiments (3)**

1. Architecture, city and participation. A retrospective

This part provides the theoretical foundation of the research and is divided into three subchapters.

In the first, what started as a deep reflection on the state of the art of participatory architecture turned into a necessary clarification: what is participation in architecture? An examination of the opinions and views of experts in the field revealed some misunderstandings in the field of urban processes. Generally, when municipalities propose citizen participation processes, they are simple consultations, rather than genuine community participation. In addition, there are numerous views of what participation in Architecture can and should be. This led us to describe the numerous facets of participatory architecture, define the concept of participation in its essence, and its historical origin that came at a time of change, with the revolutions of the 1960s and 1970s. This is followed by a reflection on misunderstandings and examples of false participation, including basic theories such as “A Ladder of Citizen Participation” (Ladder A., 1969), and an idealised interpretation by the author.

In the second, we describe the three great typologies of genuine participatory architecture that have very different origins:

The first genuine participatory experience corresponds to architectural practices without architects, often related to community vernacular architecture: practices (whatever obsolete or not) that stand out in the world and in human history. They include organic urban forms and self-build practices such as those presented in 1964 in the exhibition *Architecture without Architects* at the MoMA (Rudofsky, 1964). By extension, in Latin America these self-build practices can be real urbanistic proposals, as studied by Turner (1976). They have inspired numerous architects, such as Walter Segal. Since this research deals with ways of transforming the urban environment, beyond self-build we find in this subchapter traditional means of management that occur in communities, such as *tequio*, voluntary group work in Mexico to clean towns and construct municipal buildings, and the spontaneous urban occupations generated by street markets in Mexico called *tianguis*.

The origins of the second participatory practice can be traced to the middle of the twentieth century, with the neighbourhood struggles that emerged in various democratic cities. We mention the contributions of Jane Jacobs in New York and what happened in Europe, with

the right to the city (Lefebvre, 1968) and the awakening in universities through the essays and practices of Giancarlo De Carlo, among many others. This was a time of change, in which the functionalist model that had been in place since industrialisation was challenged. Speculation and the capitalist system were criticised, as well as architecture that bowed to this system, in which the architect's role had been subverted (Giancarlo De Carlo, 1969). Parallel to this change in thought, urban protest actions emerged: occupation of the public space, empty plots or abandoned buildings in the neighbourhood that over time transformed the space in a self-sufficient way. Liz Christy's garden, for example, is the first and oldest community garden in New York City, which has been recovered by the neighbourhood since 1973, when Christy formed the world-famous urban and community gardening movement, the Green Guerrillas. Today, tactical urbanism is an extension of neighbourhood struggles. All these grassroots practices are usually instruments of protest and urban awareness.

The third practice is the emergence of participatory urban planning or of real participatory processes. These are participation methods imagined for architectural and urban projects, whether by sociologists, urban architects, artists or any other qualified specialist in the field. In this part, we discuss dialogue and data collection instruments to understand the needs of the community and establish guidelines for the architectural and urban project. These include cognitive media, such as the contributions of Lynch with his mental maps (1960) or the explanations of Jane Jacobs (1961), both of which allow us to understand the city from the user's perception; artistic media in urban space, such as sensory and artistic experiments to activate and involve citizens in the design of their environment by Lawrence & Anna Halprin (Blancafort and Reus, 2015); and Sanoff's (2000) methods of community participation in design and planning. Finally, new generation architecture collectives "naturally" integrate new ways of thinking about architecture in a participatory way, including all the previous legacy. They mix new creative visions and new media (such as digital technology) and integrate cooperation networks with neighbourhoods and communities.

2. Bottom-up and participatory tools & taxonomy

The second part of the research identifies and lists the participatory tools with their respective characteristics. In the first part, these topics were addressed more superficially, while in the second part numerous case studies are analysed and classified taxonomically. The taxonomy is first described, based on a wide range of participatory practices that can be classified according to their characteristics. Case studies can be divided into categories such as: the combination of tools, time, urban space involved and the purpose of the participatory case studies. A taxonomic table was developed to make it easy to understand. As a template, it can be used to analyse or propose participatory practices, with different degrees of complexity. Through the presentation and analysis of a range of case studies, we show the usefulness of the taxonomy for case study analysis and proposals of experiments. The concise analysis of over 45 case studies with the taxonomy covered the three participatory practices that were stated in the first part, that is:

- Architectural practices without architects, associated with self-organised and historical communities, experiences of self-construction and of spontaneous occupation of public space such as that of some markets in the world or other voluntary efforts, particularly those that we have studied in more depth in Oaxaca de Juárez in Mexico.
- Actions and reactions in the urban space such as experiences of urban gardens, with case studies in Barcelona, including Quirhort, a space self-managed by the neighbourhood on an unoccupied plot. Other cases are Critical Mass, an event that brings cyclists together to claim the use of sustainable mobility, Park(ing) Day and other tactical urban planning actions that use urban DIY as a catalyst for regeneration and urban demand, for example, the “urban recipes” of Santiago Cirugeda.
- The third corresponds to the results of participatory urban planning and community planning that lead to a wide range of participatory practices. In this group, we find projects in which there are discussions with the population, such as the agreement process for the historical centre of Toulouse with Prof. Joan Busquets; proposals by the architect Aravena with his house models that allow flexibility, appropriation and personalisation of the domestic space; methodologies to transform and build the urban space, with tools collected from Raons Publiques, La Col or Col·lectiu Punt 6, including exploratory routes, collective maps, and interviews with the community; and the latest generation digital tools, such as virtual reality applied to participation in the urban project and GIS participation.

3. Fieldwork & Experiences

We think that a paradigm shift must occur in the university and teaching framework, which is why we are carrying out creative experiments that work directly on a range of urban realities. In this chapter, we refer to other similar university workshops, like Rural Studio and its practical approach in which students build for vulnerable groups in the USA, and Arquitectos de Cabecera (AC), an approach to the city that emerged from an assembly movement comprised of students and teachers at the Barcelona School of Architecture (ETSAB) in 2013. We describe our co-creation concept, whose approach and theoretical material was developed in our workshop. The latter are experiments that intervene directly in the urban space in-situ with mechanisms of temporary installations, urban DIY and urban drawing. In this section, we present the Open Space Workshops (Taller Espacios Abiertos), held in Mexico and Barcelona. We also describe our latest elective course called Urban Notes, developed with the architectural representation department. This is a hybrid urban drawing workshop with on-site exploratory routes, in which AC members have participated, such as Zaida Muxi, professor.

As a conclusion of the research, we reaffirm where the paradigm shift should occur, and our role, responsibility and duty as architects, teachers and researchers. In all cases, we present a vision of architectural education based on artistic empiricism, that is, the desire to take students out of academic classrooms to: first, understand the city and its communities by observing the tangible and the intangible; second, interact with the local community; and third, transform the city. This means training our future professionals to contribute to new sustainable and community visions.

Estructura de la tesis

El lector puede encontrar en este subcapítulo un resumen más exhaustivo de la investigación. Nuestra investigación se estructura en tres partes: **Arquitectura, ciudad y participación(1), Instrumentos para la participación activa y mecanismos bottom-up. Taxonomía. (2), Experimentos (3).**

1. Arquitectura, ciudad y participación

Esta parte representa el fundamento teórico de la investigación dividido en tres subcapítulos.

En el primero, lo que debía empezar como una reflexión profunda sobre el estado de arte de la arquitectura participativa se ha ido transformando en una aclaración necesaria: ¿qué es la participación en arquitectura? Incluyendo opiniones y visiones de expertos en el campo, hemos detectado primero que existe unos malentendidos en el ámbito de los procesos urbanos: las municipalidades que proponen procesos llamados de participación ciudadana, representan en una mayoría de casos unas simples consultaciones, y no llegan a ser una participación genuina de las comunidades. Además, existen numerosas facetas y visiones sobre lo que puede y lo que debería ser la participación en Arquitectura. Esto nos llevó a describir primero la diversidad de las facetas de la arquitectura participativa, definir el concepto de la participación en su esencia, y su origen histórico que llegó en un momento de cambios, con las revoluciones de los años 60s y 70s. Le sigue una reflexión sobre los malentendidos y ejemplos de falsa participación, incluyendo teorías básicas como “A ladder of citizen participation” (Ladder A., 1969), y una interpretación idealizada por el autor.

En el segundo subcapítulo, enunciamos las tres grandes tipologías de arquitectura participativas genuinas que tienen orígenes muy distintos:

La primera práctica participativa genuina corresponde a las prácticas arquitectónicas sin arquitectos, a menudo relacionadas con la arquitectura vernácula comunitaria: prácticas (extintas o no) que se destacan en el mundo y en la historia de la humanidad. Formas urbanas orgánicas, prácticas autoconstruidas como las presentadas en 1964 en la exposición “Arquitectura sin arquitectos” en el MoMA (Rudofsky, 1964). En América Latina, por extensión, estas prácticas de autoconstrucción pueden ser propuestas urbanísticas reales, según lo estudiado por Turner (1976). Estas prácticas inspiraron a numerosos arquitectos, como Walter Segal. Más allá de la autoconstrucción, dado que esta investigación aborda formas de transformar el entorno urbano, también vemos en este subcapítulo los medios tradicionales de gestión que se producen en las comunidades, como el tequio, un trabajo grupal voluntario en México que actúa no solo en el cuidado de pueblos, sino también en

la construcción de edificios municipales, y las ocupaciones urbanas espontáneas generadas por los mercados callejeros llamados en México “tianguis”.

La segunda práctica participativa encuentra su origen a mediados del siglo XX, con las luchas vecinales en varias ciudades democráticas. Mencionamos a las aportaciones de Jane Jacobs en Nueva York, pero también a lo sucedido en Europa, con *el derecho a la ciudad* (Lefebvre, 1968), y el despertar en las universidades con los ensayos y prácticas de Giancarlo De Carlo entre muchos otros. Es un momento de cambio, que desafía el modelo funcionalista ya empezado desde la industrialización. Una crítica abierta no solo a los grupos especuladores y al sistema capitalista, sino también a una arquitectura sumisa a este sistema, con una desviación negativa del rol del arquitecto (Giancarlo De Carlo, 1969). En paralelo a este cambio de pensamiento, aparecen acciones urbanas de reivindicación: ocupación del espacio público, de parcelas vacías o de edificios abandonados por la vecindad que con el tiempo transforman el espacio de manera autosuficiente. El jardín de Liz Christy, por ejemplo, es el primer y más antiguo jardín comunitario en la ciudad de Nueva York, que fue recuperado por la vecindad desde el 1973, cuando la ciudadana Christy formó el mundialmente conocido movimiento de jardinería urbana y comunitaria “the green guerillas”. Hoy en día, el urbanismo táctico es una extensión de las luchas vecinales. Todas estas prácticas, suelen ser instrumentos de protestas y de conciencia urbana.

La tercera práctica es la emergencia de un planeamiento urbano participativo, o de un proceso participativo auténtico. Son métodos de participación imaginados para los proyectos arquitectónicos y urbanos, tanto por sociólogos, arquitectos urbanistas, artistas o cualquier otro especialista calificado en el campo. En esta parte vemos instrumentos de diálogo y de recopilación de datos para entender las necesidades de la comunidad y establecer pautas para el proyecto arquitectónico y urbano: medios cognitivos, como las aportaciones de Lynch con sus mapas mentales (1960) o la visión de Jane Jacobs (1961), ambos que permiten entender la ciudad desde la percepción del usuario, medios artísticos en el espacio urbano, como los experimentos sensoriales y artísticos para activar e involucrar a los ciudadanos en el diseño de su entorno de Lawrence & Anna Halprin (Blancafort and Reus, 2015); pero también los métodos de participación comunitaria en diseño y planificación de Sanoff (2000). Finalmente, colectivos de arquitectura de nueva generación que integran “naturalmente” nuevas formas de pensar la arquitectura de una forma participativa, incluyendo todo el legado anterior, que mezclan nuevas visiones creativas y nuevos medios (como la tecnología digital) e integran redes de cooperación con las vecindades y comunidades.

2. Instrumentos para la participación activa y mecanismos bottom-up. Taxonomía.

La segunda parte de la investigación determina y enuncia las herramientas participativas con sus respectivas características. Si en la primera parte, estos temas se han tocado más superficialmente, esta segunda parte analiza numerosos estudios de casos y los clasifica taxonómicamente. Primero se establece la taxonomía, entendiendo que existe una amplia variedad de prácticas participativas que se pueden clasificar según sus características. Estos estudios de casos se pueden clasificar según diferentes categorías: una combinación de herramientas, tiempo, espacio urbano involucrado y el propósito de los estudios de casos participativos. La tabla taxonómica ha sido desarrollada para que sea comprensible fácilmente. Como plantilla, puede usarse tanto para analizar como para proponer prácticas participativas, con diferentes grados de complejidad. A través de la presentación y el análisis de diversos estudios de casos, mostramos la utilidad de la taxonomía tanto para el análisis de casos como para las propuestas de experimentos. El análisis sintético de más de 45 casos de estudio con la taxonomía ha involucrado las tres prácticas participativas ya mencionadas en la primera parte, es decir:

- Las prácticas arquitectónicas sin arquitectos, asociadas a comunidades autoorganizadas e históricas, experiencias de autoconstrucción, de ocupación espontánea del espacio público, como puede ser la de algunos mercados en el mundo u otras gestiones voluntarias, más particularmente las que hemos estudiado de manera más profunda en Oaxaca de Juárez en México.

- Las acciones y reacciones en el espacio urbano, con las experiencias de huertos urbanos, con casos de estudios en Barcelona, como el “Quirhort”, autogestionado por la vecindad en una parcela no ocupada. Otros casos, como la “massa crítica”, evento que reúne ciclistas para reivindicar el uso de la bicicleta como movilidad sostenible, el park(ing) Day y otras acciones de urbanismo táctico que utilizan el bricolaje urbano como catalizador de regeneración y reivindicación urbana, a la imagen de las recetas urbanas de Santiago Cirugeda.

- El tercero corresponde a los resultados de la planificación urbana participativa y la planificación comunitaria, que conducen a una amplia gama de prácticas participativas. En este grupo, encontramos proyectos con diálogos con la población, como el “proceso de concertación” para el centro histórico de Toulouse con el Prof. Joan Busquets; propuestas del arquitecto Aravena con sus modelos de casas que permiten flexibilidad, apropiación y personalización del espacio doméstico; metodologías para transformar y construir el espacio urbano, con herramientas recolectadas de casos de Raons Publiques, La Col o Col·lectiu Punt 6, con rutas exploratorias, mapas colectivos, entrevistas con la comunidad.

Finalmente, herramientas digitales de última generación, como la realidad virtual aplicada a la participación en el proyecto urbano y los casos de participación con la tecnología SIG (sistema de Información geográfico).

3. Experimentos

Es en el marco universitario y de enseñanza donde pensamos que tiene que ocurrir el cambio de paradigma, para lo cual estamos aplicando experimentos creativos que trabajan directamente en diversas realidades urbanas. En este capítulo, primero nos referimos a otros talleres universitarios similares, como Rural Studio y su enfoque práctico que lleva a sus estudiantes a construir para grupos vulnerables en los EE. UU., y AC (Arquitectxs de Capçalera), un acercamiento a la ciudad nacido de una Asamblea movimiento formado por estudiantes y docentes de la Escuela de Arquitectura de Barcelona (ETSAB) en 2013. Enunciamos nuestro concepto de co-creación, con su enfoque y el material teórico desarrollado en nuestro taller. Estos últimos son experimentos que intervienen directamente en el espacio urbano con mecanismos de instalaciones efímeras, bricolaje urbano pero también dibujo urbano. Presentaremos aquí los talleres TEA / OSW, desarrollados en México y en Barcelona. También describiremos nuestro último curso lectivo llamado “Urban Notes”, desarrollado con el departamento de representación arquitectónica. Un taller de dibujo urbano híbrido con rutas exploratorias in situ, en el que han participado participantes de la enseñanza de AC, como la profesora Zaida Muxi.

Como conclusión de la investigación, reafirmamos dónde debería ocurrir el cambio de paradigma y nuestro papel, responsabilidad y deber como profesionales e investigadores. En todos los casos, es una visión de la educación arquitectónica basada en el empirismo artístico, de la voluntad de sacar a los estudiantes de las aulas académicas para primero, comprender la ciudad y sus comunidades, observando tanto lo tangible como lo intangible, segundo, interactuar con la comunidad local, y por último, transformar la ciudad. Esto significa capacitar a futuras y futuros profesionales para contribuir a nuevas visiones sostenibles y comunitarias.

Structure de la thèse

Le lecteur peut trouver dans ce sous-chapitre un résumé plus exhaustif de la recherche. Notre recherche est structurée en trois parties: Architecture, ville et participation (I), Outils ascendants et participatifs (II), Expériences (III).

1. Architecture, ville et participation

Fondement théorique de la recherche divisé en trois sous-chapitres.

Dans le premier, ce qui a commencé comme une réflexion approfondie sur l'état de l'art de l'architecture participative s'est transformé en une clarification nécessaire: qu'est-ce que la participation à l'architecture? En incluant les opinions et les visions d'experts à cet égard, nous avons d'abord détecté des malentendus dans le domaine des processus urbains: les municipalités qui proposent des processus appelés participation citoyenne, représentent dans la plupart des cas de simples consultations, mais ne signifient pas une véritable participation communautaire. De plus, il existe de nombreuses facettes et visions de ce qu'est la participation. Cela nous a conduits à décrire d'abord la diversité des facettes de l'architecture participative, à définir le concept de participation dans son essence et son origine historique. Elle est suivie d'une réflexion sur les malentendus et les exemples de fausse participation, en nous appuyant sur des théories de référence telles que "A ladder of citizen participation" (Ladder A., 1969) ainsi qu'une interprétation idéalisée par l'auteur.

Dans le deuxième sous-chapitre, nous énonçons les trois grandes typologies d'une véritable architecture participative qui ont des origines très différentes:

La première véritable pratique participative correspond à des pratiques architecturales sans architectes, souvent liées à l'architecture communautaire vernaculaire: des pratiques (qu'elles soient éteintes ou non) se démarquant dans le monde et dans l'histoire de l'humanité. Ce sont notamment des formes urbaines organiques, pratiques auto-construites comme celles présentées en 1964 dans l'exposition «Architecture sans architectes» au MoMA (Rudofsky, 1964). En Amérique latine, par extension, ces pratiques d'autoconstruction peuvent être de véritables propositions urbaines, comme l'a étudié Turner (1976). Elles ont inspiré de nombreux architectes, comme Walter Segal. Au-delà de l'auto-construction, puisque cette recherche porte sur les moyens de transformer l'environnement urbain, nous voyons également dans ce sous-chapitre des moyens de gestion traditionnels qui proviennent des communautés, comme le "tequio", un travail en groupe (bénévole) au Mexique qui agit non seulement dans le nettoyage des villes mais dans la construction de bâtiments municipaux,

et les occupations urbaines spontanées générées par les marchés de rue appelés au Mexique “tianguis”.

La deuxième pratique participative trouve son origine au milieu du XXe siècle, avec des luttes de quartier dans différentes villes démocratiques. On mentionne les contributions de Jane Jacobs à New York, mais aussi ce qui s’est passé en Europe, avec *le droit à la ville* (Lefebvre, 1968), et l’éveil dans les universités avec les essais et les pratiques de Giancarlo De Carlo, entre autres. C’est une époque de changement qui remet en cause le modèle fonctionnaliste déjà engagé depuis l’industrialisation. Une critique ouverte non seulement aux groupes spéculatifs et au système capitaliste, mais aussi à une architecture soumise à ce système, avec une déviation négative du rôle de l’architecte (Giancarlo De Carlo, 1969). Parallèlement à ce changement de mentalité, des actions urbaines de justification apparaissent: occupation de l’espace public, parcelles vides ou bâtiments abandonnés dans le quartier qui transforment au fil du temps l’espace de manière autosuffisante. Le jardin de Liz Christy, par exemple, est le premier et le plus ancien jardin communautaire de New York, qui a été récupéré par le quartier depuis 1973, lorsque la citoyenne Christy a formé le mouvement de jardinage urbain et communautaire de renommée mondiale «green guerilla». Aujourd’hui, l’urbanisme tactique est une extension des luttes de quartier. Toutes ces pratiques populaires sont généralement des instruments de protestation et de sensibilisation urbaine.

La troisième pratique est l’émergence d’une planification urbaine participative, ou d’un authentique processus participatif. Ce sont des modalités de participation imaginées pour des projets architecturaux et urbains, que ce soit par des sociologues, des architectes urbains, des artistes ou tout autre spécialiste qualifié dans le domaine. Dans cette partie, nous voyons des instruments de dialogue et de collecte de données pour comprendre les besoins de la communauté et établir des lignes directrices pour le projet architectural et urbain: médias cognitifs, tels que les contributions de Lynch avec ses cartes mentales (1960) ou les explications de Jane Jacobs (1961), qui nous permettent tous deux de comprendre la ville à partir de la perception de l’utilisateur ; médias artistiques dans l’espace urbain, tels que les expériences sensorielles et artistiques pour activer et impliquer les citoyens dans la conception de leur environnement par Lawrence & Anna Halprin (Blancafort et Reus, 2015) mais aussi les méthodes de participation communautaire de Sanoff (2000) à la conception et à la planification. Enfin, collectifs d’architecture de nouvelle génération qui intègrent «naturellement» de nouvelles façons de penser l’architecture d’une manière participative, y compris tout l’héritage précédent, qui mélangent de nouvelles visions créatives et de nouveaux médias (comme la technologie numérique) et intègrent des réseaux de coopération avec les quartiers et les communautés .

2. Bottom-up, outils participatifs & Taxonomie

La deuxième partie de la recherche détermine et énonce les outils participatifs avec leurs caractéristiques respectives. Si, dans la première partie, ces sujets ont été abordés plus superficiellement, cette seconde analyse de nombreuses études de cas les classe taxonomiquement. La taxonomie est d'abord énoncée, en comprenant qu'il existe une grande variété de pratiques participatives qui peuvent être classées selon leurs caractéristiques. Ces études de cas peuvent être classées selon différentes catégories: une combinaison d'outils, de temps, d'espace urbain impliqué et de l'objectif des études de cas participatifs. La table taxonomique a été développée pour être facilement compréhensible. En tant que modèle, elle peut être utilisée à la fois pour analyser ou pour proposer des pratiques participatives, avec différents degrés de complexité. À travers la présentation et l'analyse de diverses études de cas, nous montrons l'utilité de la taxonomie pour l'analyse des études de cas et les propositions d'expériences. L'analyse synthétique de plus de 45 études de cas avec la taxonomie a impliqué les trois pratiques participatives déjà énoncées dans la première partie, à savoir:

- Pratiques architecturales sans architectes, associées à des communautés auto-organisées et historiques, expériences d'auto-construction, d'occupation spontanée de l'espace public comme celle de certains marchés dans le monde ou d'autres efforts volontaires, plus particulièrement ceux que nous avons approfondis à Oaxaca de Juárez au Mexique.
- Actions et réactions dans l'espace urbain, avec les expériences des jardins urbains communautaires, avec des études de cas à Barcelone, comme le «Quirhort», autogéré par le quartier sur une parcelle inoccupée. D'autres cas, comme la "massa critica", un événement qui rassemble les cyclistes pour revendiquer l'utilisation d'une mobilité durable et non polluante, le park(ing) day et d'autres actions d'urbanisme tactique qui utilisent le bricolage urbain comme catalyseur de régénération et de revendication urbaine, comme les «recettes urbaines» de Santiago Cirugeda..
- Résultats de l'urbanisme participatif conduisant à un large éventail de pratiques participatives. Dans ce groupe, on retrouve des projets de dialogues avec la population, comme le «processus de concertation» du centre historique de Toulouse avec le Prof. Joan Busquets; les propositions de l'architecte Aravena avec ses modèles de maisons qui permettent flexibilité, appropriation et personnalisation de l'espace domestique; des méthodologies pour transformer et construire l'espace urbain, avec des outils collectés à partir des cas de "Raons Publiques", "La Col" ou le "Col·lectiu Punt 6", avec des itinéraires exploratoires, des cartes collectives, des entretiens avec la communauté. Enfin, des outils

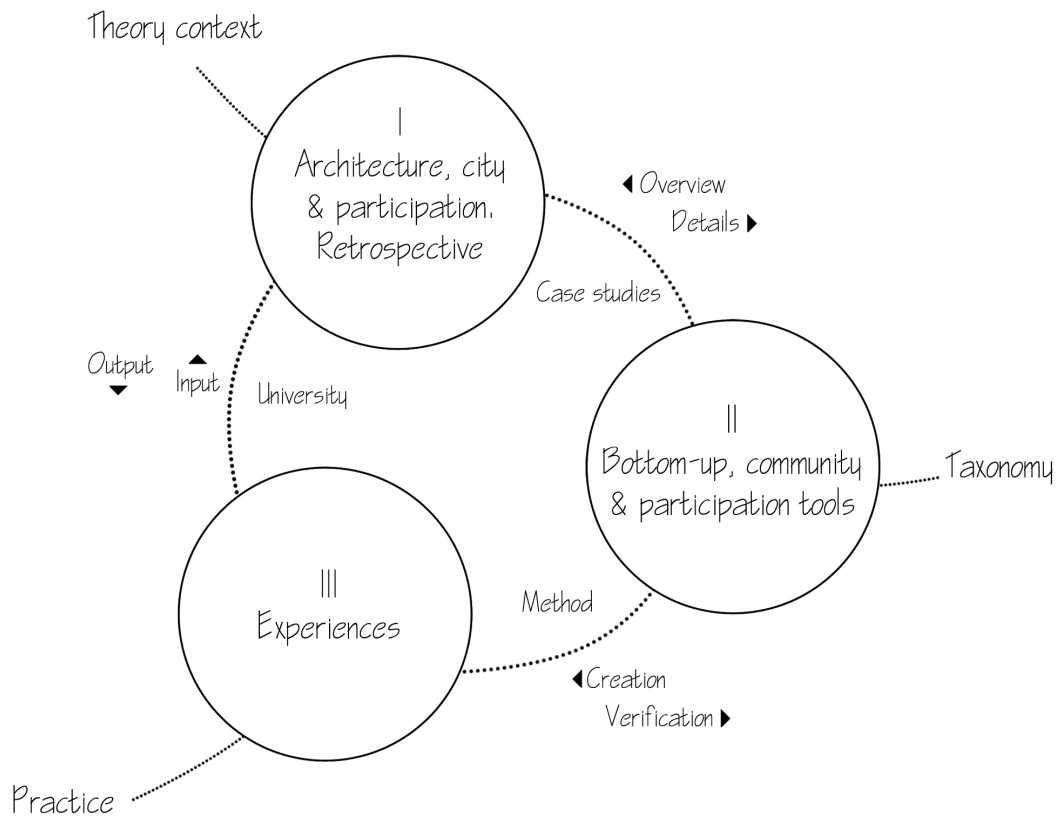
numériques de dernière génération, comme la réalité virtuelle appliquée à la participation au projet urbain et les cas de participation utilisant la technologie SIG (Système d'Information Géographique).

3. Expériences

C'est dans le cadre universitaire et pédagogique que nous pensons que le changement de paradigme doit se produire, pour lequel nous appliquons des expériences créatives qui travaillent directement sur des réalités urbaines diverses. Dans ce chapitre, nous faisons d'abord référence à d'autres ateliers universitaires similaires, comme Rural Studio et son approche pratique qui amène ses étudiants à construire pour les groupes vulnérables aux États-Unis, et AC (Arquitectxs de capçelera), une approche de la ville née d'un mouvement composé d'étudiants et d'enseignants de l'École d'architecture de Barcelone (ETSAB) en 2013. En ce qui concerne nos expériences, nous énonçons notre concept de co-création, avec son approche et le matériel théorique développé dans notre atelier. Ces dernières sont des expériences qui interviennent directement dans l'espace urbain in situ avec des mécanismes d'installations éphémères, de bricolage urbain mais aussi de dessin urbain. Nous présenterons ici les ateliers TEA / OSW, développés au Mexique et à Barcelone. Nous décrirons également notre dernier cours intitulé "Urban Notes", développé avec le département de représentation architecturale de l'ETSAB. Un atelier de dessin urbain hybride avec des itinéraires d'exploration sur place, auquel les participants à l'enseignement AC ont participé, comme le professeur Zaida Muxi.

En conclusion de la recherche, nous réaffirmons où le changement de paradigme devrait se produire, et notre rôle, responsabilité et devoir en tant qu'architectes, enseignant(e)s et chercheurs (-euses). Dans tous les cas, c'est une vision d'éducation architecturale basée sur l'empirisme artistique, d'une volonté de sortir les élèves des salles de classe académiques, afin de: tout d'abord comprendre la ville et ses communautés, en observant à la fois le tangible et l'intangible, ensuite, interagir avec la communauté locale, et enfin transformer la ville. Cela signifie former nos futurs professionnel(le)s à contribuer à de nouvelles visions durables et communautaires.

Pour conclure, nous souhaitons à nouveau mettre en exergue le cadre dans lequel devrait s'inscrire ce changement de paradigme en soulignant notre rôle, notre responsabilité et notre devoir en tant qu'architectes, enseignant(e)s et chercheurs (-euses).



Methodology

Figure 1

The relation between the three parts of the thesis. Source: author

The research is based on combining various levels of information, studies and experiments. Our research can be considered to be based on a hybrid methodology, with mixed approaches (Crewell J.W., 2013; Johnson, R.B & Onwuegbuzie, A.J., 2004). The thesis is divided into three parts (1. Architecture and participation: Clarification and retrospective, 2. Bottom-up and participatory tools, 3. Experiments) to meet the methodological aim of approaching the research from a historical and theoretical perspective, to answer a simple question: what is participation in architecture? The question is answered using case studies to determine a taxonomy of participatory tools, and fieldwork involving experiments that coordinate artistic and architectural creation with communities. The work was not carried out in a linear, chronological way, but in parallel, to allow a cyclical vision, in which feedback and synergies guided the research (Fig. 1). This is a compelling strategy, which the author has adopted on other occasions, albeit in very different research and project settings. One setting was work carried out as project manager for the rearrangement of public space in the Historic Centre of Toulouse, with Professor Joan Busquets. The project was approached from three visions and three scales to provide solutions, in parallel with a territorial study, a master plan at the scale of the historic centre and specific interventions. Synergies were created with the delivery of transformed urban spaces to the city, while on another scale an urban strategy could be pursued. In our research, this synergistic coordination between the three blocks allowed the study to progress gradually. However, we can describe the chronology of the study. A more superficial initial level of studies in the first year of research was followed by and a more exhaustive and in-depth second level in subsequent years.

Figure 2

The study area. Source: author.

First level of studies

We carried out a first level of superficial study, looking at and reviewing a basic bibliography on participation, architecture and urban projects, and we searched for some twenty cases of apparently participatory architecture studies. In this level we also included some experiences of the author and tried to incorporate a range of tools. After a brief review, we determined the main areas of work. Some of the literature in this first analysis was *Architecture's Public* by Giancarlo Darlo, *The Death and Life of Great American Cities* by Jane Jacobs and *The Image of the City* by Kevin Lynch. The case studies included the works of architects Susan Hoffman and Die Baupiloten, some emerging groups in Barcelona such as Raons Publiques and events like Park(ing) Day, urban garden spaces in Strasbourg and Barcelona, and traditional practices such as markets that use barter systems in Mexico or Barcelona. At the same time, we quickly organised a first participatory tactical urban planning experience called The Pavilion of Desires. As a result of this first level of study, in which we gained an overview of the subject, we formulated the first objectives of the research.

Second level of studies

In this second part of the studies, we undertook a deeper review of the literature, and incorporated some classics in urban planning, sociology and architecture, as well as papers on the subject describing recent studies. We will not quote the entire bibliography here, since it can be found at the end of this thesis, but we try to summarise by key themes some unexpected works. In the most theoretical part, we could highlight references that describe participation in the pre-industrial era. These include works such as the *Breve historia del urbanismo* by Chueca Goitia (1968) and the *History of Urban Form Before the Industrial Revolution* by Morris AEJ (1979). On Community architecture without architects we can of course quote *Tristes Tropiques* by Lévi-Strauss (1955), *Architecture Without Architects: A Short Introduction to Non-Pedigreed Architecture* by Rudofsky Bernard (1964) and the unpredictable work of John FC Turner (1977) on self-construction: *Housing by the People: Towards Autonomy in Building Environments*. This led us to rediscover the Segal method, as well as the anarchist vision of Colin Ward (2002) in *Cotters and Squatters: The Hidden History of Housing*.

On the paradigm shift and a critique of the modern movement, we can again refer to the works of De Carlo and Jane Jacobs, as well as Arnstein's famous "Ladder of Citizen Participation" that perfectly explains citizen control or citizen manipulation. In this part, we can also mention actions in the public space and claiming the city, with Lefebvre's *Droit à la ville* (1968) and Harvey's *Rebel City* (2012). These works, together with the Barcelona experience represented by Manuel Delgado in *La ciudad mentirosa: fraude y miseria del modelo Barcelona* (2007) or by Capel in *El modelo Barcelona: un examen crítico* (2005), teach us about the real status quo. In contrast, works such as *Barcelona i els moviments socials urbans* by Domingo, Clota, Bonet and Casas (1998) show us how the urban form and some public spaces have been the fruit of grassroots movements, that is, neighbourhood associations and groups that have been able to influence the design of public spaces in the city of Barcelona. On participatory methodologies, we should mention the famous methodologies of Sanoff (2000), as well as more recent works that bring together various experts in the field such as *Building Collectively* (2018) edited by Lacol, with contributions from Raons Publiques, Collectiu Punt6 or internationally *Architecture and Participation* (2005) edited by experts in the field such as Peter Blundell Jones, Doina Petrescu and Jeremy Till.

In the taxonomy part, we have focused on systematically examining case studies in Barcelona, the rest of Spain and Mexico, as well as other European and Latin American countries: collective architecture projects, Santiago Cirugeda, Open Space Workshops (Taller Espacios Abiertos), Critical Mass, el Quirhort, URB-I, Muf, Ya+k, BAM, GianCarlo

de Carlo, Atelier d'Architecture Autogérée (AAA), Debatomap, 300 000 km/s, Col·lectiu Punt 6, Raons Publiques, Lacol, Aldo Van Eyck, virtual reality applied to the urban project of the ETSAB architectural representation department, Colectivo Arquitectura Expandida, Rural Studios, old world markets and voluntary participatory operations such as tequio in Mexico, among many other practices. The projects were chosen both from the literature review in the first part, and on some occasions we carried out interviews, meetings and collaborations with some of the local architecture groups. Through classification by activities, tools, development time and objectives in dynamic tables, we developed a convincing taxonomy that helps to understand the modus operandi of participatory practices. Note that we have also included numerous bibliographic references on websites, since online media are widely used to disseminate experiences on our topic, participation, and as a direct tool. This is the case of some urban actions such as Critical Mass, Park(ing) Day or Green Guerrillas. Information of all kinds, data and encounters are usually found and are often described as associative groups and online collectives where a given author is unknown.

About the study area

We will highlight several areas of study, which also follow the idea of the three parts of the research. We tried to include an international view in the first level of studies and in the theoretical development, with equally important experiences in England, France, Spain, the United States and Mexico. However, we focused in-depth on a number of case studies and experiments in Barcelona and Oaxaca de Juárez in Mexico.

Barcelona was selected because it is where the author is affiliated and because of increasing interest in the subject in the city, with recent examples of quality participatory practices. In the university world are Arquitectos de Cabecera whose members include architects Josep Bohigas, Ibon Bilbao and Zaida Muxi. The author has carried out new experiments in Barcelona such as Urban Notes or the Open Spaces Workshop (Taller Espacios Abiertos). Another reason for choosing Barcelona is the relatively recent emergence of architecture collectives in which participation is the leitmotif of their projects, such as Col·lectiu Punt 6, Raons Públiques, Lacol and Voltes. Finally, Barcelona represents a model with a long urban tradition, with highly structured urban project strategies designed by illustrious architects and urban planners such as Ildefons Cerdà, Manuel Solà-Morales, Josep Bohigas and Joan Busquets, among many others. Although there is a lot of material on Barcelona's way of doing urbanism, what seems even more interesting to us is how it has also been the scene of social pressure, sometimes as a direct reaction. The emergence of urban social movements and social pressures have helped open the door to participation in Barcelona.

Oaxaca de Juárez in Mexico represents quite a different urban context. We decided to include and work on this city for various reasons. First, it is well-known by the author. In Oaxaca de Juárez we began to involve student groups with local communities to transform abandoned industrial spaces, which shaped a co-creation methodology. This was an unforgettable experience. Second, we selected this city because of the multitude of self-organised communities and impressive use of the public space. Tianguis, for example, are markets that are installed in urban spaces in a surprising way that give the place a very special atmosphere, even if their organisation is not controlled by the authorities. In addition, there are other bottom-up practices, called *tequio*, that involve communities in the care and construction of public works. In fact, there are a multitude of emerging and self-organising systems that define and transform the city, sometimes informally and often due to a lack of municipal resources. These solutions could be applied in European cities like Barcelona and sometimes allow the population a greater range of action. Vice versa, some European solutions and models could help improve the urban situation in Oaxaca de Juárez. This idea is not to state which is the most successful or attractive urban situation, but to study alternative project routes. We must always consider working for the common good and that unfortunately no model is free from flaws for other reasons (speculative pressure, poverty, etc.).

About the experiments: work on reality

In the logic of our work and reflection, experimentation is the basis for demonstrating thought. We cannot defend participatory work without including our own creative and participatory actions. The experiments described in this research are based on artistic co-creation. In the five experiences of the Open Spaces Workshop (*Taller Espacios Abiertos*), experimentation at 1/1 scale to transform the urban environment is achieved with micro architecture projects (urban DIY) using recovered materials and with the community of students and neighbours. *Urban Notes* is about observing, understanding or assessing spaces within the city through urban drawing, including round tables. The common point of all the experiments presented here is that they work on real problems. To analyse our experiments and evaluate our methods, we introduced scientific methods for feedback. The objective was to measure satisfaction with the experiments as participatory methods and their validity as educational and pedagogical tools for use in architecture schools. In this context, we developed a mixed or hybrid methodology in which research using various methods is the natural complement to traditional qualitative and quantitative research (Crewell J.W., 2013; Johnson, R.B & Onwuegbuzie, A.J., 2004). Indeed, our experiments and by extension our research in general has at its core qualitatively driven approaches in which the research study is essentially qualitative with aggregated quantitative data/methods to complement and enhance it. The quantitative method serves to provide added value and deeper research responses (Hesse-Biber, 2010).

Research motivation

The choice of subject is related to a personal conviction of the author, who sees in architecture a practice that goes beyond forms and functions through an ethical, social and ecological commitment. This conviction is supported by years of work and academic experience. Thus, the research focuses on three clear points: artistic creation, and more specifically its plastic or graphic expression; a sociological and ecological vision, with the inclusion of local communities; and the urban project. In this respect, territorial and urban transformation is considered an opportunity to create cities that are in tune with the environment, with operations to renature urban spaces, which cannot be successful if there is no direct involvement of inhabitants. Both history and the current state teach us that any urban process that is under renovation or urban construction can fail due to lack of citizen support. This is a fact that we documented in this work and was personally experienced by the author, although to a lesser extent, in some public participation meetings where tension with the local population was palpable. Blind confidence in an ultra-productive, capitalist model accompanied by models that may be too structured has failed several times. This has triggered several crises, first at the end of the 1960s, and then during the 2008 recession. A comforting fact is that protests emerged from both crises, in which action was taken to try to change and transform our society. From these protests, new urban transformation practices were born. However, we need new ideas for the current model to evolve.

The climate emergency represents a new challenge that must be registered in this paradigm shift. The belief that it can be solved with new technologies or from the decision-making sphere (governments) is insufficient, when we know it depends directly on our consumption and our habits. Here again, change can be made from the bottom-up. One example is clothing made in countries with exploited workers. The manufacture has minimal economic costs, but very high socio-environmental costs. The fact is that we know there are real alternatives, such as buying locally, with fair rules (fair trade) or simply buying or recovering second-hand clothes. The truth is that the success of these practices, which are sometimes supported by new technologies like digital platforms (for example Wallapop or Peerby), is due to several factors: the interaction and participation of users, the conviction of performing a civic act, real benefit for the user and a platform that is digital (application, web) or physical (market stalls). In addition, these practices allow transparency in the product use cycle.

If we extrapolate this way of operating to urban spaces, we can sense that participation should be more than a simple step before the execution of a project. In fact, the management of our urban spaces should be synonymous with citizen involvement to create, use, protect and hold accountable. Perhaps the most concrete example of active participation in cities are community gardens: vegetation is maintained by the local community, which is socially reinforced by enjoying gardening and organising events, and the city gains new green spaces. This is a virtuous circle. The synergy of mutual benefit is very similar to that of

ecosystems. We feel that urban projects should evolve towards a synergistic, community model. Fortunately, it seems that there is an awakening in municipalities, which are increasingly incorporating this kind of grassroots initiatives. The chains or subtle networks in the city is something that was demonstrated by Jane Jacobs, one of the most notable figures of urbanism in the second half of the twentieth century. For us, they represent sustainability, without necessarily hanging on to the label. It is essential to adopt an attitude of live and let live in cities' communities. We should observe actively and learn, otherwise we run the risk of unrealistic plans or erroneous projects.

Participatory processes and bottom-up practices are in full expansion in any democratic country. New technologies such as participatory geographic information systems, augmented participatory reality and other collaborative platforms are being integrated today. However, participation, as conceived in citizen processes, remains a step that many specialists in the field still consider a simulation that does not guarantee true participation. Hence, there is real doubt about what genuine participation is, which is confused with the notion of citizen participation. Although numerous books, publications and research articles have appeared on the subject (which we will review in this study), there are still confused and partial interpretations. This confusion continues to divide the population of decision makers. Furthermore, architectural offices are sometimes reluctant to implement participatory processes, considering them just another stage in the execution of the project.

Perhaps, the greatest irony is that genuine participation in architecture is, in many cases, totally unaware of its participatory nature. We found this with some experiences of the Open Space Workshop (Taller Espacios Abiertos) and other creative processes. What began as an intuition gradually changed into methodology based on a co-creative process, in which students and local population were brought together to have a good time and fix residual spaces. However, at some point one must accept that if there is to be real awakening and a desire to continue working in this direction, it must be supported with a theoretical background. Some doubts that remain in the field must be clarified, and perhaps some concise methodology proposed. These constitute the objectives of the research.

Author and expertise

As indicated at the beginning of this document, we conceive architecture and urbanism as a means to transform our built environment in a socially and ecologically committed way. It is not a question of producing a compelling aesthetic, artistic or architectural result. Instead, we consider that the interest lies much more in the process and its quality. In this sense, we humbly state here that our pedagogical, research and professional experience is relatively young and versatile, although strong with quality experiences. Here, we highlight the author's teaching, artistic, urban planning and research experience.

As an urban planner and landscaper, the author worked on projects in France for over seven years as project manager of B. Arquitectura i Urbanisme (BAU) for Joan Busquets. He worked alongside multidisciplinary teams on over twelve urban projects in Toulouse, Lyon, Versailles and Montluçon. His commission led him to develop coordination skills in all facets of an urban project: urban studies, used in the reconversion of the plateau de Satory in Versailles, a former military enclave to be converted into a mixed neighbourhood; a more global urban strategy for Toulouse or Montluçon; and the execution of public works for public spaces in the centre of Toulouse. He was project manager for the "Maîtrise d'Oeuvre d'Aménagement des Actions Pilotes de Toulouse Centre Ville" until the end of 2017. This ambitious project to reorganize public spaces was developed through a master plan, representing a strategy with proposals for priority actions, that is, urban projects to be developed gradually by priority. The multidisciplinary team, led by Joan Busquets and his BAU office, included landscaper Michel Desvigne and EGIS, as a group of French engineering and other communication and public lighting specialists. Both the general strategy and the projects were subjected to public consultation processes. Coordination between members meant that the author acquired a range of skills with varied approaches to landscaping, including Michel Desvigne's unique vision of renaturing, Joan Busquets's historical and symbolic vision and commitment to the population in public meetings involving associations of people with reduced mobility, cyclists, senior citizens and other local associations. For these public presentations, we developed graphic material of alternative scenarios and obtained acceptance or rejection. This was an open process, with some advantages and limitations, which we describe below. Today, the author continues as an expert and urban consultant for various agencies, such as "Atelier Commun" (AC) in Switzerland.

As an architect and artist, he tries when the context allows to provide an ecological and community approach. As an architect, reforms and other assignments are designed using a bioclimatic logic, with recovered or ecologically certified materials. As a plastic artist, he has been able to develop courses and workshops for various entities, including the "fabrica del Sol", together with Makea. He also holds co-creation workshops for creative reuse (upcycling) and urban drawing tours (urban sketching) to discover our urban environment

in an alternative way.

As an associate professor at the Barcelona School of Architecture (ETSAB), he teaches classes for the architectural representation department and has created workshops involving participation in various ways. In the Open Spaces Workshop, first started in Mexico, students interact with the local community through tactical urbanism and urban DIY operations. In the optional Urban Notes activity, exploratory routes are organised with neighbourhood associations. This workshop is about drawing freehand the daily reality of a street or a neighbourhood. It is based on the Urban Sketching experience, in which a group of people share a moment of the day to draw an urban reality. The routes and sessions of urban drawing or sketches in groups allow participants to improve observation, data collection, analysis, diagnosis and intuition before the project. The author was a visiting professor in Mexico from 2010 to 2011 at the Universidad Autónoma Benito Juárez in Oaxaca. There, students carried out interventions with the local community to transform the Oaxaca train station into a cultural centre. Finally as a researcher, he has published a series of articles, books and conferences on various topics: *Upcycling Wood* (2018) is a true guide to the creative reuse of wood; *Taller Espacios - Recicla el Ferrocarril* is a book that describes the experience of participatory transformation with a group of students to change an old train station into a cultural centre; *Toulouse, identité et partage du centre-ville* (Busquets, 2014) is a book on the urban strategy and vision of Toulouse, in which the author directed the writing (editor-in-chief); “Ágora or the city as a collective creation: creative and participatory mechanisms for a sustainable urban regeneration” is a conference paper that investigates new methods to plan the city in a fair and inclusive way; and “The Pavilion of desires. Artistic co-creation for the improvement of public space” is a research paper (2020). The author also has three other papers accepted by international journals and four in the process of acceptance, both on the subject of this thesis. Finally, the author aspires to continue research and teaching using this hybrid methodology that involves artistic creation, urban planning and the real and inclusive social dimension of participation, which is why he has developed this research on the application in architecture schools.

An introduction to the state of art

At this point, we should consider the most appropriate starting point and historical moment for research that deals with tools on participation, architecture and community.

In our case, we simply decided to start from contemporary reality, with a deteriorating status quo and sociological and environmental problems. Fortunately, architecture collectives and municipalities have emerged that work on this subject. Tackling the problem of the city from the experiences of local communities, to transform it into a more inclusive, democratic space where everyone can be self-actualised in accordance with the environment, like an ecosystem, is not a new idea. In fact, it has been approached by various figures who have marked the twentieth century.

In her book, *The Death and Life of Great American Cities*, Jane Jacobs gave a clear, vital lesson on urban space as complex and diverse (1961). Jacobs was committed to observing the experience of inhabitants and to common sense, in contrast to many functionalist visions that seek to simplify and order neighbourhoods, and even destroy them if considered necessary in the eyes of the city fathers. However, the most overwhelming thing, as Zaida Muxí Martínez and Blanca Gutiérrez Valdivia explain, is the survival of her ideas, and how her thinking is more relevant today than when it first emerged. Numerous other authors have written in the same vein. Giancarlo De Carlo insisted on including the vision of his users and defining users' needs (1968); Henri Lefebvre promoted the right to the city, a political proposal that starts from the city to claim the possibility of people taking ownership of it again (1968); and Lewis Mumford understood the city as a living organism (1961); to name just a few. This necessarily leads us to define a historical landmark around the middle of the twentieth century, with its maximum expression in the revolts of 1968, which represents for us the second starting point of the investigation. As many affirm, in numerous ways participatory action arises with street demonstrations (De Carlo, 1968; Sanoff, 2000; Petrescu, 2005; Querrien, 2002).

If new architecture collectives emerge today that have “naturally” assimilated participatory methodologies, it is due to this legacy and to the international recession of 2009. In Barcelona, some collectives, such as Col·lectiu Punt 6, Lacol and Raons Públiques, have been working for approximately a decade since the hangover of Barcelona's construction as an internationally attractive city for the Olympic games. The idea is not to denigrate everything that has been done in recent years in cities with such different contexts. In Barcelona, as Horacio Capel points out in reference to urban projects generated by the Olympic Games, generally a great effort was made, which must be positively valued. At that time, the city was transformed taking advantage of numerous spaces affected by the crisis of 1973, for example, the city was turned towards the sea (2005). The problem is rather the continuation and inertia that attracted an increasing number of investors, which

led to an imbalance in the famous Barcelona Model. According to Capel (2005), this model is being questioned in Barcelona by many people, including some of those who had most effectively advertised it, such as Borja (1995), Monclús (2003), Heeren (2003) and Montaner (2004).² We should stress that what is required is the proposal of new ideas, rather than the criticism of decisions that were made for many reasons in their original context. The problems that affect a city like Barcelona today are very different from those of fifty years ago. As reflected for example in a recent interview with Professor Joan Busquets (2019), fifty years ago Barcelona had neighbourhoods that were dangerous. To improve Barcelona, whose urban planning was then only focused on speculation, Manuel de Solà-Morales founded the UPC Barcelona Urbanism Laboratory (LUB), which has recently celebrated its 50-year anniversary (Amiguet, 2019). The context has changed since then as has the way of executing urban projects, with an increasing assimilation of processes including participation of the population. And as Joan Busquets himself said when we collaborated on the historic centre of Toulouse in France, which involved numerous meetings with associations to reach agreement on each project, the idea is to propose an evolution rather than a revolution.

However, when we observe professional sessions of public consultation and other participatory processes that are more or less well conducted, with all their shortfalls, limitations or successes, we could question whether the starting point is really our own European reality. Is this not a Eurocentric approach?³ European cities, with their outstanding public spaces and historical architecture are also impacted by neoliberalism in the privatisation of urban spaces, the commercial use of the city, the predominance of industries and commercial spaces, and the limitations of bureaucracies, regulations and laws (sometimes to protect us from neoliberalism itself). This also led us to think about natural

2 As written by Capel in his book "El modelo Barcelona : Un examen crítico": "*Recientemente Jordi Borja que había realizado una primera presentación elogiosa del modelo Barcelona en 1995, se ha mostrado abiertamente crítico con el mismo; ha declarado públicamente que "hay síntomas evidentes de que la fuerza de la iniciativa privada y la debilidad de un proyecto global público está rompiendo este modelo (de Barcelona)", ha fustigado "los efectos no queridos o perversos de las políticas públicas de los ochenta y primeros noventa" (aumento de precios del suelo, expulsión de clases populares a la periferia, etc.) y no ha dudado en afirmar que desde fines de los años 80 «el urbanismo de promotores y negocios tiende a suplantar el urbanismo ciudadano y redistributivo que define el 'modelo Barcelona' (Borja 2004, p. 177 y 178). Trabajos críticos con el modelo de Barcelona son, desde una perspectiva académica, los de Monclús 2003, Heeren 2003 (centrado en el centro histórico) y Montaner 2004. Desde una perspectiva más radical, el modelo ha recibido numerosas críticas, especialmente en relación con el desarrollo del Forum de las Culturas en el verano de 04; véase en particular UTE 2004.*"

3 Eurocentrism can be considered as a cognitive and cultural prejudice. (Samin, 1989).



Figure 3

A *Barriada* in Lima.

Source: Public Policy Peru. University of Maryland School of Public Policy in Peru. Photo: T. Hilde.

participatory activity that occurs in other parts of the world and to integrate the concept of community architecture and architecture without architects, such as the experiences we will describe in Oaxaca de Juárez (with many other urban issues), or the famous studies by John FC Turner on the self-construction of Latin America.

So we have started from our reality, after the historical milestone of industrialisation at the end of the twentieth century and the beginning of the twenty-first century, when social pressure required a paradigm shift to transform the city. However, we should note that true participation is, above all, an ancestral process. Therefore, to study creative and artistic tools that involve the population, such as urban DIY, we must first compare it with the first self-built settlements thousands of years ago. So the state of art must be clarified, to answer the what and why of participation, with a retrospective and explanation of its necessarily political implication.

Another question remains: for whom do we transform the city or rather with whom?

It seems clear of course that the answer is for the population. However, those who gain decision-making power in participatory processes should be the least recognised social groups in social hierarchies or the most vulnerable who are affected by the rest of society: immigrants, cultural minorities, people with less economic resources, women, children, the elderly, the sick, etc.

And finally, why do we participate?

Surely we participate for the common good, to ensure good living in the city and because of our commitment as humans to the environment and to future generations. To gain a broader view of the subject, some contextual notions are described below that seem fundamental to understand our research holistically.

Cities. Current legacy

Currently humanity is experiencing its most intense period of urbanisation and many cities are growing exponentially and uncontrollably. Latin America, Africa and Asia already house 82% of the planet's inhabitants, and most growth occurs through informal settlements. According to the WHO, a third of the world's urban population already lives in these invisible cities. Inequalities in social and economic opportunities directly translate into social instability and violence due to lack of access to services, infrastructure and human rights. In recent years, a new conviction has emerged across the world. The model of functionalism, which accompanied the twentieth century in a vision of development

based on the unlimited exploitation of resources and the authoritative arrangement of space, now seems obsolete. It is time to find new paradigms to restore more equitable human conditions and more lasting ways of life, through sustainable, participatory projects to regenerate our cities.⁴ These changes mean finding new creative solidarity mechanisms when it comes to regenerating our urban environment, at a time when information and communication technologies (ICTs) are running smoothly.

The twentieth century has brought unparalleled growth with unprecedented technological advances, but it leaves a controversial legacy for the next generation. The global city has emerged, a concept described by Sassa Saskien in 1984. Saskien explained how spatial dispersion arose at the same time as changes on a global scale. The integration of commercial activities transcended what had formerly been known as borders and changes in the geography and composition of the global economy produced a complex duality: organisation of economic activity that is spatially dispersed, but globally integrated at the same time.

Disturbing media reports about natural resources show how the population is often marginalised in decisions in other spheres. Urban processes are accelerated and complicated. According to the United Nations, of the nine billion people who will inhabit our planet in 2050, 70% of the population will live in cities in 2050 and a third of the urban population will live in informal settlements. However, as the architect and urban planner Jaime Lerner said, “the city is not the problem, it is the solution” (2005). Living in dense, well-planned cities is much more sustainable than diffuse growth. The creation of mixed neighbourhoods continues to be a viable solution for the future, although new concepts regarding the environment must be integrated. In his article “How the city of tomorrow will determine our future”, Kofi Annan (2017) indicated that cities occupy only 2% of the surface of our planet, which is promising and positive. He also stressed that cities should be designed for people rather than cars and roads. The future could look promising, in theory. However, given the capitalist context in which we live, where the economic prevails more than the notion of the common good or the long term, one can question the real power we have to change our society. Should we really expect all decisions, or actions, to come from the state, or worse from the great powers of globalisation?

In her book *Tu Consumo Puede Cambiar el Mundo* (Your Consumption Can Change the World) (2017), the writer Brenda Chávez defends the idea that we are all responsible for the type of world in which we live and that the decision to consume, and by extension to

4 According to the summary, *Las ciudades ocultas, revelación y superación de las inequidades sanitarias en los contextos urbanos, organización mundial de la salud*, Unhabitat, 2010.



Figure 4

Street Art in Vallcarca in Barcelona: “Vallcarca for the People”. Source: author.

act, belongs to us. In a more responsible way, we can guide markets towards sustainable development or a necessary deceleration. The relationship between top-down processes, represented by responsible planning generally managed by states or nations, and bottom-up processes, such as our consumption and participation governed by us as consumers and neighbours, that will allow us to move towards a sustainable balance. In this sense, responsible urban participation, ethical and collaborative projects that seek to create new products with a minimum footprint of CO₂, are going from strength to strength.

In European cities, where the vast majority of informal cities have disappeared and the population is ultra-educated, there is an increase in bottom-up cooperation methods, urban participation and the opinion of citizens in response to overly authoritarian urban planning. In contrast, in megacities in the rest of the world, such as Bangalore (7 M), Kinshasa (12 M) or Lagos (21 M), informal cities on the periphery continue to grow at full speed. Created by hand by their inhabitants, they reflect extreme inequalities and a social emergency that calls for direct action by the government and associated entities to create solutions and community spaces, such as the experiences of Latin America described by John FC Turner (1976). The architect’s central thesis argued that housing is better provided and managed by those who inhabit it rather than being centrally administered by the state.

Image, expression and protest in the practiced city

Our historical cities are the reflection of thousands of interventions and human visions that have shaped the space over time. Even new cities like Chandigarh or Brasilia, which were designed by architects (Le Corbusier and Oscar Niemeyer respectively), began their transformation by being appropriated by their millions of inhabitants, transforming their image from generation to generation. Burguín, an artist and professor at the University of California, explains that “The city in our actual experience is at the same time an actually existing physical environment, and a city in a novel, a film, a photograph, a city on the television, a city in a comic strip, a city in a pie chart, and so on”. That is, the city is not only a physical element, but there are many representations of it. This may explain the divergences of opinions on urban issues, depending on the perspective. If we talk, for example, about tourism in Barcelona, it seems a real problem to inhabitants, while visitors see the city as an extraordinarily attractive phenomenon. Representation is undoubtedly the first instrument for both the architect and the citizen to change their urban environment. Graffiti, for example, has protest messages, and reflects real problems to which solutions correspond. By extension, urban art can be a participatory act with communities to fix entire neighbourhoods, like the works of the Tomato Collective in Mexico. Here we could quote Kevin Lynch, a famous American urban planner and writer who, using surveys, interviews, mind maps and observation, studied the way the common citizen imagined his city. The

result of the work was the idea that the image of the city can vary significantly between observers. In addition, Lynch stated that this image can be studied and that urban space designers can use these studies to improve cities.

In 1968, in response to the effects of converting the city into merchandise at the exclusive service of the interests of capital accumulation, Henri Lefebvre came up with the notion of the right to the city. The book represents a political proposal that starts from the city to claim the possibility of people taking it over again. The main idea is to “rescue the human being as the main element, protagonist of the city that he himself has built”, against the effects caused by neoliberalism, such as the privatisation of urban spaces, the commercial use of the city, the predominance of industries and commercial spaces. This means establishing “good living” in the city and making the city “the meeting place for the construction of collective life.” As David Harvey (2018), geographer, urban sociologist and social historian, explains to us: “the right to the city is not simply the right of access to what already exists, but the right to change it based on our deepest longings.” For his part, sociology professor Ion Martínez explains, in the reissue of the book *The Right to the City* (2017), the right to the city is in fashion. This idea has been raised from the street and from the academy, from neighbourhood groups and from institutional politics, from disciplines such as sociology and geography to others such as architecture or law.

Inclusive city: toxic city versus healthy city

Therefore, the idea is to build a healthy urban space for future generations. Observation, assessment and community needs will be the first step in developing a strategy. By asking a few simple questions, we can determine whether an urban fragment plays its role in daily human activity. Is it easy to be a child in this neighbourhood? Is it easy to grow old in this city? Can you safely enjoy this street? Is it appropriate for pedestrians? Is this environment healthy? Can you enjoy the space and interact with it creatively? In other words, can you easily appropriate the space? Or are the urban setting and design priorities unrelated to the needs of the residents? Priorities may be road use (car lanes, insecurity for children, etc.) that complicate life in such a way that they decrease the autonomy of the very old and young. Perhaps the urban space in question even generates polluted air for its inhabitants. The urban environment, which is toxic in various ways, causes daily stress that ends up becoming somatised. We can take as an example some suburbs of cities, where the accumulation of “toxic” agents such as isolation, lack of inclusion, absence of public transport, air and acoustic pollution or lack of activities generates a social environment that is conducive to instability and conflict. The city is a collective space. As a suitable place for the political, economic, social and cultural development of the population, it should be a place where there is a network of relationships with the greatest human successes, but

unfortunately it also suffers the greatest injustices and the worst exclusions. In this context, a city is inclusive when the human right to the city is recognised, and the negative impact of capitalism and speculation is combated. This also happens through the creation of new common urban spaces that are considered and used in a participatory way.

Public space: engine of urban life

Public space is the great carpet that allows us to relate and create social life between buildings. As Jan Gehl describes it in his book *The Humanisation of Urban Space* (2006), the quantity and quality of public space determines the urban quality of a city. Urban life depends mainly on the activities that surround public spaces, and the morphology of urban space. In a dense historical city, the space is usually very clear, and the activities are intense and change over history. This contrasts with the suburban, car-dependent public space, which has been developed to an exaggerated extent in a number of countries, including the United States, Canada and Australia. In these spaces, the only social contact points tend to be commercial centres, and social life is quite poor. When we work on an urban planning project today, we can observe three main cases in a simplified approach: first, the dense city with few poorly managed public spaces in which we usually propose more public space for pedestrians; second, the opposite case where public space is vast and poorly defined as in functionalist suburbs and on suburban streets; and third, the informal city, where public space is undervalued or non-existent. Finally, one may wonder whether users should be able to directly change the public space and use it in a community, responsible way for various activities. In other words, could we have some flexibility to create spaces where people can share their time, their thoughts and directly interact with the physical space and transform it? It seems complex, but community gardens and orchards or some street markets in public spaces are living examples of this.

Environmental and social emergency

The need to substantially reduce our impact on the planet must translate into a major change in our lifestyle and urban patterns. After many warnings, the environmental situation is entering an emergency phase. This is the result of a model of production and consumption that is unfair and reckless, with consequences for the environment and our own existence. Following this example of consumption, many of the urban spaces that we have built may be unfeasible in the medium term in a scenario of energy and economic crisis. In Europe, the compact city, the heir of European urban history, offers spaces for solidarity and is flexible, with an approach to activities. However, what can we do with the peripheral city, its dispersion and its dependence on the automobile, among other factors? If the dense city is a more appropriate response than the diffuse city, it must be rethought more critically, with

green mobility and allowing the creation of spaces for community ties and environmental awareness.

Evolutionary change must occur in two spheres. The first, in our consumption and our habits. When you buy food in organic and fair-trade stores, you know that it contributes to the common good. What about the way we use public space? Putting aside economic concerns, can we only expect to receive without contributing to the urban space? In this sense, the use of urban gardens or the use of bicycle are necessary premises for urban change. Can we consider that they are acts of participation? We could argue that they are, because by cycling we participate in a gradual modal shift.

The second sphere corresponds to that of planners who must allow and influence this process, to give rise to this change in a flexible way. Millions of urban fragments of cities have this latent potential, such as the famous Eixample in Barcelona, where the inhabitants continue to suffer from the impact of thousands of cars passing every day. The environment is already literally toxic. This is a matter of health. According to Barcelona City Council, 500,000 vehicles enter Barcelona every day. This figure is associated with 3,500 premature deaths, 31,000 cases of childhood bronchitis and 54,000 asthma attacks. In other words, five vehicles entering Barcelona generate one patient. Clean air is a right. This is a current topic that is being addressed by professionals and academics. However, solutions often get no further than pilot projects. Urbanism cannot solve social and economic or environmental problems, but it can contribute greatly to their aggravation or, in contrast, facilitate better living conditions (El Periodico, 2009).

Looking at other horizons, how can we approach cities such as Makoko, Kinshasa, El Alto or Mexico City, with their incomparable demographic growth and informal settlements? One-off actions from below can be models to replicate, without waiting for actions from above. These actions, once unified, can form networks of civic spaces and true communities that self-manage healthily. Beyond these social issues, views of community work also teach us traditional know-how that we should preserve. Many trends in ecological architecture and bio-construction stress that the reinterpretation of this knowledge can contribute to sustainable development or deceleration.

Synthesis: A paradigm shift

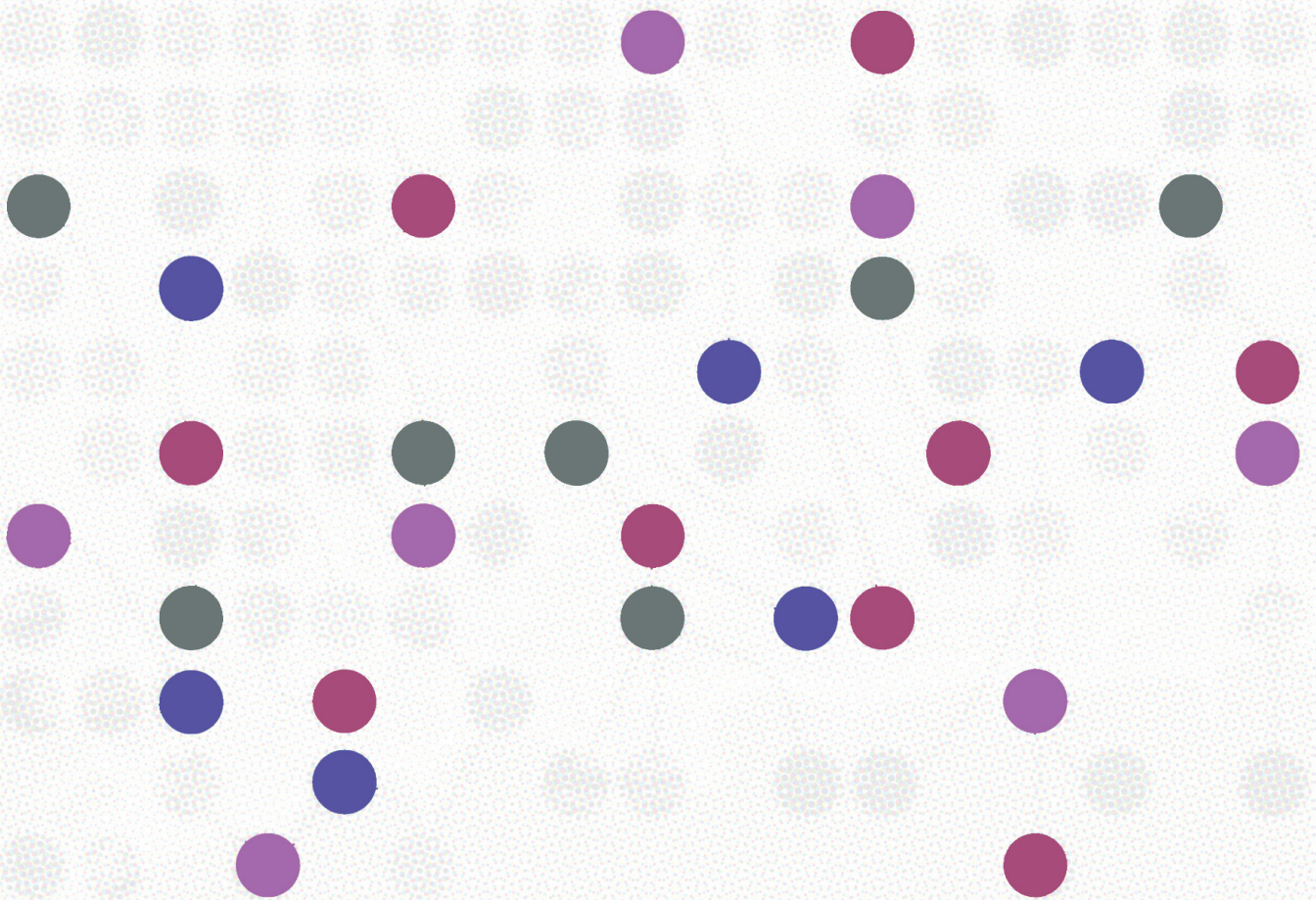
Although interest in the subject is growing, participation and bottom-up processes are quite recent practices. In fact, apart from rare exceptions, the profession of architect has been more closely associated with the production of impressive architecture and accumulated wealth, at least until the economic crisis in the first decade of the twenty-first century.

High unemployment in the profession and an environmental situation that is beginning to enter an emergency stage have produced an urgent need for a paradigm shift in the way we conceive architecture and cities. A wealthy, unaware society is due to a production and consumption model that is unjust, reckless and affects the environment and our own existence. This situation should bring about major changes in our habits of life and our urban patterns. However, the climate emergency and the 2009 recession are clearly complex problems that affect many layers, which are often opaque to users and consumers. Currently, concepts such as sustainability and ecology are widely used in architectural and urban jargon and in our universities. However, we should be careful when we use the concepts of sustainability. Deceptively, there is a tendency to “greenwash”, to transform users’ and consumers’ perceptions of a product.⁵ If we compare the urban space to a manufactured product, we should first consider a circular response involving renewable energies; use of local, natural, non-toxic abundant materials; bioconstruction; permeable ground; and cradle to cradle. Is that enough? Or should we also consider that our entire economy⁶ and lifestyles are in the spotlight? Therefore, in an attempt to transform the city democratically, with respect for the environment, should we involve the community directly, and make it somehow directly responsible for its natural and built environment, for the common good?⁷ When technically possible, should the community be involved in the construction and conservation of the urban space as well? It seems that urban studies are evolving in a more complex way, involving interdisciplinary teams comprised of sociologists, urban planners, landscape architects, economists and environmental engineers, to understand the city as a complex system.

5 “Greenwashing” is a term that has been used by Kahle L. in her book “Communicating Sustainability for the Green Economy” and by Chavéz B. in her book, *Tu consumo puede cambiar el mundo* (“Your consumption can change the world”).

6 As in the ideas defended by David Harvey, renowned geographer and social anthropologist.

7 On this theme, Christian Felber also explains the social movement advocating for an alternative economic model in *Change Everything: Creating an Economy for the Common Good*.



1-Architecture, city and participation.
A retrospective

1.1 What does participation represent in architecture and urbanism?

Why do we transform our built environment? And for whom? The answers seem obvious, as architecture is built for humans, who are the final recipients and users. If we go back to the origin of architecture and some basic concepts, we show the connection that architecture should have with participation. However architectural practice has clearly moved away from this first objective in many ways, for various complex reasons. The last fifty years of urban transformation have generated impressive “know-how”, but the creation of our cities in a “top-down” way has also generated issues that are the consequences of exclusive urbanism, for example gentrification, social tensions, mass tourism, air pollution and even exclusion. In addition to working with the population, working with the most vulnerable groups seems to be a *modus operandi* that every democratic society would like to undertake today. Recently, this has led architects and urbanists to approach urbanism in a more inclusive way, from neighbourhood communities. However it seems that there are still many doubts about how to define participatory architecture and its processes.

This chapter briefly, but not exhaustively, reviews projects, past participation experiences and moments when paradigm shifts have occurred. We describe facets of participatory architecture and then relate them to three paradigms of participatory practices in architecture through the consultation of documentary sources from disciplines such as anthropology, architecture and sociology. However, before we enter into participatory types of practices, we must ask ourselves what the act of participating in architecture means, and by extension what participation means in the urban planning context. What does this act consist of, and how does it translate into our professional practice? At first glance, participation seems to be a concept that is ambiguous and general. It may be that this general concept has many facets. However, we must consider that some organised public processes, which are said to be participation, can unfortunately become less participative because of this very ambiguity. We will explain this concept in greater depth in this chapter.

Participation related to architecture and its relationship with the urban environment was officially introduced into our professional practice with the crisis of the modern movement, between the 1960s and 1970s. However, the participatory phenomenon, defined as “the action of taking part in something”, is as old as architecture (and the city) itself, as evidenced by historical community and local organisations. In this chapter, we will show how three paradigms of participatory practices in architecture can be classified and distinguished. These three categories are associated with mechanisms of participatory architecture to empower a community of citizens and methods for democratic urban planners. The first corresponds to architectural practices without architects, associated with self-organised and historical communities. Generally, these types of experiences are not defined as participatory, even though they involve self-building and self-organisation. The second is the set of actions, or rather reactions, to an established, rather rigid order that has created

a crisis in the modern movement in architecture and other current urban models. The third corresponds to the results of participatory urban planning, that lead to a wide range of participatory practices.

A range of facets

Today, there is real interest in developing tools and methods to build or transform our urban development in a more inclusive and participative way. Public engagement is quite a recent issue. It was recognised by the Bruntland commission (Bruntland G., 1987), whose definition of “sustainable development” implied equity encouraged by citizen participation. This concern for actively involving numerous groups is at the heart of discussions on sustainability objectives in Agenda 21 (1992), with notions such as women’s empowerment “through full participation in decision-making”, “grass-roots mechanisms to allow for the sharing of experience and knowledge between communities and giving communities a large measure of participation in the sustainable management and protection of the local natural resources” (UNCED, 1992, p. 5). In Europe, the Aarhus Convention establishes public rights (of individuals and their associations) with regard to the environment, such as the right to participate in environmental decision-making (Stec, S., Casey-Lefkowitz, S., Jendrońska, J., 2000). More recently, in historic contexts, the UNESCO recommendation on Historic Urban Landscape states that a range of traditional and innovative tools should be adapted to local contexts, facilitating intercultural dialogue by learning from communities about their culture (2011).

There is no doubt that it has been studied from many perspectives. Some examples are the neighbourhood struggles of Jane Jacobs against Moses’ infrastructure planning in New York (1961), Henry Sanoff’s community participatory methods (2000) with brainstorming methods, workshops and participatory games, the architecture of Lucien Kroll who always thought architects should not impose ideals of beauty and utility on inhabitants (Ellin, 2000) and Walter Segal’s method, which allows users to self-build their own homes, to cite just a few. More recent examples are projects led by new types of emerging architectural collectives that have integrated ways of working collaboratively and diversely (Luck, Rachael 2018): in Paris the Atelier d’Architecture Autogérée (AAA) (Petrescu, 2005), in Barcelona, Lacol, Raons Publiques and Col·lectiu Punt 6 (Lacol, 2018) and in the UK, Assemble, Matrix and Muf (Luck, Rachael, 2018) among many others. This suggests that the future of architectural and urban participation is a daily task in architectural practices.

However, in many cases the real status quo is that participation has a slender influence on the decision-making process, due to bureaucratisation and institutionalisation (Irvin and Stansbury, 2004). In the worst cases, urban projects have already been decided by politician

and bureaucrats. There is still a misunderstanding of what real participation is, and many of the voices of specialists in the area reflect this. If we leave them with responsibility for changing the urban situation, surely little will be changed, or worse it will be done unfairly. Participation of inhabitants in the transformation of cities means having their collaboration and direct involvement in the creative process. If the perspectives of groups with different interests are not incorporated, then the vision will only be partial. The risk is the creation of segregated groups and greater social differences, so that urbanism is exclusive rather than inclusive. Those who lack decisive power are usually the least recognised groups in society or the most vulnerable, which constitute most of society: immigrants, cultural minorities, people with less economic resources, women, children, elderly people and sick people, among others. One of the keys of tomorrow's urbanism should be the inclusion of participation and ascending mechanisms (bottom-up).

However, this paradigm shift must also be related to a lifestyle change in which more time is dedicated to conception of the common good. This theoretical study is part of an investigation into creative tools that architects have at their disposal to generate a genuine participatory urban project. This also means changing the *modus operandi* in architecture schools, to prepare students for better architectural practice. After studying numerous experiences and methods with very different modes of action, we consider that this research must start by defining and listing the various expressions of participation in architecture and in cities.

Consequently, it is important to distinguish between the definition of participation, the emergence of the concept of participation in architecture, participatory practices in architecture (point 2), whether they are aware or unaware.⁸

⁸ Self-construction or other architectural practices can be participatory without being expressed as such.

Definition

Participation: the fact that you take part or become involved in something (Cambridge Dictionary).

Genuine participation should not start with what is known as citizen participation from a political perspective. We must consider its definition in an etymological sense and as a general concept. The word “participation” is comprised of the intransitive verb “participate” and the suffix “tion” that indicates effect, fact or action. In grammar, intransitive verbs are those that have a full meaning in themselves, so they do not require a direct complement to understand them. Some of the most important verbs for humans are intransitive, such as: being born, breathing, living or dying. Etymologically, the verb participate comes from the Latin *participare* (take part of something), comprised of *pars*, *partis* (part) and the verb *capere* (take, grab). Participation is then the fact of taking part.

To this definition, we can add other notions such as community design or bottom-up processes. According to Henry Sanoff (2006), professor emeritus of architecture at the School of Architecture, North Carolina State University, community design emphasizes the involvement of local people in the social and physical development of the environment in which they live. In addition, the concept of bottom-up can be understood in a scientific way, as an approach to piecing together systems to produce more complexity. Thus, the original systems become subsystems of an emerging system. The notion of bottom-up contrasts with the top-down vision, which represents in a simplified way an overall analysis in which we start from the whole and break it down into ever more detailed elements. Note that this last notion lacks a human and community factor. We will return to this subject in greater depth in Chapter 2.3 Beyond participatory practices: the resilient city?

Although we will refer to these concepts several times, we prefer the concept of participation as defined above, because it encompasses participatory activities more generally. This is of course our interpretation, which we will explain during the study. It is important to remember that it should not be confused with the concept of citizen participation, a term used in political debates that represents just a small part of the spectrum of participation.



Origin of the concept. Twentieth century

“Modern architecture died in St. Louis, Missouri on July 15, 1972 at 3:32 p.m. (or thereabouts) when the infamous Pruitt-Igoe scheme, or rather several of its slab blocks, were given the final coup de grâce by dynamite.”⁹

Charles Jencks

As Giancarlo De Carlo once stated (1969), there is an abysmal difference between the act of planning “for” the user and “with” the user: “In the case of planning ‘for’, the act of planning remains forever authoritarian and repressive, however liberal the initial intentions. In the case of planning ‘with’, the act becomes liberating and democratic, stimulating multiple and continuous participation.” Architecture, and by extension the construction of the city, is built for the human being: its main user and its reason for being. Accompanying the term architecture with participation may seem redundant, since architecture should always have been participatory. The concept of participation emerged at a time when professionals, and the population itself, demanded a reconnection between architecture and user. However, Giancarlo De Carlo criticised the fact that there is a loss of relationship between architect and user when we take the part of the client instead of the user. He extrapolated this to the modern movement and social classes: “A field restricted to relations between clients and entrepreneurs, landowners, critics, connoisseurs, and architects; a field built on a network of economic, social, cultural and aesthetic terms that was not shared by the class power... The point is that credibility disappeared when modern architecture chose the same public as academic or business architecture; that is, when it took an elite position on the side of the client rather than on the side of the user” (De Carlo, 1969). This deviation from architecture itself, which is separated from the common user but close to plastic art, worsened throughout the twentieth century due to socioeconomic contexts and pressures until the 1960s and 1970s. Participation in architecture is clearly related to the right to the city (Lefebvre, 1968). In his book *Community Participation Methods in Design and Planning*, Henry Sanoff also claimed that participation is a consequence of urban struggles. At that point, citizens feel they are excluded from decision-making, although they want to participate in the construction of their urban environment. However, Sanoff also started his book by stating: “the idea of participation can be traced to preliterate societies”, a fact that we will describe in this article (2000).

Figure 5 & 6.

Pruitt-Igoe collapse series. April 1972. The second, widely televised demolition of a Pruitt-Igoe building.

Source: U.S. Department of Housing and Urban Development.

⁹ In the second section of *The Language of Post-Modern Architecture*, Charles Jencks criticises modern architecture, including Corbusier’s “living machine” style. The architect proclaims the death of modern architecture as the Pruitt-Igoe housing project, built in St. Louis, was one of the first demolitions of modernist architecture. It is often used as an example of urban renewal.



There is inconsistency in certain urban processes that use modern architecture. On the famous Congrès Internationaux d'Architecture Moderne (CIAM) of Hoddesdon in 1951, Giancarlo De Carlo mentions, for example, the brutal “urban renewal” operations and the problems of urban dispersion with models of “monotonous” suburbs. He also predicts gentrification: “In both cases the most irresistible attraction was the potential value of the building areas, well located in the centre of the region, the outskirts and the city, and therefore highly profitable once cleared of everything poor and socially unbecoming: negroes or southerners, immigrants or lumpen proletariat, foreign workers, or indeed workers of any kind” (Di Carlo, 1968). For Giancarlo De Carlo, it is this irresponsibility that will lead architecture to contribute to social inequality in the urban space itself. “The unconsciousness – or rather congenital irresponsibility – of architecture about motivations and consequences, had contributed decisively to the social iniquity in its most ferocious and shameful aspect: the segregation of classes in physical space. The centre was reserved for the houses of the rich, for the most profitable economic activities, for bureaucracy and politics. Excluded to the edge in their minimum housing, the poor were cut off from the real life of the city.”

An old and a new role for the architect

Architecture should be a process¹⁰ that goes well beyond the figure of the architect. The architect’s role should evolve to offer a new panorama, otherwise it could be considered part of the problem. In a larger framework, city planning has been criticised as a pseudo-science, as Jane Jacobs (1961) stated: “Years of learning and a plethora of subtle and complicated dogma have arisen on a foundation of nonsense.” She also refers with dismay to the dream city (Ville Radieuse) of Le Corbusier, as impractical and detached from the actual context of existing cities, even though it was sadly “hailed deliriously by architects, and has gradually been embodied in scores of projects, ranging from low-income public housing to office building projects”. More recent research also defined city planning as a non-scientific theory that needs to be tested, although it is not based on nonsense (Marshall, 2012). Returning to Architecture’s Public and his question of “why”, Giancarlo De Carlo’s explains how architects have been busy focusing on the way to do architecture rather than the reason why. This leaves inhabitants out of the process. There is ambiguity and a deviation in the architect’s role: “The term has been applied to figures ranging from head-bricklayer to God (supreme architect of the Universe), being more a head-bricklayer or more a God... Head builder in the Middle Ages and the beginning of the Renaissance. His duties were limited to the study and application of the building technology (later also urban

¹⁰ As De Carlo claims, architecture should be considered an open process, rather than a finished product.



Figure 7

Extract from photographs of the Villaggio Matteotti by Giancarlo De Carlo. Images of the exterior and interior, recently occupied by its new users, along with its furniture and modifications. Images published in number 421 of *Casabella*.

planning, later still environmental planning)... With the rise of bourgeois professionalism, architecture was driven into the realm of specialisation, where only the problems of ‘how’ are important...” (De Carlo, 1968). There should be a radical evolution in the role of the architect, a paradigm shift where “all barriers between builders and users must be abolished, so that building and using become different parts of the same planning process” (De Carlo, 1968).

For García Ramírez (2012), there are basically three types of architects: the “architect-leader” (similar to De Carlo’s God) who unilaterally decides all aspects of architecture and may or may not present them to the community for consideration. The second is the “prêt-à-porter-architect” (or junior architect), for whom decisions on architectural design are taken mainly by the community or by a specific client. The last type is associated with participative architecture, the “architect-interpreter”, where there is real interaction between architect and user (García Ramírez, 2012). A change in role should be seen as an opportunity for architects, rather than a threat, involving changes in values of practice and standard methods (Till, 2005). As Giancarlo De Carlo said, “Architecture is too important to be left to architects... A real metamorphosis is necessary to develop new characteristics in the practice of architecture”. However, there is sometimes a fluid relationship between architect and user, i.e. in the case of a single-family home. Here, dialogue is established or the architect risks losing the project. However, when a development is for an entire community, the problem becomes more complex. In this case, as Petrescu explains (2005), the architect must lose control, and make his/her proposals as another participant, as a part of a process.

Real, fake or manipulated? The problem of participation

In many urban projects, particularly those involving consolidated neighbourhoods, traditional participation methods can be ineffective. Scenarios are usually presented to the local community, with attractive perspectives and other schemes. These tense sessions are often frustrating for the public because of their limited role in participation, and for the speakers, that is, the architects, who try to defend a project that they consider ideal for the population. The energy invested and the costs are high, as a result of a misinterpretation of participation. Perhaps the most significant paper to date on real participation is “The Ladder of Participation” (Arnstein S., 1968). The paper is not focused directly on architecture, but the author describes and explains eight levels of participation, from manipulation to citizen control, which represents true participation.

Her work has a lasting impact in many areas of research, including geography, urban planning, public policy, health policy and sociology, to name a few. The eight levels are

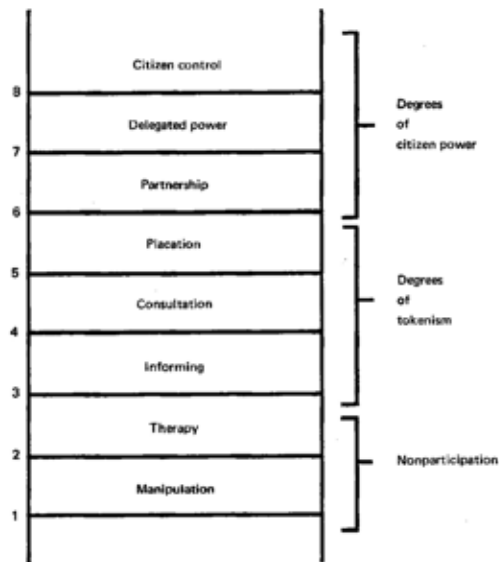


Figure 8

Arnstein's ladder.

From :
 Arnstein, Sherry R.(1969) 'A Ladder of Citizen Participation',
 Journal of the American Planning Association, 35: 4,
 216-224

categorised into three types:

I. Citizen Power: (1) Citizen Control, with no intermediaries like a neighbourhood corporation; (2) Delegated Power, where citizens are in the majority with delegated power to make decisions; (3) Partnership, where planning and decision-making responsibilities are shared and there is negotiation between citizens and power holders.

II. Tokenism, which can be defined as a practice of making only a symbolic effort to be inclusive to members of minority groups: (4) Placation, where citizens can advise or plan, but retain for power holders the right to judge; (5) Consultation, with some enquiries and surveys, or meetings; (6) Informing, a step to legitimate participation, with neither channel nor feedback.

III. Non-participation, where the aim is to "cure" or worse "educate" participants: (7) Therapy; (8) Manipulation.

According to another study, two levels of participation can be distinguished: pseudo-participation and true participation. In the first, control is in the hands of administrators, with domestication (informing, therapy and manipulation) and assistencialism (placation and consultation). The second level involves cooperation (delegation of power and partnership) and citizen control (Deshler & Sock, 1985). For Sanoff (2000), pseudo-participation, which in most cases represents a simple communication (and in the best case an agreement), cannot be considered participatory. Doina Petrescu reflects a similar impression in her article "Losing control, keeping desire". She explains that, although there is a legal framework for participation in France that starts with a good gesture towards the population, "La loi de la solidarité et renouvellement urbain" (Law of solidarity and urban renewal), this does not guarantee real and effective participation (2005): "In reality, the different urban planning documents are usually elaborated by experts without any previous participation, and the consultation goal is somehow to only confirm and legitimate these documents." Participation then unfortunately becomes one more step to be taken to start the execution of the project, one more formality, instead of being an integral part of a process. In some recent cases, there is a real status quo, and consultation becomes formal. Querrien's

critique of the process in “La Courneuve, les 4000”¹¹ shows a design that “proposes a quasi-gentrified appearance, more colourful than the concrete monolith that preceded it, but it does not take any account of the different groups of inhabitants and of the multiplicity of their desires” (Querrien, 2002). If the law in France is based on certain democratic principles such as the participation of local communities, transparency, decentralisation or social inclusion, it must be noted that this does not guarantee the real and effective participation of citizens.

The situation is the same in Barcelona, where Lacol also criticises “participatory” processes based on consultations in which professionals and politicians have the last word. They also describe the appearance of a new threat called “participationism”: “We refer to optimism toward participation that focuses more on the tool than on its objective. This focus defines some rules for decision-making (a technique) and nothing else; without taking notice of who is the subject or the community.” Participationism (n.d.) “gives a technological response to a political question. It replies to a who with a how” (Lacol, 2018). However, if the process is carried out properly from the outset, even large groups can develop visions with suitable tools (Innes, 2004).

Finally, a second part of the proposal is missing in these notions: that related to duties as an inherent part of the right of participation. On participation and its political processes, Lefebvre points out: “Another obsessive issue is that of participation linked to integration. But this is not a simple obsession. In practice, the ideology of participation allows the acquiescence of those who are interested and involved to be obtained at the lowest cost. After simulation, which more or less drives information and social activity, they return to their quiet passivity, upon retirement. Is it not clear that real and active participation has a name? That name is self-management. Which poses other problems” (Lefebvre, 1968).

Perhaps we could use the term community design, as mentioned above, as it encompasses not only participation, but also communities as such. According to Sanoff (2000), this concept represents a “holistic approach that focuses its efforts on people. It is devoted to

¹¹ The sociologist and urban planner Anne Querrien explains that laws on participation do not mean real participation, in spite of large teams organizing debates, etc. She proves this by analysing a documentary of a participatory process for Courneuve les 4000. In the words of Querrien, this social housing development “built in the late 1960s to house those expelled by urban renewal in the 13th district of Paris, an area which is woefully poor” is still under transformation today, to improve the living conditions of its community. In the movie, *La Courneuve, les 4000*, a film by Patrick Laroche, 1999, she explains first how “The design proposes a quasi-gentrified appearance, more colourful than the concrete monolith that preceded it, but it does not take any account of the different groups of inhabitants and of the multiplicity of their desires. It just tries to obtain consensus.” She concludes: “The criteria in evaluating this participation are formal: the signature of associations, signs of consensus.”

the idea that residents must take control of their destiny, and that of their communities. Community building grows from a vision of how communities function normally where community members create community institutions that help to achieve their aspirations as well as strengthen community fabric.” However, it is also possible to embrace this real participation in what we will call participatory practices in architecture. Let us finally recall here the etymological definition of participation: to take part.

Legal and political dimensions. Decision making

As mentioned at the start of this research, we try to dissociate the concept of participation from citizen participation. However, participation is inevitably related to a political vision. Bringing citizens closer to making their own decisions (and transformations) instead of advocating strict control over them has a lot to do with politics at its core. In fact the word political comes from the Greek πόλις, polis, which was the name of the city-states of ancient Greece. In other words, the political world is closely linked to the citizen and the decisions that are made in the city-state. For Aristotle, the human being is a political animal (Zoon politikón)¹² who has the wonderful ability to relate politically, that is, to create societies and organize life in cities, unlike other animals. As we will see in the next subchapter, the archetype of public space emerged in ancient Greece in the agora, where citizens used to gather and everyone could participate in urban life. Democracy appeared for the first time in many of the ancient civilisations that organised their institutions on the basis of tribal community and egalitarian systems. It is also a word coined in ancient Greek, δῆμος, dêmos, which can be translated as “people” and -κρατία -kratía, from the root of κράτος, krátos, which can be translated as “strength”, “act of valour”, “dominion” or “power”.¹³ Due to the relatively small dimensions of the polis, the decisions were made in a similar way to a town assembly. However, the polis was not representative or inclusive, since it could only be comprised of free men. Furthermore, the concept of democracy was criticised in particular by Plato. He considered that sharing political power between all citizens is a mistake, since it takes a certain wisdom and a certain knowledge to govern, that is, access to knowledge of the Ideas of the True, the Fair and the Good. So Plato defended the idea that only philosopher kings or king philosophers should govern. Since then, history has taught us that humanity has not stopped, more or less violently, discussing who should have more power, sometimes at very high social costs. However, these issues are beyond the scope of the research.

12 ζῷον, zōion, “animal” and πολιτικόν, politikón, “political (from the polis)”.

13 Real Academia Española y Asociación de Academias de la Lengua Española (2014). «-cracia». Diccionario de la lengua española.

Seen from this angle, participation has a lot to do with political vision. We can find more examples from recent history. Part of participation, that which is most similar to Sherry Arnstein's view (citizen power) (1968), gives full control to the citizenry and is closely related to anarchy. Here, we can examine the etymology and origin of anarchism. The word is from the Ancient Greek *anarkhia*, meaning "without a ruler". It is composed of the prefix *an-* (i.e. "without") and the word *arkhos* (i.e. "leader" or "ruler"). Many modern, contemporary and emblematic actors of participatory architecture consider themselves anarchists. Colin Ward (1924-2010), architect and one of the leading figures of the UK anarchist movement, wrote extensively about issues of housing and planning. He admired Walter Segal, the famous architect who developed an outstanding method for people to build their own houses, and considered Segal a basic inspiration for participatory architecture. Ward also theorised on a "pragmatist anarchism" in favour of informal and self-organised mechanisms based on non-hierarchical structures to remove authoritarian forms of organisation and governance (Ward C., 1976). This affinity with anarchist ideology is shared with intellectuals like John F.C Turner, whose famous works on informal settlements in Latin America we present below. We could say the same about some popular movements, sometimes called grassroots movements, and one of the most famous of all: squatting. This action, which usurps unoccupied land and empty homes to use as a home, farmland, meeting place or centre for social, political and cultural purposes, has at its heart protest and anarchism. In Spain, the main motivation of the Okupa Movement is to denounce and at the same time respond to the economic difficulties that activists consider to exist, to make the right to housing real, at the cost of the right to private property. This is itself a political action.

In short, we could continue here with numerous examples and delve into the theoretical political issue. But to date no political model has been able to eliminate corruption or problems associated with inclusion. Some measures may seem too drastic and disturbing or too utopian, and they may or may not be difficult to implement in our urban reality. There is also no doubt that it is sometimes necessary to have specialised perspectives that can focus on a vulnerable population. That is why we preferred to start from a concrete reality in our research, in which we seek to improve the creation of the city by alternating between top-down and bottom-up processes. In this reality, we can definitely provide more participatory solutions. There is a long way to go, although it will of course also depend on political visions.

This concern for public engagement became visible in the twentieth century in public administrations and large-scale meetings in the late twentieth century. Problems related to participation have been recognised for over three decades in the "The Brundtland Report" (1987), which stated that the "The changes in attitudes, in social values, and in aspirations that the report urges will depend on vast campaigns of education, debate and public participation" (Bruntland G., 1987, p.2).

At the Rio Summit 1992, Agenda 21 provided more details, especially in relation to sustainable development:

“A specific anti-poverty strategy is therefore one of the basic conditions for ensuring sustainable development. An effective strategy for tackling the problems of poverty, development and environment simultaneously should begin by focusing on resources, production and people and should cover demographic issues, enhanced health care and education, the rights of women, the role of youth and of indigenous people and local communities and a democratic participation process in association with improved governance” (Agenda 21, p.4).

“Empowering women through full participation in decision-making; b. Respecting the cultural integrity and the rights of indigenous people and their communities; c. Promoting or establishing grass-roots mechanisms to allow for the sharing of experience and knowledge between communities; d. Giving communities a large measure of participation in the sustainable management and protection of the local natural resources in order to enhance their productive capacity; e. Establishing a network of community-based learning centres for capacity-building and sustainable development” (Agenda 21, p.5).

More recently, the Aarhus Convention (1998) established a number of rights of the public (individuals and their associations) with regard to the environment at national, regional or local level. It stated:

“The right of everyone to receive environmental information that is held by public authorities (“access to environmental information”). This can include information on the state of the environment, but also on policies or measures taken, or on the state of human health and safety where this can be affected by the state of the environment. Applicants are entitled to obtain this information within one month of the request and without having to say why they require it. In addition, public authorities are obliged, under the Convention, to actively disseminate environmental information in their possession.”

“The right to participate in environmental decision-making. Arrangements are to be made by public authorities to enable the public affected and environmental non-governmental organisations to comment on, for example, proposals for projects affecting the environment, or plans and programmes relating to the environment, these comments to be taken into due account in decision-making, and information to be provided on the final decisions and the reasons for it (public participation in environmental decision-making).”

“The right to review procedures to challenge public decisions that have been made without respecting the two aforementioned rights or environmental law in general (access to justice).”

There is a real concern at European level for an almost general reduction in interest in politics, with a manifestation of detachment or disgust for public affairs, as indicated by the Committee of Ministers of the Council of Europe. In Recommendation 19, “Citizen participation in local public life” (CMCE, 2001), the CMCE recommends a policy to promote citizen participation in public life at local level, reaffirming its conviction that dialogue between citizens and elected officials is essential for democracy. It proposes at a local and regional level to work this out quickly with governments, and it underlines the urgency of considering the introduction of gender quotas for candidate lists in local elections (CMCE, 2001).

We should note that each country and even each municipality has its own rules regarding participation and transformation of the environment and the built environment. They follow the same current trend marked above. In France, the law on urban solidarity and renewal (SRU law; *La loi relative à la solidarité et au renouvellement urbains*; loi SRU no 2000-1208) no 2000-1208, 13 December 2000 and the ZACs (Concerted development zone - *Zone d’aménagement concertée*) establish a dialogue between landowners and the community particularly on the distribution and financing of public facilities. In Spain, there is no state citizen participation law at the current time. However, in January 2019, a tool was introduced to develop an Organic Law on Citizen Participation (*Ley Orgánica de Participación Ciudadana*) written with the contributions of citizens who want to collaborate. The online tool provides a draft to which anyone can add contributions. The final text is now being discussed by parliamentary and campaign groups to bring it to Congress (Barandela M., 2019). However, in Spain some autonomous communities (*comunidades autónomas*) and municipalities have developed their own legal system for this area. For example, at local level, Barcelona’s new municipal regulations for citizen participation (*Reglamento de participación ciudadana del Ayuntamiento de Barcelona*) came into force in 2017.

Nevertheless, as we will see in the next subchapter, participation has many origins. These include many apolitical origins, depending on the contexts. In an attempt to decentralize the (Eurocentric) view of Asia or Latin America, we must include other examples with rich principles, such as *Sumak Kawsay*, an indigenous concept with a universalist vocation used in particular in Ecuador, which literally means living well through a harmonious relationship between human beings and nature, a community life made up of mutual aid, shared responsibilities, collective production and distribution of wealth according to the needs of community members (Balch, 2013). In the same line, we can also learn a lot from the management of certain villages and Mexicans, with community systems of self-management. Therefore, many principles are ultimately reminiscent of new concepts such as the economy for the common good (Felber, 2010).

Our intuition and personal interpretation is that participation in urban spaces and in architecture is a question of good praxis and common sense, rather than occurring through protocols and regulations. As explained by Zaida Muxi and Blanca Gutierréz Valdivia, “Citizenship or mutual respect and the feeling of community are not generated among the population by regulation, but through the creation of spaces where people can share their time and thoughts. Spaces in which we can learn to mediate, to see, to gather from others’ differences and needs” (2011).¹⁴ Hence, there are some architectural and urban practices in which genuine participation occurs naturally, rather than through procedures that, as indicated by many specialists, do not allow real participation.

Finally, we could cite the work of architect Markus Miessen (2010), who demonstrates the misuse of participation as a tool for political legitimisation, with protocols and processes that allow only partial participation, and consensus that only brings relatively low productivity and few new ideas. For Miessen, we need to introduce disinterested outsiders, as irritating, uninvited people. Someone who is not subject to existing protocols and who is encouraged to make proposals only armed with their creative intelligence. Someone with the will to generate change in their environment, with constructive conflicts. We can agree or disagree with this notion, but what is certain is that it is a question of understanding participatory practice in a different and creative way, and in our case, crossing the limits of citizen participation and its political dimension. Our understanding of architecture and the urban project must therefore embrace all kinds of urban and architectural practices that involve not only the local community, but the individual in disagreement. The aim of our research is not to write new procedures or laws for participation, but to provide an educational and creative vision of architectural and urban practice. In this sense, the experiment with daring, creative students represents for us a key point to allow real change.

14 “El civismo o respeto mutuo y el sentimiento de comunidad no se generan entre la población a golpe de normativa, sino a través de la creación de espacios donde la gente pueda compartir su tiempo y sus pensamientos. Espacios donde aprender a mediar, a ceder, a recolectar los demás en plus diferencias y necesidades”.

1.2 Participatory practices in architecture and in the urban planning context

“If the structure does not permit dialogue the structure must be changed.”
Paulo Freire (1968)

We can consider Paulo Freire a main source of inspiration in participatory planning. A fundamental starting point of our research is his belief that the marginalised population, such as poor or exploited people can, and should be able to, analyse their reality to improve it directly. In fact, the UN-Habitat document *Building Bridges Through Participatory Planning* (Fisher, 2001) recognizes Freire as a key pioneer, along with other figures such as Lewis Mumford or Patrick Geddes. The document also recognizes “Participatory Reflection and Action” (PRA) as a reference in participatory urban planning, as well as “Participatory Learning and Action” (PLA), in which numerous methods are used for participatory projects (Fisher, 2001). Other similar participatory dynamics are supplemented or carried out in parallel to these methodologies, such as community-based participatory research (Israel, BA; Schulz, AJ; Parker, EA; & Becker, AB, 1998). In architecture, other merging architectural collectives have incorporated new ways of working collaboratively and diversely, for example, in England (Luck, R, 2018) or Barcelona (Lacol, 2018). To be able to give a concise, clear vision of what we will call participatory practices in architecture, we can simply begin by determining its origin and mode of action.

To turn around the notion of participation in architecture, we can use the concept of top-down and bottom-up processes, inherited from computer science. In the top-down model, a system summary is formulated, without specifying details. We can say that this model represents the orthodox urban planning model. That is, the urban project is formulated from an overview. In contrast, in the bottom-up process, the individual parts are designed in detail and then linked to form larger components, which in turn are linked until the entire system is formed. In participatory practices in architecture, the individual parts are represented by a community of people or their actions. Some of these practices may be undertaken without awareness of their participatory nature. This category contains the activities of community organisations, as described from a sociological perspective, and descriptions of community participation in the third world, with cooperation and community organisation (Worsley, 1967). In other cases, practices are implemented with awareness of their participatory nature. Examples include recent cases like *Bloc Onze* in Barcelona (Lacol, 2018), that we will discuss later. In urban planning, bottom-up or emerging urban planning is based on a web of urban cooperation. This represents a major change for municipal economic resources, used in orthodox urbanism to provide a finished urban space managed by the local government. In the case of direct participation, the space is managed through people’s personal commitment, and the economic contributions are associated with the decisions that are taken. This generates a virtuous circle of social benefits, where we can find some notion of loss of the community that is inherent in neighbourhoods or the rural world. In

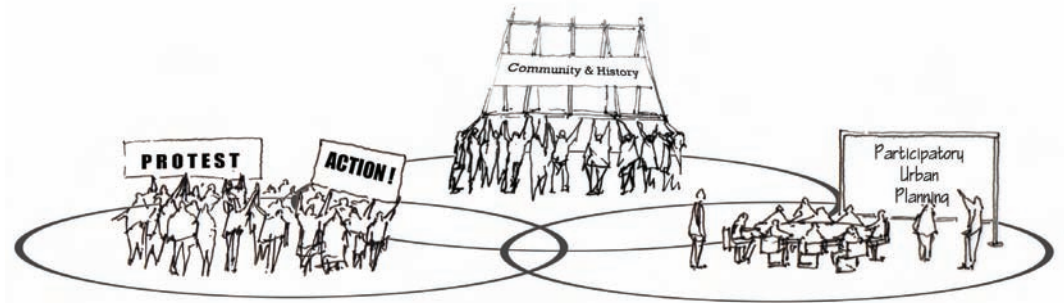


Figure 9

The three sets of participatory practices. Source: author

this context, it seems that the challenge is how to make people committed and how to create an urban space that allows the chain of community actions to take place. In consolidated urban areas, the challenge is to achieve a balance between the top-down and bottom-up models. In other words, formal urban planning is required, with enough freedom to allow real synergies and transformations to take place with citizens. To understand this logic, we must also understand some phenomena that can be included in participatory practices. We have classified these practices based on an analysis of the literature and experiences. In short, the three paradigms of participatory practices in architecture that we have defined are: (1) architecture without architects, which is often unintentionally participatory, (2) actions or rather reactions of protest and awareness and (3) the results of participatory urban planning, that lead to a wide range of participatory practices. These three categories often intersect, and some experiences are hybrids between two or three categories.

1.2.1. Architecture without architects: community and historical organisation in architecture

Self-build and organic growth

The city is a complex context; the sum of physical, climate, economic, historical, social, cultural and architectural facets, where men and women as citizens are members of the same community, with links between them that allow the emergence of a project that exceeds individual interests. In this context, we can interpret the city as a product of the economy, of a desire to live together but also as a political project, such as the political animal (*zoon politikon*) of Aristoteles. To understand the relationship between the urban context and participation, we must take a step back in time, before the very genesis of cities, and even to the primitive rural clans and their self-build architecture.

This first category of self-build is somehow the most natural. We refer here to the adjective “natural” that refers to nature, consciously and deliberately. Self-build seems a very convincing form of participatory architecture and has inspired many architects. By extension, the category of self-build includes urban forms that have been constructed organically, that is to say, without prior planning. Since its origins, urban life has been a mirror and engine of important processes of social, political and cultural change. The concept of capitalism emerged in the city with the development of trade, division of labour and accumulation of wealth. According to the sociologist Ferdinand Tönnies, leaving rural life means leaving a life in community, where solid and lasting links between individuals and nature are established (*Gemeinschaft*). Historians and sociologists like Karl Marx or Friedrich Engels argued that societies were traditionally based on equal and communal

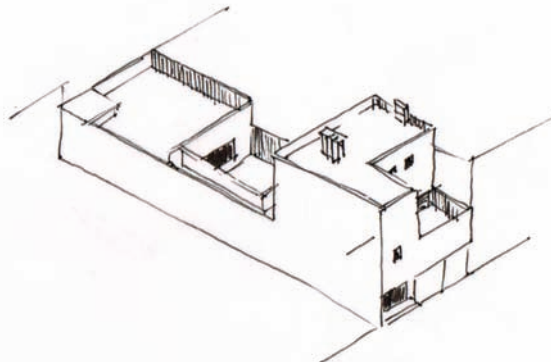
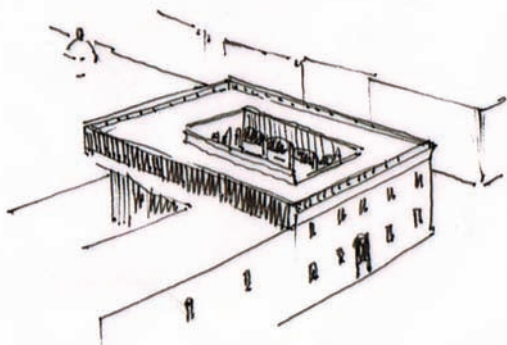
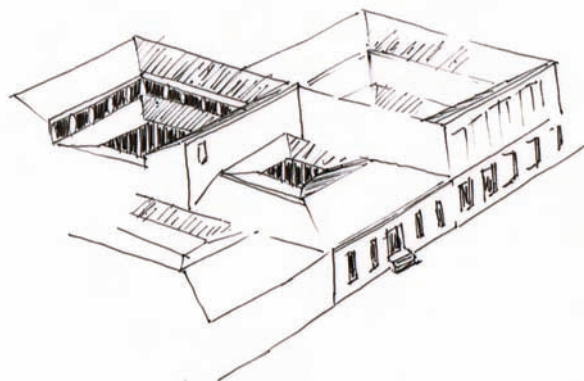
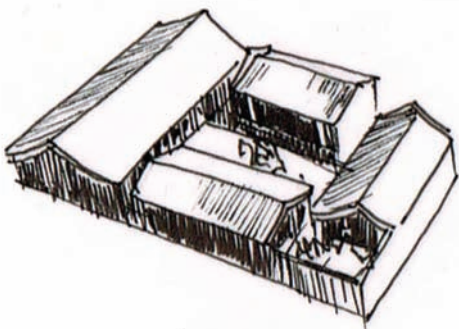
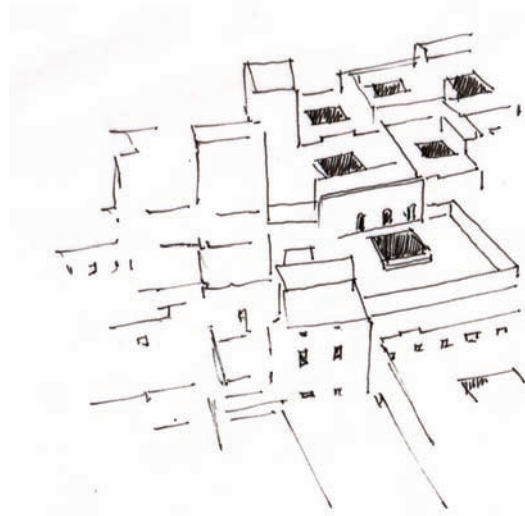
social relations (Scott & Gordon, 2007).¹⁵ In contrast, for the Marxists in particular, the city would be the result of the development of a surplus of agricultural production that generates monetarised trade. Although we cannot really speak of architecture in these first settlements, we can imagine how the communal activities of tribes or family clans represent the archetype of participation. Self-build is a well-known practice of creating buildings for oneself or a community through a range of methods. The first traces of these settlements can be found in the central plateau of Iran. They date back to 8000 BC and are made from mud or mud mixed to make cob (Smith, 1990).⁴ Self-build is still an ordinary, active practice in many countries, such as Africa or Latin America. In local contexts, it has revealed communities' true know-how in the construction of architecture integrated into its context, as we will describe further. Historically, the first urban settlements arose when a society became so complex that the traditional family clan system was insufficient to organize community life. In this case, a complementary administrative system was created that guaranteed social and economic stability. As stated by Glyn Daniel in his book *The First Civilisations* (1968), the first recorded cities were built around 3500 or 3000 BC in ancient Mesopotamia, Egypt, the Indus Valley, the Yellow River in China, the Valley of Mexico, the jungles of Guatemala and Honduras and the coasts and highlands of Peru.

Based on findings by the archaeologist Wooley, Morris (1979) stated that the city of Ur, in the Sumerian civilisation (1700 BC), had two parts. These two parts represent two models, one controlled, and the other totally without prior planning. In these two parts, we can perceive two approaches: an organised form corresponding to the plan of the Temenos, the city's religious citadel, with solid walls, the ziggurat, temples and palaces planned under Nebuchadnezzar in the second millennium BC; and a second part that corresponds to the residential neighbourhood at the southeast of Temenos that was also excavated by Wooley and grew organically. According to Morris (1979), the complexity of these houses was the result of a long evolutionary process. They also appear to be grouped in paths that went beyond the conditions of the primitive, local village. Finally, they do not conform to any "system of town planning". He describes them as varying in size, depending on the owner's means and the availability of space. The interior spaces around the patio resulted from a desire for domestic intimacy in urban conditions, away from the public street. It is interesting to note that the "around a courtyard" typology represents one of the models that has endured most over time in various forms, repeating the same leitmotif: spaces turned towards a central space. We can illustrate this example with numerous typologies around the world. It is a way to distribute space to provide an intimate place, away from the tumult of the street.

Figure 10

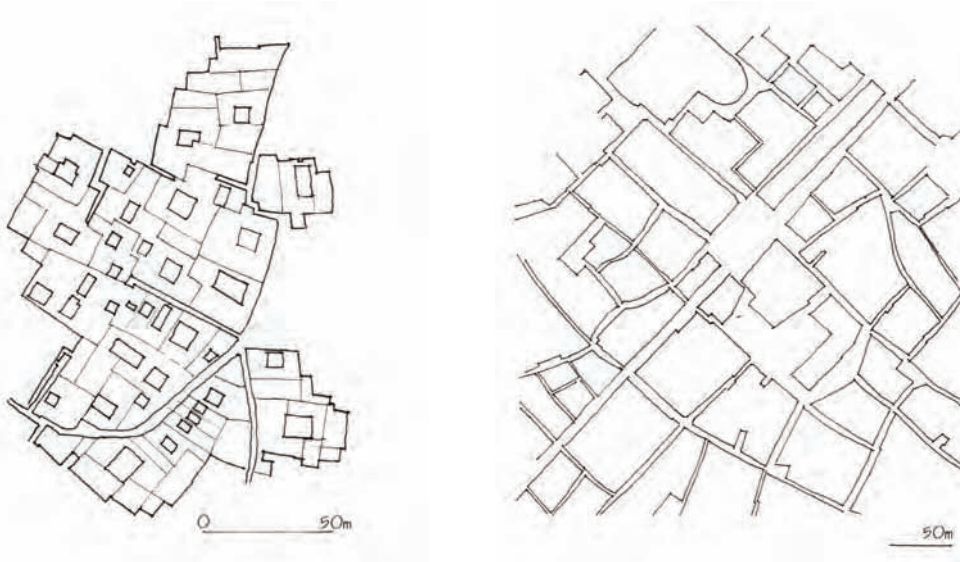
Courtyard (or patio) houses: underground living in Matmata, the old medina of Fez (similar to the typology of Ur), Siheyuan, a Roman domus, a colonial house in Oaxaca de Juárez and Casa Gilardi (designed by Luis Barragan). Source: author

For more information about the about the Siheyuan houses, see the book *Vernacular Dwellings* (Quiju, W., 2000).









At urban scale, organic growth, rather than urban planning, is the most widespread form of urban evolution in the world: “As one of the basic tenets of this book, the natural, unplanned process whereby an urban settlement evolves from a village origin is termed organic growth, and it represents by far the broadest of two directly contrasted, continuing streams of activity whereby mankind, through to the present day, has created our urban settlements... The second stream, which has produced only a comparatively small number of towns, had a more recent, yet still ancient origin... This second one is based on a planned, predetermined method” (Morris, 1979). Until recent times, organic growth could denote uncontrolled expansion in some countries, but could also be seen as an opportunity, as we will see in the works of Turner. A current opportunity in these contexts could be to seek synergies instead of trying to relocate an entire part of the population in homes built by local governments that struggle to satisfy demand. However, we should return to organic urban development and self-build solutions. One of the most interesting aspects of this type of planning is the use of local raw material that can produce ingenious architectural solutions. Of course, this situation may differ in recent cases of uncontrolled informal settlements, in which ancestral know-how has been lost. However, once again, Turner’s works can provide a reference to alleviate this problem, as described later in the research. Secondly, organic growth can lead to architecture built with the direct participation of the local community, although not necessarily democratic participation. Finally, organic growth produces urban landscapes of picturesque variety whose best exponent is perhaps the medieval urban form. Morris (1979) describes this as an indefinable natural pattern, despite its almost illogical structure. Like many other bottom-up experiences we will see in this paper, its first chaotic appearance is the result of a series of factors that give the whole its logic. As for urban planning in grid, numerous historians of urbanism consider that it arose in 479 BC in Greek cities and was first used in the reconstruction of Miletus. However, the grid was applied before this in India in the cities of Harappa (2150 and 1750 BC). The grid layout suggests that it cannot occur spontaneously. It was not really used as an urban plan itself, but rather as a way of simply structuring a village of workers (Morris, 1979). In Miletus, many agree that Hippodamus could be considered the first urbanist with scientific criteria. Aristotle, for example, attributed to him the merit of leaving theory, experiencing it and creating a logic of urban distribution (Chueca Goitia, 1968).

Organic growth, such as that of the Tell of Erbil in Iraq, which has been occupied more or less continuously for over 8000 years, contrasts for example with Roman cities that have reticular planning. Thousands of years later in Europe, during the Middle Ages, the medieval city emerged as a communal organisation, where groups of volunteers were created to work on the construction and maintenance of the walls surrounding the cities.

Figure 11 (previous page)

Comparison of urban fabrics. On the left, organic system types: Fez, Lijiang, Barcelona historic centre. On the right: planned cities, Eixample, Oaxaca de Juarez and New York. Source: author.

Figure 12

Comparison of Ur and the old town of Barcelona. Source: author

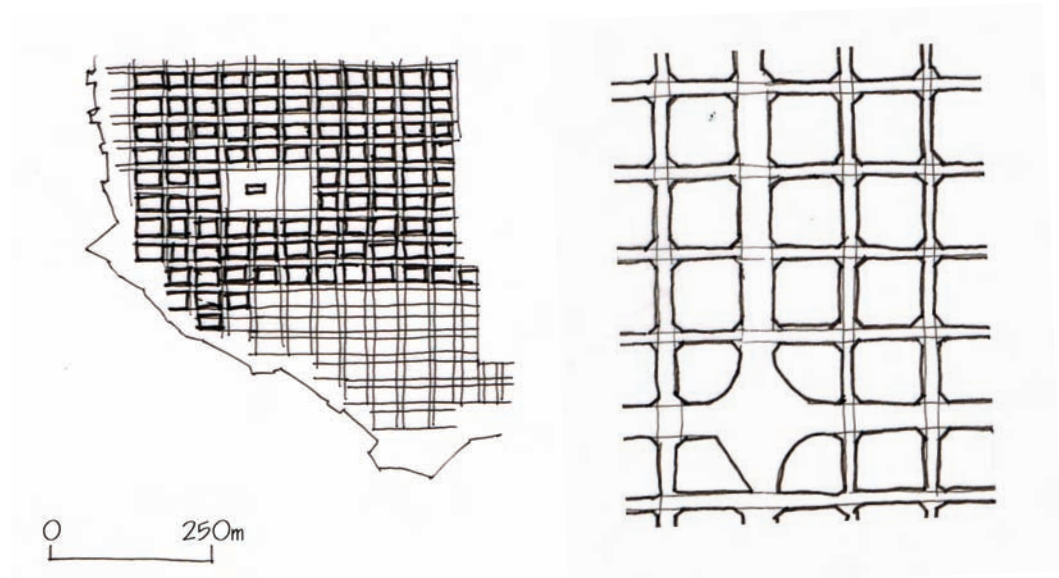


Figure 13

Comparison of Mileto and the Eixample of Barcelona.

Source: author

The same organic form persisted,¹⁶ although what began as a voluntary contribution soon became mandatory (Chueca Goitia, 1968). The interest in urban planning emerged to order and shape a society in a controlled way. Orderly planning has traditionally been introduced with plans from above (top-down process) and it is generally structured by some authority, for example, some entity in power. An organic form does not mean that it has been built fairly or democratically. Likewise, an urban grid, like any tool, can be organised in a participatory way from bottom-up. However, this may confuse the reader and distract us from the topic of participation in architecture. We can only affirm that in our recent history, since the time of industrialisation, the tools of urban planning have served a more privileged group in society, while the organic form represents the emerging system closest to the community. In this sense, speaking of “cities without a soul”, the author Fernando Chueca Goitia (1968) described the grid as a tool, which in the hands of real estate speculators, “lot dealers” allowed the use of the land to its fullest, with calculations of yields, sales, etc. To understand the process from the bottom-up with active participation of its inhabitants, we may first consider some notions of the civic city, inherited from the classical era, and more recent traditional community processes, which may still be active.

Community life and agora in the polis (sixth to third centuries BC)

A discussion of participation archetypes and citizen decisions should include the city states of Greece. This is the context in which the concept of citizenship first emerged (Aristotle, fourth century BC: “...We call, then, citizen of a city those that have the power to intervene in the deliberative and judicial functions of the city, and a city in general, the total number of these citizens that suffices for the sufficiency of life.”¹⁷ According to Morris (1979), a series of conditions were necessary for these city state models: first, the topography, which determined organisation in the territory of very clearly defined separate cities, such as small and independent states, strongly linked to their natural environment with a nucleus surrounded by villages of agricultural communities and their fields. The famous British classical scholar Humphrey Davy Findley Kitto (1959) described a close relationship in city states between the city, the countryside and citizen life, with an awareness of the surrounding environment, countryside, mountains and sea. This fostered a healthy, balanced attitude

16 “La ciudad medieval se nos aparece a todos como una ciudad amurallada. Esto podrá parecer un hecho físico accidental, pero la realidad profunda es que se trata de un hecho condicionante del más largo alcance. En la Edad Media aparece la ciudad como una organización comunal. Precisamente una de tantas causas que influyeron en el nacimiento de las comunidades fue la necesidad de organizar un sistema de contribuciones voluntarias para atender a las obras apremiantes de construcción y conservación de murallas.”

17 Aristóteles, Política, Libro III, cap.I. “Llamamos, entonces, ciudadano de una ciudad que tiene el poder de intervenir en las funciones deliberativas y judiciales de la ciudad, y la ciudad en general, el número total de estos ciudadanos que es suficiente para la suficiencia de la vida.”

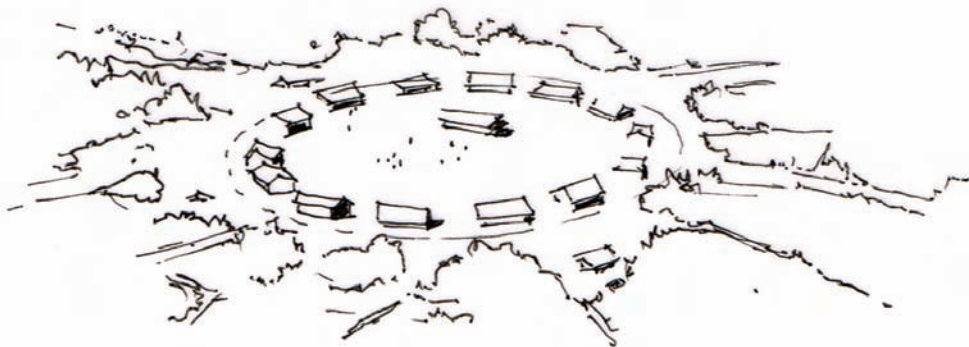
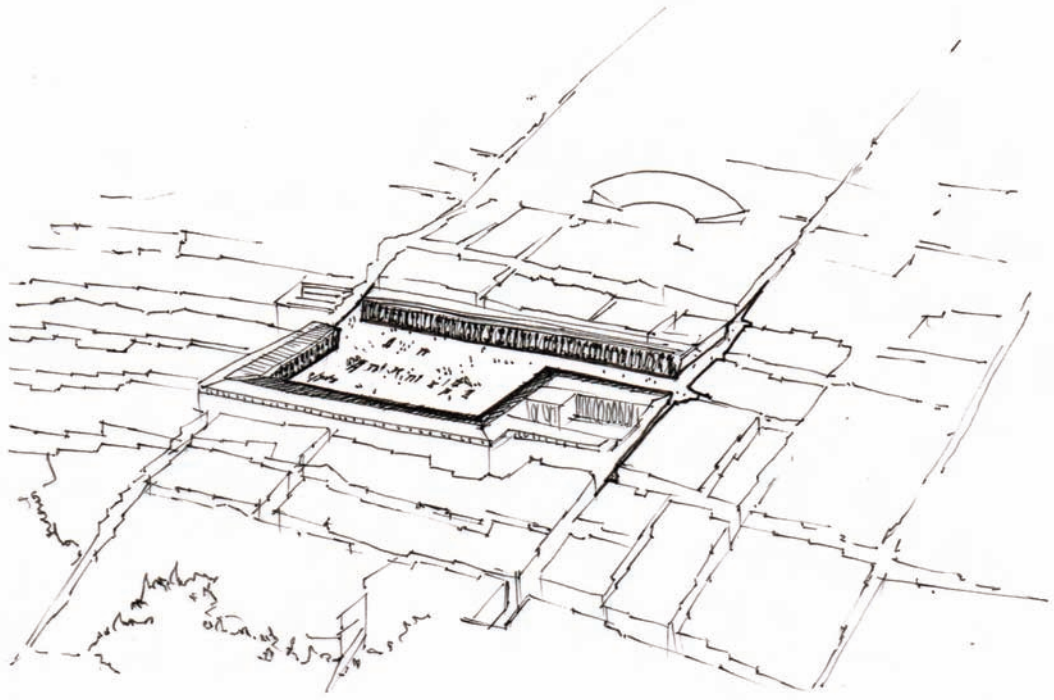


Figure 14

Comparison between the Place du Capitole in Toulouse and the agora of the ancient city of Priene (approximately 1000 BC and fourth century BC).

For more information on Priene, see the book *Geology and Settlement: Greco-Roman Patterns* (Crouch D. P., 2004)

Source: author

due to a mostly mild, sunny climate that stimulated outdoor, community-oriented activity and led to the development of Greek democracy. With the development of democracy in the city-states of Greece, new urban elements appeared that indicate closer collaboration of people in the affairs of the community. In addition to temples, there were several buildings dedicated to the public good and to the development of democracy (Chueca Goitia F., 1968). In this context, an archetype of the public square par excellence was created, the agora, the real nerve centre of the city where citizens gathered. This space was the scene of daily social life, business and politics. An important aspect of the “sustainability” of the polis was undoubtedly its small population, which did not exceed 5,000 inhabitants with the exception of three cases of over 20,000 inhabitants (Morris, 1979). For Ortega (1916), the classical city is built for people to live outside their homes. This reflects an instinct that goes against the domestic, where people leave their homes to meet others. For many, the polis continues to represent the city paradigm par excellence, in which urban morphology, citizen participation and natural space were balanced: “The Urb is, above all, this: square, agora, place for conversation, dispute, eloquence, politics. Strictly speaking, the classic city should not have houses, but only the facades that are required to close a square, an artificial scene that the political animal delimits on the agricultural space.”¹⁸

Living examples: housing

Perhaps one of the most interesting aspects of the study is to consider that architects can draw on historical community participation processes for urban planning. This also means accepting, as we described earlier, that some types of architecture and spatial organisation surpass any architectural planning that professionals can conceive. This means that participatory architecture can simply be observed and studied in phenomena that are not planned, in the image of emerging systems. For this to happen, it is important to find this degree of freedom to conceive optimal factors in a context. This is simply due to the fact that there are numerous factors (sociology, history, climate and spatial, etc.) that have generated architecture based on “know-how” conceived from generation to generation. Like adaptation and natural selection in nature, architecture, and by extension our urban environments, can be transformed gradually and optimally, as long as some common good guidelines are followed. However, we must consider that our interpretation of a project in a physical space (that is domestic, rural or urban) may put other social or cultural factors in the population at risk. In his book *Tristes Tropiques* (1955), Lévi-Strauss explains the importance of the community and the physical organisation of space. In the Bororó community, in Brazil, he compiled ethnographic material with his fieldwork methodology

Interpretation of the Bororo village based on documents drawn up by Levi Strauss.
Source: author.

¹⁸ Ortega: “La Urbe es, ante todo, esto: plazuela, ágora, lugar para la conversación, la disputa, la elocuencia, la política. En rigor, la urbe clásica no debía tener casas, sino sólo fachadas que son necesarias para cerrar una plaza, escena artificial que el animal político acota sobre el espacio agrícola”.



Figure 15

Architecture without Architects. Photographs of the installations. November 11, 1964–February 7, 1965. Photographic Archive. The Museum of Modern Art Archives, New York. IN752.1. Photograph by Rolf Petersen

and described a complex system of spatial location, place and family relationships that create strong social ties. This was corroborated when the population was moved from its place of origin in Matogrosso into homes built with modern materials, as a result of the construction of a dam. The move led to the permanent loss of the social, cultural and spiritual ties (García Ramírez, 2012).¹⁹

In line with the increasing anthropological activity, in the second half of the twentieth century there has been real interest in self-build processes. In 1964, the exhibition “Architecture without Architects” at the Museum of Modern Art (MoMA) revealed the genius, sensitivity and know-how of those who create spaces that are integrated into their surroundings, without the need for plans (Rudofsky, 1964). Awareness of community self-build has revealed that it is durable, with buildings still standing despite having been constructed many years ago. Self-build structures are usually made with local, perennial materials. Rudofsky, a well-known architect, critic and designer, who was then consultant to MoMA’s Department of Architecture and Design, stated that “Far from being accidental, this non-pedigreed architecture gives tangible evidence of a more humane, more intelligent ways of living”. The exhibition was a survey of communal architecture²⁰ with examples from 60 countries, with approximately 200 enlarged photographs. It showed vernacular architecture of Central Europe, the Mediterranean and South and East Asia, architecture of earthships, wood and bamboo, and “troglodyte dwellings and free-standing buildings cut from live rock”, ingenious solutions of wind screens that could take impressive dimensions, protecting an entire town, and of course the architecture of the nomads, with all kinds of adaptable architectural devices: “portable houses, houses on wheels, sled-houses, houseboats and tents”. Rudofsky concluded for the press release that “Every society has the architecture it deserves. If we are sometimes less than happy about ours, it is because technology and wealth alone do not necessarily produce the best results. Architecture without Architects drives home this point by comparing, if only by implication, the serenity of architecture in the so-called underdeveloped countries with the progressive chaos and blight of our urbs and suburbs” (Moma press release, 1964).

Figure 16

Anticoli on the Sabine Mountains (near Rome). Photograph from *Architecture without Architects*. Source: Rudofsky (1964), Gabinetto Fotografico Nazionale.

The lifetime research of John F.C Turner reveals an alternative, participatory vision of architecture, related to housing problems in Latin America. Turner, who graduated in

¹⁹ Claude Lévi Strauss spent four years in Bororó, from 1935 to 1939. With this study he demonstrated the peculiar relationships between housing, place, spatial and social organisation. Taking a community out of its context in a rational way can have a devastating effect, which can also explain cases in the modern world, such as evictions from the centre to the suburbs, in the United States or in Europe.

²⁰ Defined by Rudofsky as “a communal art, not produced by the specialist but by the spontaneous and continuing activity of a whole people with a common heritage, acting under a community of experience.”



Figure 17

Explanatory plans of Turner teaching typologies of self-built houses in *barriadas* of Lima.

Source: Turner, John F.C (2018). *Autoconstrucción. Por una autonomía del habitar*. Logroño: Pepitas.

architecture from the Architectural Association in London in 1954 and worked in Peru for eight years from 1957, mainly advocated and designed community action and self-help programmes in villages and urban squatter settlements. In his book *Housing by the People: towards Autonomy in Building Environments*, the architect recognizes people's wisdom in discovering and building spaces that are appropriate to their physical, social and cultural needs. He defends ancestral know-how in the self-construction of popular tradition. He describes and comments on the example of the Vizcarra house in Arequipa, Peru, which was built over thirty years. But the reflection goes further. One of the most interesting aspects of Turner's work is how it breaks stereotypes and the negative connotations of the phenomenon of invasion and illegal land occupation, often called illegal or informal settlements, which result from uncontrolled growth by self-build. While others see a problem, Turner presents it as an alternative to the housing problem in Latin American countries. Turner starts from the hypothesis that "uncontrolled urban settlement is a manifestation of normal growth processes [self-build] under abnormal historical conditions. According to him, the slums, which may appear from a Western perspective as disorderly or chaotic, represent one of the most effective solutions to urbanisation problems in Peru. In fact, at domestic level, what seems to be unfinished work in the eyes of the Westerner, is an opportunity for one of the neighbourhood's residents to continue with its construction. This practice can be observed by anyone and is widely spread throughout Latin America, where it is not uncommon to see rods of concrete protruding several metres from the first floor of a house, to allow a second floor to be built in the future. Going back to the large scale and the housing problem, the question is: can governments or other agencies effectively use the direct contribution of families and communities in the construction process? On a sufficiently large scale, can self-construction be established as an effective instrument in the execution of national housing programmes? The architect maintained that when the population has greater control and is free to contribute to the design and construction of homes, the process stimulates social welfare. Even in the cases of slums, the builder who makes the decisions finds an occasion for self-discovery and personal growth, by taking responsibility for the construction of his home and the local improvement of his/her neighbourhood. If we extrapolate to other general contexts (for example Western), Turner emphasizes that this does not mean each family must build its own house, but they should have the freedom to choose their own home, build or direct the construction as they wish.

In the search for freedom to build, Walter Segal developed a wooden self-construction system to convert the experiences into a "true family enterprise" (Broome,1986).¹ The method of construction, designed in the mid-1960s, was a combination of readily available components and panels in standard sizes within a post and beam timber frame. The purpose was to conceive a system composed of a dimensional grid that is easy for people to understand and use, with dry jointing, a modular frame and non-load-bearing infill

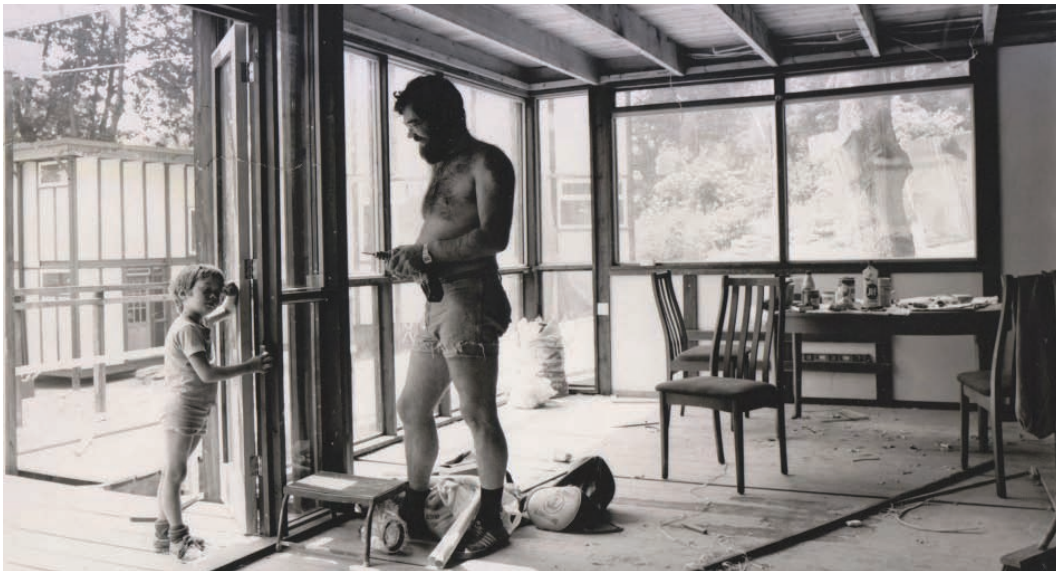


Figure 18

Self-built site (Walter Segal's method) in Lewisham. Source: Courtesy of Jon Broome for the *Modern House Journal* (2017).

Figure 19

Two types of processes based on self-build: on the left, a local community in Oaxaca, moving the structure of a sloping roof. On the right, a family raising up the structure of their house based on Walter Segal's method. Source: author

(Broome, 1986). According to Ellis (1987) "Segal not only emphasizes on physical, but also on the psychological needs of the users in his participatory process." Segal somehow provided a mixed approach, that gave people the freedom to build mentioned by Turner but bounded in a construction and technical frame with its material. Because of the flexibility and almost infinite possibilities of Segal's method, its users and builders found the same self-discovery and personal growth described by Turner. In the words of Walter Segal: "Help was provided mutually and voluntarily – there were no particular constraints on that, which did mean that the good will of people could find its way through. The less you tried to control them the more you freed the elements of good will – this was astonishingly clear. Children were of course expected and allowed to play on the site. And the older ones also helped if they wished to help. That way one avoided all forms of friction. Each family were to build at their own speed and within their own capacity. We had quite a number of young people but some that were sixty and over also managed to build their own houses... They were told that I would not interfere with the internal arrangement. I let them make their own decisions therefore we had no difficulties." Clearly, what was important to Segal was not only the built structure, but also the way of life.

Figure 20, 21

Comparison of the same 14-m wide street on an ordinary day and on tianguí day. Source: author

Many other experiences were inspired by Segal's method. Some involved universities, such as the work of Sulzer and Hübner on a self-build student housing scheme at the Technical University of Stuttgart called *Bauhäusle*. Peter Hübner and Peter Sulzer are two leading figures in the areas of self-build and participation. Peter Blundell Jones (1983) stated that "having produced some habitable rooms, the idea arose that they might build a whole student hostel, in which the students would become designers, then builders and finally inhabitants." The author concluded that "instead of a monologue from the designer at the drawing table there was dialogue, unpredictable, but alive and fascinating, socially rewarding." The house was designed and built by students, between 1981 and 1983, under the supervision of the architects. Other examples in the pedagogical context can be quoted, such as the Rural Studio that provides practical educational experience working with poor communities in the Black Belt of West Alabama. More locally, in Barcelona, Mediterranean Bioarchitecture (BAM) is based on participatory workshops to learn bioconstruction.

Living examples: public space

Another interesting contemporary example, which also uses self-construction as a *modus operandi*, is a project by the Taller Espacios Abiertos (Open Space Workshop) in Oaxaca de Juárez. With a group of architecture and community students, the team transformed an old train station into a cultural centre (Sève, 2012). This experience was inspired by an ancestral process of community participation: *El tequio*. In Mexico, the *tequio* is collective work that

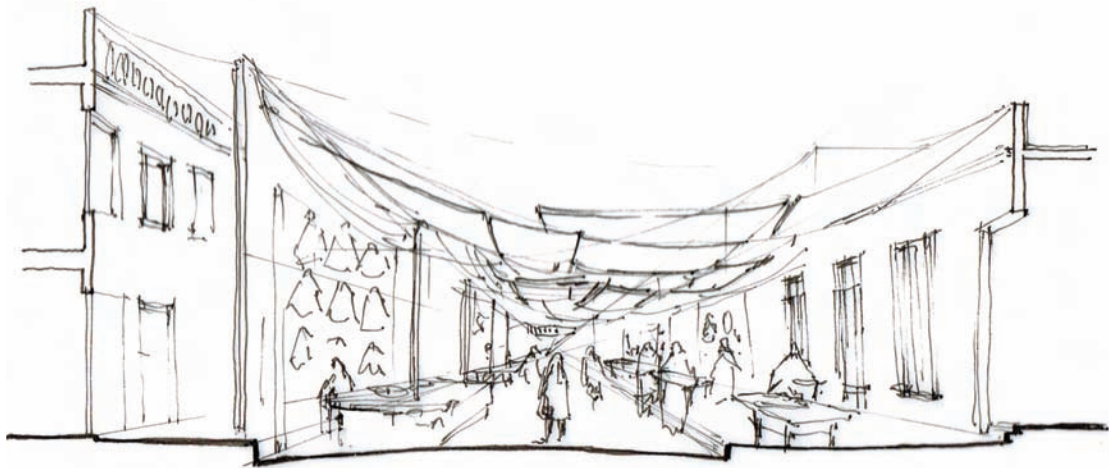
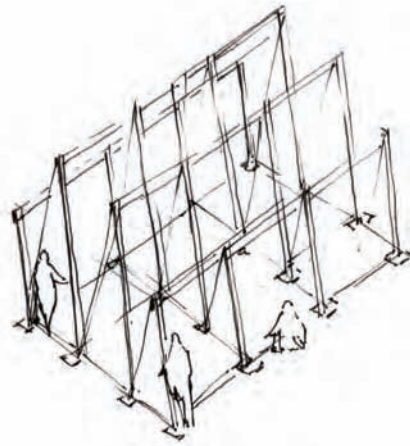
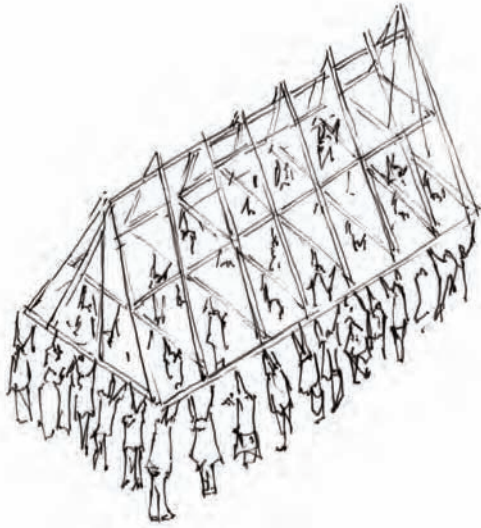




Figure 22

Tequio in the city of Oaxaca de Juárez. Source: Citlalli Lopez

Figure 23

Tequio near Etna, in a rural area of the state of Oaxaca. Source: Efraín Cruz Vázquez

each resident in a city or town owes to its community.²¹ Tasks range from self-construction of communal buildings to actions in the public space or tree planting. In regions of the state of Oaxaca, such as the Sierra Mixe, *tequio* and cooperation are one of the means that the assembly can manage to increase the autonomy of the municipality. In addition, *tequio* allows the transmission of traditional values and wisdom in all fields: cooking, traditional dances, and vernacular architecture with bioconstruction methods: the use of *tapial*, forest management etc. In this study, we present the *tequio* as a case study. *Tequios* represent living examples of a type of historical social and community organisation, but also a real alternative to the urban Western model. This pre-Hispanic custom continues to be deeply rooted in various parts of the country. Today, in the state of Oaxaca, the system of *usos y costumbres* (uses and customs) represents a form of self-government by many municipalities with indigenous populations to regulate the community. It is recognised by the Mexican constitution, in which *tequio* can be considered by law as a form of payment of municipal contributions. Although the tendency is to increasingly centralize the work and send more resources to the municipalities to try to complete works without resorting to free labour, the communities defend this tradition. They consider that the richness of the process lies not only in the results, but also in the social value of coexistence and integration of members of the communities.

Communities use the public space for working purposes, which is directly related to freedom of use and resilience in the public space. Activities include the exchange of goods and services that occur almost spontaneously in public spaces, for example at street food stalls and in street markets. In the urban void, between buildings and more specifically in the public space, citizens and community can take part in urban life, expressing themselves, interacting and working freely. In some cities, limitations are imposed by city regulations, which in some way could be called the right to exclude (Urzúa Bastida, 2012) and a lack of right to the city (Lefebvre, 1968). In fact, historically, many public spaces in our European cities were the site of all kinds of commercial interactions. In medieval cities, crossroads often housed small systems of street markets, meeting places for urban life, as in Toulouse (Busquets, 2014). There are still flexible urban spaces in many parts of the world, and more are emerging. Street food market stalls are a clear example of the inhabitants' involvement and their emancipation in the cities of the world. In her book *Sidewalk City: Remapping Public Space in Ho Chi Minh City*, Annette Miae Kim explains how the city of Ho Chi Minh, Vietnam, has built a bottom-up use of the sidewalks, which are filled with vibrant life (2015). From an anthropological perspective, these are places where products are

²¹ According to the work of Fray Alonso Molina in 1555, *Aquí comienza (sic) un vocabulario en lengua castellana y mexicana*, the word *tequitl* is defined as tribute and *tequitiliztli* as work. This is an unpaid contribution to the community, which remains in force in the state of Oaxaca, for example, where tasks include self-building, repair and cleaning of public spaces or planting trees etc.



Figure 24

Tianguis in Mexico City.
Source: courtesy of Yann
Arthus-Bertrand

exchanged as well as information of all kinds, which allows personal and group community ties to be established. The tianguis in Mexico represent another emerging system that raises two levels of questions beyond the scope of our research: should the street dealer have a right to work in the public space, as an appropriation of the space, above the right of the “flâneur”? Should we regulate the use of space, as in some cities in Europe, sometimes too authoritatively, or should we allow impressive clusters of tianguis as in Mexico? Should there be a new alternative?

At first glance, in the apparently chaotic tianguis each element is freely distributed without obeying any regulation or laws of geometry. However, by changing the perspective to the air, you can recognize in this “chaos” a self-organised, emergent system²², at least in a plastic way, as illustrated by the magnificent aerial photographs of the great artist Yann Arthus-Bertrand. In fact, we can see the markets as spaces that are ordered from chaos and organic growth, where networks and emerging systems are regenerated. Emergence, as described by computer scientist Steven Johnson in his book *Emerging Systems: or What Ants, Neurons, Cities and Software Have in Common*, is when a system of relatively simple elements is organised spontaneously and without explicit laws until it gives rise to intelligent behaviour.²³ These systems can be ant colonies (studied by Deborah M. Gordon), human brains or the famous tianguis of Mexico²⁴. The tianguis in Mexico City, covered with many awnings, appear from the sky as abstract and uniform works. Under the awnings there is a noisy market, self-organised with shelves of fruit, vegetables, medicinal plants, spices, handicrafts, clothes and all kinds of accessories for everyday life and leisure. The tianguis have evolved socially and are located in most populations of the Mexican nation and some countries of Central America, as generally unofficial, self-sufficient entities. They also represent a problem for governments, due to the risks to health, insecurity, the supply of stolen products and the disruption they can cause to urban mobility. In Mexico City, the tianguis are popularly accepted and are appreciated by visitors of all classes and cultures, especially for their social atmosphere, the contact with vendors, and the traditional

22 Emergence, as described by computer scientist Steven Johnson in his book “Emergence: The connected lives of ants, brains, cities, and software”, is when a system of relatively simple elements is organised spontaneously and without explicit laws until it gives rise to smart behaviour.

23 The work by both Steven Johnson (author of *Emergence: The Connected Lives of Ants, Brains, Cities, and Software*, Allen Lane, 2001) and Deborah M. Gordon (professor of biology at Stanford University) explains how communities or cities. It refers to the concept of “emergency” that occurs when a relatively simple system of elements is organised spontaneously, without prior rules that result in intelligent behavior. Johnson demonstrates through a series of examples how ants (referring to Gordon’s works), brains, software, but also cities are built on intelligence “from the bottom up.”

24 Also recognised since the 1970s as markets on wheels.



Figure 25, 26

Tianguis in Tlacolula de Matamoros. Source: Bernardo De Anda

specialties they offer. According to Ministry of Economic Development data, there are 1,420 tianguis in the Mexican capital, with 46,273 bidders who distribute 20 percent of the basic products, and they economically support 800,000 people.²⁵

However, the case study (Chapter 3.2) of a traditional tianguis in Tlacolula de Matamoros, where barter systems still exist, offers a very different picture of the mercados de ruedas of Mexico City. Our interest in studying a traditional tianguis was because of the intuition that it represents an emerging self-organised system par excellence, which depends on a multitude of human, historical, geographical and architectural factors. If for John FC Turner, “the uncontrolled urban settlement is a manifestation of normal urban growth processes [self-construction] under abnormal historical conditions [out of control due to the attraction of the great metropolis]” (2018), the tianguis are also manifestations of normal occupation of public space. However, depending on their contexts, they can become uncontrollable and insecure, or diverse, safe and viable. This is what we try to demonstrate in the case study (Chapter 3.2), starting from tianguis as a traditional phenomenon built by the wisdom of the population. This part of our research with a team in the city of Oaxaca de Juarez involved a study at street level in the traditional tianguis of Tlacolula de Matamoros, using an interdisciplinary approach (sociology, ethnography, economy and architecture with representations in plans and drone views) to examine these issues and explain the genius associated with these activities, which are real creators of urban life. Our work on this subject in the case study reveals in all cases a fragile balance, based on social ties and other factors. As in other processes such as self-construction or tequio, the tianguis have a pleasant, communal atmosphere.

Today, many of those processes are threatened by new regulatory plans to achieve modernisation and development, as described by David Harvey for example in a meeting in Quito. David Harvey, geographer and urban planner, describes a meeting called “mercados populares y soberanía alimentaria en las ciudades” (popular markets and food sovereignty in cities). Harvey argues that it is the local population with its formal and informal activities that represents real urban life, not that built by economic investment interests: “Imagine Quito without markets like this. Imagine the historic centre of Quito without the indigenous population. Imagine a Quito where a tourist can go from wonderful church to wonderful church without seeing anyone different at any time. It may seem crazy, but it is what developers are proposing right now. That’s what they call modernising the city, that’s killing the city...” (Bravo P., 2016).

Those struggles are unfortunately very similar to those of Jane Jacobs in New York or

²⁵ This data surely varies nowadays, being a 2010 data, in the news of the website of the Legislative Assembly of the Federal District 2016 to explain regulation of tianguis in the DF, they cite the secretary of economic development, Laura Velázquez, Retrieved on 08/24/2018.



Figure 27

Image extracts, showing the conversation between a resident and the mayor about plans for l'Alma Gare de Roubaix. From "Quand les habitants prennent l'initiative: l'Alma Gare de Roubaix", an extract from *La Ville est à Nous*, a film by Yvonne Mignot-Lefebvre.

in Europe in the 1970s. This leads us to introduce the second main type of participatory practices, action and reaction: instruments of protest and awareness.

In summary, there is clearly a form of "natural" participation in architecture and urban life that is typical of ancient cities and communities. First, there is a form of organisation focused on the well-being of a community, through processes such as self-construction and the occupation of public space to exchange goods, which can involve families or an entire community and creates a virtuous circle of self-discovery and personal growth. Second, we can outline a city that has resilient spaces where its inhabitants can create and interact, in the image of the agora or the tianguis of Mexico.

1.2.2 Action and reaction. Protest and awareness

"-We are very happy to see you, Mr. Mayor. What do you think you will do? What about our Frazer Avenue? You are not going to demolish our little houses, are you?"

- Well, I don't think so. Here I think we might create a museum, so we can leave some small houses.

-A museum?

-Yes?

-But a museum isn't what we want.

-Oh yes, you want to keep your houses. And we'll see what we can keep.

- And what about the poor people who live here on Frazer Avenue? I did not ask to be accommodated in social housing. I asked to be accommodated properly, and they put me in an apartment with no balcony. I do not want to live in a box. I have a dog, Mr. Mayor. My dog is free. He goes out when he wants. And there he will be as unhappy as me. I do not want to live in a box. I am not used to living in a box... We are used to living together. We have contact here."²⁶

This excerpt from a conversation between a resident and the mayor about plans for l'Alma Gare de Roubaix (Mignot-Lefebvre, 1979) in France, clearly demonstrates the chasm between two perspectives that still exists in urban renewal projects. As Sanoff wrote (2000), "Citizen movements, such as those occurring in the inner cities in the 1960s, are reactions against centralised authority and intractable bureaucracies." However, in the case of L'Alma Gare de Roubaix, Querrien (2005) explains how the struggle of an established neighbourhood, with a community spirit, led to real participation. In the 1960s, the municipality wanted to demolish the locality, which is a working-class neighbourhood, to transform it with new offices and houses. In the movie *La ville est à nous*, we see how the

²⁶ Translation of a conversation, between a neighbour and the mayor, recorded in the movie "Quand les habitants prennent l'initiative: l'Alma Gare de Roubaix", an extract from *La ville est à nous*, a film by Yvonne Mignot-Lefebvre, produced by La Société Coopérative Ouvrière de Production in 1979."



struggle gradually became a participative process. The neighbourhood started protesting, and then acted.

In view of the impact of converting the city into merchandise at the exclusive service of the interests of capital accumulation, in 1968 the notion of the “right to the city”, devised by Henri Lefebvre, appeared in a book of the same name. The book represents a political proposal that starts from the city to vindicate the possibility that people can take it back again. The main idea is to “rescue the human being as the main element, protagonist of the city that he himself has built,” against the effects caused by neoliberalism, such as the privatisation of urban spaces, the commercial use of the city, the predominance of industries and commercial spaces. This means establishing good life in the city and making the city a meeting place to construct collective life. As David Harvey (2018), geographer, urban sociologist and social historian explains: “The right to the city is not merely a right of access to what already exists, but a right to change it.” In all cases, the superimposed effect of lack and overproduction, ecological awareness and loss of confidence in political action are triggers of initiatives and actions that question the classic ways of thinking and doing the city.

Artistic creative reactions

The urban phenomenon responds to an equilibrium similar to organic and biological systems. So can we consider that at times of system imbalance, citizens respond with various reactions, as a biological system would react to a threat or a disease?

As Jane Jacobs described, cities represent “problems of organised complexity”, which entail “dealing simultaneously with a considerable number of factors that intermingle in an organic whole” (Jacobs, 1961). Each individual who pursues his/her own interests and tries to open up his/her way, in a peaceful framework, creates order in an urban area that works well and emerges as a result of human action, rather than authoritarian action. The city can be considered a space that is permanently under construction, in conflict and crisis, due to social interactions that contradict each other and are based on competitive interests (Klein R., 2016). In these complex processes, urban struggles clearly appear between those who experience the city as a collective creation, those who are involved in this creation, and those who want to control the dynamics. When decision-making is left to authorities and the private sector, the urban situation is changed unfairly, in a trapped vision of economic gain, where there is even a certain degree of privatisation of the urban space (Klein R., 2016; Degado & Malet, 2007).

We can define and explain didactically what we understand by instruments of protest and

Figure 28

Street Art in Vallcarca, Barcelona. Source: author



Figure 29

Street Art in Poblenou, Barcelona. Source: author

awareness as follows. First, there is no doubt that their emergence depends directly on the socio-economic context. In other words, recessions or centralised pressure cause a paradigm shift, as in 1968 in Paris, which marked a social and political change, the 1970s depression and oil crisis, or the 2008 recession. These contexts are usually accompanied by measures taken by a centralised authority, bureaucracy or landowner that oppress the population. Inhabitants respond directly on the streets, by occupying various forms of urban space: public space, buildings and abandoned wastelands. This appropriation of the urban space in its various forms takes place in an alternative, creative way, often with a spirit of neighbourhood and a claim, based on generous, egalitarian collective principles. In most cases, self-managed spaces, such as community gardens or squats, which are called *okupas* in Spain, have been run in a different way. Squatters claim housing for everyone, and community green spaces have enjoyed an alternative artistic environment. A well-known historical example dates back to early twentieth century France, when several artists who would later become world-famous, such as Guillaume Apollinaire, Amedeo Modigliani and Pablo Picasso, were squatters at the *Bateau-Lavoir* in Montmartre, Paris (Pfeiffer A., 2010). Graffiti, writing on the walls, and then by extension street art, is a form of appropriation and expression in the urban space that has emerged as a relatively new tool for citizens to make complaints. Nowadays, graffiti also leads to a contradictory situation in which, according to Fernández Herrero (2018), “City Councils, responsible for public spaces where this type of illegal art is developed, invest strength and money to curb its growth. But at the same time it is used by local governments as a tourist attraction, due to its great interest.” In response, some street art experts ensure that groups of artists who use the city as a vast creative canvas, do so as an exercise of freedom (Fernández Herrero, 2018; Klein R., 2016).

Some other of these creative activities in the urban spaces, in empty plot and in the public spaces are eventually transformed into established participatory actions that are also used in planning processes, such as: green guerrillas and tactical urbanism, which is also called D.I.Y. Tactical urbanism involves a temporary change to the built environment to improve it, carried out with the involvement of the local community (Lydon et al., 2014).

Public Space experiences and tactical urbanism: recovering green mobility and civic uses

Participatory, bottom-up urban experiences as a reaction to urban protests start in the streets. One example is the Reclaim the Streets (RTS) collective, born in the 1990s, in which participants invade the public space to stage a party. The RTS philosophy claims the pedestrian space and has a vision of community ownership. The best-known image of the movement in 1995 is perhaps two cars in ruins, in the heart of London, surrounded by



a crowd of youths dancing and holding the famous “Reclaim the Streets” banner. In fact, that event was a deliberate action in which the cars collided on purpose at a crossroads of Camden High street, in the trendy area. A false confrontation followed between the two drivers. At that moment the streets were liberated from car traffic and soon the party began. An important detail was the party’s sound system, powered by the constant pedalling of bicycles (Fig. 8).²⁷

The issue of public space and its waste for motor vehicles is a leitmotif in many urban actions. In fact, most urban protest actions are related to mobility and the waste of public space. Barcelona, for example, still suffers from a persistent issue like many other cities in the world: polluting traffic and the public space that it degrades. If we look at the Eixample, which is the most populous district of Barcelona (266,416 inhabitants in 2017)²⁸, the problem takes worrying dimensions.

As the urbanist Jan Gehl stated, there have been two major urban planning paradigms in city centres in the last fifty years: the modern movement and the invasion of cars. The “modern” city, although apparently perfect from an aerial view with very well-defined spaces, contrasts with the vision at street level. When individual and larger-scale buildings are designed that are ever increasing in size, following the famous eagerness of “form follows function”, the notion of the human scale disappears completely (Gehl and Svarre, 2013). This unfortunate situation in the public space in many cities has a solution that depends directly on our habits and by extension on how we take part in urban mobility.

Can we consider that a citizen who uses a bicycle or who travels only on foot genuinely participates in the transformation of his city? Of course, since his or her actions do not cause harmful alterations to the rest of the inhabitants but instead allows encounters and causal interactions in the public space, something that Jane Jacobs explained to us over fifty years ago (Jacobs, 1968). However we have to consider that the case of the centre of Barcelona depends directly on metropolitan dynamics that come from two conflicting city models in the metropolitan region of Barcelona (Miralles-Guasch C., 2011). First is the model of the urban centre: a compact city, with the commitment of a dense city and continuous urban spaces and high use of streets and squares with mixed functions. Second is the metropolitan periphery: an area with low densities, discontinuity in urban fabric and functional zoning. This translates into greater use of private transport in the periphery (with a total of 48.9% of private transport) versus less use in the central area (22.1%) (Miralles-Guasch C., 2011).

²⁷ From the blog: <https://pasttenseblog.wordpress.com/2019/05/14/today-in-london-traffic-history-1995-reclaim-the-streets-block-camden-high-street-to-party-against-car-culture/>, but also <https://www.fundacionsalamendoza.com/post/sacar-el-cuerpo>.

²⁸ From IDESCAT (Instituto de Estadística de Cataluña. (<https://www.idescat.cat/>).

Figure 30

RTS. Reclaim the streets in Camden High Street, 1995. Source: Nick Cobbin

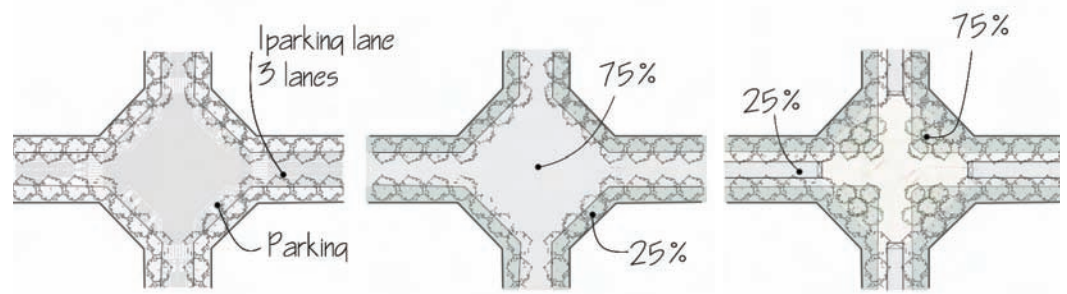


Figure 31

The waste of space in the Eixample. Source: author

In response to the car invasion phenomenon that is similar in other cities, several strategies have been tested over the decades. It seems that urban planners no longer aim to improve the flow of private transport in urban centres. The tendency today is to restrict access, while improving collective, ecological ways of moving. The city cannot be crossed but it can be surrounded. The offer of public transport to the central area can be improved, while the offer for private vehicles in the centre can be limited to recover public space for civic use and sustainable mobility, creating pacified streets and axes. The objective is to continue in this line, and propose a virtuous circle in which the modal distribution (the percentage of travellers using a mode of transport) is changed gradually so that it always tends towards more sustainable mobility. This change consists of making a large part of the population shift from using motorised vehicles to public transport, bicycle (classic or electric) or walking. This shift acts directly on the physical public space (road and pedestrian) that exists. That is, if we change a traffic lane or a street parking line for a double bicycle lane, we lower the offer for motor vehicles while increasing the offer for bicycles. The modal change is then made as we transform the public space. At least, this is the theory. The truth is that this transition is very slow and there is a divergence of opinions between inhabitants of the two opposing city models. One seeks to enjoy its urban environment as a home: breathe fresh air, have quieter, green areas available without noise pollution. The other seeks to reach his workplace from the periphery in the most effective, comfortable way, which leads to the use of private vehicles. Hence, the problem of urban mobility must be studied in a multiscale way. The problem is complex. To date, some ambitious urban reorganisation projects have radically changed the urban environment, favouring gentrification, without taking into account the social fabric of the neighbourhood. These projects do not give sufficient importance to the acceptance of these projects by residents or to resident involvement. They often marginalize the local population and even exclude it.

The adaptation of public space in urban centres is necessary for several reasons. The first reason is pollution: according to Barcelona City Council, 500,000 vehicles enter Barcelona every day. This figure is associated with 3,500 premature deaths, 31,000 cases of childhood bronchitis and 54,000 asthma attacks.²⁹ In other words, five vehicles entering Barcelona generate one patient every year. Therefore, traffic in the city is already a matter of public

29 From El Periódico, [en línea], “La contaminación atmosférica causa 3.500 muertes anuales en el área metropolitana, según un estudio, 2009. “El alto nivel de partículas contaminantes en el aire de los 57 municipios que conforman el área metropolitana de Barcelona, que duplica el volumen aconsejado por la OMS, provoca cada año 3.500 muertes, según un estudio del Centro de Investigación en Epidemiología Ambiental (CREAL)...”. El CREAL ha advertido de que también disminuirían en 1.800 los ingresos hospitalarios por causas cardiorrespiratorias en un año, se producirían 5.100 casos menos de bronquitis crónica en adultos, 31.100 casos menos de bronquitis aguda en niños y 54.000 crisis asmáticas menos en el conjunto de la población...”.



Figure 32

Critical Mass in Buenos Aires.
Source: De Beatrice Murch

health. Here we can mention the ongoing experiment of the Barcelona Life Study Cohort³⁰, which is coordinated by the Barcelona Institute for Global Health (ISGlobal). This institute studies how air pollution affects the health of babies and their brain development even before birth. According to another study by ISGlobal for Barcelona City Council, during a day without cars in Barcelona in 2018, the pacification of the Tamarit-Comte Borrell crossroad in the Sant Antoni neighbourhood reduced environmental pollution by 67%.³¹ The second reason is the waste of public space. Several studies show that a person in a car occupies about ten square metres, a person on a bike just over a square metre, and one on a bus half a square metre. In the Eixample, public space is highly bounded by vast surfaces for the exclusive use of the car, to the detriment of pedestrians and inhabitants. If we look at the case of a typical crossroads in this area, with its chamfers, like so many in Barcelona, we can determine that 75% of the space (the asphalt crossroads) is dedicated to motorised vehicles, while only about 25% (the pavement) is left for people on foot (not counting the parked motorcycles that occupy much of this space).

We can mention here that there is a new mobility plan for Barcelona (2013-2018), which is now committed to the creation of superblocks, with pilot operations in Poble Nou and in Sant Antoni. Although the experience is apparently a success and has a future, some more negative reactions (such as “No Superilles” [superblock] banners) and a petition signed by over 3,222 people still show shortfalls in the way of participating in these experiences that have been criticised by participation specialists.³² Without entering the debate, and accepting that the city of Barcelona has significantly improved its participatory processes lately, it is nevertheless worth remembering the importance of this type of co-design, performance and space occupation experiences that allow real interest to be generated, of environmental value, but that remain ephemeral until they are assimilated by most of the population. Here we could quote numerous participatory actions that try to reclaim public space for a more civic use.

The Critical Mass is a monthly bike ride that demand more rights for cyclists and promotes a sustainable city model. This direct action is decentralised, with no hierarchical structure.

30 <https://www.isglobal.org/-/bisc-barcelona-life-study-cohort-#>

31 More information: <https://ajuntament.barcelona.cat/qualitativa/ca/noticia/menys-contaminacize-i-menys-soroll-el-dia-sense-cotxes>

32 David de la Peña (2016), participatory specialist and professor at the University of California, author of *Design as Democracy*, says in his blog that the success of the superblock and its participatory process is controversial: “For those familiar with how citizen participation works in Barcelona, the failure of participatory process is all too familiar. In the ‘City of Architects’, expert designers know best, and design cities and spaces ‘for the people’ but aren’t comfortable designing ‘with the people’.”



Figure 33

Obrim Carrer: Aragon street closed to traffic in 2020.
Source: Bruno Sève

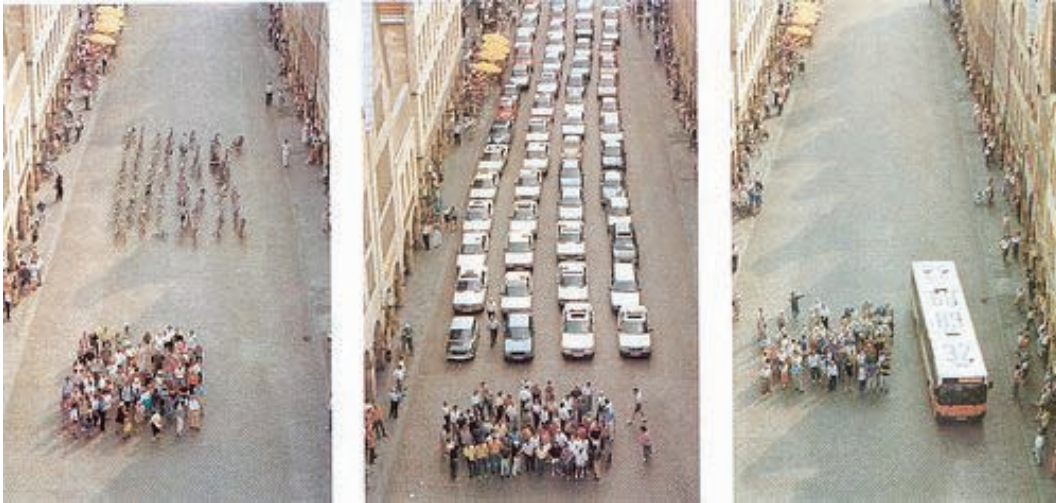
It emerged in San Francisco in 1992 (Garofoli, 2002). At Critical Mass events, space is appropriated in movement, as a large group of people ride their bicycles through the streets. Safety is ensured by the mass of people. During the event, critical mass bikes take priority over motor traffic, using various tactics. For example, a few riders block traffic from side roads, even when the lights are red, so that the critical mass can continue freely. These events now take place in over 300 cities worldwide (Madden, 2003). Similar to that event are the bike lanes or open streets that were first introduced in Bogotá, Colombia, in the 1970s. At this event, some of the streets of Bogotá are closed to motor traffic every Sunday morning (from 7 am to 2 pm). The difference lies in the collaboration of the municipalities that authorize and control the closure, which allows cyclists, skaters and walkers to occupy the space, in addition to the installation of other music, sports and even yoga stalls. It is estimated that the cycle paths of Bogotá are used by approximately 2 million people, that is, 30% of the population, and about 120 km are freed from traffic³³. A similar experience has occurred recently in Barcelona, with the municipal campaign called *Obrim Carrer*, which literally means opening the streets for civic uses. The *Via Laietana* and *Gran de Gràcia*, two symbolic streets of Barcelona that are currently used intensively by motor vehicles, will be closed to traffic every first weekend of each month for pedestrian uses. But the idea goes further. The municipality intends to add an additional section to this mobility pacification strategy every month (El Periodico, 2020).

Park(ing) Day is another well-known event that takes place in several cities around the world and was first launched by the Rebar Art and Design Studio. During the event, which is held on the third Friday of September, any participant can temporarily transform public parking spaces into parks, gardens or other forms of public space. It was first launched in 2005, when Rebar transformed a single parking space into a temporary park in San Francisco, in response and awareness of the fact that 70% of outdoor space is dedicated to private vehicles.³⁴ In San Francisco, the Park(ing) Day event inspired GroundPlay, a programme that allows an installation to be built temporarily for the local community, with city council agreement. GroundPlay projects must be accessible to the public, and not last more than 24 months. User guides are available on the local site and provided by the City Council, such as the Places for People Proposal & Permit Application package.

Public space waste for cars and traffic is a recurring problem in practically all cities

33 More information in: Car-Free Streets, a Colombian Export, Inspire Debate. The New York Times, Javier C. Hernandez, June 24, 2008. 2008-06-24.

34 More information in :Rebar, PARK(ing) Day, in Lina Stergiou, ed., AAO Project: Ethics/Aesthetics (Athens: Benaki Museum and Papatotiriou, 2011), pp.316-20, [exhibition catalogue] ISBN 978-960-491-026-7



worldwide. This is a well-known, old problem, which was tackled in a participatory experience in Münster in 1991 (Bikehub, 2012). One of the most effective experiences to educate and claim public space was that commissioned by the planning office of the City of Münster during the days of the bicycle *Fahrradtag*.³⁵ Over 72 people participated in that event, in which photographs were taken of the space needed to transport this number of people by car, bus or bicycle. Bikehub illustrated that a person travelling by car occupies about ten square metres, a cyclist just over a square metre and a person in a bus uses half a square metre. The place chosen for the photographs was one of the most emblematic streets, called the *Prinzpalmarkt* or the main market because of its ancient historical function. It was and still is the economic and political centre of Münster. Today, the city of Münster is considered the capital of bicycles, and in 2013 it had over 460 km of bike lanes. The 1991 triptych panel, which went around the globe, shows the waste of car space. Some of these concepts had already been discussed by the Austrian philosopher Ivan Illich (Illich, 1978). Since the posters of Münster became famous, other variants of the three photographs have been taken in places like Reykjavik, Iceland in 2010 with the participation of 70 people,³⁶ Canberra, Australia in 2012 with 69 participants, 69 bicycles, 60 cars and a bus.³⁷ In those experiences, the use of video recordings allowed us to understand the mode of action, with the use respectively of a fire truck and a crane for the photography session. Another alternative version was created in 2015, organised by a sustainable consultancy called International Sustainable Solutions in Seattle. It can be found on the internet in different formats, including Graphics Interchange Format (GIF). Another evolution of the interesting concept of wasting space is the demonstration that took place in Riga, Latvia, in which the cyclists dressed their bicycles with “armour” representing car space.

Another criterion in public space demonstrations is that of travel time in relation to traffic congestion in some cities. In the area of urbanism, isochronous maps are commonly used to describe areas of equal travel time using different modes of transport, for example, by foot and by bicycle. With the emergence of open data and the use of Google Maps API or OpenStreetMaps, such as Mapumental or Mapnificent, trips can be compared by changing models. In a more participatory, demonstrative field, there are experiences in Mexico such as the modal Challenge, in which cycling groups evaluate the efficiency of ways of

Figure 34

Photograph of the Münster experience in 1991. Source: City of Münster Planning Office

35 More information in Bikehub, [online], Münster’s iconic ‘waste of space’ photo keeps on giving, 2012. (<http://www.bikehub.co.uk/news/sustainability/iconic-waste-of-space-photo-keeps-on-giving/>)

36 Video of the participatory action in YouTube: Myndum borg (Picture a City...), 2010. (https://www.youtube.com/watch?time_continue=155&v=mznkZ7WuJvc)

37 Video of the participatory action in YouTube: CPF Canberra Transport Photo, 2012. (https://www.youtube.com/watch?time_continue=155&v=mznkZ7WuJvc)



Figure 35

KUVAS. Urban Occupation Strategies (Estrategias Subversivas de Ocupación Urbana). Source: Santiago Cirugeda

moving around the city, by simulating a situation of transfer from an origin to a destination using various forms of locomotion and different routes. In 2018, the event took place in 23 Mexican cities on a single day of the year, and was organised by the National Urban Cycling Network of Mexico (Biciredmex)³⁸. The results of the test in Mexico City, at rush hour (8.34 a.m.), revealed that bicycles, skates and motorcycles are more efficient than cars, with a difference of over 24 minutes between the bicycle and the car. Similar results occurred in other cities, such as Oaxaca de Juárez, also at rush hour (7:30 a.m.), where each participant recorded their route on the mobile phone through an application, and using their own chosen routes. In Oaxaca, the bicycle arrived 15 minutes before the car (21 minutes compared to 36 minutes).³⁹

Reactivate the public space through hackings. Community placemaking and open design

Still in relation to the public space, we can mention Cirugeda's urban recipes for Seville that call for reclaiming civil use and design for the public space. His Subversive Urban Occupation Strategies (Estrategias Subversivas de Ocupación Urbana) include several actions, such as KUVAS, that explains to citizen how to reclaim the city through a "legal" process. First, a license must be requested to install a container for rubble in the public space. Once this has been granted, it is self-built (or transformed) into some urban element necessary for the local community, such as a children's play area or a mini-garden.⁴⁰ In Paris, a similar activity would be that organised by the YA+K, whose process engages local communities through urban D.I.Y. workshops. Here, the professionals who are involved take a pragmatic attitude and place action at the centre of their project. The idea is not just to think about a method, it is to experiment with it. For YA + K, these are hybrid work formats that invest and cross temporal scales, that is to say from the temporal event, from the constructed situation to construction in the long term (Delprat E., Bascop N., 2016).

In this respect, the urban DIY (Do it Yourself) movements represent an invitation to experiment in the city, much more than to think of it in a theoretical way. This is a new form of town planning, which involves residents and professional activists who come together beyond their skills to participate in transforming the city. Although urban DIY

38 WWF, [online], OSCs realizan Desafío Modal 2018 en la Ciudad de México: por la seguridad de todos los usuarios de la vía, 2018. (<http://www.wwf.org.mx/?uNewsID=335130>)

39 Pascal Rastoul y el colectivo de ciclista Oaxaca (COCO), Ciclistas se lanzan en el Desafío Modal, Boletín de prensa del jueves 20 de septiembre 2018.

40 <http://www.recetasurbanas.net/v3/index.php/es/>



Figure 36

Structure imagined by a group of students of Arquitectos de Cabecera. Source: author

often represents temporary interventions, the change is long-term, as defined by tactical urban planning (Lydon M., Garcia A., 2015). But the movement goes further. This urban appropriation offers real “hacking” of urban space, as an alternative to prefabricated urban space. It represents a thirst for creating citizenship that seeks to directly transform its built environment. In this regard, we can speak of “hacking” because actions often involve recovering furniture, infrastructure or any resource available in the city and altering its function to give it a new one. So a post in the street can become a table; wooden pallets are transformed into real terraces or urban gardens; an area is created for “bed-sheet sellers” like the *manteros* in Barcelona is; a bicycle becomes associated with Mediterranean cuisine, like the latest works of Arquitectos de Cabecera; various items of rubbish becomes urban furniture; and a large dumpster is converted into a new urban playground for the neighbourhood, as proposed by Santiago Cirugeda in Seville.

In this context, the contribution of architects and town planners, who are often activists, also comes from their knowledge of the management of public space, with professionals who act outside the current frameworks and who interpret or challenge regulatory provisions. In this search for urban experimentation, designers and architects offer publications with recipes and manuals. We could cite here the *Illustrated Manual of Urban DIY* by YA + K, or *Upcycling Wood* (Sève B, 2018) which invites the reader to upcycle to stay in a biocompatible framework. Sometimes an open design approach is used, like the urban recipes of Santiago Cirugeda or the recipes of Makea.⁴¹ These platforms invite readers to take action to transform the city or to transform objects or waste to give it a new function. In the context of the subversive strategy of the urban revenue website, the city dweller can read how to recover urban space over time by applying for various permits, which are normally linked to works or the use of vehicles, but which are transformed or “hacked” into another civic use. We describe some of these cases in the taxonomy. In all cases, these actions are partly evolutions of the DIY movement of the USA and inspired by thinkers of the 1970s such as Victor Papanek, a strong advocate of socially and ecologically responsible design of products, tools, and community infrastructures.

Green guerrillas and community gardens

As described by Doina Petrescu, in the urban context, in European cities such as Paris or Barcelona, new practices transform temporarily available and reused spaces through everyday life activities that helps to preserve urban “biodiversity” and somehow reclaim the right to the city. For Petrescu, these new practices are drawn directly from urban protest in the 1970s (Petrescu, 2005): “These actions started with illegal planting, continued with



Figure 37

Quirhort: community garden
in an urban void of Barcelona.
Source: Quirhort

occupation of the land, and then grew into community protest actions to preserve the created gardens against private or public expansionist policies of development... In France, such community gardens started in the late 1990s and their specific status ('jardins partagés') has only recently been recognised by laws" (Petrescu, 2005). In New York in 1974 the Green Guerrillas were founded by neighbour Liz Christy as an urban community garden group, to clean up, create and conserve a vacant lot in Manhattan, New York (Carmody, 1976). Today this practice is popular in the urban environment and takes place without legal rights in many parts of the world on abandoned sites or private property.

In Barcelona, the current programme for urban voids, Pla Buits, is undoubtedly a consequence of previous neighbourhood struggles, such as "Els jardins del forat de la vergonya" (Gardens of the hole of shame) in 2006. This was another example of a public space whose programme was channelled and transformed by the local community. Located in the labyrinthine streets of the historic centre in the Ribera neighbourhood, just five hundred metres from the cathedral of Barcelona, this place has had a hectic past, perfectly described by the anthropologist Manuel Delgado. It should be no surprise that a historic centre that has medieval architecture and has undergone many changes and urban transformations⁴² needs some urban reform. No expert can deny that old buildings can reach a point where they are not healthy and are even a danger to the population itself. However, what can be criticised is a way of operating associated with the pressure of private initiative, as could be the case in this public space.⁴³ Due to the alleged degradation of the historic centre, the internal reform plan allowed radical demolition of an entire area of the old city in the Born in 2006. This urban intervention, also known as "esponjamiento" (selective demolition), suggested that an empty plot of over 5000 square metres could be used for a car park and the construction of private dwellings. The writer explains that the operation was not completed because the inhabitants resisted. They appropriated the space and transformed it into an unusual, self-constructed urban garden with trees, plants, an orchard, a children's play area,

42 Prof. Joan Busquets and his team (BAU) explain in his book *Barcelona, the evolution of a compact city*, some main plans that marked the evolution of the Ciutat Vella, such as CERDÀ 1859, BAIXERAS 1888, DARDER 1918, GATPAC 1932, FLORENSA and PLANS after the PGM (Plano General Metropolitano) from 1976.

43 As supported by several geographers and anthropologists, including Horacio Capel and Manuel Delgado. In Horacio Capel's book, *El modelo Barcelona, un examen crítico* (The Barcelona model, a critical examination) geographer and urban planner Jordi Borja, who had first praised the Barcelona model in 1995, then publicly stated that "there are obvious symptoms that the strength of the private initiative and the weakness of a global public project is breaking this model" (from Barcelona). The work of Stefanie Von Herren in 2003 *La remodelación de ciutat vella. Un análisis crítico del modelo Barcelona* (The remodeling of Ciutat Vella. A critical analysis of the Barcelona model) is another critique of the Barcelona model.



Figure 38

Can Batlló: urban gardens.
Source: Can Batlló

an improvised football pitch and basketball court and even furniture. Delgado underlines how this empty space was converted into a self-managed, real multicultural place for social activities (Delgado M, 2007). After eviction by force, the space was remodelled and acquired its current image. However, this episode, after negotiations on the design approach, led to abandonment of the parking programme, to leave a public space with permeable soil and vegetation and a smaller urban garden managed by the local community. If the energy of the local population and its community had been tapped by the City Council, this space could have acquired an even stronger identity and a more comprehensive landscape and community project could have been undertaken, within the integrity of the space. We could also mention the US pavilion in the Venice Biennale in 2012, dedicated to the culture of guerrillas projects, and other actions in the urban space.⁴⁴

Alternative way of city-making: self-management

These “participatory extensions” of protests go beyond public space and residual plots. In many cases, participants propose an alternative model based on self-management, activated by neighbours. Petrescu (2005) speaks for example of “New autonomous, self-managed institutions, cooperatives including both production, education and collective lifespaces” that “start to emerge”. In Spain, David de la Peña⁴⁵ (2018) explained that new architecture ideas based on participation emerged from the status quo. In both Madrid and Barcelona, “insurgent practices were temporarily reshaping public space as indignados rallied against top-down governance, adapting the horizontality of cooperatives to make decisions collectively, and maintaining close relationships with local community groups as they shared in the co-creation and management of new spaces... Okupas, or squatted buildings⁴⁶, provided actual spaces of organisation as well as horizontal frameworks for debate, discussion and non-hierarchical management. In Madrid, Barcelona and Seville, self-managed and occupied social centers (CSOAs) became centers of participation.”

But what began as an alternative to municipal measures became a paradigm of participatory and bottom-up processes to rethink the city. One of the most important examples in

44 Interventions: Design Actions for the Common Good

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46 Buildings are being squatted worldwide, for several reasons, but when the squat is for political reasons, it is normally accompanied by a community vision of self-managed space. Perhaps the two most famous examples we can cite in Europe is the freetown of Christiania in Copenhagen, whose adventure began in 1971 when a military zone was occupied, and a second, more historical example: the squatted Bateau-Lavoir, where famous artists such as Picasso, Modigliani or Apollinaire stayed.



Figure 39

Can Batlló: self-managed space in the Sants district that offers all kinds of services. Source: Can Batlló

Barcelona is Can Batlló. Opened in 1880 as a textile factory with an area of 13,000 m², it was transformed into an industrial estate in the early 1960s after the recession in the textile industry. Nonetheless, in the 1976 General Municipal Plan (PGM), the land was requalified to accommodate a green space and residences, but with little public infrastructure planned. That process remained on paper for too many years, marked by claims and pressure from neighbourhood associations. Due to the status quo, on 11 June 2011, a neighbourhood group took action and occupied the premises, which were still private, thus activating what would become the cession of Bloc Onze. In 2019, Barcelona City Council definitively ceded the space for a period of 50 years to the *Associació Espai Comunitari i Veïnal Autogestionat* of Can Batlló (formed by neighbours) (La Col, 2018). This experience is reminiscent of the example of l'Alma Gare de Roubaix, with decisions made at round tables and self-managed workshops. Can Batlló today is a space that represents, according to De la Peña (2018), the “paradigm shift in collective city-making. Inside the dimly lit nave of an everyday brick factory building, spaces were being carved out for community use. A large site plan of Can Batlló hung from the wall, surrounded by a circle of chairs made from pallets; a schedule of commission meetings and agendas boasted an impressive array of activities; volunteers catalogued stacks of donated books for a popular library that was already being planned; and urgent conversations in Catalan were accompanied by the regular staccato of jack hammers and drills.”

Perhaps the current and future success of Can Batlló is the will of the neighbourhood to open the space to the whole city, instead of isolating itself as a self-managed utopian island. In this way, they can claim a new way of making the city, with spaces for creation and direct interaction. This type of inclusive, participatory process represents a sum of efforts with a common ideal of people who find self-realisation not only through oral expression of their desires, but in the creation of the space. In this context, we can understand how the architect finds his/her place as another participant in the process of transforming the city.



Figure 40

Variations in the appropriation of urban space: current state, manifestation, self-management, tactical urbanism, that is, Park(ing) Day, and refurbished space. Source: author

1.2.3. Participatory urban planning: creative methodologies

This final section describes participation methods imagined for architectural and urban projects. The models have been devised by sociologists, architects, urbanists, artists or any other qualified specialists in the field. However, it is important to consider that some methods are used in the three listed categories.

In architecture, those who first provided a cognitive vision of the urban space included Kevin Lynch, in his *The Image of the City* (Lynch 1960). This book was the result of a five-year study involving observers in the city, to build mental maps, that is, a person's perception of their area of interaction. Five elements of the city were revealed: nodes, edges, districts, paths and landmarks. As Lynch (1960, p.120) says: 'In the development of an image, education will be quite as important as the reshaping of what is seen. Indeed, they together form a circular, or hopefully a spiral, process: visual education impelling the citizen to act upon his visual world, and this action causing him to see even more acutely. A highly developed art of urban design is linked to the creation of a critical and attentive audience. If art and audience grow together, then our cities will be a source of daily enjoyment to millions of their inhabitants.' According to him, "Most often our perception of the city is not sustained, but rather partial, fragmentary, mixed with other concerns. Nearly every sense is in operation, and the image is the composite of them all."⁴⁷ The originality of Lynch's work lies in how the city and its image is built with the memory of its users, rather than studying it as an urban map. Lynch asked participants to create mental maps from scratch, as follows: "Make it just as if you were making a rapid description of the city to a stranger, covering all the main features. We don't expect an accurate drawing – just a rough sketch."⁴⁸ Lynch work has inspired many others, such as *The Evaluative Image of the City* (Nasar, J., 1997). As an evolution of Lynch's work, Nasar's team used interviews to ask people to specify areas they liked and areas they disliked visually and to describe the physical features that influenced their evaluations. The visual plan would eventually describe how and where to transform the city to please the inhabitants. Hence, while Lynch's work focused on perceivability and legibility of urban spaces, works inspired by Lynch such as Nasar's (1997) appreciate the likeability of urban space. Mental maps, such as emotional maps, are largely used today in participatory processes as they reveal users' feelings about a certain place. The use of new information and communication technologies (ICTs), and particularly geographic information systems (GIS), opens up new opportunities, as we will see at the end of the chapter.

47 (Lynch, 1960, p 2.)

48 (Lynch 1960, p 141)

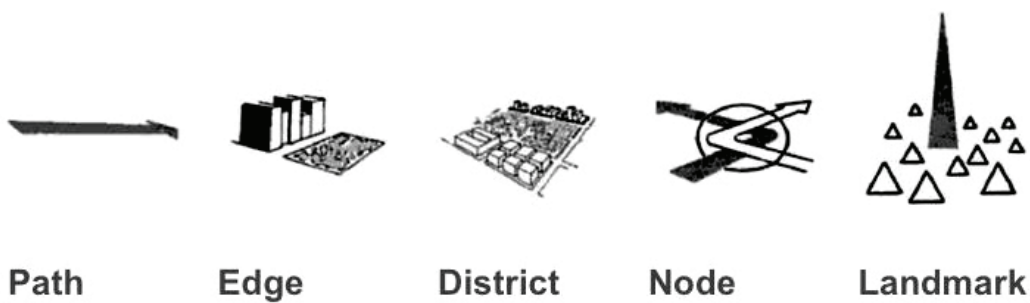


Figure 41

The image of the city. Five elements that contributes to this image.

Source: Lynch Kevin (1960). *The Image of the City*. Cambridge: The MIT Press

One of the most important works that has been written, which is surprisingly relevant today although it was written over 50 years ago, is *The Death and Life of Great American Cities* by Jacobs (1961). The work starts as a critique, but also defines basic concepts of cities and neighbourhoods from the user's point of view. Jacobs supports the street and pedestrian life and considers the sidewalk a central mechanism in maintaining the order of the city, a quotidian stage for an "intricate ballet in which the individual dancers and ensembles all have distinctive parts which miraculously reinforce each other and compose an orderly whole." According to the author, in the urban environment, the perception of safety is ensured by care for each other provided by the "natural proprietors", the individuals who enjoy watching street activity, rather than an authority such as the police. The author states that a safe city must have a clear demarcation between public and private space, sufficient buildings facing streets, and continuous eyes on the street to guarantee effective surveillance, which of course is the opposite of the current urban planning of Moses and modern urbanism. She compares the "blinded-eye" spaces of high-rise public housing projects with empty streets, corridors and elevators. Jacobs' work can be interpreted as an explanation of bottom-up process: a network of users who take care of the urban space. About pedestrian life, she describes how sidewalks permit a range of casual public interactions that may first seem trivial. But it is the sum of all these interactions that creates "a web of public respect and trust". Again she compares this urban life with suburbia with its complete lack of contact and argues that if it can work well "for self-selected upper-middle-class people", it fails to work for anyone else. Looking back to Jacobs' work, it is evident that urban planning still struggles with very similar difficulties: it is the capacity of our laws and urban plans to give flexibility and freedom in a way that can foster urban life or destroy it. On this subject, Annette Miae Kim explained how her team, with the use of digital mapping, asked similar questions to Jacobs (2015): "We ask the question that many cities around the world are asking: what kind of sidewalk system can we imagine other than the unpopular and difficult-to-enforce clearance policies or the other extreme, an anarchic free-for-all? We need new ideas." Her research on Ho Chi Minh City in Vietnam, shows a new method of spatial ethnography, interpreting data into an array of maps that somehow reveal the vibrant quotidian public space.

Another crucial study is the Halprin legacy with its sensory participatory action and artistic methodology combining fundamental stages that serve to raise awareness, understand and make proposals for improvement in a creative process (Blancafort & Reus, 2015). Lawrence, an architect, and Anna Halprin, an avant-garde dancer, organised sensorial and artistic experiments to activate and involve citizens in the design of their environment. Their peculiar method was undoubtedly due to their relationship with art, influenced by Anna and Lawrence through his training as an architect. Lawrence revealed in an interview (Ross, 1995): "The Bauhaus always started with a general course in design... and it wasn't

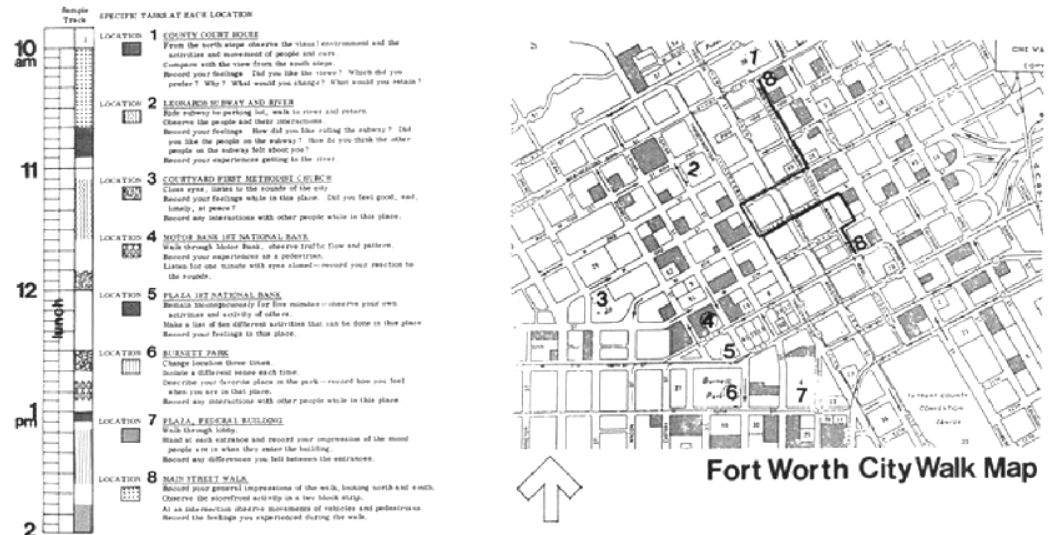


Figure 42

Fort Worth City Walk Map and Score (AAUP; published in *Taking Part: A Workshop Approach to Collective Creativity*, 1974, pp. 78-79). Source: Lawrence Halprin Collection, The Architectural Archives, University of Pennsylvania

the history of it, it was doing it - making drawings, building sculpture, and stuff like that. And it took me a great leap to the point where I understood the relationship of all the arts together. It was like somebody had opened a curtain and there was this great world of fantasy in front of me, with dancers and painters and set designers and music... Up until then, on some level, I had been starved.” In the Take Part experiment that involved 15–50 people (with sociological quotas to represent a diverse community), workshops began with awareness walks and actions to observe, visit and interact in urban spaces, according to a master score (or script with a map) (Blancafort & Reus, 2015).

Giancarlo De Carlo (1969) defines the architectural project as a process that deserves a real scientific method, “introducing to the system a whole set of complex variables that could never be composed into balanced situations except with procedural systems based on continual alternation of observations, propositions, and evaluations... This process begins with the discovery of the users’ needs, passing through the formulation of formal and organisational hypotheses before entering the phase of use. Here, instead of reaching its usual full stop, the process must be reopened in a continuous alternation of controls and reformulations, feeding back into the earlier phases. The three phases –discovery of needs, formulation of hypotheses, and actual use – not only follow sequentially but also have a cyclical relationship.” This clearly demonstrates a participatory method that is an alternative, but possibly complementary, to orthodox urbanism. These three steps, users’ needs, hypotheses and use, are widely applied in participatory processes today. De Carlo recognizes full continuous participation in some way, not only in the phase of constructing the space but also in its administration and use. The process should adapt itself to the people, rather than the opposite situation where people have to adapt to architecture. He deplors how the capacity of modern architecture, which can adapt to users’ needs, ends up being blocked by authoritarian planning or bureaucracy. In the search for users’ needs, all members of a community should have the opportunity to give their opinions and reach a consensus. According to Brody (1982): “The process of arriving at a consensus is a free and open exchange of ideas, which continues until agreement has been reached. The process ensures that each individual’s concerns are heard and understood and that a sincere attempt is made to take them into consideration in searching for a resolution. This resolution may not reflect the exact wishes of each member, but since it does not violate the deep concerns of anyone, it can be agreed upon by all.” However, this process is not as simple as it seems: sitting around a table, and discussing one’s future building or urban space can be a rather arduous task. Also, as Gian Carlo De Carlo explained (1969): “by participation of the users we do not mean that the users should work at the drawing board or that they should dictate while the architects transcribe, transforming aspirations into images.”

Numerous instruments are being created in response to this complexity. In his book



Community participation methods in design and planning (2000), Sanoff described many of them. According to him, there are several techniques for participation, including awareness (exhibits, media, walking tours), indirect methods (surveys & questionnaires), group interaction methods (Charette, brainstorming, design in, hands on and participatory games), open ended-methods (participatory cable television) or digital technology. These techniques and tools have been evolving. Here, we will only mention those that we have been studying and inventing that are associated with the responsibility of the architect, since others go beyond the scope of our research.

To understand the users' needs, first we need to pass through steps such as the discovery of the place to raise awareness. An exploration route is a walk or cycle tour in groups to record, through drawing, photographs or notes, the elements and situations that the users consider important for urban transformation. In the Architectural School of Barcelona (ETSAB), we organize workshops of urban sketching in groups, with our students and the local community. By drawing the urban reality directly, some ideas emerge naturally in the sketches that inspire conversations. One of our works in progress involves storyboards or mental maps. However, routes can also be considered more individually, as in an experience by Col·lectiu Punt 6 (2017) to work on urban planning from a gender perspective in a participatory manner. In a study called "Nocturnas, the daily life of women who work at night in the metropolitan area of Barcelona", the exploratory route consisted of accompanying each woman on their daily route (from home to work) and recording it with photographs. This allows analysis of the perception of security of women related to their urban environment (mobility and public space, etc.).

In group work that Sanoff calls "Group interaction methods", we find assemblies, but also traditional brainstorming. In the words of Sanoff (2000), "Classic brainstorming is a verbal method of problem-solving used with small groups of from three to nine people with three rules to follow: 1. Generate as many solutions as possible. 2. Wild ideas are encouraged. 3. No criticism is allowed-judgment is deferred." Many variants exist, such as Gallery, Pincards and Cranford Slip Writing. In the Gallery activity described by Sanoff (2000) small groups are created. Each member of a group has to write down his/her ideas about the problems on a large pad. When the time is up, participants observe the others' idea and then modify their own. If there are many participants, summaries of ideas can be given on pads to another group for evaluation. Writing a manifesto in small groups (4 to 6 people) with 10 key ideas is an effective way to obtain consensus that we have tested in several circumstances. One of the people who organizes the activity can then retrieve the material, and make a summary by displaying the most common concepts on the wall, for example. Sometimes, the manifesto activity is called a wish list.

Figure 43

Collective Map. Source: courtesy of Pablo Ares and Julia Risler (Iconoclasistas)



Figure 44

Image of the participatory game created by Raons Públiques.
Source: author

Activities can also become more complex and take the form of participatory games. According to Sanoff, “gaming is a participatory approach to problem-solving that engages a real-life situation compressed in time so that the essential characteristics of the problem are open to examination. This technique permits learning about the process of change in a dynamic environment requiring periodic decisions. Essentially, a complex problem is identified, its essence is abstracted, and the end result is a process referred to as a simulation. Games consist of players, placed in a prescribed setting, with constraints within this setting represented by rule systems and methods of procedure... All the gaming exercises in this book are based on the premise that there should not be winners or losers in the decision-making process. Every participant should be a winner.” For instance, *Negotiate Dream Space* is a board game, designed by the Die Baupiloten studio to “determine user groups’ desires, and functional requirements for the design process” (Hofmann, 2014). Raons Públiques is an architectural cooperative in Barcelona that has also designed numerous participatory games, such as “las gincanas de barrio” (neighbourhood gymkhanas): awareness walks designed for adults and children.

Using image to express users’ desires and needs is very useful, beyond beautiful architectural renders, which are sometimes frozen. For example, we can imagine our future environment through a selection of existing references. As part of the project for the future park in Vallcarca (Barcelona), Raons Públiques used the following method. First, the architects gave each group a large selection of park environments with quite different features: permeable, natural soils, mineral squares, bleachers made from different materials (such as wood and concrete), urban gardens, presence of water, abundant vegetation, games for children, etc. The small team (4 to 6 persons) then chose three images that best fit their vision. Finally, the images were collected and regrouped. The three most voted images were then allowed to determine the environment, with ideas for vegetation, materials and even the activities desired by local inhabitants (2018). A variant would be visual appraisals, described by Sanoff (2000), with numerical scores from 1 to 7 (1 = highly appropriate, 7 = highly inappropriate) assigned to each question in the checklist. Thus, participants can comment on the spaces that are presented or analysed. By counting the points, consensus is reached and conversations on the desired space can start. This use of the image can also be interactive and change and evolve. The use of virtual reality for example seems promising to define hypotheses. In a study we conducted at the Barcelona School of Architecture on virtual reality applied to urban transformation (Sánchez-Sepúlveda et al. 2019), it was possible to experience a new way of occupying space and interacting with it, virtually, through the creation of a virtual reality game in which participants could shape the urban public space. The application of virtual reality was for an urban project promoted by Barcelona City Council related to the creation of a large public space for the pacification of the streets.



Figure 45

Virtual reality models. Viladecans, Rambla Modolell. Source: ADR&M (Architecture, Design, Representation and Modelling), ETSAB

Information technology as a tool for public participation in urban planning has been widely studied recently (Afzalan and Muller, 2018; Falco and Kleinhans, 2018; Hanzl, Malgorzata, 2007). Planning information and gaming can be presented interactively with virtual reality (VR) models, extensible markup language (XML) and geographical information systems (GIS) to build participatory planning geographic information (PPGIS). These new tools represent a great opportunity for the future, although they are still in the experimental phase (Hanzl, Malgorzata, 2007). Some of the results highlight that new media can provide a “communication platform that suppresses a barrier of non-professionalism, allowing distant contacts and enabling participatory process management” (Hanzl, Malgorzata, 2007). One of the strengths of information technology, the ability to contact people from a distance, can also be its weakness: if citizen participation processes only rely on this technology, the risk is a loss of contact, and thus a lack of genuine participation based on community contacts. Taking PPGIS as an example, to be inclusive, human resources are required as technology remains a barrier to some users. Although a large number of voluntary participants can be reached, they do not necessarily represent the wider population (Kahila-Tani et al., 2019). Beyond participation, new technologies offer the possibility of creating open databases, like the experimental project “Venice Time Machine”⁴⁹, understanding behaviour and patterns, such as the amazing work of the firm 300.000 km/s.⁵⁰ However, they should not replace genuine participation. This is why this type of tool needs to be part of a more general framework.

49 <https://www.epfl.ch/research/domains/venice-time-machine>

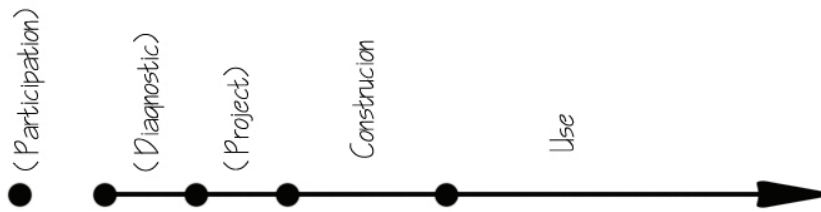
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1.3 Beyond participatory practices: the resilient city?

Rather than a finished project, Architecture and the transformation of the city should be the fruit of a crucial (participatory) process that is a prerequisite. At first glance, participation in architecture seems to be a recent phenomenon. Our research illustrates varied provenance from three types of participatory architecture: traditional architecture, without an architect, which is the result of community efforts; urban actions, which are the results of protests in the mid-twentieth century in response to authoritarian planning; and participatory urban planning as a scientific method, with the very recent integration of new digital tools.

Therefore, participatory architecture must surpass the concept of “right to the city” and embrace all participatory practices. These practices can be reinterpreted, combined and arranged for use in the twenty-first century city. We can imagine organising in the same context urban tours in which digital technology is used to collect data and online surveys. Then, in a more advanced state of the process, we could use tactical urbanism and 3D models to move the project forward. To achieve this, we must be able to understand modes of action to adapt them to each very different urban context. The aim is not to provide a unique methodology, but clues and summaries for direct application in a range of cases. Hence, we can propose a new way of approaching urban projects according to the current context. In addition, we should provide artistic and creative tools that are available to the architect. These may be unrelated to the participatory method, which can be seen as a matter for sociologists only, or worse an unnecessary and annoying stage in project development. Within the framework of our research, we are creating a taxonomy based on participatory experiences that encompass the three categories. Finally, for the participatory urban project to be efficient and optimal, the process must be considered cyclical. An isolated tool only provides partial participation. This means that participatory urban planning has to involve some of the previously mentioned aspects.

The creation of a bottom-up, participatory taxonomy for urban spaces represents an advance in a more theoretical context. Currently, urban space and its design is considered in a linear way. In this model, urban participation is normally used at the beginning of a project. At best, participation is considered in the urban diagnosis (if it exists), which is followed by construction and public use of the space once it is finished. Unfortunately, in this model, a second part of the proposal is missing: that related with the responsibilities that users have towards the urban space. Regarding urban participation, Lefebvre pointed out that “in practice, the ideology of participation enables us to have the acquiescence of interested and concerned people at a small price. After a more or less elaborate pretence at information and social activity, they return to their tranquil passivity and retirement. Is it not clear that real participation already has a name? It is called self-management.” This chapter demonstrate that it is possible to introduce participation in many phases of the life cycle of a transformable urban space. The same community of users can, in an ideal context,



transform the space in a circular way (Fig.47). This is of course a utopian vision, but the schematic diagram illustrates how to approach the urban project in a participatory, circular way. In this new model, users not only give their opinions, but also interact, conserve, adapt and improve the urban space, as in community gardens. Direct, circular, continuous participation means the personal commitment of a community associated with the decisions that are taken. It also generates a virtuous circle of social benefits in which we again find some notions of community, which are sometimes lost and are inherent in neighbourhoods or in the rural world.

Figure 46

Current development of an urban project. Source: author

Here, we should mention the limitations of this chapter. First, this study represents an interpretation of a theoretical framework that has already been researched in many ways, but a fully comprehensive view has not been attained. This thesis starts with a statement on the status quo in architecture. In the process of change, participatory architecture must be connected to public schools of architecture, as they represent the next generation of professionals who will participate in building a fairer, more inclusive, sustainable city. Are our students trained on De Carlo's question of why? Are we bringing our students to architecture's public? Are we teaching architecture?

Anne Querrien (2002) describes the atmosphere in the 1960s, based on the Beaux Arts concept of "designing over-scaled public buildings and competition to be one of the small number of prestigious architects." Today, architecture schools have adapted a little, but not at the scale of Gian De Carlo's vision. For a real paradigm shift to take place, our architecture schools must be linked to current issues with local communities. In the ETSAB, we can mention for example Arquitectos de Cabecera (reference architects) who connect students with residents of vulnerable areas, and the Taller Espacios Abiertos (Open Space Workshop) (Sève, 2012), whose modus operandi is co-creation and urban DIY workshops. We could also mention the workshops in Halprin's Take Part Processes, with exploratory routes as well as artistic experiences in the street. All of these processes involve liberating and participatory experimentation to discover the surroundings, in an "ongoingness of collective creativity" (Halprin, 1974). However, architecture must acquire the ability to be transformed directly, like the work of the Architect Aravena, which allows its occupants to self-construct an entire part of it.

These processes, developed with universities and in architectural practices, should be placed in the middle of the bottom-up approach, as they go beyond the participatory method in a scientific way. As Petrescu wrote, "a revolutionary reform in urban planning cannot be initiated solely by centralised structures and governmental bodies. It should include these 'microscopic attempts' at the level of collective and individual desires of clients and users in micro-social units: neighbourhood associations, informal teams, squats and other self-

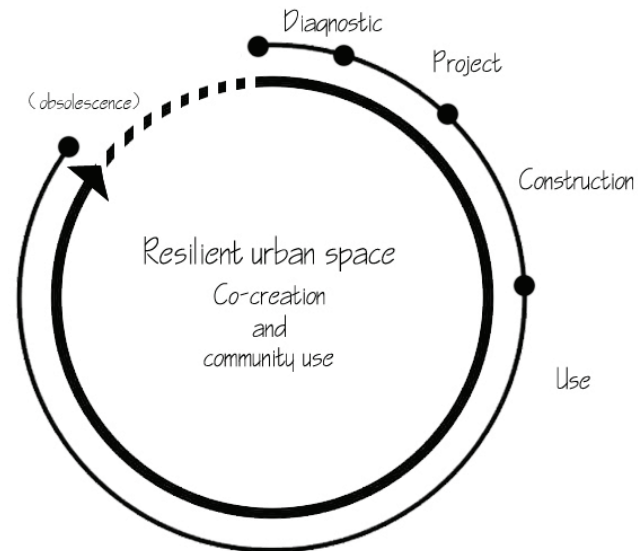


Figure 47

Thinking the urban project in a circular way, with the participation of the local community and its users.
Source: author

managed organisations, experimental institutions, alternative spaces...” (Petrescu, 2005). Neighbourhood associations must be placed at the centre of the process, integrating the local community, with tools that create real canvases. The rest of the population should be involved, with new technologies that allow contact from a distance. This would enable us to reconnect directly with life outside and with our residents’ realities, to create a better future in which we are aware of our natural, architectural and built environment.

Resilience: permaculture and bottom-up approaches

Our history reveals in a positive way how we have been able to integrate an increasing number of models of cities that work. The diversity and functions of public space as an engine of urban life are already a reality in many cities. Busquets stated that avoiding segregation and promoting diversity throughout the urban fabric made cities the engine of civilisation and Europe’s great contribution to humanity. We must avoid “poor” blocks of protected housing and instead integrate them into residential areas (Amiguet L., 2019).⁵¹ Therefore, we should consider the European city in a positive light because it already has inherent characteristics of diversity, as Jane Jacobs (1961) confirmed and analysed. In other words, a series of concepts and good practices have already been assimilated for urban change, as this research shows in the section below on Barcelona.

The next step should perhaps be to achieve real urban resilience, although here we must also be careful how we use this term, as it is a label that is widely applied in congresses, forums and urban planning events. We use resilience in terms of participation here. We suggest that a democratic urban space must be flexible and allow its citizens to appropriate it and even transform it. That is, real bottom-up actions must be allowed to emerge, as long as they contribute to “good living” (bon vivre) in the city. Recall that the concept of bottom-up self-organisation can be understood in a social and scientific way. Steven Johnson and Deborah M. Gordon explained how it arises in communities or cities, and how we are necessarily somehow connected. They refer to the concept of “emergence” that occurs when a system of elements with fairly basic organisation results in intelligent behaviour, spontaneously and with no previous rules. They demonstrated through a series of examples how ants, brains, software and cities are built up using “bottom-up” intelligence.

51 “Evitando la segregación y promoviendo la diversidad en toda la trama urbana. La diversidad hizo de las ciudades el motor de la civilización y la gran aportación de Europa a la humanidad. Hay que huir de los bloques “de pobres” de vivienda protegida y diseminar, en cambio, su presencia en zonas residenciales”

However, the solutions adopted between top-down or bottom-up models should be applied differently according to the historical, social, economic and geographic context. What happened in Barcelona, when informal, self-constructed settlements arose from one day to another in the 1960s, occurs on a larger scale and at exponential speed in the majority of international cities. In Barcelona, the solution was integration into structured neighbourhoods. However, the current context in megacities in Latin America, Asia or Africa is very different, and Turner's reasoning about supporting self-construction can be feasible. In all cases and in both models, it is important not to forget the contribution of the mixed city, with its varied uses and functions. It is one of the great contributions of the contemporary, dense city like Barcelona, where people can do many activities such as live, work, entertain, meet each other, play sports and relax. We could say that if this mixed city does not emerge, it must be proposed, and if it already exists, it must be protected and strengthened. That is to say, one model or another should not be diabolised or advocated, but rather adapted to an urban context to try to get closer to what we call an urban ecosystem. We must also accept the limitations of architecture and urbanism itself. Sometimes, it is necessary to legislate. Participation cannot fix housing access issues for example, although they can be alleviated with the integration of alternative housing, such as co-housing.⁵²

Finally, the integration of the concept of permaculture to improve urban ecosystems seems extremely interesting. This is not because of an idea of populist ecology in which we should return to a rural life, or scattered models of urbanism that are not sustainable at all. Instead, it is interesting as a complex system that can be applied in dense cities. Indeed, permaculture is based not only on renaturing as community resilience. And as Mollison says in his book *Introduction to Permaculture*: "Permaculture is a philosophy of working with, rather than against nature; of protracted and thoughtful observation rather than protracted and thoughtless labour; and of looking at plants and animals in all their functions, rather than treating any area as a single product system."

⁵² The term originated in Denmark in late 1960s. It is an intentional community of private homes clustered around shared space. The legal structure is typically a homeowner association or housing cooperative.

Barcelona Model. Towards an evolution for resilience

Urban transformation processes in the twenty-first century are increasingly complex and fast. Barcelona is a clear example of a city built on many urban transformations, both planned and unplanned, from a multitude of top-down plans and those of its inhabitants (Domingo I, Clota M, Bonet I, Casas M, 1998). We can define its development through historical “paradigmatic moments” of urban construction (Busquets, 2004): first the city enclosed in its walls, then its urban development (the Cerdá Plan), industrialisation, and a series of international events (the Universal Exhibition of 1888, the Exhibition of Electrical Industries and the 1992 Olympics), which were true catalysts of urban development and urban planning. However, it is also clear that the granting of the Games in October 1986 marked a phase of intense construction and urban renewal in the city, with the support of public investments. Capel (2005) explains that overall these urban transformations represent a great effort, which must be assessed positively. However, he also relates how the Barcelona Model, that followed the same desire for urban renewal, was criticised by many experts in Barcelona, including some of those who had initially defended it. In 1995, Borja, who was very positive about the Barcelona Model at first, explains that “there are obvious symptoms that the strength of private initiative and the weakness of a global public project is breaking this model (from Barcelona).” The consequences, including an increase in land and housing prices, rent increments, expulsion of popular classes to the suburbs and a lack of public housing, are inevitable. In the same line of criticism of Barcelona’s model, we can mention the works of Stefanie Von Heeren (2003), Josep Maria Montaner (2004), Manuel Delgado (2007), Zaida Muxi and Josep Maria Muntaner (2011). However, there is also no doubt that Barcelona has been shaped by the direct influence and actions of urban social movements (MSU) since the second half of the twentieth century. These have led, as mentioned before, to progressive participatory urban planning (Domingo I, Clota M., Bonet I, Casas M. 1998).⁵³

With the current context changed, with a gentrified city, victim perhaps of its own attractiveness, the form of action is in full swing. After the recent global recession of 2008 that is still ongoing, new architecture collectives emerged in Barcelona and in neighbouring cities in Europe, in which the craft of architectural practice was reinvented with new ways of working collectively and diversely (Luck, R., 2018). In France and England, legal frameworks exist for implementing participatory processes. However, in Spain there are no legal frameworks yet, although Barcelona established a Regulation of Citizen Participation in 2015. Many experts agree that such legal frameworks do not in any way ensure that a

53 For more information on the roles of associations and urban social movements in urban planning: Barcelona i els moviments socials urbans de Domingo I Clota M., Bonet I Casas M.

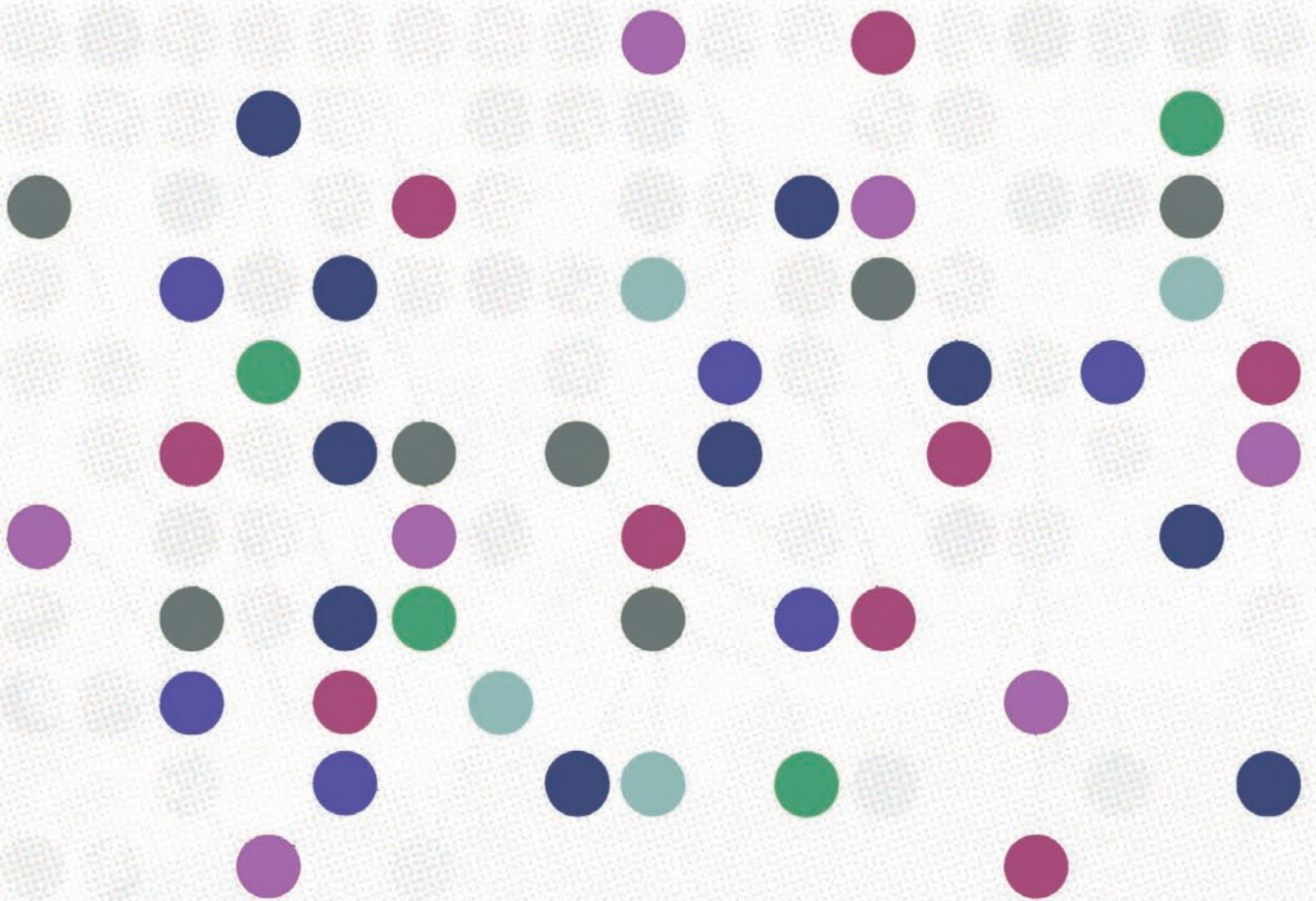
process is effective, represents genuine participation, or includes the majority of individuals (Petrescu D., 2005; Querrien, 2002; Lacol, 2018). As Balug explains (2019), “we can see that a paradox has occurred with regard to imagination: by taking on an agenda of participation formally, planning efforts have co-opted those tending to participate in a process where true visioning is neither possible nor desired.” In contrast, Petrescu (2005) argues that “participation should be understood as a progressive and evolving process that constructs itself inferentially, by both integration and adjusting its aims according to the newly created situations. Participation is performative, it is ‘to collage one’s collage onto another collage’, it cannot work through preconceived models.” Participation in urban spaces then has several challenges, such as creating a genuine process, generating the desire to take part, working hand-in-hand with associations and communities, and integrating artistic tools as a means of citizen empowerment. New types of planning emerge today from the daily vision of citizens, such as the newly created Neighbourhood Plan, initiated by the Barcelona City Council in 2016 and currently underway. New local teams have been working on the issue for over a decade, such as the works of the Col·lectiu Punt 6 and Zaida Muxi, who focuses on a gender perspective, and Raons Públiques and Lacol, with their participatory activities that build assessments and urban specifications from the experience of citizens.

Joan Busquets defines the urban planning of Barcelona today as “complicity between the planner, citizens and institutions, which is achieving the best for all without anyone have to impose it” (Amiguet L., 2019).

There are many valid ways to participate in an urban project, from a dialogue with a technical team to public space action. But perhaps one of the most interesting initiatives that has emerged recently is the Pla Buits that literally allows the occupation of plots or disused land in the city to boost them through provisional public interest activities, promoted by public or private non-profit entities. The activities are usually educational, sports, recreational, cultural or artistic, environmental or landscape, social or community, or similar, and should have great social and ecological impact. The experience of the Quirhort, for example, which we describe as a case study, shows how a disused plot of the former Quirón clinic is reactivated by the neighbourhood in an open project of urban agriculture and organic community, with activities for the neighbourhood, outdoor cinema and organic farming workshops, attended by people who want to participate in their neighbourhood life. We recall here what Petrescu (2005) explains about similar experiences in Paris with Atelier d’Architecture Autogerée (AAA): “a revolution in urban planning cannot be initiated solely by centralised structures and governmental bodies. It should include the microscopic attempts (like the emerging community gardens on reclaimed plots) at the level of collective and individual desires of clients and users in micro-social units.” Perhaps we can imagine that tomorrow’s city could have its public space managed in the same way.

Then, we can talk about genuine participation, without rejecting structured urban planning that integrates the sum of these actions.

This is the main aim of the research: not to frame or establish a process or methodology in a type of participation. Instead, we propose the development of a resilient methodology that can help anyone to construct a project process. Now that we have finally clarified what we interpret as participation in the context of urban planning and architecture, we can go deeper into our research to understand participatory practices through their mode of action. This means understanding the creative tools and their main objectives. In the next chapter, we propose a classification of case studies and then define basic tools, which in combination can form more or less complex processes.



2. Bottom-up, community and participatory tools

2. Bottom-up, community and participatory tools

At this point in the thesis, we can consider studying case studies beyond their origin or mode of action. The aim is to find patterns or common denominators so that we can understand participatory action in an urban process and propose new participatory dynamics for direct use or in schools of architecture. There is growing interest in participation because of its applications in diverse, consolidated urban contexts. Although it applies specifically to historic centres, UNESCO's last recommendation on Historic Urban Landscape is relevant (2011): "the approach based on the historic urban landscape implies the application of a range of traditional and innovative tools adapted to local contexts. Some of these tools, which need to be developed as part of the process involving the different stakeholders, might include: civic engagement tools should involve a diverse cross-section of stakeholders, and empower them to identify key values in their urban areas, develop visions that reflect their diversity, set goals, and agree on actions to safeguard their heritage and promote sustainable development. These tools, which constitute an integral part of urban governance dynamics, should facilitate intercultural dialogue by learning from communities about their histories, traditions, values, needs and aspirations, and by facilitating mediation and negotiation between groups with conflicting interests."

Hence, complex, ready-to-use participatory methodology is required for architects, urban planners and landscape architects to work in an interdisciplinary way with other specialists. To consolidate an urban environment, it seems essential to add a new immaterial layer to the complexity of the urban project, corresponding to the local population, their habits and customs. This idea recognises the value of intangible and tangible heritage. In contrast to the word "tangible", "intangible" indicates that something cannot or should not be touched.

In fact, the urban, as opposed to the city, can be considered a transitory social reality that is in motion and always in the process of being restructured (Delgado, 2005). We can accept that the social layer is a matter for sociologists, and that a multidisciplinary team within an urban project framework must be composed of numerous specialists such as architects, urban planners, anthropologists, economists and civil engineers. However, it is also difficult to find ways to work together and to work in the same direction. Therefore, architecture and urban transformation must include this anthropological vision and understand it as a facet of the architect, that is, to complement the artistic and design creation that characterizes our profession. Solving a problem through creation, whether using images, models or drawing, is undoubtedly a strength of architects. Therefore, understanding how to renew our creative tools along with other practices is an added value to reach the goal of working in an inclusive, participatory, sustainable way to design an urban project. We can return to Lawrence Halprin who, along with Ana Halprin, was a forerunner of creative participation in urban projects. He explained when he described his studies how the combination of

arts in general (dance, music, painting and photography) made sense in Bauhaus design courses, where they were applied to drawing, building sculptures, etc. (Ross J., 1995).

We want to celebrate this great artistic creativity of the Architecture profession in a new, positive way and put it in practice in our universities, with innovative creative experiments. These should be hands on experiences that reconnect our students with daily issues that can be questioned and solved through participatory activities. This includes the experiments we are carrying out, in various forms, and the study of other cases, to draw up a theory that supports the praxis.

This chapter proposes the creation of methodology for participatory action with new and traditional tools (information and communication technology, mapping, big data cartographies, fun tools such as urban sketching, tactical planning, opinion polls and collaborative websites, among others), through their classification into a taxonomy. This chapter shows the taxonomy generated through an analysis of several historical and recent case studies in which the real stakeholders in urban planning – its users – co-designed the project. By combining the tools, we should be able to build a flexible methodology or a guide for co-creation workshops. We must be cautious about this concept of methodology, as each context has its own answers. However, as we have done from the outset, we can certainly group action models, experiences that develop in a few hours or in a few years, with similar or dissimilar objectives. In this chapter, we search for patterns to define the basic creative tools that we can use in a participatory process. We used two data collection methods to obtain the results. The first, which is the subject of this chapter, consisted of scientific classification of cases studies in a grid by tool, year, duration and purpose. The second, which is still underway, involves experiments in which our students collaborate with the local community, hopefully to encourage a change in habits and mindset. This second method is presented in the next chapter.

2.1 A Taxonomy for participatory tools in the urban planning context

As indicated in the second chapter, it seems that there is a duality between sustainability and local community mindfulness. A new form of urbanism could be brought about by participatory urban methodology combined with the know-how of urban planners. However, it is clear that an analysis of case studies is necessary. We mentioned traditional examples in Chapter 2, such as el tequio in Mexico, as a model of participation and community action that demonstrates users' concerns for their natural and built environment. It establishes the moral obligation that each person or group of people must participate in some work for general benefit, such as the construction and conservation of roads, schools, temples and wells or canals to extract water for the community. The study of this participative practice is extremely interesting, because it is a living example of the social organisation of many ancestral urban settlements in various parts of the world.

We have also discussed the same close relationship between sustainability, community and participation through actions to claim urban spaces. A good example is the Green Guerrillas founded by resident Liz Christy as an urban community garden group to clean up, create and conserve a vacant lot in Manhattan, New York in 1971. We find these phenomena in many cities around the world, with the emergence of urban gardens that temporarily transform available, reused spaces through everyday life activities that help to preserve urban "biodiversity" and somehow reclaim the right to the city. Experiences go beyond these occupied plots and community gardens. Problems related to mobility and waste of public space are other areas that are addressed through: monthly bike rides to demand the rights of cyclists and promote a sustainable city model, like the Critical Mass; world tactical urbanism events such as Park(ing) Day in which any participant can temporarily transform public parking spaces into parks, gardens or other forms of public space; and other performances to illustrate how much space is needed to transport a group of people by car, bus or bike. The latter went viral and showed users and the world the problem of public space waste.

Finally, we have seen how new practices in architecture have emerged that directly include neighbourhoods in their project. For example in Barcelona, we have discussed the work of Col·lectiu Punt 6 and Zaida Muxi on urban security from a gender perspective and the work of Raons Públiques with their participatory games that build urban assessments and specifications based on the experience of users. Generally these activities involve urban exploration walks, assemblies, participatory games, as well as tactical urbanism and even new information and communication technology tools (such as virtual interactive innovations used for digital urban transformations research in the department of Architectural Representation, Architectural School of Barcelona or the works of the firm 300,000 km/s.

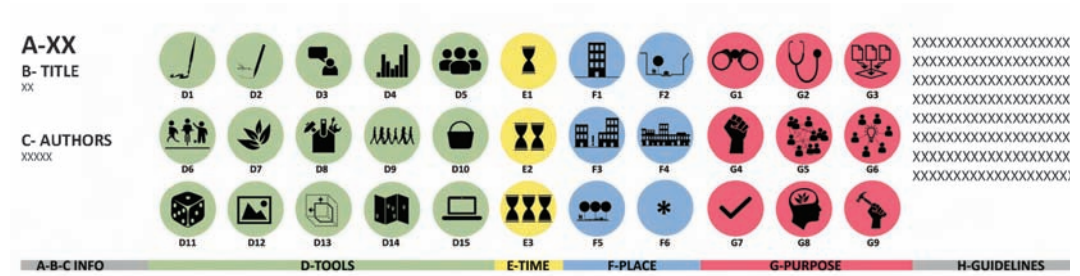


Figure 48

Taxonomy template. Source: author

The concept of taxonomy

We assume that this wide range of experiences can be grouped into similar patterns. To propose new activities and dynamics for the common good, we need knowledge and understanding of the basic tools and characteristics that lie behind these past and recent case studies. This means considering all the experiences regardless of their origin and classifying them according to common patterns. This led us to consider and create a method of analysis that can classify bottom-up and participatory processes, like a taxonomy with a chart. Taxonomy has existed since the very beginning of humankind and it may well be the oldest of all sciences. It is a term that is normally used in biology. In its essence, it comes from the Greek “τάξις” (taxis) which means “ordering” and “νόμος” (nomos) which means “norm” or “rule”, according to the most general definition of the science of classification. In biology, taxonomy seeks to identify, name and classify species and reflects the relationship that exists between them or between groups of organisms. Traditionally, as in Aristotle’s works (384–322 BC), species groups are classified by observable or morphological characteristics, although this method changed with the notions of molecular biology.

Taxonomy generally refers to the theory and practice of describing, naming and classifying living things. In our case, the term is appropriate, since we seek to connect the urban project to a sustainable, mixed approach to assimilate it as an urban ecosystem. To digress a little, we are all inherent taxonomists. We usually assign similar objects to recognizable groups, especially in our domestic spaces. For example, we may separate sheets by type of beds or clothes by type, season of use (winter, summer) or colour. The same happens in the kitchen, with cutlery, glasses and food. When we extend this classification to the urban project and the city, we also define morphologies and typologies. Architecture can be classified into typologies (courtyard house, detached, semi-detached, single-family or multi-family dwellings) and it can be classified historically and by architectural trend (Medieval, Renaissance, Baroque, Modern, Postmodern), or simply by ecological performance. The same is true of public space. Urbanists have classified it according to its shape, dimensions, and use, among other factors. Urban projects can be classified into typologies such as waterfront transformations, industrial enclave transformations, transformation of historic centres, etc. One interesting aspect of preparing a taxonomy is to explain how it works and whether it could be applied in other contexts. This taxonomic research, together with the participatory experiences in which we involve our students, brought us to the realisation that urban sustainability arises in communities, and our function as urban planners is to preserve or reinforce these communities, which is one the main purpose of this study.

Taxonomies can appear to be banal or a poorly understood science. Some natural science specialists believe that it is a mistake not to consider taxonomy a first class science, as

identification is never a simple process. In the natural sciences, taxonomy has evolved with the advent of genetics. Hence its specialists continue to support it as a science that has evolved with the emergence of new tools (Bicudo, 2004). Our taxonomy for a flexible and participatory urban space is an attempt to classify, preserve and propose diverse, inclusive strategies, as a reflection of taxonomy in natural science that seeks to recognize and survey the state of fauna and flora for biodiversity.

A work of great interest in this field is *A Pattern Language* (1977) by Christopher Alexander, Sara Ishikawa and Murray Silverstein. In this work, a new language is created through the description of a problem, and then a solution is offered. In this way, the authors try to provide an opportunity for ordinary people, not just professionals; a way to work with their neighbours to improve their built environment, whether it is a city, a neighbourhood or, at smaller scale, a workshop. In this respect, our research has similarities to *A Pattern Language*. We start first with a similar conviction of community empowerment and with initial models to follow. Finally, when several patterns are joined, we can regenerate a language. However, in our case, an important point was to determine whether to focus on a complex language like a generative grammar, which comes from computer programming. However, it was more important for us to minimize the syntax to create a simple symbology that could be understood by anyone wishing to use our taxonomy. An additional level of complexity can be obtained if desired, as we will document below.

In our research, we have opted for grouping by categories with various attributes, as in the traditional and simple classification. This classification considers that any being in biology or, in our case, any experience can be registered and ordered based on similarities and differences in structure and appearance. Figure 48 illustrates abstractly how the taxonomy was created: a set of forms (on the left) can be classified according to a common denominator (on the right). Our research considers participatory actions and bottom-up tools, and classifies them according to four categories (tool, duration, place and objectives), with basic attributes that are shared or not by the experiences. The other part of our research, experiments involving students and the local community, reinforces the theoretical model. At the time of writing, we have experimented with various co-creations and urban DIY workshops, such as the Taller Espacios Abiertos (TEA/OSW) held in Mexico and Barcelona. Another workshop, which we call Participative Urban Sketching, is currently being tested in the Architectural School of Barcelona (ETSAB).

Making the taxonomy

As explained earlier in the document, participation is a broad concept that can be ambiguous. The creation of the taxonomy had to begin first by understanding the very meaning of participatory architecture, as presented in Chapter 2. In parallel to that study, cases that were very diverse in contexts and mode of action were chosen, with very different time scales. When we examined this diversity of practices, we could immediately identify several recognizable groups: the physical space in question, which is either a street or a building; the tools of participatory practices, such as tactical urban planning or exploratory routes; the time over which the participatory practice was carried out; and the main objectives, that is, whether the activity directly claims use of the space or is designed to collect data. Then, the work consisted of discovering the attributes that make up practices or projects. That is, in each group or category, we define each physical space that is detected, each tool, the duration, and each objective. We were careful not to create redundancies. After about twenty case studies, we could sketch a first taxonomic table or chart, which was then modified with new case studies that we analysed.

The generation of the taxonomy began with a textual legend that was subsequently replaced by a graphic legend with symbols. This decision to use a system of semiotic entities makes it easy to read the taxonomic table, with relatively simple symbols. Apart from their international utility, like road signs or the famous emoticons that are widely used in electronic mail, forums, SMS and chats. The taxonomy could in fact be adapted and transformed for use collaboratively through a web platform, although this option was not explored in the study. However, the results below show the validity of the taxonomic table.

Taxonomy template

The taxonomic table can serve to help analyse case studies and generate new practices. Below, we describe each of the categories that has been developed. This can be considered an extended and descriptive legend. The taxonomy table is drawn up using a grid consisting of eight columns (A, B, C, D, E, F, G and H), four columns present the classification categories (D, E, F and G) (Figure 49.1).. To facilitate the interpretation of the table and its possible adaptation as a guide, a template, a road map or collaborative platform, a legend has been created with icons to ensure universal, multilingual interpretation. The four categories describe the basic tools used in the participatory experience (D), the time needed (E), the type of urban space concerned (F) and the purpose (G). The various categories are described below. Categories A, B, C and H allow the necessary information to be added to understand participatory practice.

A. Numbering, B. Name, C. Authors

When the taxonomic table had been developed, we found that some additional information needs to be added to name and define the practice. The first 3 columns of the table provide the name of the experience and its authors and are for information and accreditation. The case studies chosen came from various teams including architecture collectives and studios, such as Col·lectiu Punt 6, Raons Públiques, Recetas Urbanas, Ya+K, Taller Espacios Abiertos, Die Baupiloten; experiences of famous urban design offices like Joan Busquets's BAU; architecture universities such as the ETSAB; participatory events like Critical Mass and Park(ing) Day; and experiences generated directly by neighbourhood groups (garden communities, tequio, etc). To provide a simple explanation of the taxonomy, only a few cases are presented in this study. Later, we present more case studies using the taxonomic table. Note that we have not included all analysed case studies.

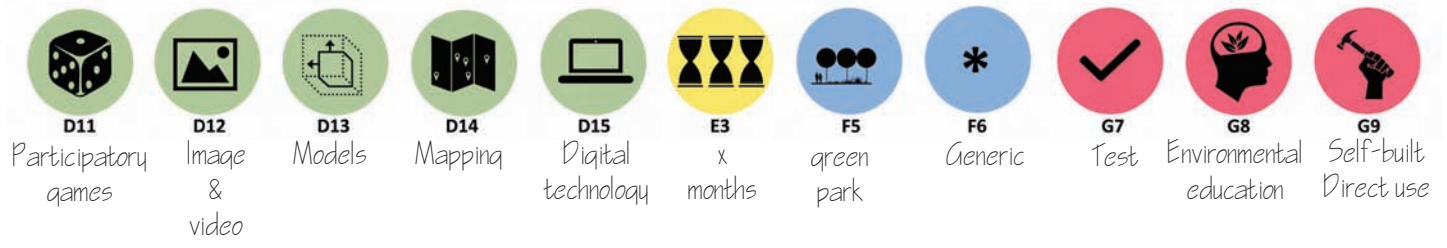
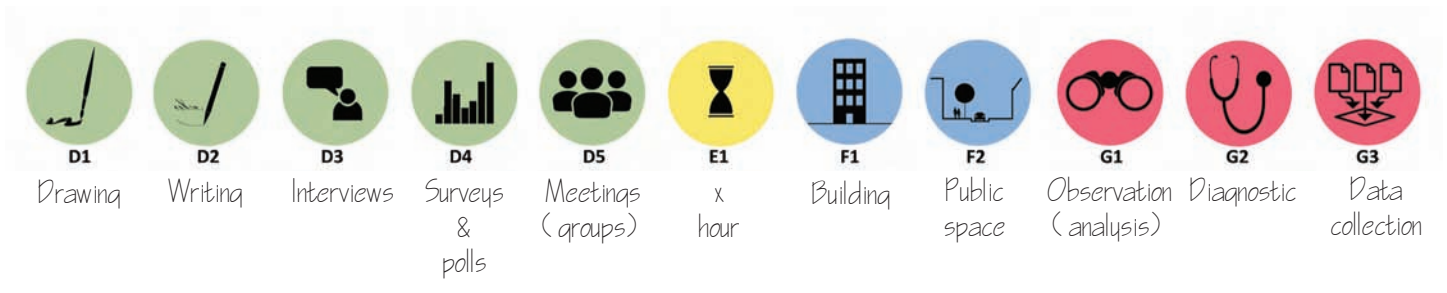
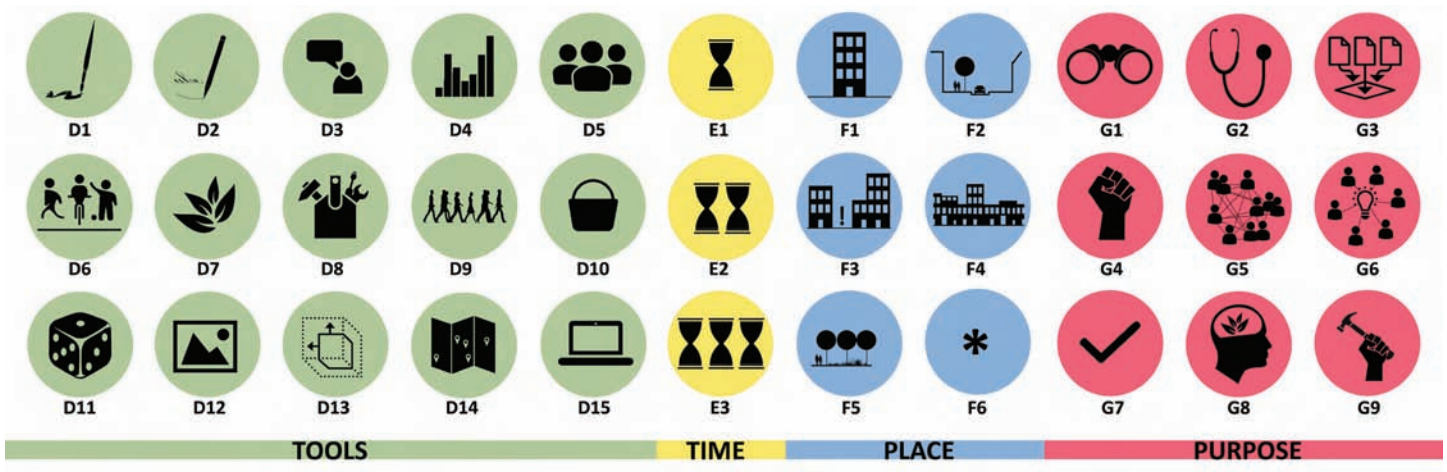
D. Tools detected

The fourth column (D) corresponds to the first classification category (figure 48, 49.1, 49.2). This is one of the most important columns in the creation of the taxonomy, because it illustrates the tools used in the processes of participation, community planning or other bottom-up processes. The chart of tools evolved during the study, and might need to be expanded in the future. About 50 case studies were required to define the present category. In the possible case of a collaborative taxonomy platform (ICT), users should be able to suggest the addition of new tools. A participatory experience or method is comprised of combinations and variants of the detected tools; hence it is highly permutable. For example, the participative urban sketching experience, which we are developing in the university, is a combination of several tools (D.1- Drawing, D.5 - Meetings and assemblies, D.9 Exploration route and D.14 - Mapping). Hence, we must consider these categories in the simplest way possible, while their combination creates for the designer or moderator the complexity of a successful participatory workshop. We also explain below, in the section "How to use the taxonomic table" versatile ways to indicate which basic tool represents the basis of participatory practice, and what are the secondary attributes that support this main tool or activity.

D.1. Drawing, by definition, can refer to the art that teaches us to draw and the image that is executed. The action of drawing, as a form of inhabitants' expression, and the images that are created can be a source of data. In the case of "urban notes", walks around the area that incorporate drawing sessions are organised with architectural students and inhabitants. Recall here how in-situ drawing has been and continues to be the favourite artistic tool of anthropologists, explorers and architects to document places. From Conrad Martens, artist

Figure 49.1, 49.2

Zoom in on the taxonomy template and its legend.
Source: author.



in Darwin's residence, to Le Corbusier, with his voyages to the East, and the collective groups of urban sketchers, on-site drawing allows an intentional, conscious representation of our natural, social and built environment. In the last chapter (3), we present our ongoing experiment Urban Notes, which is an optional activity at the ETSAB in which we seek to develop in a cross-cutting way the integration of inclusive urbanism, visits at street level, artistic drawing, and urban proposals. The purpose of these sessions is to observe, collect data, analyse, diagnose and even provide some early sketches and ideas for a schematic design. Another experience, the "Mapas Corporales" (Body Maps), developed by Col·lectiu Punt 6, proposes the use of drawing to analyse emotions and other sensations in relation to the spaces and environments in which participants live or through which they travel. Hence, we understand artistic drawing in a broad, versatile way.

D.2. Writing can be considered a classic tool for collecting information and even preparing a report of results. A combination of this tool and assemblies or discussion groups can be used to discuss a specific topic, and to explore and share reflections based on people's ideas. For example, in a snowball dynamic, that is, starting in small groups and moving to larger groups, some needs can be written on a space in the form of bullet points. The goal here is of course to reach a consensus. Sometimes this tool can be easily combined with drawing, as in the case of Urban Notes, where any comment made when the place is observed allows data to be collected.

D.3. Interviews: Interviews are carried out to extract information and data on the perception of the users who inhabit a place. The interview can be formal or informal and undertaken in several ways: individually, in a discussion group or through questionnaires.

D.4. Surveys and polls. The purpose of surveys is to ensure public participation or information by collecting data through a previously designed questionnaire. Surveys provide quantifiable data. They can also be a reliable way to create feedback.

D.5. Meetings and assemblies bring together all stakeholders in an urban project. Of course, they generally form part of most participatory practices, although they can also be considered a tool. In consultation meetings such as public debates and in citizen participation processes, users are generally only informed of a project. At the other end of the scale, in assemblies and discussion groups, there is real debate, and decisions are made by vote with hopefully no hierarchical figure. In the traditional tequio and in the community garden described at the beginning of this research, decisions are taken by assemblies. These conversations can be chaired by an external person. Generally, at meetings or assemblies, plans are discussed to reach a consensus. However, Miessen (2010), architect and consultant, also advocates for groups with different interests that he calls crossbench praxis, in which the integration

of people from outside the process is necessary. In general, the purpose of these discussions is to collect information on a specific topic and share reflections and ideas. It is important to organise groups of four to six people in a strategic way to be a success.

D.6. Occupation or alternative use of an urban space. Often associated with the right to the city, this is basically the occupation of a public space, an empty plot or an abandoned building, reclaiming it for a change of use or for its preservation. This occupation can sometimes take the form of an event, tactical urbanism or a short-term settlement. It can be static or in movement, as in the famous Critical Mass event described in chapter 1. However, we can also broaden the notion of occupation to cases interpreted as any voluntary stay in an urban space. In Barcelona, an initiative promoted by the City Council called *Obrim Carrer* literally means opening the streets for civic uses. The *Via Laietana* and *Gran de Gràcia*, two symbolic streets currently used by motor vehicles, are closed to traffic every first weekend of the month for use by pedestrians only. The municipality intends to incorporate an additional section into this mobility pacification strategy every month.

D.7. Urban gardening - Green Guerrilla. This is generally combined with tool D.6 (occupation of an urban space) and D.7 (D.I.Y). In general, a community of neighbours occupy empty space on an urban plot and transform it into an urban vegetable garden. We could mention experiences of the Green Guerrillas, a term used since the 1970s in New York for these actions, which include the Liz Christy garden in New York and Barcelona's temporary garden. We can consider them as participatory tools that have been used throughout the world and have an obvious ecological interest. Often, participants have a lot of gardening and permaculture experience. Note that new city plans and policies, such as the *Pla Buits* of Barcelona, include urban gardening synergies to reinforce biodiversity, placemaking and community reinforcement through the participation of neighbourhood communities.

D.8. DIY: Urban do-it-yourself and all types of self-build. DIY can be considered behaviour where “individuals engage raw and semi-raw materials and parts to produce, transform, or reconstruct material possessions, including those drawn from the natural environment” (Wolf & McQuitty, 2011). We include here various notions, self-build, DIY and tactical urbanism, as we think they are complementary. Note that tactical urbanism can be interpreted as 1/1 life size models that can test the public space. This category includes all actions on the physical space that are carried out in the urban space, including urban bricolage (DIY), tactical urbanism or even urban art, such as murals and graffiti. It is normally associated with tool D.6. Tactical urbanism or experimentation at a 1:1 scale is understood as short-term actions that seek to generate a long-term change in the way of inhabiting the city. Depending on the cases, this type of intervention can be fully participatory, because it usually does not

involve too much technical knowledge and can take the form of a community activity, like the experience of Segal. A good illustration of an urban bricolage workshop is the Taller Espacios Abiertos (TEA) or Open Spaces Workshop (OSW) in Mexico, in which an abandoned railway station has been transformed into a cultural centre with the help of students and the local community. We describe this project in depth in the next chapter (4). The YA+K and Recetas Urbanas are other examples of architecture entities that are working with Urban DIY (Do it Yourself) workshops to have a positive impact on the urban space, reinforcing existing urban communities. We can also mention here, in quite a different context, the Rural Studio, a design-build programme that is part of the School of Architecture of Auburn University. In this programme, architecture students gain hands-on educational experience while they assist under-resourced communities of West Alabama's Black Belt.

D.9. Exploration route. An exploration route is a walk or cycle tour in groups to record, through drawing, photographs or notes, the elements and situations that the users consider important for urban transformation. Normally this type of activity is an opportunity to mix different actors who are interested in urban improvement. Of course, this includes the local community with all ages, genders and people of different abilities, as well as architects, professionals from the municipality, sociologists, artists and even promoters. Variants of exploratory routes can be created, in the form of participatory games or routes involving cognitive and artistic experiences, such as those of Halprin. We can also consider other ways to accompany and create itineraries, for example, to try to understand some everyday realities of mobility. In this context, the route can be followed in public or private transport etc. In one form or another, the information that is gathered can describe the daily environment, the perception of the site and its characteristics.

D.10. Traditional and local use of the public space as marketplaces by communities. This category refers to all formal and informal activities that can take place in the urban space spontaneously and create a special atmosphere. We generally refer to traditional markets in public spaces, which are a clear sign of the involvement of inhabitants. From an anthropological perspective, markets are not only places where products are exchanged, but also community generators. An interesting case study (in progress) on the famous tianguis in Mexico, but also street food stalls in Asia or Latin America shows how users self-organize, occupy the urban (or rural) space, exchange goods and services, provide information of all kinds and establish a series of personal ties that are inherent in the creation of community. If the space is transformed without considering the added value of these practices, social and community fabrics can be profoundly altered.

D.11. Participatory games. Participatory games are very varied. They are usually non-competitive, so players simply seek to enjoy the activity, involving adults and children in the process, to collect data or preserve the identity of a neighbourhood. Participatory games can be developed at the table, in groups, or directly in the public space. Raons Públiques, the urban social innovation cooperative, has designed for example “las gincanas de barrio” (neighbourhood gymkhanas) or “los cromos de barrio” (neighbourhood trading cards) and other tools that involve the use of images and wishes of neighbours. Participatory games can be considered serious games, which are also known as training games and are designed for a main purpose other than pure fun. The term could also be easily applied to computer-age games, with virtual reality experiences applied to the urban project.

D.12. Image and Video. In the graphic sense, an image is a visual representation and a mental representation of something like an object, a living being, a physical context or a concept. Here, we must understand the image in a broad sense, although normally it is generally applied in the graphic sense in its various forms: photography and by extension video, as a means of observing the daily life of a person or community, or other forms of visual representation that shows what an imaginary project will look like. This usefulness of the latter is evident in processes of agreeing on and communicating projects, in the context of perspectives and plans that inform inhabitants what a design will be like. For example, you can choose to propose several perspectives for different scenarios or adapt the image to the free imagination of participants. The use of storyboards can prove useful if one person wants to project scenarios in a different part of an urban space, along a street for example, to show different places and visions. There are other variants in which images can be used in an even more participatory way. For example, existing references of urban spaces can be used to determine what kind of environment users want. An image of an urban project can be adapted if virtual reality is applied to the urban transformation.

D.13. Models. Models are another example of a device that is widely used for urban projects to communicate with the neighbourhood and users. It can be used merely to communicate or it can be fully participatory, with evolving models. The models can be physical or 3D.

D.14. Mapping. Mapping is an operation that associates an element with another element to create maps. By extension, mapping, combined with drawing or collaborative platforms, is a useful participatory tool for urban diagnosis and data collection through the creation of emotional and perceptual maps. For instance, in participative urban sketching, we map the drawings collected in observation routes to generate an initial conversation with participants. The experiences of the Iconoclassicists use them for example as critical resources for territorial processes (Rister Julia & Ares Pablo 2013).

D.15. Digital technologies are information and communication services that are based on the participation of users, their cooperation for production, mutualisation of data and the sharing of knowledge. These tools can facilitate some processes by accelerating integration capacity without the need for face-to-face interaction. Sites allow production, storage and easy access to information, including cartographic interfaces, which contribute to informing inhabitants. They range from online surveys to collaborative online mapping and virtual reality experiments.

E. Time. Time is another important criterion when a designer or stakeholder wants to create and use a participative tool. We define this category as the time of participation needed with the stakeholders. This does not mean the time needed to build the process or for data mining, but the time that stakeholders are involved in the participatory practice or process. It is important to consider that some project or process contexts need specific times for participatory practices. In this respect, three units (E1. Hour, E2. Day and E3. Month) are used to describe each experience. If a multiplier is applied to each of the attributes, the time needed to perform the practice is clearer. However, this is approximate information. Digital technologies (DT) applied to participation are normally tools that instigate a short period of participation and are generally in the E1 category. This is one reason why DT are attractive in public processes of citizen participation. They also cut costs. However, longer experiences in the last category (E3) have a positive impact on the community, as is the case of community gardens or urban DIY workshops. We should remember that the validity of a participatory process lies in its duration, as mentioned in the previous chapter. To qualify an experience as participatory when only one tool of short duration (such as digital technologies) is used, is to fall into pseudo-participation.

F. Place. Here we refer to a space of latent opportunity; an obsolete, misused or mismanaged, abandoned space that is likely to be transformed into a space for social and ecological bonds. The dynamics of urban growth and metabolism have left behind a trail of residual, abandoned, empty or poorly managed spaces. Sometimes these spaces, whether built or not, are claimed by the neighbourhood, occupied and finally recovered in a participatory manner.

Urban voids have been given many names. They have attracted the attention of some urban planners, landscape designers and artists. Ignasi de Solà-Morales (2002) coined the term *Terrain Vague*, and stated: “They are apparently forgotten places where the memory of the past seems to predominate over the present. They are obsolete places where only certain residual values seem to be maintained despite their complete disengagement from city activity. They are, in short, foreign, strange places that are left out of the circuits, of the

productive structures.”⁵⁴

As for spaces, some infrastructure is still in active use even when it is poorly managed or has an obsolete design. For example, some streets in urban centres have been designed, or worse, transformed for the transit of vehicles, They appear obsolete with the rise of modal changes in the city. Their transformation means new pacified public spaces, parks, vegetable gardens and squares.

In his posthumous book *Earring* (2005), Kevin Lynch talks about the excessive, unnecessary spending in our lives, with massive generation of waste. He also addresses the issue of abandoned land and explains that the maintenance of a place is clearly linked to its use: degradation is the consequence of the abandonment of the activity and therefore, the abandonment of the place: “If it produces benefits, it is not abandoned. If it does not produce, due to some human witchcraft, and they are given up, then it is abandoned”.⁵⁵ In any case, when these urban gaps are located in strategic places, such as in the city or peri-urban areas, their transformation into services or other community areas involves the social and urban regeneration of the direct urban context.

Although numerous experiences have taken place in a range of places, they can be classified into a few types of urban spaces. Six types of places were defined:

- **(F1) A physical space**, generally a building that has been abandoned, or in bad conditions: an old factory or dwellings, for example.
- **(F2) A public space that is reclaimed**: A street with a lot of traffic, a square occupied by parking lots, etc.
- **(F3) A brown field or empty plot**, as is often the case of community gardens in dense cities.
- **(F4) An entire neighbourhood**, a city, a metropolitan region, etc.

54 “Son lugares aparentemente olvidados donde parece predominar la memoria del pasado sobre el presente. Son lugares obsoletos en los que sólo ciertos valores residuales parecen mantenerse a pesar de su completa desafección de la actividad de la ciudad. Son, en definitiva, lugares externos, extraños, que quedan fuera de los circuitos, de las estructuras productivas

55 “si produce beneficios, no está abandonada. Si no produce, debido a alguna brujería humana, y en otro tiempo rindió, entonces está abandonada”

- **(F5) A green public park** that users want to preserve.

- **(F6) A generic space**: an alternative space that is not represented here, or a more general space. Indeed, some participatory tools can be applied to numerous contexts.

G. Purpose. This last category is as important as D. Tools. Understanding the reasons why we participate seems obvious, although we have found various objectives. Each participatory experience can have one or more purposes. Nine basic purposes have been defined:

- **G1. Exploration**, also called Awareness. More than an initial contact, this is a true observation that can occur at various levels, by looking at heritage, vegetation and other direct physical aspects. It can also take place at other levels, by looking at security, comfort and beyond, at cognitive level, with the users' perceptions of urban spaces. Exploration is necessary to discover the community's needs.

- **G2. Urban Diagnostic**. This is also necessary to discover the community's needs. The idea is to collaborate with the community to identify the weak points of the built and natural environment on which one is working. If, for example, the exploration reveals some problems, the urban diagnosis must list and represent the problems with the urban symptoms that need to be addressed.

- **G3. Data collection** is normally used in the beginning of an urban project. This is basically about collecting data to develop a diagnosis, or to make some proposals. Data collection can be carried out one-to-one (in interviews with key people) or information can be gathered from numerous people (in online surveys).

- **G4. Reclaim**, is often a condition sine qua non of participation, i.e., the local community aspires to change its environment. The aim in some case studies is only to claim a space and reveal what could be changed in the urban space.

- **G5. Community making**. The participatory experience, if it is long enough in time, can create or consolidate a community, with collective activities that broaden the social relations of its participants.

- **G6. Co-creation**, that is, the making of the urban project with users. This may also be a reason in itself; the desire to create and bring about urban change as a whole and as a group. Co-creation workshops involve group dynamics and sometimes artistic creation, such as those we describe in our experiments in Chapter 3.

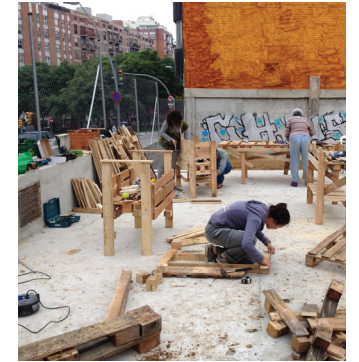
- **G7. Testing**, often with ephemeral architecture that activates a place (placemaking), as in urban DIY (do it yourself). Testing implies that an ephemeral change may have a more lasting future when it is applied again. This is the case of tactical urbanism. The act of testing allows the teaching and experiencing of urban improvement.

- **G8. Environmental education** that occurs for instance with gardening workshops for the neighbourhood, in the park(ing) day events, with the occupation and momentary transformation by participants of parking lots into mini parks and spaces for civic use, or with exploratory routes to increase awareness of forgotten industrial heritage, etc. According to Teitelbaum, A. (1978), environmental education can be defined as “the permanent educational action by which the community understands these relationships and their root causes. This is developed through a practice that links the student with the community, values and attitudes that promote behaviour directed towards the overcoming transformation of that reality, both in its natural and social aspects, developing in the student the possible skills and attitudes necessary for said transformation as well as using educational elements to cover environmental needs and improve the environment.”⁵⁶

- **G9. Self-built and direct use**, when technically viable.

H. Guidelines. The last column represents a small summary of 90 words, generally written or recovered from the authors of the experiences.

56 “la acción educativa de permanente por la cual la comunidad comprende dichas relaciones y sus causas profundas. Ésta se desarrolla mediante una práctica que vincula al educando con la comunidad, valores y actitudes que promueven un comportamiento dirigido hacia la transformación superadora de esa realidad, tanto en sus aspectos naturales como sociales, desarrollando en el educando las posibles habilidades y actitudes necesarias para dicha transformación así como también hace uso de elementos didácticos para poder cubrir necesidades ambientales y mejorar el entorno.”



2.2 Case Studies (CS)

Figure 50

Tequio in Oaxaca. Source: Efraín Vázquez Cruz

Figure 51

Tianguis. Source: Fabricio Lázaro Villaverde

Figure 52

Self-built house by a local craftsman. Pedro Vizcarra's house in Arequipa. Source: John F.C. Turner

Figure 53, 54

Quirhort. Source: Quirhort

Figure 55

Ecobox. Source: AAA (Atelier d'Architecture Autogerée)

Figure 56, 57

El Trebol.
Source: Colectivo Arquitectura Expandida

Figure 58

El Trebol. Skatepark.
Source: Colectivo Arquitectura Expandida

Figura 59

Critical Mass. Source: De Michael W. Parenteau

Figura 60

Pavilion of Desires.
Source: author

Figure 61, 62

Ur city, Ur Space.
Source: author

Figura 63

Luna Rienne Art Gallery Parklet.

General considerations

We present here a few case studies that were used to develop the taxonomic table, and that serve to generate a database of participatory practices. The cases differ widely from each other and illustrate the many facets of participation in the urban context, urban projects and architecture. We consider that it is appropriate to include both specific, relatively simple participatory practices and urban processes or projects that cover a wide range of attributes.

The case studies presented in this document are summarised using the taxonomic table. Therefore, we do not provide a traditional, in-depth analysis of a case study, but rather the analysis of many cases to provide a quantitative approximation. Here, we present only a few representative cases, to make it easier to read our thesis. Sometimes two or more experiments are gathered in a case study, because of their similarity. More information about a given case study can be found in the bibliographical references. In addition, the appendices contain other representations of practices summarised with the taxonomic table. We also present as a few case studies our own experiments, whose method and results are explained in more detail in Chapter 3.



Figure 64
Obrim Carrers
Source: author

Figure 65
TEA, Upcycling the railway station. Source: Bruno Sève

Figure 66
Urban Recipes. Source: Santiago Cirugeda



Figure 67
YA+K. Ciclow.
Source: Ya+K.

Figure 68
Us Festival & Street Art.
Source: Carla Fajardo in El Periodico newspaper

Figure 69
Colectivo Tomate, Puebla.



Figure 70
Place Saint Pierre in Toulouse
Source: B.A.U

Figure 71
Carrito. Source: Raons Publiques

Figure 72
Collective Maps.
Iconoclastas



Figure 73
Cromos de Barrio. Raons Publiques.

Figure 74
Urban notes

Figure 75
Negotiate the dream space Die Baupiloten

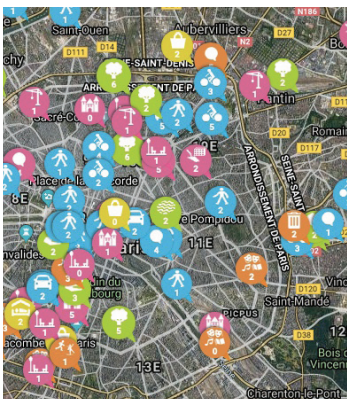


Figure 76
Debatemap.
Source: Repérage urbain

Figure 77,78
Minecraft for participatory purposes. Source: Von Heland

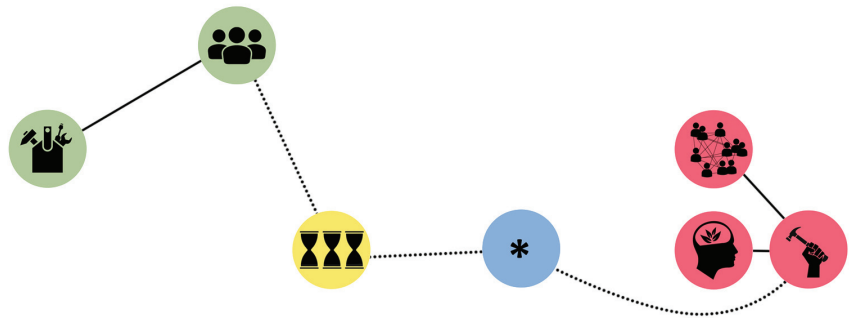


Figure 79

Tequio.
Source: Efrain Vazques Cruz

Figure 80

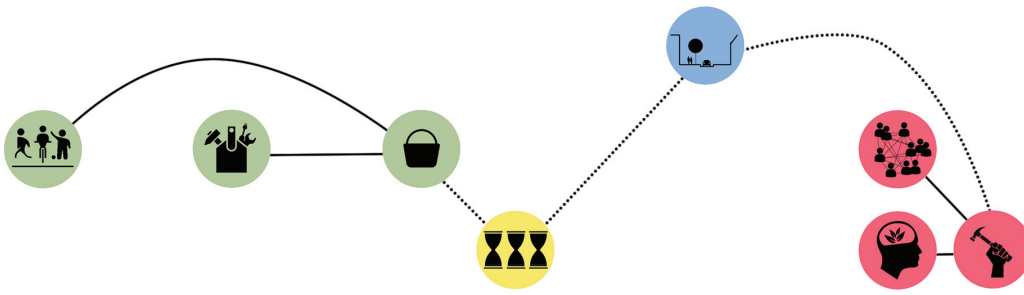
Tequio. Taxonomy.
Source: author.



CSI *Tequio and Guelaguetza: work and ancestral actions for the community*

In Mexico, specifically in the state of Oaxaca, the collective work that every adult neighbour of a town should give to their community is defined as a tequio. This pre-Hispanic custom is practiced to this day in towns of Oaxaca and other neighbourhoods, and continues to be deeply rooted in various parts of the country. A definition of the word tequio, which is derived from the Nahuatl word *tequiutl*, is work or tribute. Although the tendency is now to centralize work and send more resources to the municipalities to avoid resorting to free labour, communities defend this tradition because they consider that it is important not just for the material result of the work, but also for the social value involved, which promotes coexistence and integration of community members. Perhaps the most famous experience related to this type of collective work is the Guelaguetza, a major event in the city of Oaxaca at which all regions in the state participate with dance, gastronomy, art and agricultural and artisan products. In regions of Oaxaca state, such as the Sierra Mixe, tequio and cooperation is one of the means by which the assembly can increase the autonomy of the municipality. In addition, tequio transmits traditional values and wisdom in all fields: cooking and traditional dances, as well as vernacular architecture with bioconstruction methods, including the use of tapial and forest management. Public works that ordinarily require the contribution of tequio include identification and conservation of border lines between territories; construction and conservation of roads, highways, bridges, wells to extract water for the community and water channels; as well as building schools, religious temples and municipal palaces, among other tasks.

If we look at the tequio from the perspective of the taxonomic table, we can understand its operation as follows. Through assemblies (D5), a community makes self-construction and intervention decisions (D8) to create municipal buildings, and on other issues such as reforestation or maintenance of public space. The timescale is considered long and slow (E3) as these are actions of a long duration. The space can be multiple, including all categories (F6). The main objective is an action and a direct use (G9), which raises community awareness about its environment (G8), and through weekly activities it allows the community's social relations to be reinforced (G5).



CS2 *Tianguis: community occupation of public space*

Street markets, which are called tianguis in Mexico, can be considered participatory and commercial practices. Users of these markets self-organize to occupy the urban (or rural) space and exchange goods, services, information of all kinds and establish a series of personal ties that are inherent in the creation of community. The issue of informal markets that occupy public space raises difficult questions to answer, such as: Is the right to work a priority over the right to public space? Should we regulate the use of space as they do in some cities in Europe, or allow it to be freely used as in the impressive groups of tianguis in Mexico? If we consider that a fair balance is required, the study of tianguis allows us to understand more about participation and placemaking.

The indigenous tianguis of Tlacolula de Matamoros (22,545 inhabitants), about thirty kilometres from the city of Oaxaca de Juárez (300,000 inhabitants), is an ideal case study. Although this open-air market has evolved, it is still a traditional example with local products from the region, bartering and numerous self-built stalls made by the market community.

Chapter 4 provides a more complete study on the tianguis of Tlacolula de Matamoros from geographical, historical, social, spatial and architectural perspectives. This reveals that it is an activity to exchange goods and services (D10) that involves the activation and occupation of public space (D6) and self-construction of stalls (D8). Although the market is on Sunday (one day a week), it should be considered a practice of very long duration (E3) that has involved several generations. These activities stimulate the public space (F2) with the clear objective of direct use (G9) that strengthens the regional and local community (G5) and creates mutual and environmental care (G8).

Figure 80

Tianguis. Taxonomy.
Source: author.

Figure 81

Tianguis. Tlacolula de Matamoros Source: Fabricio Lázaro Villaverde, Juan Manuel Gastellúm.

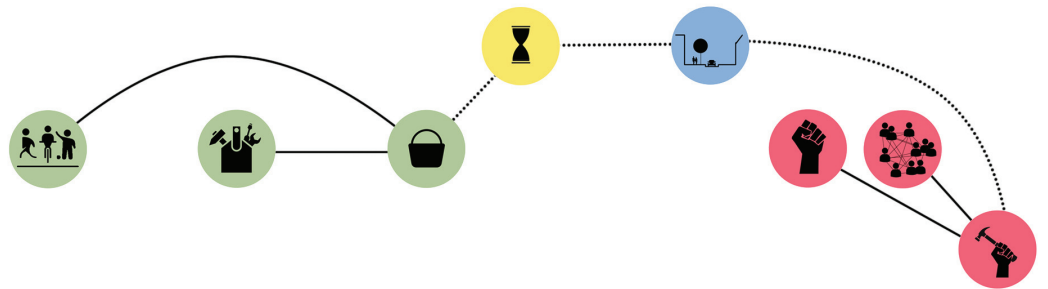


Figure 82

Street vending in Port Vell, Barcelona. Source: Angel Garcia. Sindicato popular de vendedores ambulantes

Figure 83

Top Manta. Taxonomy. Source: author.

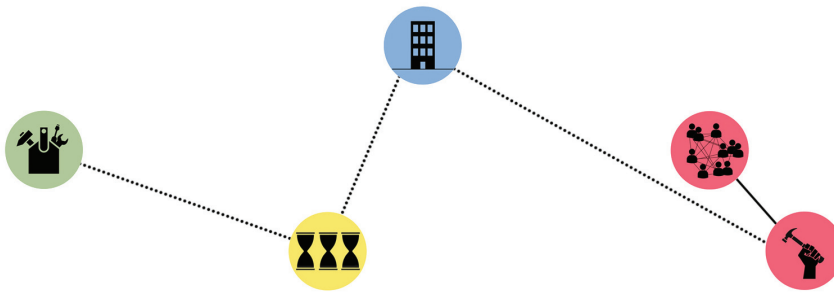


CS3

Top Manta. Peddling, Barcelona

In a different context, in Barcelona, street vending is an informal activity in which the seller occupies the public space. However, the question of *manteros*, as these vendors are called, has recently aroused the attention of public opinion and has become political. With the slogan “Nobody is illegal”, the Popular Street Vendors Union (*sindicato popular de vendedores ambulantes*) explains their willingness to work, self-manage and remain independent by occupying public space without suffering reprisals from the authorities. They have recently launched their own Topmanta brand (<https://manteros.org/catalogo/>) (Popular Street Vendors Union). If we return to the question from the previous case study, is the right to work a priority over the right to public space?

In any case, the observation of this practice in our city reveals a very specific type of participation, with the occupation of public space for a commercial activity (D10), which implies a mini self-design and preparation of a mini surface to sell goods (D8), with eyelets and laces that allow you to repack your store at an impressive speed, especially when the forces of authority appear. The occupation time is therefore short (E1), in public space (F2), with installation at strategic points where there are tourists (pedestrian access, pavements and squares). YA + K, winner of the young urban planners 2016, included in a catalogue of projects in their book *Manuel Illustré de Bricolage Urbain* (Illustrated Manual of Urban DIY) (Delprat E. & Bascop N., 2016) a mobile sales area, which is very similar to that self-designed in Barcelona. The objective is the direct use of space to sell (G9), which also makes it possible to strengthen and make visible a community in distress (G5). Public space becomes a symbolic space to make claims (G4) not just for the right to work in a dignified way in the street, but also for the right to live and reside (together), regardless of country of origin.



CS4 *Vizcarra house. Self-built housing. The philosophy of John F.C Turner*

The Vizcarra house is an example of self-built housing in a small, scattered village near Arequipa, Peru. It was studied by John F.C Turner to understand how far the habitability and resources of a couple can go to accommodate their family, if they are given the opportunity. The house, which belongs to Mr. Pedro Vizcarra, with its white plaster ceilings and walls of tapial lime, illustrates the know-how of its local self-builder. It was constructed in phases over a very long time of more than thirty years (Turner, 2018). Turner's main argument is that housing is best provided and managed by those who are to dwell in it, rather than being centrally administered by the state. He believed that first these possibilities must be taught to a person knowledgeable about the trade and local architecture.

Figure 84

Vizcarra house..Taxonomy.
Source: author.

CS5 *Lima slums. John F.C Turner*

Turner's central thesis continued on a large scale. He stated that uncontrolled urban settlement is an expression of normal growth processes under abnormal historical conditions (Turner, 2018). In other words, he considered that urban settlements created by self-construction are not a problem but are out of control. What Turner simply proposed was not to attribute negative connotations to self-construction but to consider it an opportunity. This can be difficult, as the phenomenon of informal settlements continues to bother authorities and civil society. However, it can be considered a real alternative to the housing problem. In several of his works, Turner transmitted that informal settlements represent freedom to build and a right to live. In this context, the slums of Peru serve as a basis for understanding these concepts on a large scale. A proposal was made to create several neighbourhood integration and development programmes to accompany the mass self-construction. However, today, it is known that only part of Turner's assumptions have been fulfilled, despite the fact that his recommendations were implemented weakly and irregularly by different governments (Fernández Maldonado, A.M., 2015). Some of the predictions of integration and gradual transformation of slum neighbourhoods into regular neighbourhoods have been confirmed for some areas of North Lima, but other more recent neighbourhoods remain very poor and without water and sanitation networks. This has led to a rethink about the Lima of tomorrow. Many professionals and urban planners are convinced that Lima should not continue to grow through this model of illegal land occupations, due to socio-spatial and environmental segregation issues (Fernández Maldonado, A.M., 2015). However, there may be other alternatives to be discovered, hybrids that allow the vision of Turner to be reconciled with a mixed city and vivid public space. Nevertheless, the slums of Peru raise very clear questions about the role of government in decision-making, in actions that affect the most vulnerable, and in neighbourhood participation.

Figure 85

Self-built house by a local craftsman. Pedro Vizcarra's house in Arequipa. Source: John F.C. Turner



Figure 86

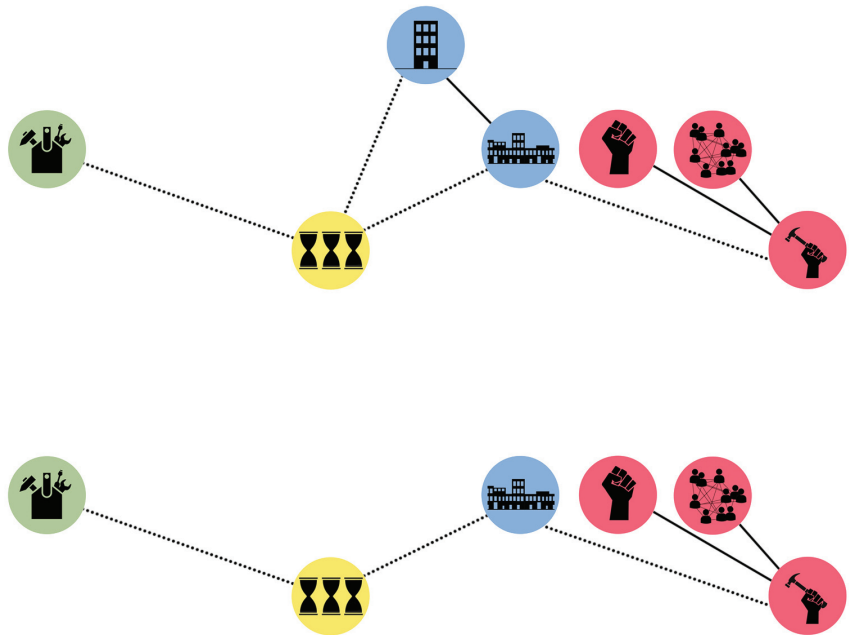
Self-built house by a local craftsman. Interior of Pedro Vizcarra's house in Arequipa. Source: John F.C. Turner

Figure 87

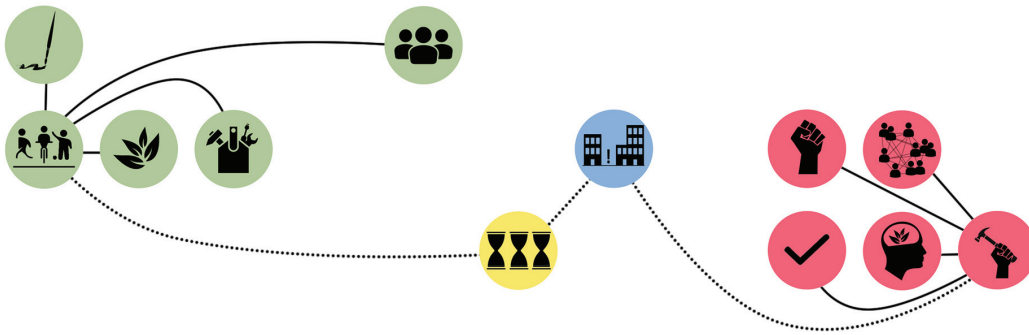
Vizcarra house & *barriada*. Taxonomy. Source: author.

Figure 88

Barriada in Lima, Taxonomy. Source: author



According to the taxonomic template, the main action here is self-construction (D8), which takes place over a long time (E3), to develop a building (F1) that will eventually be transformed into an entire neighbourhood (F4), with the clear objective of direct use (G9). This involves consolidating and creating social and community ties (G5) and indirectly raising the issue of the right to housing (G4).



CS6 *Quirhort. A community garden in Barcelona*

The Quirhort is an open project of nomadic urban agriculture and the organic community. It is a proposal that is aligned with the philosophy of the Pla Buits of Barcelona, whose objective is to revitalise disused land in the city of Barcelona, through activities of public interest of a temporary nature, promoted by public or private non-profit organisations. It all started when, in January 2015, entities in neighbourhoods around the site of the Old Clinic Quiron were mobilised to claim the use of a public space that would otherwise be closed and wasted. The Quirhort is defined by its self-managed community as a laboratory of people and tools that implement a different way of living in cities: with slower, more sustainable, more conscious, more pleasurable rhythms. He proposes organic farming workshops in his urban garden, ecological compost, urban DIY workshops, the creation of murals and street art, outdoor cinema with local films (cinekm0), as well as every first Saturday of the month an organic picnic, calçotada festivals with calçots (a kind of onion) from the neighbourhood, etc.

An analysis of the taxonomic template shows this is a mixed process, strong in creative tools, with deliberate occupation of an urban space (D6) to create an urban garden (D7). It involves artistic activities and mural design (D1), as well as urban DIY (D8), with decisions taken in assemblies with consensus (D5). It is a long participatory practice (E3), which acts on an unoccupied plot (F3). Its objective is direct ephemeral use (G9), but it reinforces a community of neighbours (G5), makes a claim (G4), provides environmental education for the neighbourhood (G8) and also tests the integration of some activities, such as an garden urban, in the programme for new neighbourhood facilities (G7).

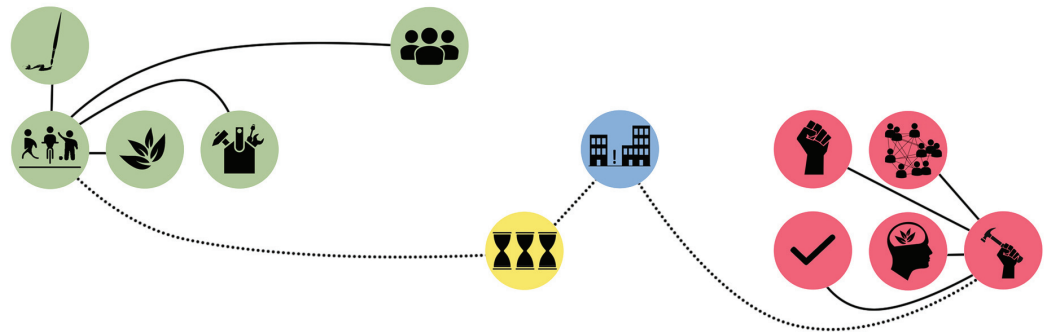
Figure 89
Quirhort. Taxonomy. Source: author.

Figure 90
Quirhort. DIY workshops. Source: Quirhort.



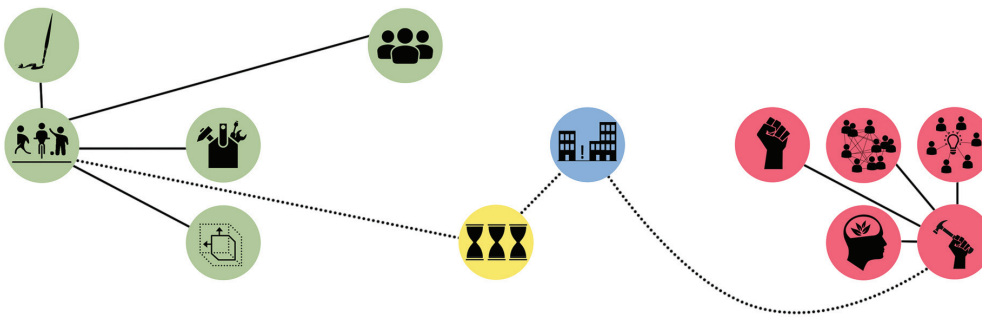
Figure 91
Ecobox. Taxonomy. Source:
Atelier d'Architecture
Autogérée (AAA).

Figure 92
Ecobox. Taxonomy. Source:
author.



CS7 *ECObox, AAA (Atelier d'Architecture Autogérée/Studio of Self-Managed Architecture).*

ECObox is organised by the Atelier d'Architecture Autogérée/Studio of Self-Managed Architecture, an interdisciplinary non-profit association that brings together architects, artists, landscape designers, urban planners, sociologists, students and residents. ECObox is a temporary garden. Located in the La Chapelle area of Paris, the space has been transformed with recycled material from the French Railway Network (RFF) as part of a broader study and action framework for a network of self-managed places to encourage residents to participate in their neighbourhood and propose urban biodiversity in some way. It is both a social and cultural place. The public space is reappropriated and reinvented through everyday activities like gardening, cooking, chatting, reading, debating and playing. Petrescu defines ECObox as “a bricolage project resulting from an assemblage of desires” that first involved consultation with the local community and then the gradual construction of the garden. Here, the aspect of being in flux is seen as a virtue as the space is continually transformed by its community. Petrescu describes “a garden process rather than a garden-object” (Petrescu, 2005). The study of this practice is surprisingly close to the experiences that one can find in Barcelona with the Pla Buits and the specific case of Quirhort. In fact, an analysis with the taxonomic template reveals identical characteristics.



CS8

El Trebol

Developed by the Colectivo Arquitectura Expandida (Expanded Architecture Collective) and the Neighbourhood Association of the Kennedy neighbourhood in Bogotá, El Trébol is part of a process of recovering a community space that was widely used by the neighbourhood. The aim of recovering the space is to consolidate a meeting place for workshops, discussions, projections and exhibitions. The activities were developed from the first assemblies and workshops on participatory design, at the same time as the self-construction process. The spaces recovered were a skate park, a vegetable garden, a library, and workshops linked to literature, dance, capoeira, bicycles, music and plastic arts among others (Colectivo de Arquitectura Expandida, 2016).

As in the above two cases, this practice begins with the occupation of an urban space (D6) by a group of people who make decisions in meetings through assemblies (D5), with the use of plastic arts and urban art (D1) such as participatory murals for the transformation of the place, with small urban gardens (D7), urban DIY (D8), and evolutionary models presented to the neighbourhood community (D13) for volumetric and architectural planning. This process is developed over a long time of months or years (E3) in an abandoned plot (F3), where the main objective is co-construction for direct use (G9), reinforcement of the local community (G5), claiming the space (G4), a symbol of neighbourhood resistance to land speculation processes (Colectivo de Arquitectura Expandida, 2016), and of course co-creation (G6). This is an example of a very complete creative participatory practice, like the two previous examples.



Figure 93

El Trebol. Taxonomy. Source: author.

Figure 94

El Trebol. Source: Colectivo Arquitectura Expandida

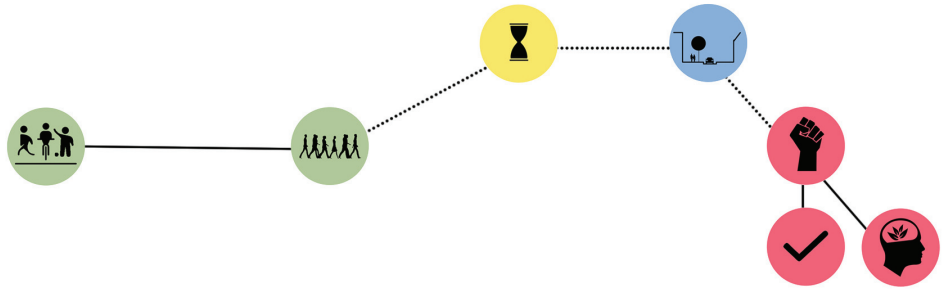


Figure 95

Critical Mass. Taxonomy.
Source: author.

Figure 96

Critical Mass. Source: Beatrice Murch



CS9 *Critical Mass Barcelona*

Critical Mass is a cycling phenomenon that takes place every month in many cities around the world. Its purpose is to raise awareness of the great advantages to mobility, society and the individual of a greater presence of bicycles in cities, as they reduce the inconvenience of motorised traffic. In Barcelona, the spontaneous meeting takes place on the first Friday of each month at 8 p.m. in front of the Arc de Triomphe. One of the characteristics of the Critical Mass is that it has no leaders, there is no organisation that authorizes the bike rides. The name Critical Mass refers to the number of individuals involved in the phenomenon, from which it acquires its own dynamic. On the bike ride, the critical mass of riders has to be dense enough to occupy a section of road to the exclusion of drivers of motorised vehicles. A tactic known as corking is used to maintain the cohesion of the group, block traffic from side roads so that the mass can freely proceed through red lights without interruption.

The Critical Mass represents an action of occupation of the public space (D6) with a bicycle ride on a route (D9) over a relatively short time (E1) in the public space (F2) and more precisely roadways that are normally used by motor traffic. Public space is claimed as a space to pacify (G4) and it is a testing activity (G7), which also causes a change in mentalities, such as environmental education (G8), as the great advantages of travelling by bike are made known.

CS10 *Mundo Ceiba: night bike tours in Oaxaca*

With a different name, the night bike tours organised by the association Mundo Ceiba in the city of Oaxaca de Juárez are intended to publicize a sustainable mobility alternative. They are similar to the critical mass bike rides, which take place every month in several cities of the world. In the case of Oaxaca, some rides are usually proposed weekly, on Wednesdays, Fridays, Saturdays and Sundays, which provides a certain routine. Some people attend who want to learn to ride a bicycle, and bicycles can be rented. The analysis using the taxonomic template is similar.

CS11 *Modal Challenge/Desafío Modal, Oaxaca de Juárez*

In Mexico, the Modal Challenge is an exercise in assessing the efficiency of ways of moving around the city, by simulating a situation of travelling from an origin to a destination using various forms of transport and different routes. The routes are timed using android applications or fitness and health trackers involving a mobile application and website. These challenges at rush hour illustrate the advantages of bicycles over other types of mobility. In 2018, at rush hour in Oaxaca de Juárez, each participant recorded their chosen route on a mobile via an application. It was found that the bicycle arrived 15 minutes earlier than the car. The modal challenge is an urban route (D9) that uses computer technology (D15), over a relatively short time (E3), on roads that are normally used by motor vehicles (F2) to test the effectiveness of types of transport in terms of time, using data collection (G3) that provides a direct diagnosis. It also puts forward the case for alternative mobility (G4) and environmental education (G8).

CS12 *Taller Vixi Escuela*

Vixi Escuela, a non-profit association located in Oaxaca de Juárez, proposes free workshops for adults and children to learn to move around the city by bicycle. It also provides basic mechanics workshops and walks. Its vision is to promote social change and a culture of mobility. Some of the workshops occupy the public space (D6) for a short time (E1) (a few hours), in the public space (F2) to claim the use of the bicycle (G4), and teach anyone who wants to learn to ride a bicycle (G8). In Barcelona, Biciclot is a very similar organisation.

CS13 *Park(ing) Day, Barcelona*

Park (ing) Day, which was first held in 2005 in San Francisco, is an annual event held in several cities worldwide. It is an educational urban protest action, in which various entities, groups and citizens in general temporarily transform public parking spaces into parks, gardens and other forms of public space to demand a model of city focused on people and the environment. In 2018, about 75 parking spaces were transformed in Barcelona. In 2019, over 120 were transformed to promote a new city model (IS GLOBAL, 2018 & 2019). The event was added to World Climate Action Week, held between 20 and 27 September in Barcelona. This event represents an action of urban occupation (D6), with the intervention of groups and people through urban DIY (do-it-yourself and tactical urbanism, D8), for a few hours (E1), in the public space, more precisely in car parks (F2), to test an alternative use of space (G7), such as micro gardens or a resting place, demand the ecological transition of cities (G4) and generate collective environmental education.

Figure 97
Modal challenge. Extract of the Logo and social media poster.
Source: Taller Vixi.

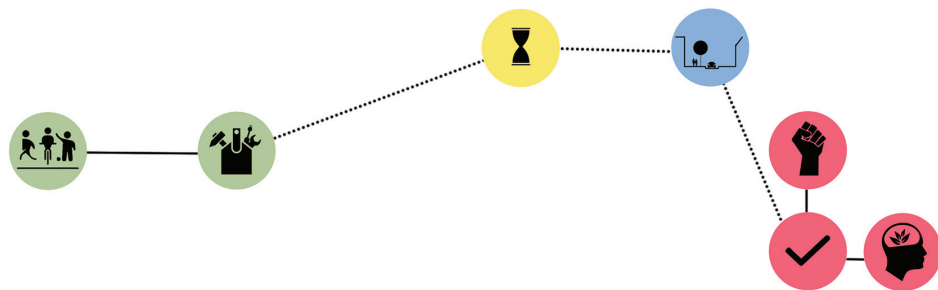
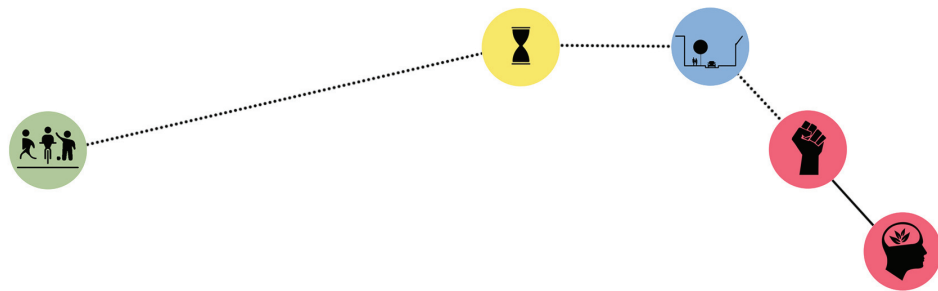
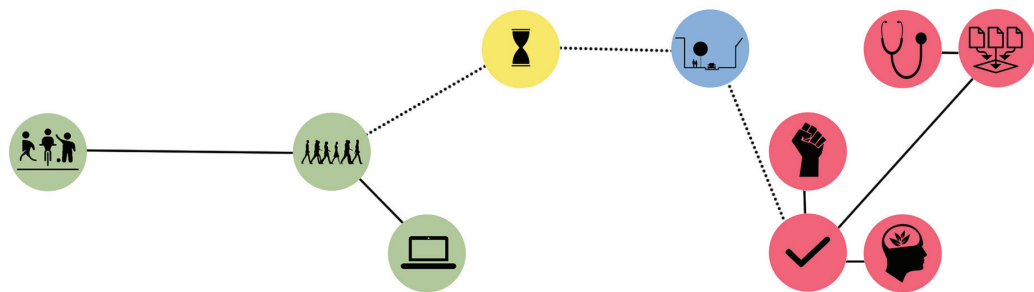
Figure 98
Modal challenge. Taxonomy.
Source: author.

Figure 99
Taller Vixi. Free lessons.
Source: Taller Vixi.

Figure 100
Taller Vixi. Taxonomy. Source:
Taller Vixi.

Figure 101
Park(ing) Day 2019. Source:
ISglobal and PArk(ing) Day
2019.

Figure 102
Park(ing) Day. Taxonomy.
Source: author.



CS14 *Taller Espacios Abiertos/Open Spaces Workshop: the Pavilion of Desires. ETSAB (AR Department, Bruno Sève)*

As part of the framework of the Park (ing) Day in Barcelona 2018, the Pavilion of Desires was designed and self-built in a participatory manner with ETSAB students, to create a structure in which visitors walking on the street could express their opinions about the future of a subject. In this case, the subject was expectations about the future of Barcelona's public space. First, the structure is co-designed and co-built. Then, the data is collected by categorising the desires expressed in the structure. This case study is analysed and described in depth in Chapter 4. Experiments.

This experience was conceived with the help of the taxonomic template to identify several objectives: a group of people are gathered at a round table (D5) for co-creation workshops to imagine what could be developed in the public space (D6), through urban DIY (D8), using drawings and collective notes (D1, D2). It takes several days to complete (E2), and to finally act in the public space. The main objective is co-creation (G6), to claim the space for civic uses (G4), create environmental education (G8), collect data (G6) and observe (G1) the wishes of the visitors to the pavilion.

CS15 *Taller Espacios Abiertos/Open Spaces Workshop. UR CITY. UR PUBLIC SPACE. ETSAB (AR Department, Bruno Sève)*

Similar to the previous example, and also presented in depth in Chapter 4. Experiments, the Co-Creation Workshop was developed in the same way, although an installation imagined by students that was not designed to collect data, but to be a spatial and artistic experience.

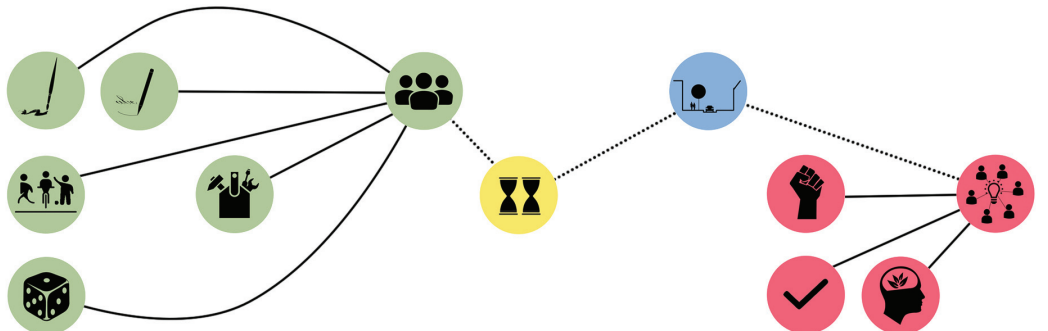
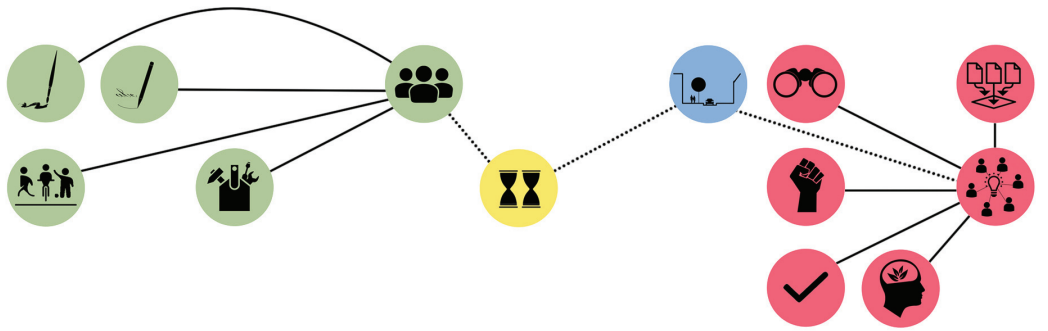
A group of people are gathered at a round table (D5) for co-creation workshops to imagine what could be developed in the public space (D6), through urban DIY (D8), using drawings and collective notes (D1, D2) to finally imagine an interactive participatory game (D11), in which passers-by can determine limits or objectives. The game was based on the large-scale Eames Card Game, in which you can paint and create your own graffiti. It takes several days to complete (E2), to claim the space for civic uses (G4), to try other civic alternative uses (G7) and environmental education (G8). The main objective is co-creation (G6).

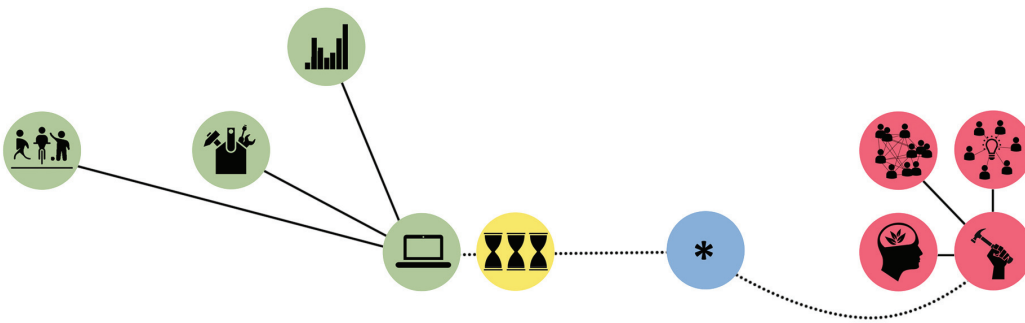
Figure 103
Pavilion of Desires,
Source: author

Figure 104
Pavilion of Desires, Taxonomy.
Source: author

Figure 105
Ur city, Ur Spaces..
Source: author.

Figure 106
Ur city, Ur Spaces.. Taxonomy.
Source: author.





CS16 *Places for people. Ground Play, San Francisco*

Ground Play, a multi-agency programme of the city and county of San Francisco invites its inhabitants to build temporary facilities to transform underused public spaces into joyful community places. The spaces to be transformed can be directly on the street, on the curb, that is, in parking lots on the street, on the sidewalk, and on unoccupied plots or even roofs. Parklets are small parks created from the transformation of parking lots on roads. They provide a recreational space to sit in, garden, park bicycles etc. The programme is committed to local maintenance, with funds from neighbouring businesses, residents and community organisations. These spaces are totally open to the public. They can be the result of an urban DIY activity, although they are always supervised by the city. They are an ingenious way to make a city implement local participation with people who want to make small changes near their place of life or work. This practice works as follows.

The web platform (D15) (<https://groundplaysf.org/>) allows anyone interested in getting involved to start a project by filling in a form. The web platform also gives advice, information and examples of projects. The project is then reviewed and validated by municipal services. A tactical urbanism project can be developed partly or totally with urban DIY (D8) to occupy the urban space (D6) according to the guidelines indicated in the permit application (Places for People Proposal & Permit Application Package, City and County of San Francisco, 2019) (D4). The time is relatively long (days, weeks or months), for the reactivation of public spaces (F2), empty plots (F3) and other spaces (such as decks, F6). The objective is direct use of space (G9), the creation of space with environmental education (G8) to provide a new urban place that will strengthen the local community.

Figure 107

Places for people. Taxonomy.
Source: author.

Figure 108

Places for people. Luna Rienne Art Gallery parklet in San Francisco. Source: Groundplay.

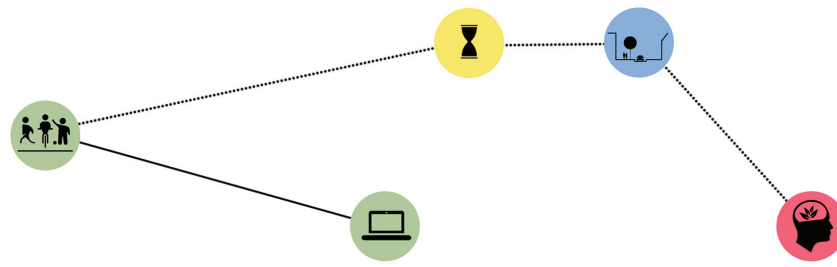


Figure 109

Obrim carrers. Source: author.

Figure 109

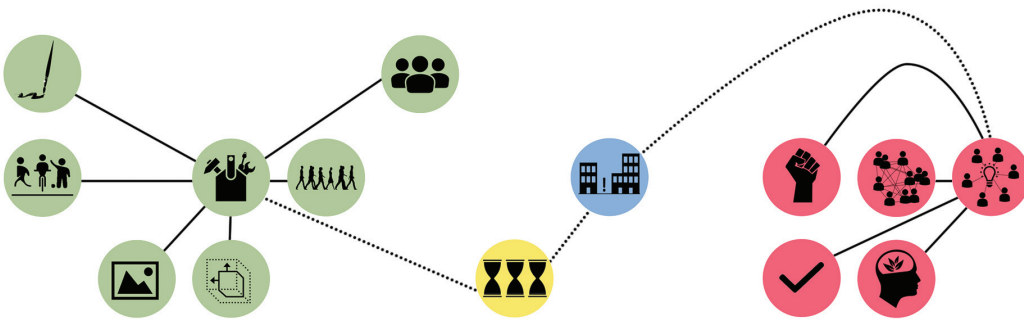
Obrim carrers. Taxonomy.
Source: author.



CS17 *Obrim Carrers, Aragón Street, Barcelona City Council*

Directly altering perceptions of a public space that is normally fully occupied by motorised traffic can be a way to change mindsets in the long-term. For any inhabitant of Barcelona, Aragón Street is a traffic axis over 5 km long within the city. It is a large highway that runs through Barcelona longitudinally. In its central part, where it passes the emblematic Passeig de Gracia, the street has more than six lanes for the circulation of motor vehicles, and a car park. It is a hostile place, a clear focus of noise and air pollution and unfortunate for residents living in the 6- to 8-storey housing blocks that surrounds it. The municipal programme Obrim Carrers (Open Streets) aims to cut traffic from 7 am to 5 pm the first weekend of each month. This is done along almost the entire length of the street, over 4.5 km, and either activities are programmed or the street is simply left free of cars. The experience is considered successful by the media, and we have personally verified this as a cyclist, pedestrian and sketcher in an Urban Sketching session scheduled on 8 March 2020 to capture this positive image. The perception from these three perspectives was impressive, with a remarkable change of appearance by altering the function of the street without touching its spatial arrangement. In some sections where there were no organised activities, cyclists, walkers and children playing took over the pacified space, while in other places a pianist was heard in front of the charismatic modernist building of the Tapies Foundation, where urban sketchers were also found. This is a remarkable exercise that will undoubtedly generate a new mental image of Aragón Street, with a new idea of what a space 30 m wide and over 5 km long can be.

An analysis of this practice with the taxonomy template shows that it is a relatively simple, urban space that is occupied (D6) when the traffic is cut. The success is dependent on three aspects. The first is the type of urban place that is chosen. Aragón is a unique street in Barcelona that was part of the Cerdà Plan and the route of an over-ground train for many years. The second is the capacity of the town hall to close streets, with the logistics and redistribution of a high volume of traffic that this involves. Finally, the third is dissemination through social networks (D15). The experience is short, just a few hours (E1), to test the public space (G7) in an alternative way and create a new environmental image (G8).



CS18 *Taller Espacios Abiertos (TEA)/Open Spaces Workshop (OSW): Recycle the Railway Station. UABJO (Bruno Sève)*

The TEA/OSW is a co-creation and urban DIY workshop on a 1/1 scale. In the experiment Recycle the Railway Station, the occupation and transformation of an industrial residual space was considered. In this case, the space was an abandoned railway station in the city of Oaxaca de Juarez, to be transformed into a cultural centre for the neighbourhood. The TEA method is very comprehensive, as it includes a range of activities from neighbourhood tours to DIY workshops, which we describe in more depth in Chapter 4. It starts from a simple idea, to give a group of architecture and design students the opportunity to interact artistically on a real scale with local residents to improve the immediate natural and built environment. The results of the workshop provided new cultural spaces. Old train cars were adapted to create multifunctional spaces, and modular street furniture was designed on stages or platforms for people to rest, depending on needs.

The main activity is urban DIY (D8) but also observation of the place through routes (D9), urban drawing in situ (D1), occupation of space (D6), use of images (D12) and evolutionary models (D13) to propose them to the city, the museum directors and the neighbourhood. The action was long (8 months) (E3), in an industrial enclave (F3), with the main objective of co-creating (G6) and strengthening the social canvases between the student body and the local community (G5), to claim long-term transformation (G4). This action allowed others to build ingenious prototypes and check their potential (G7), in addition to raising awareness about industrial heritage so close to the historic centre (G8).

Figure 110

Recycle the Railway Station, Taxonomy. Source: author

Figure 111

Recycle the Railway Station,. Students workig on a modular street furniture. Source: author

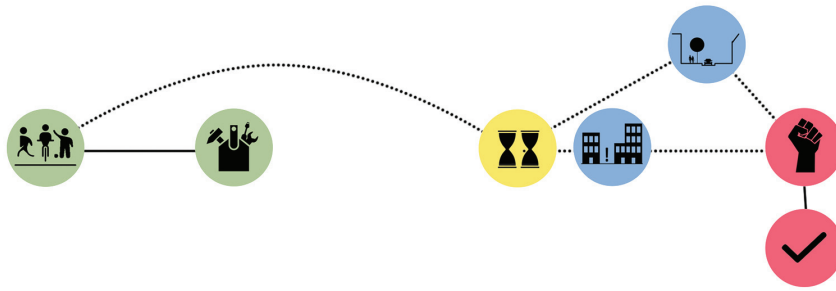


Figure 112

Urban recipes. Kuvas S.C.
Source: Santiago Cirugeda.

Figure 113

Urban recipes. Taxonomy.
Source: author.



CS19 *Urban Recipes, Santiago Cirugeda*

The Urban Recipes of the architect Santiago Cirugeda invite citizens to take part in the urban transformation, to claim public space and housing. The following describes some of the cases that can be found in the Urban Recipes (<http://www.recetasurbanas.net/>).

Kuvas S.C.

In this case, a skip was converted into a children's game as an act to claim the public space. The City Council was asked for a license to put a skip on a public road, supposedly for use to remove debris from a minor building work on a neighbouring house. However, once the permit had been granted, the skip was used to support a swing in the first self-managed playground.

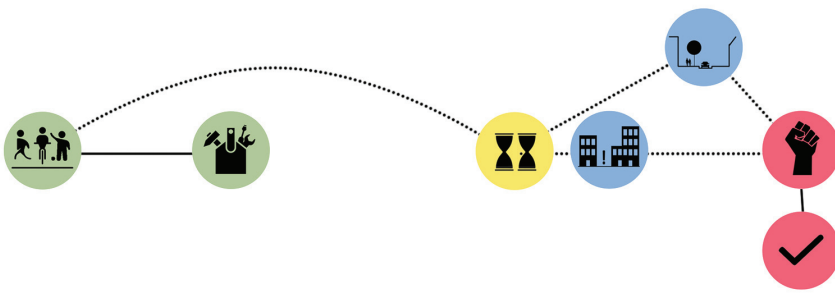
Urban shelters

A neighbour developed a new legal strategy to build a living space within the old town of Seville. After he had received a scaffolding assembly permit, the citizen built an urban shelter on it. The scaffolding was used as a temporary shelter for the three months it was installed, and was removed before the permit expired.

Regulation and temporary occupation of lots

A proposal was submitted to management for joint approval in Seville to use existing plots and those that appear when dilapidated buildings are demolished for temporary uses. The system of public spaces and facilities planned in this way, will be implemented temporarily in several locations in Seville, to revitalise the use of these inoperative, residual urban voids.

In all these cases, the main idea is occupation of space (D6) with urban DIY or tactical urbanism (D8), for a moderate length of time (E2 - days), in public space (F2) or in urban spaces (F3), mainly to claim the right to a space (G4) and, in passing, try it use it differently (G7).



CS20 *Urban DIY. Ya+K*

Ya + k pronounced in French “il a plus qu’à” literally means “we just have to”. The name clearly reveals the will of this group of urban planners to act in their urban environment through urban DIY with local communities. This urban planning with new tools allows authors to support the dynamics of citizen involvement and to implement other working logics. Some of the devices they propose are listed below:

Ciclow/kimo/hyper

Permanent or temporary workshops in public space, with the possibility of a warehouse. The goal is to provide a big toolbox and create community through urban DIY. The Ya + k has three variants: “Cyclo”, “Kimo” or “Hyper”.

Retrac table

This activity claims public space for citizenship. Bollards are “hacked” to create removable tables or urban stools. Ya + k raises the following question: why not increase the use of this furniture that currently only serves to limit passage or access?

Jeux au sol/Ground games

Urban spaces are appropriated and rules and norms are surpassed. Games, such as mini basketball courts, are created around a rubbish bin, for example.

Palette+1/Pallet+1

This action is based on a simple, modular principle. Co-creation and self-construction within the vicinity of a mobile terrace invites users to adapt modules and configure them depending on the moment. This principle was proposed for the neighbourhood of Malassis. The virtue of urban DIY is to create recreational activities with the community.

The mode of action of the practice is similar to that of urban recipes: occupation of space (D6) with urban DIY or tactical urbanism (D8), over a moderate length of time (E2 - days), in the public space (F2) or urban spaces (F3), mainly to claim the right to a space (G4) while testing different uses for it (G7).

Figure 114

YA+K. Taxonomy. Source: author.

Figure 115

YA+K. Urban DIY for the Ciclow. Source: Ya+K.

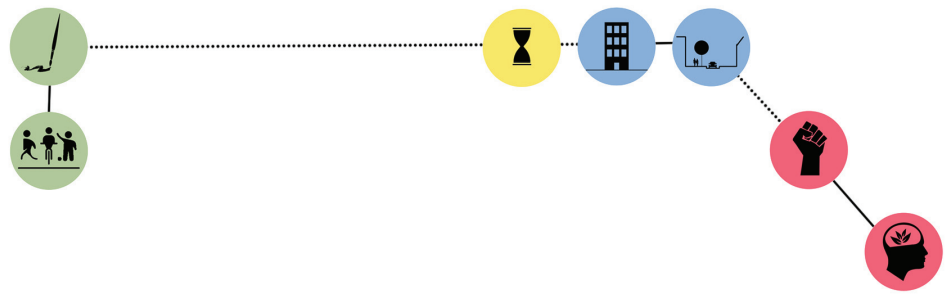


Figure 116

Us Festival & Street Art.
Source: Carla Fajardo in El
Periodico newspaper.

Figure 117

Us festival. Taxonomy. Source:
author.

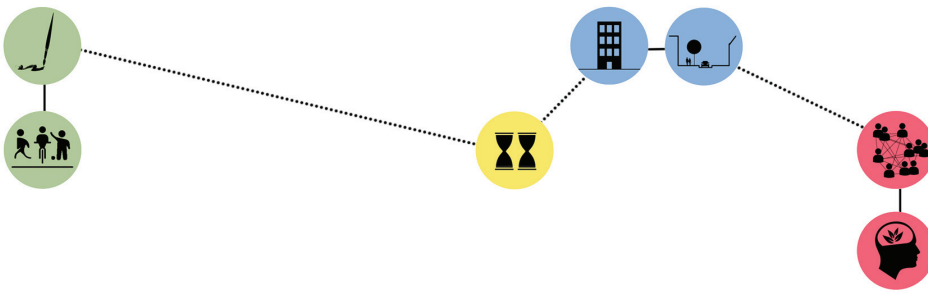


CS21 *Ús, Ritual d'Art i Espai Public/Use, Ritual of Art and Public Space Carrer Pere IV, Poble Nou*

Another way to participate creatively is through street art, such as “The Ús Barcelona Festival”. This idea emerges from the desire to use urban art and citizen participation to rescue and transform urban spaces of the city that due to urban changes have deteriorated and lost their social function. Part of the demand is for collective memory spaces that should be transformed with new civic uses.

In the district of Sant Martí, which is crossed by the old road that went to Mataró in the direction of the Maresme Coast, Pere IV Street was known as the “tomato neighbourhood”. It was called this because of its vegetable gardens, which were in the countryside until the arrival of industry, after which it was called the “Catalan Manchester”. Large warehouses for textiles, the metallurgical industry and twentieth-century productive sectors are becoming obsolete with the industrial decline and urban changes. The urban plan 22 @ economically boosts the area, but it also eliminates industrial heritage and social fabric in the area. As a result, neighbourhood movements have emerged in the search for fairer, more participatory urbanism. The Taula Pere Eix IV, Association of Neighbours of Poble Nou, has decided to revive Carrer Pere IV in several ways. One of these actions was the organisation of a participatory, artistic event with the help of urban artists, the town hall and neighbours within the Eix Pere IV project to draw portraits of residents on the blinds of shops in the neighbourhood. The proposal was participatory. It included workshops for adults and children, as well as talks, food events, etc. (Vendrell R., 2015).

If we use the taxonomic table to analyse the event, a main drawing and expression mode tool (D1) is implemented to occupy the public space (D6) over a short time (E1) and act in the public space (F3) and the buildings (F1) to demand a transformation of space (G4) and an awareness of nearby heritage (G8).



CS22 *Murales participativos. Colectivo Tomate, Puebla*

This action was organised by the Colectivo Tomate, a civil organisation based in Puebla made up of twenty artists, lawyers, architects, designers, nutritionists and administrators. In Mexico, this participatory design has different foundations, since it clearly seeks to strengthen communities with non-violent communication, raise awareness of environmental issues, change the image and reinforce the identity of some neighbourhoods in Puebla, including Villahermosa, Campeche, Tamaulipas and Morelia, among many others. The Colectivo Tomate's commitment is associated with the transformation of public space, which is the driving force behind urban life, although this change is made on the vertical walls of buildings. This option is made possible by directly integrating the local community into these poetic and narrative murals. Tomás Darío, Director of the Colectivo Tomate, explained how the activities allow neighbours to get to know each other, and then continue to strengthen ties with the transformation of the space (Arellano M., 2018). For the mural project in Puebla, the experience brought together 50 artists and 50 volunteers with 8 workshops, 50 families, 74 murals and over 1500 m² of painted murals.

At first glance, the taxonomic analysis reveals a very similar experience to that of Barcelona (D1 - Drawing, street art; D6 - Occupation of the public space; E1 - medium length of time; F3 - building; F1 - public space). The difference lies in the objective, which was to socially strengthen the community (G9).

Figure 118

Murales participativos Taxonomy. Source: author.

Figure 118

Murales participativos. Source: Colectivo Tomate.

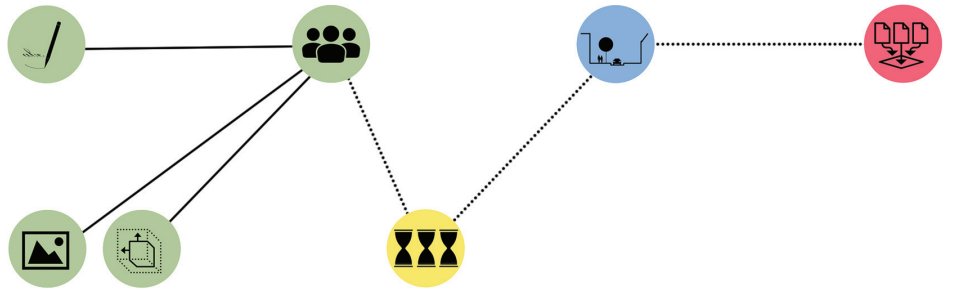


Figure 119

Place St Pierre. Source: B.A.U.

Figure 120

Place St Pierre. Taxonomy.
Source: author.



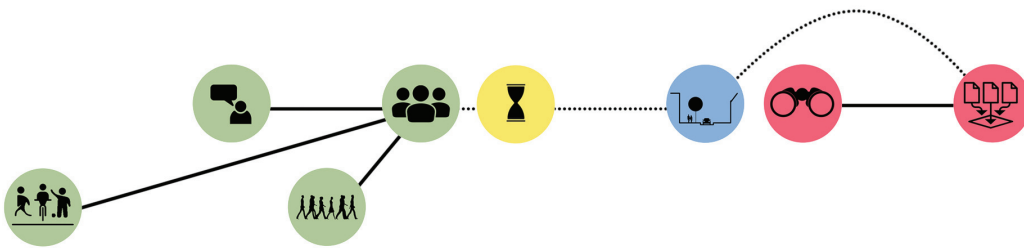
CS23

Conciliation meetings and discussions.

The case of refurbishing Place Saint Pierre in Toulouse. BAU and Joan Busquets

Conciliation activities, mainly meetings with key entities such as neighbourhood associations, bicycle associations or associations of people with reduced mobility, are another participatory method in urban projects, if the team of urban planners is willing to take notes on desired changes. In the context of rearranging public spaces in the historic centre of Toulouse, Place Saint Pierre was chosen to transform it into a pacified public space. The BAU team (B. Arquitectura i Urbanisme), led by Joan Busquets, together with the Michel Desvigne Paysagiste team, was in charge of the design. Before its transformation, Place Saint Pierre was occupied by some parking spaces for private vehicles and little-used gardens, and was even considered dangerous at night. Some bushes made it difficult to see all around after dark and gave a feeling of insecurity. The project developed in this phase was presented to the public in various sessions. Most of the neighbourhood considered that the space had to be pacified, but genuine participation was not effective in these communication sessions. It was achieved in numerous meetings with associations, together with the municipality and the technicians, to listen to some of their requirements and then modify the plans before execution. The transformations involved, among others, changes in the location of the bicycle lane, changes in materials and in the conception of landscape architecture for people with poor vision and changes in the types of trees. We can conclude that participation can arise if the team of technicians and the municipality are willing to integrate the various associations into their schedule of meetings to change their projects.

The main device here was the meetings (D5), at which the technical team listens and notes (D2) the opinions of the associations, and in turn presents material showing new ideas to discuss the project again (D12, D13). It is a long process over several months since the meetings must be held in several phases (E3) to finally transform the public space (F2). The main objective of these meetings is data collection (G3) to allow the project to evolve.



CS24 *Anna Piferrer participatory process, Raons Públiques*

The participatory process for the Anna Piferrer park project, to be built in the Vallcarca neighbourhood of Barcelona, led to the development through numerous participatory activities of a book of recommendations for the team of technicians who will design the future space. The process was commissioned by Raons Públiques, a cooperative specialised in participation through individual interviews at street level, a mobile interaction point called the carrito, youth visits during school hours, an online survey, information session, a gymkhana in the neighbourhood, a participatory itinerary and a final open workshop. Individual interviews at street level, the carrito and youth visits during school hours made it possible to gather general qualitative data on the perception of use of existing public spaces in the neighbourhood. In the visits to young people, they could explain what they would like to see in the future park through paper-based surveys. Online surveys also provided qualitative and quantitative data. Finally, the open workshop allowed co-creation of atmospheres and desired uses. That is to say, a joint manifesto, some specific proposals for the new design of the park and some suggestions on the park management model that the neighbours would like to see in the future were generated. Some of the practices mentioned here and within the document can be taken to show how the taxonomic table can be used to understand a more complex process.

El Carrito: an interactive meeting point for debate

Designed by Raons Públiques, a cooperative of urbanists in Barcelona, the carrito is a mobile, interactive meeting point to make contact with neighbours and discuss issues with them. The object attracts people because it is unusual. The carrito transforms itself into tables to give experts the opportunity to discuss matters with the people. The carrito, on its tour of the neighbourhood where the participatory process is to be carried out, allows people to talk, inform locals, ask questions and create street games around them by drawing with chalk. The design may be self-built (or not), but it should have this unique and attractive handcrafted look (Fraga J., De la Peña D., 2000). The device provide a meeting point (D5), generates conversations and interviews (D3), tours a neighbourhood (D9) and occupies the public space (D6), with some activities around it, over a short time (E1), to collect data, report (G3) and observe (G1).

Figure 121

Carrito. Taxonomy.
Source: author.

Figure 122

Carrito.
Source: Raons Públiques.

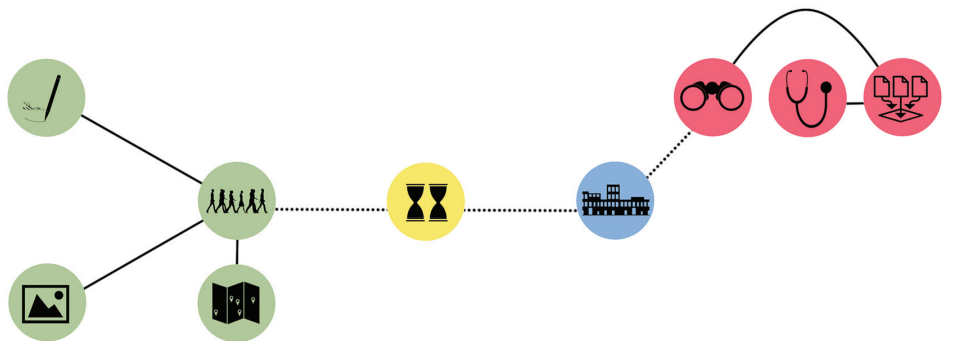


Figure 123

Participant observation. Mapping the observation of the daily network. Neighborhood Caraza, Buenos Aires, 2012. Source: Col·lectiu Punt 6 (Espacios para la vida cotidiana).

Figure 124

Participant observation. Taxonomy. Source: Author.



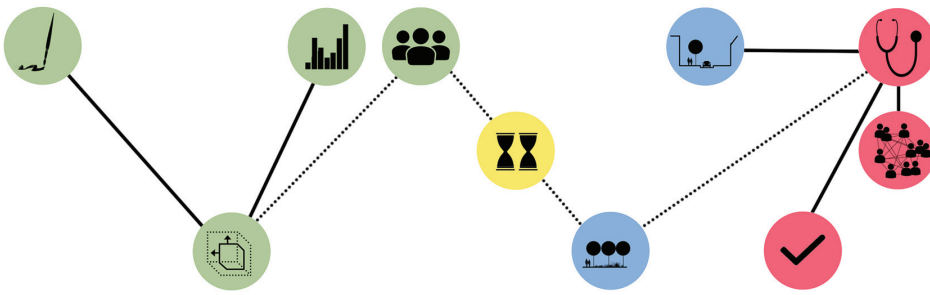
CS25 *Participant observation. Col·lectiu Punt 6.*

Col·lectiu Punt 6 is a cooperative of women architects, sociologists and urban planners who work from a feminist perspective. They define their work as “the study of a specific space that allows the social use to be related to the physical space, in order to determine who, where, how and with whom it is used and the relationship between the physical configuration of the space and the social use made of it.”

The interesting thing about this type of activity is not so much the type of tools used to observe, which could be a drawing, notes, photographs or other maps, but the fact that they must be done at very different times to understand the daily reality of a person or a community. This is about understanding social and spatial relationships and knowing their actors. It can be observed how spaces change by day and night and how a spatial configuration can improve or worsen the perception of safety. This information should be systematised (by noting sex, age, origin, if they are alone, accompanied, in groups, etc.). (Col·lectiu Punt 6, 2017a).

This participant observation led to a series of activities in “Nocturnas, La vida cotidiana de las mujeres que trabajan de noche en el Área Metropolitana de Barcelona” (Nocturnal, the daily life of women who work at night in Barcelona Metropolitan Area) (Col·lectiu Punt 6, 2017): exploratory walks or itineraries accompanying each woman on their daily route to or from work, and the collection of information for analysis in terms of mobility, perceptions of security, daily life in their neighbourhood, the workplace environment, and other themes. In this case, GO PRO cameras were used for data collection, placed in various ways: on vests, helmets or in the car, depending on the means of transport. The collection of images somehow has to reflect as far as possible what they see on their daily journey to or from work, from 5 to 8 a.m. and between 9 and 11 p.m. The tours can and should of course be accompanied by other practices, such as workshops or interviews to deepen understanding of the subject (Col·lectiu Punt 6, 2017b).

In summary, the participant observation devised by Col·lectiu Punt 6 takes place through exploration routes (D9), compiling the information with maps (D14), photographs (D12) and other notes (D2). Participants should be accompanied several times and on several days in different contexts (E2), and a neighbourhood is generally observed, or a larger scale of city or metropolitan area (F4). The main objective of these activities is data collection (G3) to observe (G1) and make a diagnosis (G2).



CS26 *Mapas colectivos. Distrito Federal, Iconoclasistas.*

Collective mapping can serve to collectively build territorial and/or urban views that facilitate collaborative and transformative practices. Iconoclasistas, a duo formed by Pablo Ares and Julia Risler, have been working on projects combining graphic art, creative mapping and collective research since 2006. They have organised collective mapping in diverse places such as Vic (Catalonia), Buenos Aires, the City of Mexico, Guimaraes (Portugal), Graz (Austria), Cali (Colombia), etc. They have also written the *Manual del Mapeo Colectivo: Recursos Cartográficos Críticos para Procesos Territoriales de Creación Colaborativa* (Manual of Collective Mapping: Critical Cartographic Resources for Territorial Collaborative Creation Processes), in open source. This work can be accessed at <https://www.iconoclasistas.net/recursos/> (2013). Ares and Risler talk of multiple devices, in which some dynamics are usually repeated, such as preparation of the workshop, group work and sharing. This action can cover devices mapping senses, perceptions and territories, and mapping in the public space, where passers-by are invited to participate on specific themes, visual stories or wall maps, time maps, etc. The mapping carried out in Mexico City reveals the scope of collective mapping. A five-day workshop was organised with the participation of artists, activists, journalists, professionals and researchers from various areas within the framework of the *Simposio Internacional de Teoría de Arte Contemporáneo - International Symposium on Theory of Contemporary Art (SITAC X)*. The workshops involved the creation of devices for individual mapping on routes and senses, mapping on precariousness, border mapping, etc. Apart from the devices themselves, the workshops led to a campaign of non-violence, among other results (Ares P., Risler J., 2013).

Although the application of collective maps is very broad, we can state that the main tool is mapping (D14), which is worked on in groups (D5), involving notes (D2), over a relatively short time (E1) for highly variable spaces (F6), ranging from public space to territories or countries. The objective is data collection (G3), co-creation (G6), diagnosis (G2) and of course an awareness of a problem (G8).

Figure 125

Collective maps. Taxonomy.
Source: author

Figure 126

Collective maps.
Source: Iconoclasistas.

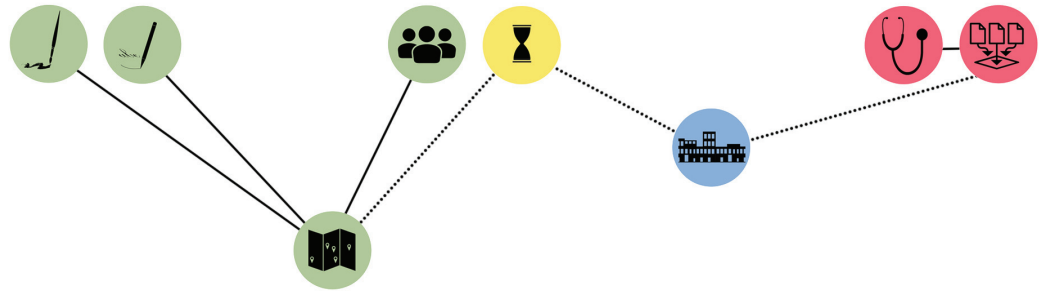


Figure 127

Daily mobility maps.
Source: Col·lectiu Punt 6.

Figure 128

Daily mobility maps.
Source: author.



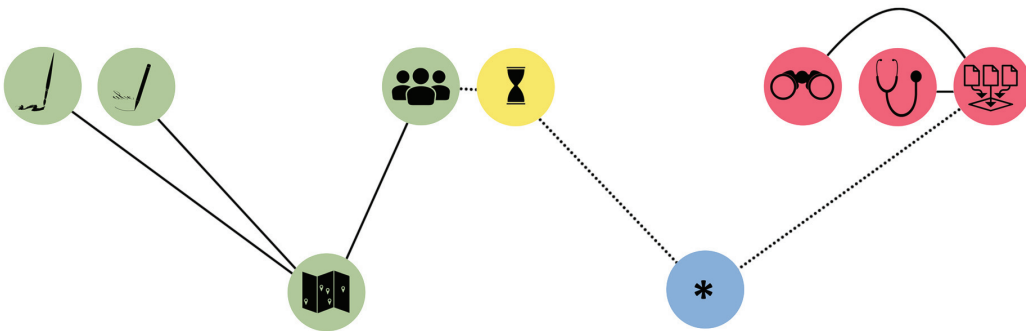
CS27 *Daily mobility maps, Col·lectiu Punt 6*

Col·lectiu Punt 6 designed this tool in the context of a study on the daily life of women who work at night in Barcelona Metropolitan Area. They describe the purpose of the daily mobility maps to individually capture the network of the day and nightlife of each of the women, and to draw on a collective map the journeys related to the night work of each woman. The result is a map for each woman with her daily network, and a collective map of night mobility in the AMB (Col·lectiu Punt 6, 2017a).

The activity involved two mains parts:

- An individual part in which each woman had a map of her neighbourhood and drew her daily network, and then marked on an individual map the neighbourhood spaces where she feels comfortable and safe.
- A collective part, with presentation of maps to the other members, conversations and then the creation of a large scale map of the Barcelona Metropolitan Area (AMB), in which each woman marked her journey, with the type of transport used, etc.

It is easy to imagine how this activity, devised by this cooperative of female architects, sociologists and urban planners working from a feminist perspective, could be adapted to numerous urban contexts and themes. The notion of security through the user's eyes can be adapted to the scale of a city or even a neighbourhood. In summary, daily mobility maps are collective maps showing mobility (D14), developed with a group of participants (D5), who indicate and draw (D1, D2) their routine routes. The experience can be developed in 2H (E1) and usually addresses a large-scale issue (a neighbourhood, a city, or in this case a metropolitan region) (F4). The objective is to collect data (G3), to draw up a diagnosis (G2).



CS28 *Body maps*

Body maps, as their name implies, map the body according to various themes, such as emotions, diseases, ailments relating to a specific space, safety or, in contrast, wellbeing. The Iconoclassists, a duo formed by Julia Risler and Pablo Ares who are specialised in participatory collective maps, recommend their use to reflect how certain dominant discourses impact bodies. Body maps model perceptions and meanings about the social roles of communities. To work with body maps, a predesigned figure can be used, or each participant can be asked to make a figure individually or in a group (Risler J., Ares P., 2014).

In specific cases, they can be used to track and detect physical sensations and manifestations in relation to the spaces and environments in which we live, including housing, public space, work, etc. Col·lectiu Punt 6 (2017a) uses them in various contexts, such as the framework of the daily life of women who work at night in the Metropolitan Area of Barcelona. Thus, some urban spaces can be understood in a cognitive way, especially by working on the perception of fear and resentful insecurity. In this case, Col·lectiu Punt 6 proposed the activity in three stages. The first is individual action, in which another woman's silhouette is drawn using paint, drawings and other objects, working as a couple. Each participant then raises some questions in relation to their night work, such as how fear and insecurity are perceived in the body in relation to urban form. Finally, the work is displayed to the rest of the group and a debate is generated in which information is collected and conclusions are reached.

An analysis of this tool with the taxonomic table shows that the binding tool is a map (D14) that allows drawing activities (D1) with varied notes (D2) in groups (D5). It has a fairly short duration, with a dynamic that lasts a couple of hours (E1). Body maps are relevant for any type of space (F6): home, workplace, public space etc. The main objective is the collection of data (G3) for observation (G1), which can be used to establish an assessment of the space in question.

Figure 129

Body maps. Taxonomy.
Source: author.

Figure 130

Body maps.
Source: Col·lectiu Punt 6.

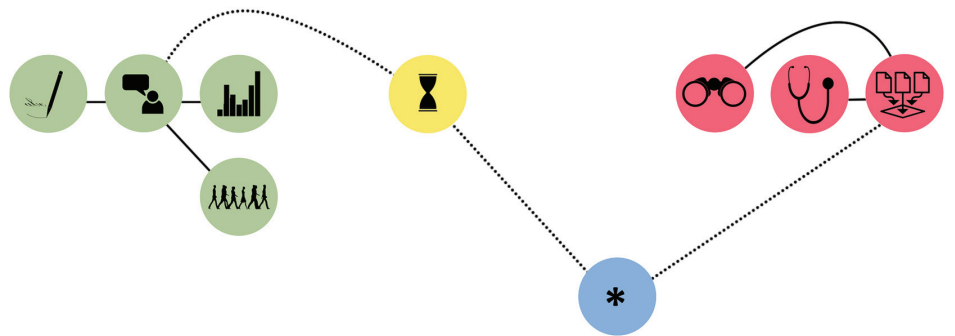


Figure 131

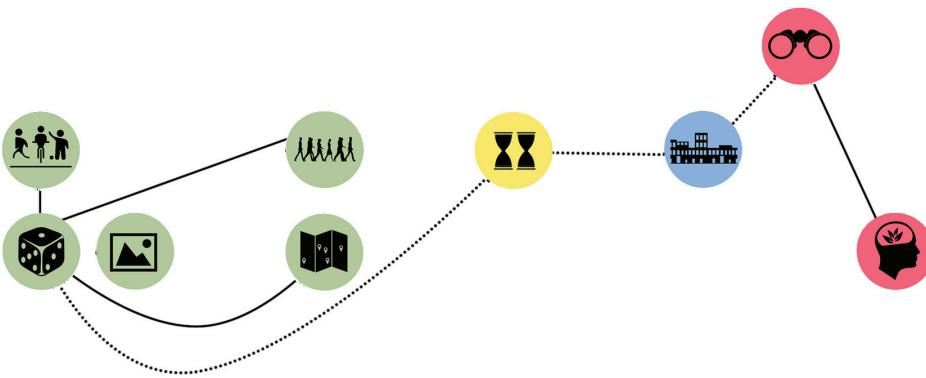
Community interviews.
Source: author.

CS29 *Community interviews*

This is the basic tool used to obtain information about daily life and experiences in the environments under study. Col·lectiu Punt 6 calls them “interviews with key people”, we call them “interviews for urban observation and diagnosis”, and other groups have other names for this process. The truth is that the most basic way to establish a dialogue and interpret the needs of a community begins with a few simple questions. This is based on the fact that users have the most knowledge of the main problems of the place.

In any case, although a first observation session can be more or less improvised to make the first contact, it is advisable to have a pre-established script with quite specific questions. These can be on very varied topics, depending on the urban context and the object of study. Col·lectiu Punt 6 generally works on the perception of the insecurity of a place, and chooses a variety of people to interview to gather opinions and experiences depending on sex, age and origin. In our research on the tianguis with the ETSAB and UABJO, regarding a traditional market in Tlacolula de Matamoros (Mexico), we tried to understand the positive links in the community system, with its self-constructed creations of ephemeral architecture, as well as how new urban regulations or other factors weaken this system. Hence, the questionnaires were administered to market traders and residents of the community. The sex, age and origin of the participant were noted, to prepare a catalogue of the architecture currently in place and of the perceptions and expectations of community members. The interviews were recorded, as advised by Col·lectiu Punt 6, and carried out with a printed questionnaire.

Finally, interviews with the community can be defined as follows. The main tool is of course the interview (D3) using a questionnaire written specifically for the place (D4), and with notes (D2). The practice can be undertaken in a relatively short time (E1), from a few hours to an afternoon, without counting the processing of the results. The objective is data collection (G3), for observation (G1) and urban diagnosis (G2).



CS30 *Cromos de barrios/Neighbourhood cards, Raons Pùbliques.*

It can be hard to engage children in a participatory process and beyond, and obtain effective results in time and space. Raons Pùbliques has created Neighbourhood Cards, which promote the presence of children and their families in selected public spaces, so that they can complete a collection of stickers. Interest and knowledge of these spaces is fostered, since the participants obtain practical information and at the same time visit places that are within their reach, but that they do not know. In the Poble Sec neighbourhood, the urban planners' cooperative designed a card game collection for the 150th anniversary of the neighbourhood. The idea is to really explore the neighbourhood, with the help of a map to discover historical places in it.

In summary, a set (D11) of cards with images of historical places (D12) and an exploration map (D14) allow families to go around (D9) and occupy public space (D6), over a medium length of time (days), in a neighbourhood (F4), for observation and exploration (G1) and environmental and heritage education.

Figure 132

Cromos de Barrios. Taxonomy.
Source: author

Figure 133

Cromos de Barrios for the Poblesec.
Source: Raons Pùbliques.

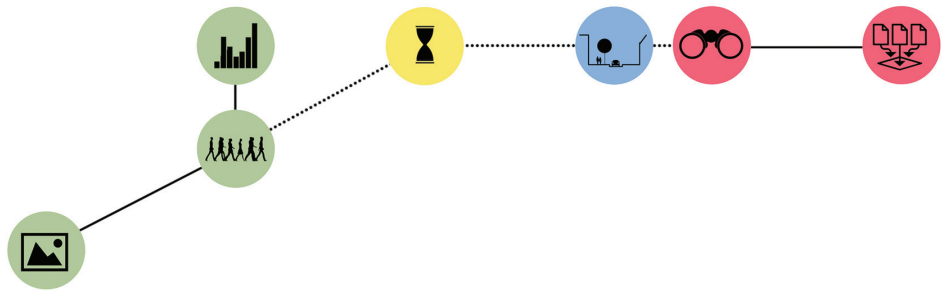


Figure 134

Exploratory tour by Col·lectiu Punt 6 in Caldes de Montbui. (Mujeres trabajando, 2014)
Source: Col·lectiu Punt 6

Figure 135

Exploratory tour. Taxonomy.
Source: author.



CS31 *Exploratory walking tour and recognition of the environment.* *Col·lectiu Punt 6*

An exploratory route is generally a way of recording information about the context that surrounds us. This specific case, prepared by Col·lectiu Punt 6, differs from others because of the gender perspective that is adopted. Before the group tour starts, work is done on a list of questions to reflect on different issues related to the perception of security. These questions are the guiding thread for the tour. In a second stage, the urban space is travelled and places are photographed that correspond to the questions. The activity ends with information sharing.

This practice can be analysed as follows: on the exploratory route (D9), a series of questions (D4) are asked that guide the route in some way. Places are registered with the help of photographs (D12). The activity is relatively short (a few hours) (E1), and designed to observe public space (F2). The main objective is careful observation (G1) to collect participant perception data (G3).

This case study shows how the taxonomy table can be used creatively. For example, you can add other basic tools to this activity, such as a paper mapping (D14) to indicate the places that are detected in a plane.

CS32 *Exploratory route with notes, ETSAB (AR Department, Bruno Sève)*

Neighbourhood tours are exploration activities to find out more about the environment. An exploratory route with notes is a practice that we have developed within the framework of the ETSAB Urban Notes option. It is basically a tour of a neighbourhood accompanied by several key people, such as members of an association, who can contribute their personal vision of the place. All participants are invited to take notes in their sketchbook, with diagrams, intuitions and comments on a map. As an individual action, participants are asked to make a mind map of their journey, gathering the information from their sketchbook. In a subsequent workshop, information is pooled using a central map to reach key points of observation and diagnosis.

The main action is a tour (D9) that involves drawings (D1), annotations (D2), mapping (D14) and a final sharing session (D5), in a medium amount of time (it takes at least two days) (E2), to explore the neighbourhood (F4) (G1), collect data (G3) and establish a concise assessment (G2).

CS33 *Neighbourhood Gymkhanas, Raons Públiques*

Discover a neighbourhood or an area through a game. This is a variant of the neighbourhood route, but with pre-established stages and challenges. It is highly recommended for families and children, as it can be imagined as an explorer's notebook in which you can answer some questions and draw. It is basically an initial activity to become aware of a place. Social networks can play an interesting role in the collection of data and photographs.

The main idea of the practice revolves around the concept of the gymkhana game (D11) and a route (D9) with the help of a map (D14), to answer some questions in relation to urban perceptions (D4) in which participants can draw, write down and photograph what they see (D1, D2, D12). The activity can be carried out in just a few hours (E1) in the public space (F2) for an observation of the neighbourhood (G1), data collection (G3) and the generation of awareness (G8).

Figure 136

Exploratory tour with notes in Can Ricart. Source: author.

Figure 137

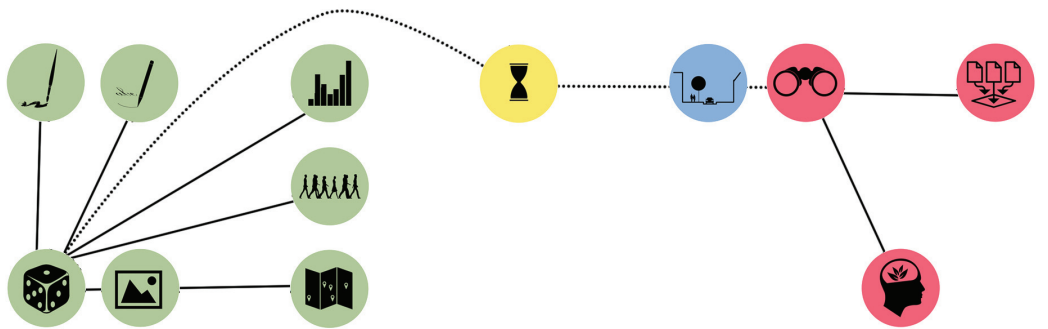
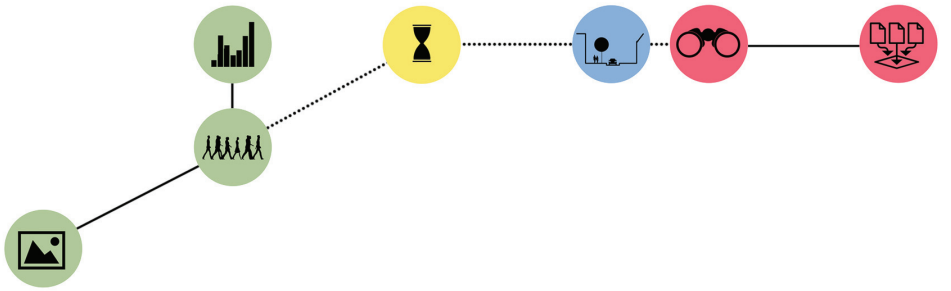
Exploratory tour with notes. Taxonomy. Source: author.

Figure 138

Gymkhanas. "Carnet d'Exploracio urbana" from Raons Públiques in the process Anna Piferrer. Source: author.

Figure 139

Gymkhanas. Taxonomy. Source: author.



CS34 *Urban Notes: observation and conscious notes of the place* *ETSAB (AR Department, Bruno Sève)*

Urban Notes is an elective subject for architecture students at ETSAB that involves the local community and Urban Sketchers groups to give their urban artistic visions and perceptions at street level. It is carried out in several urban drawing sessions with various activities over a semester. Exploratory routes are initially organised in a given neighbourhood, with the presence of representatives of associations to offer their view of the problem. Then, urban drawing workshops are set up in some places of interest observed along the way. It is important to choose one place per day. These first urban sketching workshops, open to the public, have several objectives, such as conscious observation of the place, with a collection of personalised information from the observer, as well as meeting people and artists from the neighbourhood who contribute their ideas and visions. Over the course of the semester, several co-creation workshops are organised, at which one decides which topics to work on, how to present and compile the drawings and notes to organize an exhibition that is open to the public, and whether it is possible to contribute drawn proposals. We explain in depth the experience of Poble Nou in Chapter 4 of this thesis. The main tool used is drawing (D1), with notes (D2), urban routes (D9), occupation of public space (D6) and the use of maps to locate the drawings (D14). The experience is relatively long (E3) with several sessions to work on a wide range of spaces (F6) for conscious observation of the place (G1), which allows an urban diagnosis (G2), collection of information (G3), the formation of social ties and affinities between participants (G5), the co-creation of an exhibition (G6) and the generation of environmental awareness of the place (G8).

CS35 *Negotiate the Dream Space, Die Baupiloten*

Negotiate the Dream Space is a board game that is played in groups to determine users' needs. It allows atmospheres and activities (functions) to be identified to reach a consensus. Each card has an activity and other atmospheric cards, with legends that allow more or less complexity. Similar activities are combined as much as possible and corresponding atmosphere cards are chosen, so that the users have to interact and play together. The game can be used for many types of buildings (housing, retirement homes, student residences, etc.). In the case of a retirement home, you can work on more personal spaces, and agree on uses and atmospheres for common spaces (Hofmann S., 2014). This practice, created by the architectural firm Die Baupiloten, uses a board game (D11) as a basic tool, to gather a group of people (D5), for a relatively short time (E1 - hours), to discuss atmospheres, uses and activities within a building (F1), collect data (G3) and co-create (G6).

Figure 140

Urban Notes.
Source: author

Figure 141

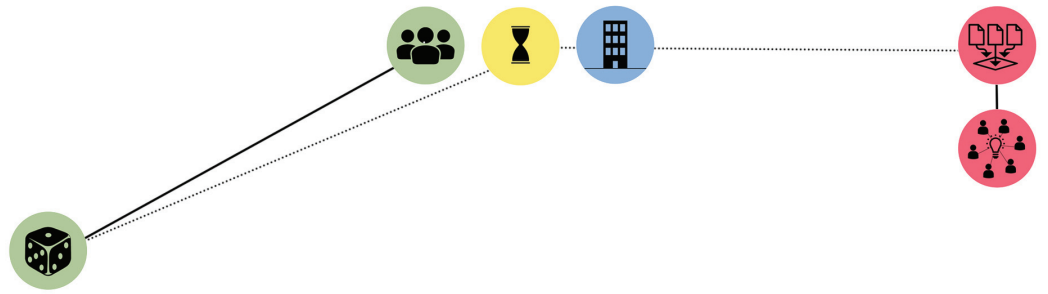
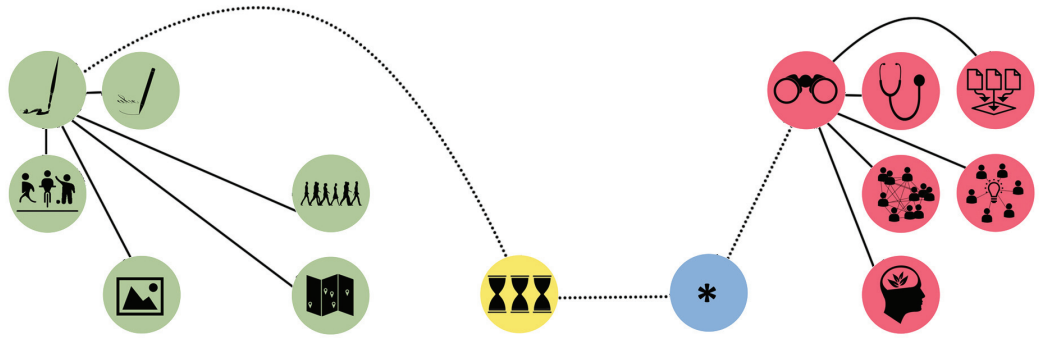
Urban Notes. Taxonomy.
Source: author

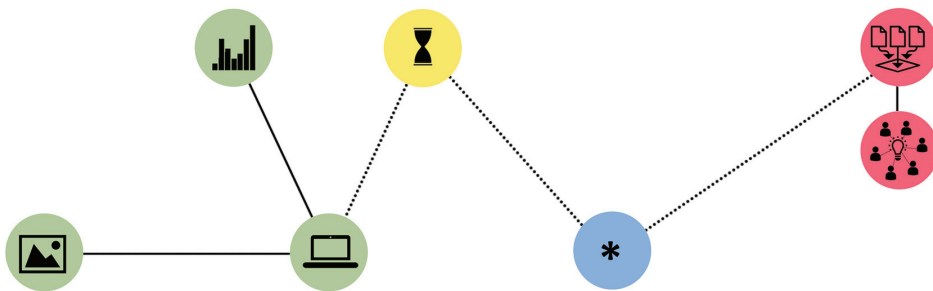
Figure 142

Negotiate the Dream Space.
Living and Residing as Seniors
in Rural Areas
Source: Die Baupiloten,
Susanne Hoffman.

Figure 143

Negotiate the Dream Space.
Taxonomy. Source: author





CS36 *Percepto-test. Repérage urbain.*

Developed by the firm Repérage Urbain for various consultations, the percepto-test is a tool based on participants' perceptions. It is a package with images of a questionnaire to explore the perceptions of its participants. The perceptual test can define preferences in terms of uses, atmosphere(s) and type of architecture by proposing a series of questions. Data collection helps to understand what the participants' wishes are for a specific urban space (Repérage Urbain, 2019).

This tool was designed by the team in paper and digital formats for a consultation about a future eco-neighbourhood in Parray-en-Yvelines, France, and in a study and consultation about a large playground project in Strasbourg, France (Repérage Urbain, 2019). The digital version of this latest experience allows users to respond directly from their smartphones. The specific questions relate to desired decorations or themes, and images are used to indicate preferences.

If we analyse the digital version, the taxonomic table shows that the digital tool (D15) consists of a survey (D4) using reference images (D12). The test is carried out in a short time (E1), in less than an hour and with the objective of data collection (G3) to gather ideas and proposals (G6) in terms of atmosphere and perception. The sociologist and urbanist Eric Hamelin, manager of Repérage Urbain, considers that the Percepto-test represents a "new social, technical innovation for the participation of the general public, which is in test phase at Repérage Urbain" (2018).

Figure 144

Percepto-test. Taxonomy
Source: author.

Figure 145

Percepto-test.
Source: Repérage Urbain.

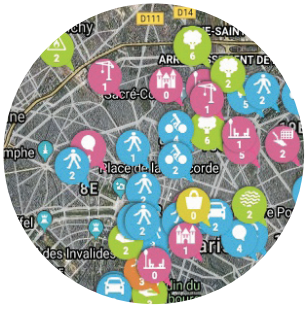
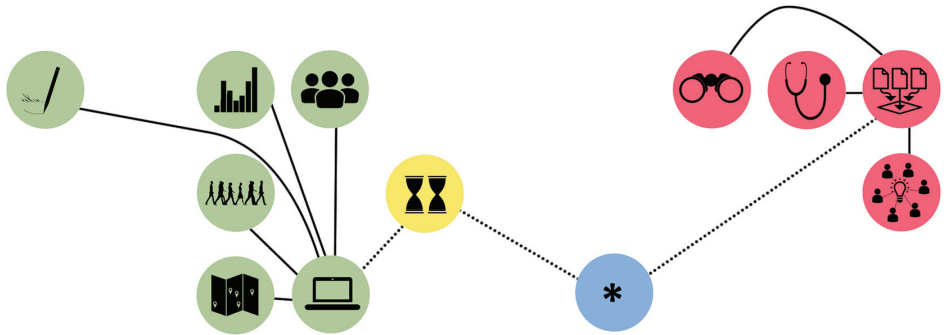


Figure 146

Carticipe/Debatomap. Source: Repérage Urbain.

Figure 147

Carticipe/Debatomap. Taxonomy. Source: author.

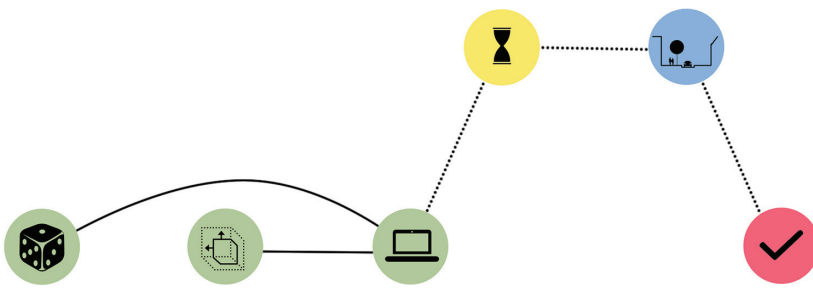


CS37 *Carticipe/Debatomap. Repérage urbain.*

As explained by its creators, the agency Repérage Urbain, Carticipe/Debatomap is a participatory digital cartographic platform to facilitate citizen participation at the scale of a city or region and foster debate among citizens. It relies on social networking concepts through the voting and comment functionalities, to generate a structured debate.

It was conceived as a tool within a participatory process, specifically a conciliation processes. The advantage of the platform is that it can be used in situ on mobile devices to provide a quantitative and qualitative analysis. We can interpret the tool as a cross between an interactive map, social networks, sociology and analysis of the urban space. In a consultation process, the tool can be used for on-site consultations on urban projects with inhabitants, urban routes with digital tablets or smartphones, and participatory workshops to produce proposal schemes in a short amount of time. Its use can be summarised as follows. The user or a group of users, in the context of a consultation process for intervention of an urban space, which is generally a public space, explores the space with a digital device (tablet, smartphone). They can add an idea on several of the themes that are available, for example they can detect a problem, such as a dangerous or non-existent pavement, and propose an idea directly, such as a new bicycle lane, by sliding a pictogram on the map. Then, other participants can vote for or against and even comment on the ideas of other users. As the data is mapped and organised, the organising team, for example Repérage Urbain, can analyze it and make other proposals. It is important to stress that the tool facilitates the process, although it must be accompanied by minimal training and complemented with other participatory activities for its correct use, such as itineraries on foot, workshops, public events and reports of the debates. The platform can be customised for use in different municipalities. Its main advantage is undoubtedly its versatility; it can be used in various ways and complement other participatory activities.

Using the taxonomy table, we can analyze Debatomap in a general way, considering that it is accompanied by other activities. The digital platform (D15) is based on interactive mapping (D15) with possibilities of annotations (D2), and it is used in urban routes (D9), with meetings and workshops (D5) that generate successful and dynamic digital surveys (D4). An activity with Debatomap can last a few hours, although the actual process with all its satellite activities is measured in days or weeks (E2). The urban space is generic (F6), that is to say it can be applied to buildings, public spaces, urban voids, neighbourhoods or a natural park, among other places. Finally, its main objective is collection of data (G3) to be able to restate some scenarios, although it certainly allows observation of the place (G1), the establishment of some guidelines for an urban diagnosis (G2), and some clues for proposals (G6).



CS38 *Virtual reality applied to digital urban transformation, ETSAB (AR Department)*

This experiment, which is still in progress, is part of a framework related to participation, information and communication. The case study of virtual reality applied to urban transformation (Sánchez-Sepúlveda, Fonseca, Franquesa, Redondo, 2019) is based on the fact that users can virtually transform their urban environment.

Virtual reality is a technology that has captured popular imagination and is studied by numerous researchers. It has an interesting application in the framework of participation. In this case, the spatial transformation and the test method, although virtual, is totally valid, since it allows the participant to experience a new way of occupying the space and interacting with it. Virtual reality was applied in an urban project promoted by Barcelona City Council and related to the creation of a large public space for pacification of the streets and the application of superblocks. The participatory experience consisted of the creation of a virtual reality game, in which participants could shape the urban public space. Portable technologies (wearable tech) such as virtual reality glasses and tablets were used. One of the interesting features was that participants could see what they proposed in real time, play with the environment, change the furniture or the vegetation, and alter the environment from day to night.

On another occasion the team ADR & M (ETSAB Architectural Representation Department) developed an interactive game for the exhibition GamePlay, which looks at the origins of video games and examines the language, values and impact on digital pop culture, art and society. The exhibition was intended as a space for leisure and reflection where we can play with and (re)discover the culture of video games. In this context, the proposal was for the user to build a sculpture based on the Eames House of Cards in the virtually rebuilt CCCB (Centre Cultural Contemporaneo de Barcelona). While the space is transformed, a virtual public indicates whether they like it or not, based on the attractiveness of the sculpture.

These two experiments, considered as one case study, can be summarised in the template of the taxonomic table as a practice that mainly uses digital technology as a tool (D15). It allows a modular scenario (a model) (D13) framed as a game (D11). The experience is relatively short (E1), as it can be completed in a few hours, although feedback takes a longer time. The physical space in this case is a public space (F2), namely some streets: the famous Eixample crossroads in the city of Barcelona. Finally, the main objective is to test (G7) the projected space. In this sense, this experience should be considered in an advanced urban project.



Figure 148

VR. Taxonomy. Source: author.

Figure 149

VR in barcelona germanetes. Source: AR Department.

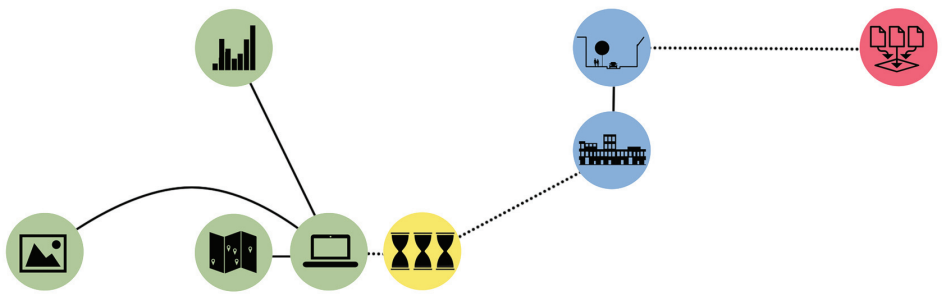


Figure 150

Arturo. Source: 300 000 km/s.

Figure 151

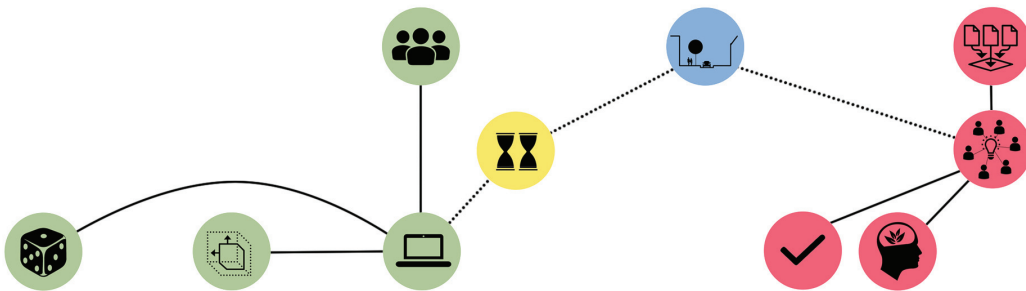
Arturo. Taxonomy. Source: author.



CS39 *Arturo, 300 000 km/s*

In memory of Arturo Soria, an urban planner from Madrid (1844-1920), 300,000 km/s, a professional firm of architects, urban planners and engineers, together with the COTEC foundation, have designed an algorithm to help design more liveable cities. The purpose is to measure the habitability of the city, through the vision and perception of the citizens. By gathering the opinion of thousands of people, the algorithm learns automatically, and allows some urban conditions of habitability to be determined such as the mix of uses, the percentage of surface of public space with respect to the built space, the built density and the average age of the architecture. It does this through a questionnaire, in which one can choose the image that best approximates a habitable environment, in the users' opinion. The collected database then allows the generation of an open database (<http://arturo.300000kms.net/#1>).

The practice is defined by an algorithm (D15), which works with geolocation and maps (D15), the use of images (D12) and a questionnaire (D4). It takes a long time to train the algorithm (E3), to analyse the public space (F2) and the entire city of Madrid (F4) and collect data (G3).



CS40 *Minecraft: designing the public space through youth participation*

Promoted by the UN-habitat and in partnership with local and private enterprise (including Ericsson and Mojang), the video game Minecraft has been used as a community participation tool for public space design, showing that providing youth with ICT tools can promote improved civic engagement, as described in the UN-Habitat report: *Using Minecraft for Youth Participation in Urban Design and Governance*, Unhabitat (Westerberg Pontus & Von Heland Fanny, 2015). The idea is clearly to involve young people, as they are both drivers and consumers of technological innovation, into contributing ideas through Minecraft designs. They are brought together in a participatory design workshop, where they can propose their ideas to decision makers (city authorities and local government officials). The use of Minecraft enables them to express themselves in a visual way through design alternatives and express themselves in public to present their creations. The UN-Habitat report provides clear methodology involving the design of a geogame. The actual situation of the public space in the Minecraft model is first designed using Google maps and images. Community workshops are held to train the participants, organised in groups of two to four people to create ideas through the production of Minecraft models. The creations are presented to stakeholders. These innovative processes have been used in Peru (in Lima), Haiti, Mexico, Kosovo, Kenya, Somalia, Nepal, Bangladesh, Philippines and the Solomon Islands.

The principal advantage of using Minecraft is that it can bring together various groups of people, as shown in Haiti where fishermen and groups of teenage girls were involved. It can be used at a large scale, including a large number of participants, as in the experiences in Plaza Tlaxcoaque, a square in the historic centre of Mexico City, where 429 young people took part, 1,438 ideas were submitted and 431 projects were completed, focusing on safety and security, sociability and playfulness. Finally, the Kirtipur experience in Nepal involved a study (Von Heland, et al., 2015) with positive feedback, but a gender bias was detected, with greater participation of men than women. We could add here that apart from the risk of gender bias that would provide only a partial vision, the use of this participatory tool has to be complemented with other methods, as explained by Wang (2002).

Finally, in our taxonomy table, the principal tool is a digital technology (D15), a geogame (D11) with a 3D model that can be transformed (D13), and workshops involving meetings (D5) with stakeholders. The workshops can last from two days to two weeks (E2) and normally involve the design of a residual public space. The aims are co-creation (G6), data collection (G3), testing (G7) and environmental education (G8) as the importance of public space and urbanism is explained to the participants.

Figure 152

Minecraft. Taxonomy.
Source: author.

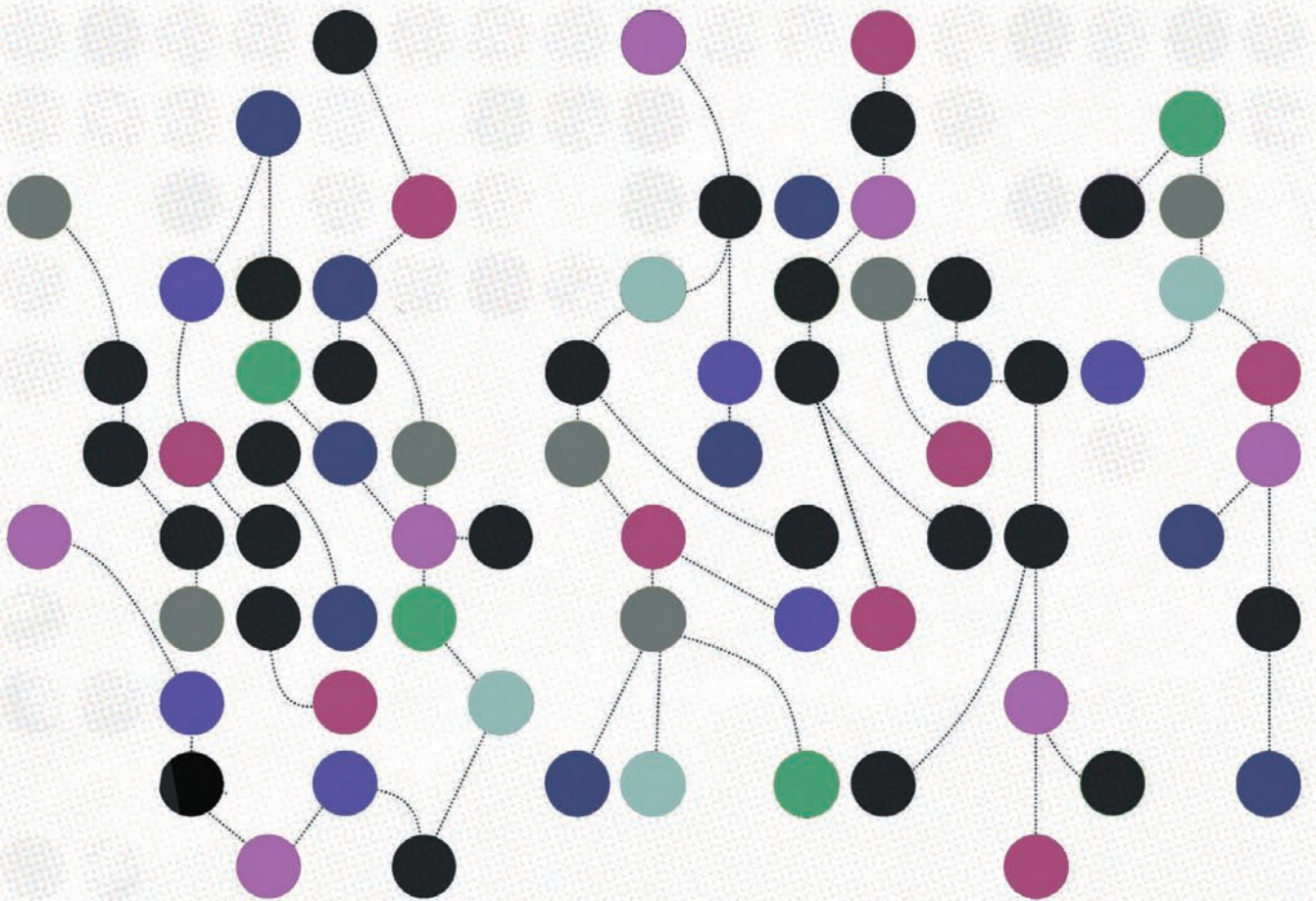
Figure 153

Minecraft for participatory purposes. Source: Von Heland

2.3 A taxonomy for action. A template for imagination

The taxonomy was used in a study of approximately 45 experiences. It helped us to understand participatory, bottom-up processes in a simpler, exhaustive way. The grid (Figure 49.1, p.135) with its icons clearly shows the combination of participatory tools and their purposes. Classification is made easier and it can be useful to create methodical sheets. However, the taxonomy table does not provide an exhaustive explanation of a given experience. It is like a roadmap, in which a user can then search for more information or contact the creator of an experience. The creation of a collaborative platform based on this taxonomy would mean that architects, students and other groups could enrich the database. This would surely require adaptation of the present study. This study is considered valid and ready to use for anyone interested in researching or creating a participatory experience for urban transformation. The main weakness of our template, that it is not exhaustive, is also its strength, as it frees the imagination. The taxonomic template can be used to help propose new experiences and create a greater range of practices. This is the case of the Urban Notes elective course we have designed, which is presented in Chapter 4 of this thesis. The taxonomy helped to provide clarification in this case. In Urban Notes, we clearly defined some sessions that are very different from each other. In some, the prevailing activity is a meeting (D5) at the table for co-creation (G6), while in other sessions it is urban drawing in-situ (D2) that prevails for data collection (G3), or an urban route (D9) and data collection (G3) is completed with all kinds of annotations (D2), see Fig. 110 and 112.

However, when the worldwide emergency of COVID19 emerged, we had to confine our students for various weeks from 12 March 2020. In this case, we used the template to provide an alternative process, using digital technology (D15) - see chapter 3.3 *Urban Notes: sketch and participation*. Therefore, the taxonomy template acts as a guide and allows us to put on the table a maximum number of tools and objectives to creatively imagine a new experience, with different scenarios. Reading about these experiences and the case studies (2.2) can help anyone who undertakes a participatory practice to compare their idea with other case studies and improve it if they wish. For example, some practices can be improved with a digital tool and vice versa. Of course, imagination can be used to propose a new creative practice to arouse the interest of local communities. Hence, the template does not provide a magical or mathematical formula for the conception of a new participatory practice or a participatory process. By isolating an icon such as drawing (D1), for example, we can of course understand that there are thousands of ways to use drawing: in-situ drawing, collective drawing, drawing in street art, etc. Therefore, the taxonomic template must be understood as a new flexible tool that can be adapted to various contexts without forcing strict rules or models. This leaves people free to imagine and create the transformation of our environment collectively, for the common good.



3. FIELDWORK: “EXPÉRIENCES”

About experiments and experiences

In French, the word “*expérience*” means both “experience”, knowledge acquired through interaction with the environment, and “experiment”, scientific practice and interaction with the environment to verify a hypothesis in the context of a refutable theory. This detail seems important to us, since the French definition allows both the inclusion of an ability that is based on perception and the procedure carried out to support, refute or validate a hypothesis. In other words, it has several meanings that we seek to use in our co-creation workshops, such as a “lived experience” as illustrated by expressions such as “that adventure was a great experience”, or “experience”, as in the skill or knowledge acquired over time, illustrated by the expression “this person has experience in the field”. The French definition of experience included the added facet of the scientific experiment, in which we seek to analyze and verify a hypothesis in the field of participatory and creative urban processes. Therefore, here we use the French word *expérience*, which we will write in italics in the rest of the text.

In the logic of research on participatory urban processes, it is undoubtedly *l'expérience* that supports the demonstration of our reflections, and by extension our thesis. In our context, *l'expérience* represents the knowledge of a community or a population gained through interaction with the environment; the fact of living, feeling and undertaking activities in the context of our workshops, that is, an alternative creative experience; and using the feedback system that we have documented, drawing conclusions that gradually allow us to advance in the field of participatory and community practice.

Stories and experiences of the communities

The *expériences* that we present here have been carried out with students as part of workshops, an elective activity and courses. We aim to experiment creatively with them to generate changes in mentalities and new know-how. We consider two levels of communities in our *expérience* practices.

The first level is represented by the students who participate in the workshop and, in the course of the workshop and by collaborating together, form a co-creation community. Each individual with their own experiences, stories and abilities must be considered to create a collective solution. We can compare this to a chemical reaction, which starts from changes in molecules. The student group will sometimes work in opposite directions. At other times, they will seek to reach a consensus, depending on the context of *l'expérience*.

The second community is represented by the neighbourhood for which our students try to contribute a range of solutions. Maximum interaction is sought with associations in the place, or simply directly with its inhabitants. As Jeremy Till once explained (2005): “all of us have stories within us, be they descriptive of the past, fictional for the future, anecdotal or practical... If one starts with a ‘what if?’ question, and then develops the answers through the form of stories, two things happen. First stories arise out the experience of the world and thus have a grounding in reality; second the ‘what if’ allows stories to imagine and to project new spatial visions.”

Hand-on expériences and university teaching

Taller Espacios Abiertos, Urban Notes and observation workshops

We understand our expériences as alternative, unique experiences for our students, who seek through their own experiments and interactions with a place and with the local community to contribute new spatial visions, and sometimes propose actions or prototypes.

It makes good sense to offer this type of expérience within the university. Advantage can be taken of the research atmosphere provided by the university structure and the energy of a young student community who are eager for a paradigm shift. The idea is to open up new horizons for students, who will in turn be able to integrate these notions into their future architectural practices. Anne Querrien (2002) described the atmosphere in architecture schools in Paris in the 1960s as based on the Beaux Arts concept of “designing over-scaled public buildings and competition to be one of the small number of prestigious architects”. In contrast, the concept of bottom-up architecture has been evolving in schools, with the integration of all type of workshops that interact directly not only with the place but with its inhabitants. In Paris, the Diplôme de Spécialisation et d’Approfondissement (DSA, Diploma of Specialisation and Advanced Study) in Major Risks offered by the National School of Architecture Paris-Belleville has focused on the Calais Jungle, with exemplary work on the architectural, urban and human factors (2017). In the United States, Rural Studio is a workshop which offers programmes on which students can design, learn and above all build hand-in-hand with an under-resourced population in West Alabama’s Black Belt region. In Barcelona, in the ETSAB, there are several workshops that integrate participative and community practice within their programme. One is the Arquitectos de Cabecera’s (AC) school projects workshop with an approach to the city based on an assembly movement formed by students and teachers at the Barcelona School of Architecture (ETSAB) in 2013. They define themselves as a response to three crises: pedagogical, social and disciplinary. In synergy with AC and in parallel, our expériences that, through the ETSAB, first began with the Universidad Autónoma Benito Juárez de Oaxaca (UABJO), start from similar considerations: to work on reality, in an inclusive way from communities and creatively.

The Taller Espacios Abiertos/Open Spaces Workshop is a co-creation workshop in which students are invited to build at 1/1 scale with the local community. In this research, we present three experiences of workshops that we have developed, although we can also mention mini-experiences of co-creation of environmental education based on upcycling, which we have not included below but which clearly demonstrate how the workshop of co-creation functions: they follow very similar guidelines, although they apply at smaller scales. We work with dynamics similar to a snowball: individually, in groups of three or four people or at the level of the entire group to co-design and co-build upcycling design solutions with recovered materials. This method has been applied in a co-design workshop of temporary furniture, or prototypes with the collaboration of Makea. In these dynamics, users work together to create ingenious prototypes that are environmentally friendly, in very short workshops (two hours), where the dynamics between participants are crucial. The other three workshops presented in this thesis were developed at another scale. We held a workshop in the city of Oaxaca de Juárez to transform an old railway station into a cultural centre, and two workshops in Barcelona to transform and temporarily occupy parking spaces designed for private vehicles into artistic installations for public use. In these workshops, one of the key points is the experience for the two levels of communities. The work that is done becomes in some way an artistic activity, experienced with enthusiasm that rewards the effort of the task.

Urban Notes has a similar *modus operandi*, where the action of drawing goes beyond artistic action to involve an individual and collective experience in public space. Here too, we have carried out mini-experiences, in which we use drawing as an excuse to visit a neighbourhood or industrial enclaves, or in specific drawing classes with first-grade students, within the framework of a participatory process in the Anna Piferrer Park in Vallcarca, Barcelona. Recently, we developed an experiment as a new optional course for the ETSAB, in which we specifically worked on urban drawing to observe an intentional reality of the Poblenou neighbourhood, following the urban and social fabric from Pere Eix IV street, the old Mataró road built by military engineers in 1763.

Finally, the participatory observation workshops propose, through a cross-cutting vision, to follow and understand participatory grassroot practices or social networks communities. We developed a unique experience to study street vendors in the town of Tlacolula de Matamoros. In this activity, we basically used community interviews, drawing and in-situ street and drone photography as well as bibliographic research to understand the *tianguis* of Mexico, which represent a natural participatory practice occupying the public space.

3.2. Taller Espacios Abiertos Open Spaces Workshop (TEA/OSW)

The Open Spaces Workshop (Taller Espacios Abiertos) is a co-creation workshop in which the participants generate a sum of ideas and concepts and formalize an artistic design and a solution to a problem on a 1:1 scale. It is an alternative process that starts from urban situations and is aimed at not only architecture, design and art students, but also anyone interested in improving their urban environment. It is an opportunity to bring together people who are involved in the urban space.

Inspirations

Some experiences inspired this workshop, which that is committed to a different kind of education. The first is Rural Studio, an architectural design/construction studio at Auburn University. Its main mission is to transmit the social responsibility of the profession in close correlation with safety requirements, state-of-the-art and local inspiration in the creation of houses and buildings for the poorest rural communities of West Alabama, an area known as the Black Belt. Founded in 1993 by architects Samuel Mockbee and D. K. Ruth, the Rural Studio has built more than 80 houses, as well as other structures and civic projects. The \$20K House program is an ongoing research project at the Rural Studio in Alabama in response to the 30% of individuals in Hale County who live in poverty. The idea is to conceive a model home that could be reproduced on a large scale and is designed and built by the students. The same idea of having a group of students working together on problem solving motivated the TEA/OSW, although we have carried out fewer experiences and they are more modest, generally with work on civic and public sites.

Another inspiration for our workshop is the “Segal self-construction method”, which we mentioned in the first part of this thesis. This self-construction system allows anyone who uses basic tools such as a saw, hammer, drill and tape measure, to organize themselves in a group to build their home. It was developed in the 1960s, in response to the housing crisis in Great Britain and the high costs of land at that time. The architect devised a method with a dimensional grid that is easy for people to understand, and most of all easy to use, using dry joint techniques (Broome J., 2005). One interesting fact of Segal’s method is that participants can still modify the home that is under construction, in contrast to conventional buildings. This was described by Ken Atkins, chair of the first Lewisham Self-Build Group:

“Every wall is non-load-bearing so it’s adaptable and changeable. At any time during the process of building or after I’ve lived in it, if I feel I want to change it, I can take out any wall and change it” (Atkins, 1983).



The process of building is therefore seen as voluntarily, with a closed relationship between the self-build group. Segal explains that:

“Help was provided mutually and voluntarily - there were no particular constraints on that, which did mean that the good will of people could find its way through. The less you tried to control them the more you freed the elements of good will - this was astonishingly clear. Children were of course expected and allowed to play in on the site. And the older ones also helped if they wished to help. That way one avoided all forms of frictions. Each family were to build at their own speed and within their own capacity. We had quite a number of young people but some that were sixty and over also managed to build their own houses... They were told that I would not interfere with the internal arrangement. I let them make their own decisions, therefore we had no difficulties.”

In the TEA/OSW, we try to mobilize our students as a small community to make proper decisions voluntarily, and it is through the self-build method that we want to foster new ties between both them as a student community and the resident community of a given neighbourhood. In these places of self-construction and self-intervention processes, communities are invited to participate, in contrast to the conventional construction site, where access is prohibited to anyone who is not a worker.

The concept of DIY or do-it-yourself is without a doubt another source of inspiration for the workshop. This practice spread in the USA from the 1970s, as a way to make or repair things oneself, generally to save money. The movement spread rapidly, especially to renovate old houses at lower costs or to repair and transform products. In this process, “individuals engage raw and semi-raw materials and parts to produce, transform, or reconstruct material possessions, including those drawn from the natural environment” (Wolf & McQuitty, 2011). Beyond a simple desire for recovery, for some the DIY movement is marked by a need for customisation and identity enhancement, as empowerment, community seeking or craftsmanship (Wolf & McQuitty, 2011). For Petrescu (2005), “the DIY activist has created a new form of direct participation, based on principles of self-management and self-production”. It can be considered as another political path in opposition to the world of ultra-consumption that surrounds us. It responds to a need to create, to gain certain independence from industry and large commercial groups and to find a sometimes abandoned know-how. In French, DIY is also known as “la débrouille” (to get by), which gives rise in particular to the popular expression “Système D” (the D stands for “Débrouille”). More importantly, DIY only exists through participation: Stephen Duncombe (2002) describes DIY as “an ethic born against a dominant society that consults primarily in terms of profit generating, commercial enterprise... the key in all this culture is participation. If you don’t participate, it doesn’t happen.”

Figure 154, 155

TEA, Recycle the Railway Station. Spaces in use and students. Source: author



Figure 156

TEA, Participant working on the Pavilion of Desires. Source: author

Another important detail should be included here. We can reflect on the fact that survivalists, disadvantaged populations and grassroots communities around the world are also supporters of DIY, sometime without being aware of it. Some of these people are politically engaged and others are not. The TEA/OSW workshop is also inspired by the long-lasting tequio tradition, which we described at the beginning of this research. In fact, the TEA/OSW workshop took place in the city of Oaxaca de Juárez, where tequio, the unpaid work that every resident of a town owes to his community, is a common practice. However, the initial idea was of course reinterpreted to adapt the tradition to more contemporary practice and to an architecture workshop. By extension, this reinterpretation of DIY and tequio also led us to reinterpret the concept of tactical urbanism; short-term actions to generate long-term changes that try to solve citizen problems or inequality.

These varied examples are the main inspirations of the TEA/OSW. However, they have been adapted to pedagogical teaching, in which a panoply of participatory tools are integrated into the methodology that we describe below.

Definition. A multi-faceted scale workshop in the urban space

In TEA/OSW, an architectural and artistic approach is adopted that proposes another vision of learning in the project process. In the workshops, students are faced with a real urban problem, to which they must provide a solution, even if it is temporary and local. In general, the facilities generated by the 1:1 scale workshops (urban DIY) do not serve as the definitive use of a space, but aim to capture ideas and strengthen communities. These workshops usually claim abandoned or wasted spaces. They are organised so that the participants think about the urban problem in a holistic way and use resources that are already present in the place. In other words, the prototypes are created not only to make a problem visible or to fix it, but also to follow ecological guidelines for creative reuse (upcycling) in a participatory way. Hence, TEA/OSW is also flexible to adapt to urban and time contexts. So in the three proposed experiences, we have developed different workshops in terms of duration, purpose and place. Although the duration and main theme of the two workshops are different, the modus operandi is similar, with theoretical, co-creation and intervention phases in the urban space.

In the three experiences presented in this article, we conceived a feedback tool on student participation, to understand the positive points of the workshop. A written and graphic comparison illustrates the results, which are assessed and compared for the two workshops. Three experiences are presented and compared in this chapter to enrich the analysis, since they both have similarities and differences in terms of duration or operating mode. Upcycling the Railway Station was a long experience, in collaboration with the UABJO. It lasted eight



Figure 157

TEA, Recycle the Railway Station. New spaces in the wagon. Source: author

months and took place in Oaxaca de Juárez. In this experience, an abandoned railway station was gradually transformed into a cultural centre for the surrounding neighbourhoods. Both the Pavilion of Desires and Ur City, Ur Space were shorter co-creation exercises, carried out in collaboration with ETSAB and the Department of Architectural Representation. In these activities, the students had to think interactively and create devices on the street, within the framework of the Park(ing) Day event. At the time of writing this research, a new experience is being planned for the city of Puebla (Mexico), in a collaboration between Anahuac University and the ETSAB (AR Department).

As mentioned above, the TEA/OSW is aimed at architecture, design and art students, and anyone else who is interested in improving their urban environment. Whether on a smaller or larger scale, all projects are self-build and community-based on a 1:1 scale. The aim is to give students or users the opportunity to learn all stages of the project, from sketching to the finished work, with a sustainable, innovative and participatory approach. Through the taxonomy below, we describe some participatory practices used in the TEA/OSW. As they work, participants gain a sense of self-criticism and civic and social responsibility within our society, questioning tomorrow's spaces, sustainable development and public places. Results. A brief presentation of the three experiments

TEA Upcycling the Railway Station

In the first TEA/OSW experience, called TEA: Upcycling the Railway Station, the theme of the workshop was related to the reconversion of obsolete and abandoned railway spaces into cultural spaces in the city of Oaxaca de Juárez, Mexico. This eight-month workshop involved a group of students and close neighbours, and ideas emerged to solve urban and social problems. Although the installations were built temporarily, they illustrated sustainable ideas and new urban practices that should be assimilated by the democratic authorities. The work of the students involved converting five abandoned train cars into civic spaces for the population (a multimedia room, toy library, multipurpose rooms for courses and workshops) and prototypes of urban furniture. Installations and temporary prototypes express sustainable ideas and new urban practices that democratic authorities must assimilate. Subsequently, the government, together with some foundations, partially continued the transformation of the spaces and improved them.

Oaxaca de Juárez is a Mexican city and UNESCO World Heritage Site that is capital of the state of Oaxaca. It has many archaeological sites (Flannery, Kent, Joyce, Marcus, 2005) and a remarkable colonial centre. Located in the Central Valleys, the city saw the arrival of the railroad, which connected it with the national capital and made it easier for people to move within the state at the end of the nineteenth century. The route chosen for the railroad



Figure 158

TEA, Ur city, Ur Spaces.
Participants writings wishes.
Source: author

tracks followed the logic of the topography and orography, which has led to the location of numerous cities near the Oaxacan capital. The train was a catalyst for local development as it moved people and enhanced the sale of Oaxacan products and the development of local markets. After the privatisation of the Mexican Railways, passenger transportation on the Southern Mexican Railroad was suspended in the City of Oaxaca in 1999. In the city, the railway station, which was opened in 1892 by Porfirio Diaz and designed by the company Read & Campbell, is a testimony to the past located on the northeast edge of the colonial centre. It represents a space for urban opportunity.

In 2001, the railway station reopened as a Museum and Cultural Centre. It is in this context that we proposed a design and community-instigated overhaul, through urban DIY actions on various spaces with the participation of citizens and students in 2011. If the federal and municipal government and the Alfredo Harp Helú Oaxaca Foundation (FAHHO) continue with the partial transformation of these spaces, they should also address a series of urban problems that require urgent attention. If the railway led to a boom in the sales activity of local merchants from traditional villages and cities, its abandonment in favour of investment in motor vehicles resulted in the isolation of these places or in car dependency, which led to huge traffic issues in the city and nearby. The City of Oaxaca should consider its vision for the abandoned railway corridor in the future. It could perhaps be used as a new public transport link or to create green spaces on this urban track that take the old railway station as a new central feature. Hopefully and most importantly, this could be achieved through a mixture of bottom-up and top-down planning.

TEA Pavilion of Desires and TEA Ur City, Ur Space

In the framework of the week of sustainable mobility promoted by the City Council and Park(ing) Day, we proposed two TEA/OSW experiences, first in 2018 and then in 2019. The Park(ing) Day is an annual event open to citizen participation that consists of transforming a parking space into an ephemeral garden or for another temporary use for a day. It is held in various cities around the world with the aim of claiming more parks, green areas and sustainable mobility. During a day, different entities and groups temporarily transform a series of parking spaces into other types of public spaces. In both cases described here, the project site was on Calle Trafalgar in Barcelona, a few metres from the Arc de Triomphe in a very central area. Despite numerous efforts by the city council to reduce traffic in the centre of Barcelona, it remains a persistent problem, in which the role of participation seems evident, since the issue of mobility is closely related to a political vision. In this process of gradual transformation of the city, discussion with residents is needed as well as teaching through tactical urban planning devices to create climate awareness.



Both experiences are interesting for two reasons.

First, they are of interest as a participatory tool and because of the interaction with citizens. This means that we had in some way to evaluate the co-creation workshop as a tool for student participation with interaction between citizens and students. We had to raise citizens' awareness about the waste of urban space and about new forms of ecological mobility and collect data to understand inhabitants' opinions of the matter.

The second interest is in applying this type of workshop to Architecture schools. It must have pedagogical consistency and involve academic participation for relevant application in the course of architecture, urban planning and landscaping. Through a specific case of problem-solving, the student group is invited to work together to create an artistic, participative activity with a social and ecological focus, from a cross-cutting perspective. Students address various themes and subjects such as ecology, urban planning, architecture, structures, intervention management (transportation and economics), learning through empiricism and experimentation. The challenge is to design and build a 1/1 scale artistic and architectural installation in record time, with a clear and simple concept that can be understood by citizens. Therefore, group work becomes similar to assemblies, with decisions made by consensus, which moves away from the competitive model and the competition in current architecture. This way of working promotes sustainability, circular processes and ecology in all aspects of the workshop and links the university to specific, current urban projects within the City of Barcelona.

One of the interesting aspects of Park(ing) Day is that suitable parking spaces must be appropriated. In the experiences of 2018 and 2019, the authorities authorised the protest event within the framework of European Mobility Week, without reservations and without a security perimeter. This boosted the aspects of demonstration, claiming the space and group organisation. The group organised the "occupation" of two parking lots early in the morning.

Pavilion of Desires

At the 2018 event, the group of students designed and built a pavilion for reflection that was somehow isolated from the urban context. The space invited citizens to think about the future of Barcelona. More precisely, it focused on the theme of public space with a simple question: what is your desire for the public space of the Barcelona of the future? (Sève Bruno, Redondo E., 2020).

On entering, citizens found various art materials, such as markers and paintings taken from

Figure 159

TEA 2018, Pavilion of Desires.
Source: author



Figure 160
TEA 2019, *Ur City, Ur Space*.
Source: author

works, to freely express their desires and wishes. The objective was to create a changing, ephemeral space that was filled and rewritten in the manner of a palimpsest, like the city itself that is transformed over time. The wishes were collected and analysed through photographs. The pavilion was constructed only with material recovered and reused from the ETSAB, without any need for new purchases.

Ur City, Ur Space

At the 2019 event, the group of students thought of a different device. They proposed an artistic installation that passers-by could build themselves. They designed and built a device similar to the card construction game designed by Charles and Ray Eames called the House of Cards. Created in 1952, the House of Cards included a rich assortment of photographs that could be assembled to form large and small structures. James B. O’Connell, in conversation with Charles Eames about *Mathematica*, the first show organised by the Eames Office, called many of Eames devices “serious toys and games”. He stated: “The notion had been growing on us, as we inspected the displays, that what Eames was building here, out of basic concepts and do-it-yourself devices, was a collection of serious toys. We asked him if it was fair to call them toys.” Charles Eames replied, “Well, toys are not as innocent as they look.” He continued, “Toys and games are the preludes to serious ideas. Electricity was a game first, before it became a source of power. There would be no dynamos today if people hadn’t once been fascinated by playing with pith balls and glass rods” (B. O’Connell, 1961).

As we illustrate below, our group of students came up with a design similar to House of Cards, without previous knowledge of the work of Charles and Ray Eames. Indeed it was after some co-creation sessions that we as teachers proposed to search for references that could provide a more theoretical foundation to the project. In any case, the artistic installation was successful. It was created with materials recovered from the ETSAB; in this case cardboard boxes from hundreds of discontinued magazines (*UR*, *Urbanismo Revista*) that were published between 1985 and 1992 by the urban planning laboratory and had been abandoned in a locker. The students proposed the great 1/1 scale game entitled *Ur City, Ur Space*, in which each participant was invited to change the appearance of the street on a very local scale, even if it was temporary. The installation, co-created with passers-by, was a declaration of colours and protest, since it was proposed that each card could be painted or signed.

In these two experiences, a great creative atmosphere was generated, which gave rise to drawings, phrases, spatial changes, sculptural formations, and conversations between students and visitors to open the debate on how public space can be transformed tomorrow.

Beyond the desire for a less mineral and more vegetal public space, some people proposed that these facilities symbolically represented what the urban space of tomorrow should be: a space for artistic creation and expression in which we can interact and decide directly, where we can breathe freely and creatively in a public space that is currently too prohibitive.

Methodology and description of the practices

The TEA/OSW workshops generate a range of ideas for a project from direct users. All the experiences presented here have some points in common. They are generally developed as participative, artistic activities in three main parts: seminars, co-creation workshops and self-build workshops. Everyone can participate in the experience, although it is more attractive to architects, makers and designers. Although the co-creation workshops are aimed at TEA/OSW students, the self-build workshops are open to the local community who occasionally participate. In some cases, people who turn up at the venue decide to contribute or participate in all TEA/OSW events. Our workshops tend to deliberately present or even occupy the place we study. Thus, they act as a point of attraction to teach the local community that something is happening.

Each experience provides an opportunity to collect data. This approach, which follows the idea of urban action or urban DIY, has been studied rationally at two levels: as a mechanism of participation; and as a new way of teaching architecture, with urban actions at a 1:1 scale. This chapter examines three TEA/OSW experiences that took place through co-creation workshops, assemblies, evolving models and, above all, self-build workshops. To obtain the results, we used quantitative and qualitative evaluation. We found that our three workshops were successful not only as a participative tool, but also as a social process and a way of learning in design and architecture.

Seminars and discussions groups

All the experiences usually begin with a round table presentation, in which each participant presents and explains his/her thoughts about how to contribute in the workshop. Participants may describe their hobby or speciality, for example. This first dynamic, which brings together between 15 and 25 participants, start with a brief introduction in a round table workshop to explain the purpose of the project and for participants to introduce themselves to the group. Then, theoretical classes and debates give participants a solid background for the project. This part is adapted to the context and duration of the workshop. A long version of the workshop, lasting an academic year, for example, can involve more material to inform and create group discussions at the end of each seminar.

A long experience such as *Upcycling the Railway Station* allowed discussion from the outset on our role in society and in the city, both as a citizen and as a professional. Debate focused on the importance of architecture, urban planning, inclusive participatory methods, tactical urbanism and notions of urban art, land art, etc.

The Architect and the Project Process was the first seminar that provided further explanations of the site and explained some notions such as social architecture, co-creation, positive critical thinking or principles of landscape architecture and urban morphology.

Upcycling Spaces aimed to talk about how we can reuse, transform and reactivate declining industrial space for civic uses. Ready-Made, Land Art, and DIY Open Design deepened reflection on the subject, and introduced trends to reappropriate spaces such as the DIY concept mentioned above. To enhance the conversations, artistic references are also introduced, including Marcel Duchamps and his *Objets Trouvés* (Found Objects) and other environmental artists or land artists.

Finally, the last module *Urbanism and the Railway Station of Oaxaca* provided new urban and historical inputs at a larger scale. The specific characteristics of abandoned industrial heritage, with train tracks that cross the entire territory, raised a series of complex questions on a large scale. The purpose of this seminar was to link all the scales of the project and explain how local urban actions can make a difference at a larger scale. The students were presented with concepts and definitions of urbanism regarding Oaxaca's urban growth, especially the relation between the colonial centre and the urban developments that have appeared around infrastructure such as the river, the train and the main roads.

In smaller experiences, like the *Pavilion of Desires* and *Ur City, Ur Space*, there is only one seminar with a debate at the end of the session. In the seminar, the event held on *Park(ing) Day*, such as our co-creation workshop, is explained. Above all, information is provided to raise awareness of mobility in the urban environment of Barcelona, with data on pollution, the role of urban planning, public spaces and participation in this problem. In addition, examples of tactical urbanism and artistic installations are presented to generate debate at the end of the session and quickly enter into co-creation in the following session.



Co-creation workshops

The second part of the workshop varies considerably. In an experience such as the transformation of the railway station in Oaxaca, awareness sessions first began with practices of observation and perception of the place. Through walks, chats with locals, photography and drawing, students carried out a conceptual and artistic diagnosis of the place and its opportunities.

In the shorter experiences in Barcelona, participants had to quickly consider what materials were available which, along with the location (from three to five parking spaces in the public space), limited the possibilities of the project. To achieve this, we proposed a round table activity involving drawing, chatting and brainstorming. In the centre of the tables, recovered cardboard was placed with various markers and pens for participants to collectively draw, highlight points and express themselves. Brainstorming was then carried out on initial concepts and recovered materials were sought for the installation. With the support of the teachers, the conclusions, key words and initial concepts of this first session were written on the board.

In all the experiences, we used a session called Manifest, in which participants wrote an intentions list for their project. This list clarifies the general concept of the project and limits the explanation to a single page. First, in the case of TEA Upcycling the Railway Station, the main ideas that emerged from this workshop were to propose a cultural centre for community use, with local facilities for children and inhabitants, a design that focused on the history of the space, the reuse and transformation of industrial heritage such as the wagons, and an improvement in abandoned public spaces to maintain the railway tracks with temporary objects and an exuberant nature. In the case of the Pavilion of Desires, this dynamic reduced the project to a question: What do you want for the public space in Barcelona? There was a clear concept of a pavilion that invites reflection and expression. Finally, in the case of Ur City, Ur Space, the rules of the game could be defined, with a title, a question and an evocative answer: Ur City, Ur Space. Whose city is it? Create your space and play with the limits.

Once the concepts had been clarified, work in groups of three to four people was undertaken in a more conventional way, using models, plans and round table drawings. At the end of each session, a debate was held in which each person presented and defended their ideas. If necessary, consensus was reached, and people outside the workshop were introduced. The progress of these sessions finally led to experimentation on a 1/1 scale. In the project

Figure 161

TEA, Recycle the Railway Station, Co-creation. Source: author



Figure 162

TEA, Pavilion of Desires, Co-creation. Source: author

Upcycling the Railway Station, four interdependent groups were created to propose physical actions for the site: one landscape team and three groups that would act on the wagons. Each group worked as small units in round tables to propose two project deliveries called Diagnosis, Concept and Project, which were presented to a committee. Each experience of co-creation and self-build is explained below by the team.

Self-build workshop

The boundary between co-creation sessions and classes can be blurred. If in theory they represent two different types of workshops, they can occur in the same session in practice. This was the case of the two experiences in Barcelona, with 1/1 scale experimentation using available materials in the ETSAB classrooms. In both cases, the structural possibilities, with folds, embedment and cuts, were tested on the possible assembly boards. To stimulate discussion and access more information, the round table was divided into two groups to explore the concepts in depth. The objective was to conceive a spatial structure, putting aside for a moment the previously discussed conceptual bases. In these comings and goings, the students finally made a gradual proposal. The final challenge in these Park(ing) Day experiences was devising ways to transport the materials with adapted backpacks, or in one way or another, to the place provided by residents near the event.

In the Oaxacan experience, the self-build workshops were more defined and separate from co-creation. In effect, more complex projects meant more organisation and more logistics. Some initial training workshops on blacksmithing and carpentry needed to be organised. Participants who had no technical knowledge of purchasing or welding steel were instructed by a professional team of metal workers onsite, which was open to anyone. The group in charge of the landscape project imagined building new draisines outside the railway station, using reclaimed materials. The modules can be assembled into a larger stage for events, such as concerts, dances or other ceremonies, or they can be used as separate resting spaces. The team explained that the concept came to them as a metaphor, imagining the train tracks as a great green park such as a river in which rafts can slide from one side to the other of the station enclosure. Easy to move along the rails, but too heavy to be lifted, the draisine seemed to be a great answer to regenerate the public space of the abandoned railway station. During the 1-to-1 self-build workshop, the team worked on the selection of recovered steel and wood and quotation of prices for this material. One of the most interesting aspects is how the team devised the system of wheels on rails. They considered resistant elements that would be available in scrapyards in the city, and found that the famous beetle car's drum brakes perfectly suited the rail tracks. With patience and consultation with local mechanics, the team managed to build the raft with a real chassis. This difficult step shows how the 1-to-1 self-build workshop is a great opportunity to learn



design through problem solving.

In addition, in the Oaxacan experience work was carried out on five freight wagons with steel frames, totally enclosed to protect loads from inclement weather. This structure means that heat is trapped inside, and the air quality is toxic due to rusted surfaces. As a starting point, the students decided that the space had to be multifunctional with good passive ventilation and natural illumination. The team thought about creating large ventilated spaces without necessarily using enclosures, as the Oaxaca climate is pleasant in the shade. The space had to be transformed dramatically to provide good ventilation and light and had to be open to the beautiful environment in the area. Graffiti on the wagons was a source of inspiration and a problem solver: as the wagons are abandoned, any type of graffiti protects the structure. So, why not encourage this practice on the wagon? Under the supervision of the metal workers, the intervention involved cutting the steel sheet, frame assembly and welding, among other tasks.

Delivery day and use

The delivery day naturally becomes an event and a unique experience. In the Barcelona cases, Park(ing) Day is an interactive artistic act of protest. In both cases, the facilities were developed in a relaxed atmosphere, with food and improvised music. Throughout the day, the students invited the public who were walking past to talk and express themselves in various ways in the space. In the Pavilion of Desires, they could write their wishes on the walls of the unusual object. In Ur City, Ur Space, they could play and change the spatial arrangement with the modules. The experiences were developed from this artistic and interactive moment, with the participation of neighbours, passers-by, tourists, etc. As the devices changed, more participants came, showing their curiosity to participate. Interestingly, in the case of the Pavilion of Desires, all 150 messages and expressions left on the walls of the installation were photographed, classified and real conclusions were drawn regarding wishes for the public space. The study has been compiled in an article that highlights the real desire for a city with more green spaces (44.1%), with very specific messages on recovery of family parks with native fauna and flora. It also revealed a demand for places for artistic expression and musical creation (Sève, B. and Redondo, E., 2020).

At the transformed railway station in Oaxaca de Juarez, on delivery day, the students presented their finished work ready to use. A key point here is to understand how the place had been somehow in use since its closure by various groups. This explains how a great event naturally occurred that day, promoted by the local population without real outside help. This partial revival included a dynamic area where museum activities were held as well as self-organised activities, such as the ecological tianguis La Estación, artists collectives

Figure 163, 164, 165

TEA, Recycle the Railway Station, Self-built workshops.
Source: author



Figure 166

TEA, Recycle the Railway Station, Delivery day. Source: author

(painters, aerial dances) and concerts. In addition, the space is relatively crowded because it is used by people crossing the public space of the railway station following the train tracks from the outskirts towards the city centre and transversely from the Ex-Marquesado neighbourhood to the Atoyac River. The space already attracted people because of its beauty and social history, with its charismatic nineteenth century industrial architecture, its old wagons and its peculiar and exuberant vegetation and biodiversity: palm trees, pine trees, flamboyant, Indian laurel, a copperwood tree and an impressive 29-metre ahuehuete (*Taxodium huegelii*), planted in the sixteenth century. Part of the population that already experienced the place daily participated in the workshops, but also offered to support the delivery day. Neighbours and merchants from the ecological Tianguis La Estación offered their services and food for free in a festive atmosphere. It was a memorable day, in which the draisines were used for a stage play by a local company, and then were grabbed by school groups. At that time, the place took on even more life than it had previously and its potential was shown. In addition, this great meeting provided an opportunity to teach members of the university and members of the city that the place must be conserved and transformed into a point of civic attraction for the neighbourhood and for the city. Subsequently, the federal and municipal government and the Alfredo Harp Helú Oaxaca Foundation (FAHHO) continued the partial transformation of the spaces, with the creation of a children's museum (MIO) and other changes. However, there is still much to be done.



Assessment as a pedagogical and participatory tool. Feedback from the students

Students' assessments of the experiences are as important as the experiences themselves. Their opinions allow us to see what aspects can be improved and their limits. In feedback from the workshop as a participatory and pedagogical tool, students' assessment of the three experiences was positive, both qualitatively and quantitatively, with high ratings. The results show that the implementation of this type of workshops in an academic environment improves motivation, involvement and satisfaction in the processes of developing urban projects and much more.

Qualitative aspect

The results were compiled in two ways. In the first, a series of qualitative interviews were held to provide general thoughts about the workshop, attendance and level of voluntary participation. These interviews enabled us to understand the positive and negative aspects of the workshop. In addition, we asked students to write an opinion and reflection, and to give it to us after the workshop. An effective way to obtain feedback from the students was to ask them to describe their personal experiences. In the Oaxacan experience, this idea came from the fantastic conversations we had with the students in a café after a day of work. We asked them to write an A4 testimony with anecdotes and answers to some key questions: Why had they entered the programme? What did they learn during the year? What were their daily experiences and personal opinions of the workshop? In the shorter Barcelona workshops, part of this testimony was drawn up during the workshop and with other reports.

Of course, the duration of the workshop is a determining factor in how it is assessed. In the 8-month Oaxacan workshop, over twenty participants, with equal numbers of men and women, themselves formed a community as the workshop progressed. The testimonies collected in the book *TEA, Recycle the Railroad* (Sève B., 2012) illustrate the feeling of belonging to a big family and the coexistence between very heart-warming participants. Some students describe an intense work rhythm with the satisfaction of doing things well and sharing with great people. Some participants explain that they started the workshop to meet other people and that the experience increased their self-confidence. Others learnt to be patient and respect other team members and to do the work under good terms. The experience helped students to acquire new skills in architecture, urbanism and other crafts. For a lot of the students, the learning was holistic, involving give and take and problem solving. Theory classes, references to other transformation projects and the advice of the metal workers helped to form the idea of the project. At the beginning of the practical

Figure 167

TEA, Pavilion of Desires.
Source: author



Figure 168

TEA, Ur City, Ur Space.
Source: author

part, students became familiar with the tools. Self-organisation meant the acquisition of experiences in physical work and planning for the elaboration and fulfilment of a project of such magnitude, but also devising a production line to speed up the process. A participant explained how it was interesting to understand more about field work, from the perspective of the builder. In addition, one student believed that this experience reinforced her long-term aim of raising awareness about the care of our urban and ecological heritage. Finally, when asked about student expectations about the workshop, they explained that the experience that started from debates and pen and pencil drawings ended up much better than they had imagined. Some explain that despite the effort required to deliver the prototypes and the fatigue, it was sad when the day of the opening arrived.

Regarding the two experiences Pavilion of Desires and Ur City, Ur Space, some of the students stated that they were interested in participating in the workshops for several reasons: out of personal interest in the way of working in a group, to socialize and to find out more about tactical urbanism. Participants described how as the day of the workshop approached, their interest grew. They portray the workshop as intense, pleasant, mixing various components, and “a good start to socialize”. According to the students, there should be more projects that can be developed on a 1:1 scale based on a real urban problem. They found it interesting to design something and actually see it being constructed on a 1:1 scale. One student stated that as an architecture student she feels that they create a lot of content but rarely or never see it at 1:1 scale. Hence, the creation of an installation in the middle of the city was fascinating to her. Artistic expression was the key point of the process. This was a very palpable experience, along with group organisation, the sustainable process (zero waste) and the free interaction between people to formulate a project. One student said that the way this activity worked made her feel that she had created the idea, whether or not it was her own. The feeling of community and integrity was valued in the creative process between participants to reach the goal, and in the organisation to communicate with the public.

The last day also seemed very motivating for the students, who received a lot of praise, with people of different ages and characteristics wanting to find out something new, to let themselves be carried away by the spontaneous activity. On a personal level, the strength of the workshop was that participants were a diverse group containing various nationalities and covering several academic years. The expectations of the project were exceeded when it was seen how many people participated on that day. Several students expressed their desire to see a design course in which a 1/1 scale participatory and cooperative project was developed, perhaps with a more complex approach. A fifth-year student explored the subject further, explaining that in her opinion, there is no project at the ETSAB apart from this workshop that is really developed in a participatory and cooperative way. She

argued that at the moment there is too much architectural teaching from a formalist, iconic perspective. In her opinion, this is a rather empty perspective, while current architecture demands a much more social, ecological and participative vision.

Quantitative aspect

To support the qualitative feedback, we devised another method that allows quantitative measurement of the experiences. We decided to ask participants, who are now professionals, to answer a questionnaire. The same questionnaire was used in all the experiences (Upcycling the Railway Station, Pavilion of Desires and Ur City, Ur Space). The results show that it was successful as not only a participative tool, but also a social process and a way of learning about design and architecture projects. For this quantitative approach, we administered questionnaires with specific questions and details. In the first block, we obtained personal information. In the Oaxacan experience, there were a total of 20 participants, 10 women and 10 men from 18 to 35 years old. In Pavilion of Desires experience, twelve students participated with an equal number of women and men, from 19 to 27 years old. In the Ur city, Ur Space experience, a total of 16 people took part: 7 men and 9 women, from 18 to 29 years old. In the second block, we designed a Likert scale so that participants could evaluate on a scale of 1 to 5 their level of agreement with statements. The participants were asked about 29 statements on various aspects: eight related to participation and social views (PAR), seven focused on motivation (MOT), nine about pedagogy (PED), and five about pedagogy and participation (PED/PAR). The results are shown on next page, using the same legend (N2-number of the statement) as indicated below.

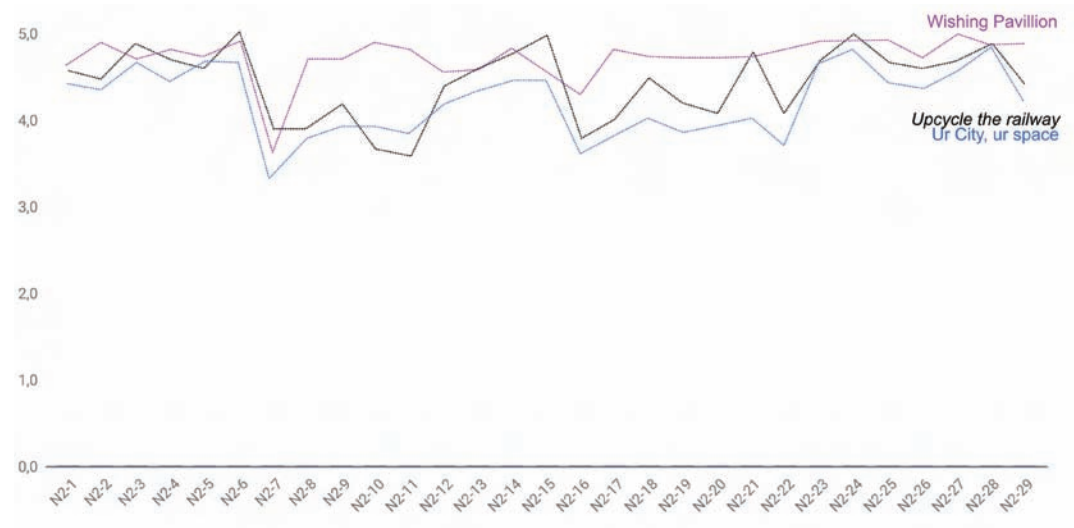


Figure 169

Student's feedback. Source: author.

- N2-1-PAR: Tactical urbanism and co-creation workshops are vital tools in urban projects.
- N2-2-MOT: I am motivated to do more workshops of this type.
- N2-3-PAR: In an urban project, involving the inhabitants is vital.
- N2-4-PAR: Participation is fundamental in an urban project.
- N2-5-PAR: I feel that this type of workshop can be a valid participatory experience.
- N2-6-MOT: I participated in this workshop voluntarily.
- N2-7-PAR: The inhabitants or visitors understood our intentions.
- N2-8-PAR: This type of workshop can change mentalities.
- N2-9-PED: I gained more architecture experience through the workshop.
- N2-10-PED: By working on the site, I feel that I learned about the place.
- N2-11-PED: By working on the site, I can imagine how this place could change.
- N2-12-PED/PAR: Communication between workshop members was good.
- N2-13-PED/PAR: Team design and round tables make the dynamics more participatory.
- N2-14-PED/PAR: The workshop was organised in a horizontal manner, guided by the teacher.
- N2-15-PED/PAR: The workshop was teamwork.
- N2-16-PED: I learned about sustainability and ecology.
- N2-17-PED/PAR: As I was intervening in-situ in the city, I met more inhabitants or visitors of the place.
- N2-18-PED: I am satisfied with the results we obtained.
- N2-19-PED: Experimentation 1:1 (or prototypes) increased my understanding of architecture.
- N2-20- PAR: I think the place improved with our intervention, although it was only temporary.
- N2-21- MOT: I think co-creation workshops as a participatory activity are really interesting.
- N2-22- PAR: Inhabitants or visitors are interested in our intervention.
- N2-23-MOT: I enjoy attending co-creation workshops.
- N2-24-PED: The university should propose more activities of this type.
- N2-25-PED: The university should establish an academic course for 1:1 co-creation and self-build workshop for ecological and/or social purposes.
- N2-26-PED: Co-creation workshops can change our way of doing architecture or urban planning.
- N2-27-MOT: These types of activities are useful for my future and can benefit me.
- N2-28-MOT: I would participate in this type of workshop again.
- N2-29- MOT: This type of experience helps me to interrelate with other users/partners/friends, which expands my social relations.

The graphics (Fig. 169), show the different aspects. The results of this workshop and method were so positive that we consider we should carry out more activities like this. The interpretation of the separate data, apart from the general score, showed some of the students' preferences. From this evaluation, it appears that students consider it is vital to involve the population (N2-3), validate the participatory experience (N2-5) and enjoy it (N2-23), and they would repeat it voluntarily (N2-28). Other highlights show that all the participants agreed these types of activities are useful for their future and benefit them (N2-27-MOT) and participants fully agreed with the idea of establishing an academic course for a 1:1 co-creation and self-build workshop for ecological and/or social purposes (N2-25-PED). The activity was rated as successful in terms of group work (N2-15), with good communication between students (N2-12) and interest and interaction with the public (N2-22). Participants validated it as a tool in urban projects and academic pedagogy (N2-1). In addition to the participatory aspect and the scope of the message, they considered that this 1/1 experimentation and the prototypes helped them to understand more about architecture and structures (N2-9). If we compare the three experiences, we can see quite similar results, although the first, carried out in Oaxaca, had slightly better results in all aspects. It seems that students agreed a little less on the shorter experiences in Barcelona on some points, although evaluations were still respectable. They agreed on the above points, but were a little less convinced about whether the visitors had understood their intentions (N2-7 PAR), whether this type of workshop can change mentalities (N2-8-PAR), and that by working on the site, they had learned about the place or could imagine how the place could change (N2-10-PED, N2-11-PED). This is without a doubt related to the fact that these workshops were shorter experiences, with a lower budget allocated to the project. In a longer experience, this aspect could be improved. In fact, in the experience that lasted eight months, the topics could be explored in much greater depth. The three experiences show how students yearn for the full academic year experience using this method (N2-25). Finally, we deduced from the quantitative study that this type of co-creation workshop has a promising future in architecture schools, to respond to a real growing demand for urban planning and architecture in a collective, participatory and creative way.

Conclusion

Clearly, the integration of co-creation, self-build and co-construction workshops as a participative and pedagogical tool in urban processes generated positive feedback. The use of this type of tools, with participation at the two levels of student and citizen, is of greater interest and produces a virtuous circle. Students develop skills in architecture for their degree in a different way, working as a team and as a community, and providing a positive urban response in the urban space. They interact directly with the local population, which participates actively in the project.

Beyond the methodology, one of the objectives of this type of research is to illustrate how participative dynamics can be created at neighbourhood scale in a playful and a creative way that could provide solutions to problems related to abandoned spaces in the city of Oaxaca de Juarez and to the problems linked to the waste of urban space in Barcelona. Consequently, the implementation of co-creation and co-intervention workshops in the urban space can be methods to transform the city gradually. Although all the interventions presented here were temporary, it can help to teach citizens and give them some ideas about what could or should be done through open DIY workshops. The participants are receptive and aware of the evolution to a new paradigm due to the urban installation. The results identify this as a fun method, which, when it is adapted to other urban situations, can easily be combined with the participation of students, or directly applied to the local community. Some aspects of the process could be improved. First, as shown in the results, improvements should be made in how citizens are invited to participate, to increase inclusivity. For example, formal questionnaires can be administered and feedback obtained. The methodology could be enhanced, with new experiences and more appropriate theoretical context, to better target the participatory experience. Should the emphasis be on community planning or on the bottom-up process?

Although it was possible to generate a participatory activity with an interesting artistic and community dimension, the collection of information as an objective to diagnose needs was limited. For example, it was not possible to collect information on the people who participated, with their ages, sex, etc. In the case of the 8-month workshop in Mexico, the urban DIY activity generated interest in the local community, to produce a creative space that generated conversations, opinions, claims and interventions in the place. All three experiences of the TEA/OSW should be understood as participatory tools for direct intervention, generating participatory conversation, rather than rigorous collection of diagnostic information on the needs of the population or the image of the works, for example, from the Col·lectiu Punt 6. It is therefore a possible future development path for co-creation workshops with the student body.

Another problem we had to face was the lack of funding. This type of workshop is still difficult to insert into university study plans, perhaps due to its cross-cutting vision. This experience, which is now continuing with new workshops, the next hopefully in Puebla in Mexico in 2020, will perhaps have similar results and could be a new way of teaching architecture and urbanism, with a holistic method that covers all facets of architecture work and much more.

3.3 Urban Notes: sketching and participation

Inspiration and definition

Urban notes is an entertaining community activity, in which architecture students and in some cases, associations and neighbourhood groups share a pleasant moment, exchange visions and ideas about the place, and so bring architects into closer contact with residents. The teaching objective of the new subject is to present the methodologies of urban and architectural analysis through hand drawing (urban sketching) and other mixed techniques (hybrid drawing). Urban sketching allows artists first to observe a reality, become aware of it and provide their own interpretations. It provides a channel for dialogue between participants to develop urban strategies.

We have been able to use the Urban Notes method informally on various occasions, such as awareness workshops with inhabitants of Barcelona (historical centre, Barceloneta, Gracia, San Andreu, etc.), in workshops such as the TEA - Upcycling the Railway Station in Oaxaca de Juarez and the Anna Piferrer participatory process in Vallcarca with Raons Publiques. More recently, we have held Urban Notes as an elective course for the ETSAB since 2019. Here, we present this first formal experience, with the Poblenou neighbourhood as the main theme, specifically the neighbourhood around the axis of the Pere Eix IV street. This neighbourhood, formerly called the Catalan Manchester, has recently undergone a dramatic and radical transformation with the development of 22@, in a place with many contrasts. The objective was to understand at street level what is happening in the neighbourhood and to develop a collective strategy through urban drawing on the street, collective maps, exploratory routes and local associations such as the TAULA EIX PERE IV. One of the challenges was to propose open drawing sessions in which anyone could come to draw. On these occasions, we counted on urban sketchers who live in the neighbourhood who gave their opinions. This work was coordinated by Bruno Sève, with the collaboration of Zaida Muxi and Arquitectos de Cabecera (AC). The experience took an unexpected turn with the emergence of the Covid-19 health crisis, and lockdown in the middle of the course. As a result of this unexpected situation, new dynamics had to be developed for online co-creation.

The workshop was evaluated through a student feedback questionnaire. The results show that the student body considers the workshop motivating, participatory and of clear interest to their studies.

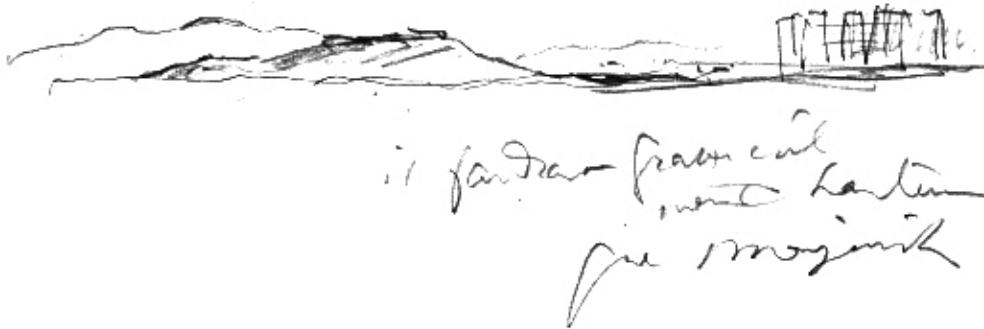
Drawing on the streets, drawing while travelling, drawing to be aware

Perhaps we should approach drawing in the street as a kind of field work, in which an architectural, artistic, social and anthropological approach is taken. Who does not remember the illustrations in Le Corbusier's notebook compiled in *Voyage d'Orient* (1910-1911)? The book certainly has purely literary qualities and is accompanied by pencil and ink sketches, with aquarelle expressing the main ideas and the progressive transformation of the author's personality during his trip that led him to Prague, Vienna, Budapest, Istanbul, Mount Athos, Athens, Pompeii and Pisa.

The sketchbook (or field book), is the main support of our activity. It basically reflects all the student's drawn and written thoughts. By putting all these ideas together and by carrying out group dynamics, a collective proposal can be built. If a sketchbook is used every day, it represents not only a means of data collection and expression, but also reveals our transformation as an individual over a lifetime. Frank Harmon, architect and author of *Native Places* (2018) explains that he remembered a place better if he drew it instead of taking a picture, and that he could even remember it forever. This contrasts with the fleeting or tourist photography and the famous fashion for Instagram. At some point, we have probably all failed to recognize a place or moment captured in a digital photograph that has perhaps been forgotten in a folder on our computer.

Drawing is a conscious act that forces us to make a commitment to and impregnate ourselves with the reality of a space in a given time. This can explain why we can remember these moments throughout our lives, taking us to a deeper level of reflection and observation. In fact, drawing has a therapeutic power because of its meditative qualities. Like other arts, it can help to relieve stress, depression and fear, and permits personal achievement (Malchiodi, C.A., 2013). When we draw our built and natural environment, we create full awareness of the present moment and of the scene in front of us. During this relatively brief moment (one hour, two hours or five hours), something happens to us: we develop full awareness of what we see, with which we can later associate smells, noises and an image that has already been interpreted. Another virtue of drawing compared to other means of collecting data is that we interpret a place *in vivo*, according to our cognitive vision. On his trips to the East in 1911, Le Corbusier changed the orientation of his sketchbooks to integrate the horizontality of urban landscapes when he drew from frontal perspectives, from the sea (Talenti S., 2015). He also used photography, although he clearly stated his preference for drawing in a 1960s interview:

"I bought myself one of the little kodak cameras that Kodak was selling at six francs so they could sell film to all the idiots who use it (I was one of them), and I noticed that by



entrusting my emotions to a lens I was forgetting to have them pass through me - which was serious. So I abandoned the Kodak and picked up my pencil, and ever since I have always drawn everything, wherever I am” (Benton, 2012).^{55,56}

In addition to relating the use of the sketchbook to architects and to artists, it has also been used by anthropologists and artists to help illustrate their work. Examples are Conrad Martens, the artist who accompanied Darwin on HMS Beagle to survey the Straits of Magellan. Current examples are the Urban Sketchers community that emerged as a group on the image sharing site, Flickr, in 2007 and is a grassroots global community of artists that draw on location in the cities, towns and villages they live in or travel to.

Bird's eye view and loss of human scale

“No one can find what will work for our cities by looking at ... suburban garden cities, manipulating scale models, or inventing dream cities. You've got to get out and walk” (Jacobs J., 1958).

Perhaps the emergence of urban sketchers, such as that of participatory urban planning, is also associated with a lack of connection with reality at street level. If the twentieth and twenty-first century have brought new technologies that facilitate and, above all, accelerate the urban project, by providing access to innumerable online data and being able to work, perhaps it is also possible that we rely on these technologies too much. Could it be that we have to know how to combine these technologies and at the same time revalue and reinterpret traditional practices (like drawing) at street level? Perhaps we need to combine these points of view and work in a cross-cutting way?

In the first chapter, we mentioned how we can consider two main ways of conceiving the city: organic and town planning. In the search for ways to plan the city, the grid that was used by the Greeks appears in the reconstruction of Miletus, then it was used by the Romans, and again in the industrial and post-industrial city. But what about the relationship between urban planning and the perspective that we urban planners adopt to study and see cities and their territory?

55 “...je me suis aperçu qu'en confiant mes émotions à un objectif j'oubliais à les faire passer par moi, ce qui était grave, alors j'ai laissé tomber la Kodak et j'ai pris mon crayon et depuis, j'ai toujours dessiné tout et n'importe où”

56 Quoted by Benton, Tim: “Le Corbusier photographe secret”. In Herschdorfer, Nathalie et Umstätter, Lada (Dir.): Construire l'image. Le Corbusier et la photographie. Paris: Textuel, 2012, pp. 30-53, cit. p. 49.

Figure 170

View of Barcelona from the sea, 1932. FLC, carnet C10, no. 636



Figure 171

View of Sao Paulo from the road. FLC, carnet B4, no. 260

For Le Corbusier, this is the practice of drawing from numerous perspectives (the human scale on the street, in boats and from the sky, with flyover procedures) that becomes an instrument of the urban project (Talenti S., 2015). For Le Corbusier, the perspective of the walker, who discovers, walks through and penetrates the city, allows one to appreciate the place's complexity but not necessarily understand it. This appreciation of the constructed space through walking is documented in various ways in various contexts, using notes, drawings and photographs. Thus he discovered urban complexity in the labyrinth of the casbah. He said about Buenos Aires: "I walked many streets ... I looked, saw and understood ..." ("J'ai parcouru à pied nombre de rues... J'ai regardé, vu et compris...") (Le Corbusier, 1930, p.35), or in Sao Paulo, he represents a peaceful moment of a journey, with the urban landscape and topography on one side, but also a donkey carrying a load. However, Le Corbusier considered that if pedestrians want to understand the city and its territory, they must get to a high point, to be able to observe the urban fabric from above:

"From up in the favellas one always has a view of the sea, the harbours, the ports, the islands, the ocean, the mountains, the estuaries; the black sees all that...; there is pride in the eye of the black who sees all that; the eye of the man who sees wide horizons is prouder, wide horizons confer dignity; that is the thought of a planner..." (Le Corbusier, 1930, p.7.)⁵⁷

In this quest to understand the city from above, to be able to understand it in its entirety, Le Corbusier began procedures to fly over urban centres. This enabled him to understand the totality and the greatness of the natural and built landscape (Talenti S., 2015). In 1929-1933, the architect flew many times over cities and territories in South America and Algeria. He drew and photographed these from an aerial perspective to better understand the territory and its characteristics. According to him, the view from above in a plane allowed him to carry out work representing synthesis, conciseness and tear off "with a glance of a gliding bird all the secrets that it hid so easily from the poor earthman on her two feet" (d'un simple coup d'œil d'oiseau planeur tous les secrets qu'elle cachait si facilement au pauvre terrien sur ses deux pieds) (Le Corbusier, 1930, p.235). In his notes, the architect criticizes the old Europe in general, including "l'extrême cacophonie of Barcelone."⁵⁸

57 "Du haut des 'Favellas' on voit toujours la mer, les rades, les ports, les îles, l'océan, les montagnes, les estuaires; le nègre voit tout cela...; une fierté est dans l'œil du nègre qui voit tout ça; l'œil de l'homme qui voit de vastes horizons est plus hautain, les vastes horizons confèrent de la dignité; c'est une réflexion d'urbaniste..."

58 FLC, carnet C10, n. 645.



Figure 172

Le Corbusier, Plan Voisin for Paris. Source: FLC/ADAGP

In The bird's eye view (Le Corbusier, 1935), Le Corbusier considered that a view from above provided a new scale for apprehending the world and a new way of approaching the construction of our cities. For people today, the invention of satellite photographs and their incorporation into the internet (Google Maps, Bing) has taken this practice even further. However, this way of working and studying simplifies the urban study too much. Hence, we must consider the urban study not only from cross-sectional realities (sociological, architectural, economic and landscape views), but also from a cognitive experience at street level. This vision was supported by Jane Jacobs. In fact, she discredited many accepted planning models that dominated mid-century planning (Klemek, Christopher, 2011), especially when she attacked Moses for “replacing well-functioning neighbourhoods with Le Corbusier-inspired towers” (Glaeser, E. L., 2007). In *The Death and Life of Great American Cities*, Jacobs provides an in-depth analysis of the city as a set of interrelationships between the inhabitants and the physical and intangible spaces. The city is the result of everyday public life, a product of the urban domestic, called to sustain the common life of its citizens. Therefore, it should not be ordered according to rigid urban principles, since the essential nature of the urban is that it behaves like an adaptive system that obeys a complex, specific order. In this vision, the city behaves as an open system that can offer different responses to changing conditions. In the maximum expression of the urban, the street is a resource for the sustenance of collective life. Referring to Le Corbusier and *Ville Radieuse*, Jacobs writes:

“The man with the most dramatic idea of how to get all this anti-city planning right into the citadels of iniquity themselves was the European architect Le Corbusier...”

“...Le Corbusier was planning not only a physical environment. He was planning for a social Utopia too. Le Corbusier's Utopia was a condition of what he called maximum individual liberty, by which he seems to have meant not liberty to do anything much, but liberty from ordinary responsibility. In his *Radiant City* nobody, presumably, was going to have to be his brother's keeper any more. Nobody was going to have to struggle with plans of his own. Nobody was going to be tied down”.

Today, in the search for humanisation of urban space, there has been a lot of improvement in the urban planning context, as is the case of Gehl, who was recognised as a fervent follower of Jane Jacobs, and in that of other urban planners such as Joan Busquets who incorporated numerous urban facets into the urban project. Finally, numerous urban planning groups have emerged that start directly from user experience, like the example quoted in this research. However, we must consider that the nature of a study for the urban project should in the future continue to move between a synthesis approach and a bottom-up one. It should be recognised that the urban project and urban transformation is not in itself architecture

(which is usually carried out with strong concepts), but the sum of a complex system. In this model, architecture represents only part of the model, which must be appreciated not only from a plastic point of view, but from a multitude of facets. The invention of geographic information systems (GIS), with data analysis and interpretation, has improved this aspect, but it carries the risk of further distancing professional practice from local communities. In this sense, a case-by-case study must be carried out in the field so that we can understand this reality. In this model, the urban planner (and the apprentice in an urban project) must be able to record, represent and interpret this urban cultural wealth at street level, and then be able to use it in observation, diagnosis and the urban project.

Therefore, in the framework of this research, we want to provide a clear and simple manifesto. Although there are impressive technological resources today, such as Google Map or Geographic Information System (GIS) technology for urban planners to study the urban field, these cannot and should not in any way supplant a vision and lived experience (and by extension gathered experience) at street level. If this vision at street level can be collected with photographs or even recorded with video cameras (as was done by Col·lectiu Punt 6), drawing and other notes remain a unique way of giving a personalised vision by allowing conscious observation of the place. Hence, we can imagine urban sketching as fun or a generator of community. It also seems essential to us as a practice in architecture (and urban planning in universities) if of course it is linked to participatory dynamics, with exploratory routes involving associations, etc. This reconnection with social and urban reality can help to partially solve the urban project. Or at least, this is what we seek to demonstrate here. We consider that an unexplored research path is the delivery and evolution towards a hybrid drawing practice, which mixes points of view as well as technologies and hand drawing.

Drawing as a process: a tool for participation

“Every child is an artist. The problem is how to remain an artist once we grow up.”
Pablo Picasso

Drawing in architecture, and more specifically freehand drawing, is a basic design tool. Whoever draws freehand, whether an architect or someone who draws en plein-air, knows more than anyone else that drawing is a fantastic observation and thinking tool that no other medium can match. However, with an increasing number of digital tools available, we should ask why the sketch remains one of the most valuable means of representation in the field of architecture and urban planning, and why it can be equally valuable when traveling to see a neighbourhood or a building, or as a participatory tool. However, with the arrival of new technologies, representation in architecture has been transformed dramatically.

Powerful innovations in renderings, 3D models, parametric drawings and virtual reality can transmit a realistic, finished aspect to a given design. However, sketches allow us to freely express our creativity, with a quick gesture, a convenient level of inaccuracy that expresses an intuition, and the abstraction and simplification of a series of elements.

With the same conviction as Viollet-le-Duc, when he said “voir c’est savoir” (Viollet-Le-Duc, 1879, p.302), Le Corbusier already saw in drawing a tool that allows us to record active, conscious visions: a manual gesture but also an intellectual act of knowledge and selection (Talenti S., 2015). In contrast, a render represents a finished product, rather than the idea of the project as a process (Gian Carlo Di Carlo, 1969). Javier Fco. Raposo Grau (2014) explains that we should consider “Drawing as a process, versus drawing as a solution, which means validating a pedagogy that values the different moments of creative speeches, versus project’s pedagogies, where the final result of the process is valid as a close, encoded solution.” Understanding drawing as a process (not a result) in which aesthetics is not the real purpose is a pedagogical method that is valid in our schools of architecture and in the field of participatory processes.

Call it a sketch, action drawing or mapping, the drawing has many versatile uses in the participatory process. Drawing can be practiced alone or in a group. Sanoff (2000) explains that participants in brainstorming workshops rely on drawings or writing to reach consensus. Brainstorming activities are difficult to imagine without the use of notes and other drawings.

In the recent experience of “Sketching Together”, participants sit down together and draw ideas, which produces “an informal mode of interaction that, over a few weeks’ time, can create bonds of trusts between designers and community members and provide information and insights that are not accessible through formal processes” (Alomar R. 2017).

The creation of maps from users’ visions can build up collective mappings. Of course, here we could mention the work of Kevin Lynch again, as well as new groups that use maps as a way to diagnose, claim spaces or make decisions in urban planning contexts. The construction of a map constitutes a way to gather collective stories about daily lives, and forms a platform that makes certain meetings and consensus visible, without flattening diversities, since they are also reflected (Iconoclastas, Risler Julia & Ares Pablo, 2013). Col·lectiu Punt 6, which works on urban space from the gender perspective, uses variants such as collective mobility maps in which each participant indicates their daily life network, as well as perceptual maps and body maps (Mapas Corporales), to understand feelings and emotions (for example, insecurity or fear) that can be caused by a given urban space (Col·lectiu Punt 6, 2017).



Figure 173

Urban Notes. Students and participants drawing in Can Ricart.

Drawing can be practiced directly on-site. The experience of Urban Notes that we present here is a field experience that we are developing in the Barcelona School of Architecture (ETSAB) to raise awareness through exploration and collective observation. It is inspired by urban sketching and on-site annotations, to immerse students in the daily reality of a local community. At the end of the sessions, the sketches are gathered in a collective map showing users' needs, the characteristics of the place and initial proposals. This can take the form of a storyboard, in which various scenarios can be imagined. As in all the other experiments mentioned here, this practice is used as a catalyst for conversation on urban improvements. One of the keys to our experiment is to consider the various ways of using drawing: as a process, individually, in groups, in-situ, with collective maps, but also in the end as a product of communication and debate. Similar experiences are the exemplary work of students from ENSA Paris-Belleville on the Calais Jungle, in the form of an architectural, urban and human survey of the informal camp built after the start of the refugee crisis in Europe in 2015 (ENSAPB, 2015) and relatogramas by Carla Boserman, which are visual narratives that contain pictures and words to record a situation. They are made live, while things happen, by one person or several and they have many advantages compared to new technologies: they highlight details, they can be drawn intentionally but they also give a voice to the person drawing, as they incorporate his/her vision.

Results. Urban Notes 2020: Pere IV and Poblenou

Context

Urban Notes is a simple, playful, creative participation tool to explore the environment of the group project through a quick outline and conscious, intentional observation of the place. The objective is to create a fun community activity, in which the neighbours, the architecture students and the technicians share a pleasant moment, exchange visions and ideas about the place, and bring the architect and citizen into closer contact. It also serves as a first point of contact with neighbourhood associations. It is based on a reinterpretation of the experience of Urban Sketching, in which a group of people share a moment of the day to draw an urban reality. The routes and sessions of urban drawing or sketching in groups can improve observation, data collection, analysis, diagnosis and intuition before a project.

Urban Notes 2020 was carried out in the Poblenou neighbourhood around the Pere Eix IV axis, which is a 3.1 km road with 42 listed buildings on it. It was also known as the old Mataró road, as it was the exit for Barcelona towards the Maresme coast. The first section of the road is in Provençals de Poblenou, the second section is in Poblenou and the final section is in the Parc i la Llacuna del Poblenou, all located in the Sant Martín district.



Figure 174, 175

Urban Notes, In-situ sketch presentations with Lapin.
Source: author

To simplify, we call all this area Poble Nou, since all three neighbourhoods were formerly included in the traditional Poble Nou before 2006. This area was one of the inhabited nuclei of the former municipality of San Martín de Provençals, which soon became an area for industry, inhabitants and agricultural businesses that were previously located in San Adrián de Besòs. Known as “The Catalan Manchester”, at the end of the nineteenth century it became the area with the highest concentration of industry in Catalonia and one of the largest industrial areas in Spain. Poble Nou was at that time the epicentre of Catalan and Iberian industry. When the industrial buzz passed, the neighbourhood fell into a state of abandon after a period of decay. In the 2000s, the city went through a post-industrial transformation to take advantage of this infra-used, mixed productive fabric. The urban plan is organised in clusters, with clean industries, information technologies, media, and other high-tech components. This is a private and public urban project to attract investment: the increase in density (in height) is permitted with a corresponding cession of public area ($\frac{1}{3}$), so that a certain part of the area can be allocated to social housing, public space, or other public entities. Although the plan was to create a mixed vision, the neighbourhood (like the city itself) has suffered gentrification and social exclusion, as in many parts of Barcelona. Quoting the team of AC (Arquitectos de Cabecera, 2019): “Today in Barcelona, over 35,000 families are on the Register of Housing Applicants waiting for social housing; 3,000 people are homeless, of whom 900 sleep in the street. As a city we suffer 10% of energy poverty, 7 evictions daily, empty floors of buildings, a type of offer that does not fit the demand, a system of housing stock still stuck in ownership and rent, and a public offer of housing that is unjust for a city that exports its urban model everywhere and does not reach 2%.”⁵⁹ It is in this general context that the Urban Notes workshop was proposed, in which students had to make their observations and invent urban strategies. This task can be located upstream in the urban project, as in a previous urban study.

Methodology and organisation

The starting point of Urban Notes is an elective drawing course based on several participatory activities but always using drawing practice: co-creation workshops (brainstorming with drawing), urban tours with associations, urban drawing sessions in places chosen by students based on the routes, collective maps, etc. In this first formal edition, we opted to work in

⁵⁹ TTAC19 Poble Nou, QUÈ, AMB QUI I PER QUI Taller Temàtic Arquitectes de Capçalera ETSAB-UPC Curs 2019-2020 Primer Quadrimestre. Catalan version: “Avui a Barcelona més de 35.000 famílies són inscrites al Registre de Sol·licitants d’Habitatge a l’espera d’un habitatge ajustat a la seva renda; hi sobreviuen 3000 persones sense llar, de les quals 900 dormen al carrer; com a ciutat patim un 10% de pobresa energètica, 7 desnonaments diaris, pisos buits, una oferta tipològica que no s’adequa a la demanda, un sistema de tinences encara encallat en la propietat i el lloguer, i una oferta pública d’habitatge -ridícula i injusta per una ciutat que exporta arreu el seu model urbà- que no arriba al 2%.”



Figure 176, 177

Urban Notes. Lapin in action.
Source: author.

Poblenou, in collaboration with Arquitectos de Cabecera, a collective that had already been working with students on the site for a semester, on La Escocesa, which dates back to 1852 and is a vestige of the golden age of the Catalan Manchester. Initially dedicated to the production of chemical products for the textile industry, like many of the disused buildings, La Escocesa has been reclaimed and is now used as a creative space and meeting point for artists. Today, it is self-managed provisionally by La Associació d'Idees, a group of artists from different disciplines with a long history of regular work in the factory.

In the Urban Notes 2020 experience, 17 students are participating in the elective workshop, 10 women and 7 men. The elective course has twelve three-hour sessions on Friday afternoons from February 2020 to June 2020. Here, we present the initial scheduled version that was to be carried out, and then the transformations required in the second part due to the international health crisis of Covid-19.

- **Theoretical class (TC).** An initial class with theoretical contributions on the following themes: participatory urbanism, emblematic figures and groups, drawing as a process and urban drawing.
- **Walking tours with the neighbourhood association Pere Eix IV (WT).** Students along with the association's participants were invited to take notes and draw freely. The route was around the Pere Eix IV axis, from its most peripheral section (Provençals de Poblenou) to its most central (Parc i la Llacuna del Poblenou). The tour has revealed various contexts that will be worked on, with old industrial premises that still exist or have already collapsed and other symbolic spaces: Ca L'Isidret, which is close to the Colores Hispania Factory, La Escocesa, the park in the centre of Poblenou, Can Ricart, the Beckett room, the old building of the cooperative Pau i Justícia, the Rambla del Poblenou, and the passatge trullàs, a symbolic enclave, which was presented by the neighbourhood association as a space that was already popular in the second half of the nineteenth century with its own popular event. It ended up becoming over the years a half-abandoned dead end until the neighbours began to mobilize to claim it.
- **Open Urban Sketching Session (OUSK):** a total of six urban drawing sessions were prepared to draw places already seen on the routes: Can Ricart, La Escocesa, Passatge Trullas, Rambla del Poblenou, and two sessions to be chosen by the students. Each session was presented in an open way, with promotion on the OUSK website and on Sant Martí district social networks, to include other participants and gather external visions. In the first session on Can Ricart, held on 6 March 2020, we were lucky to have six urban sketchers who volunteered (apart from our seventeen students), four of whom lived in the Poblenou neighbourhood. This meant that the session could include a personal vision of

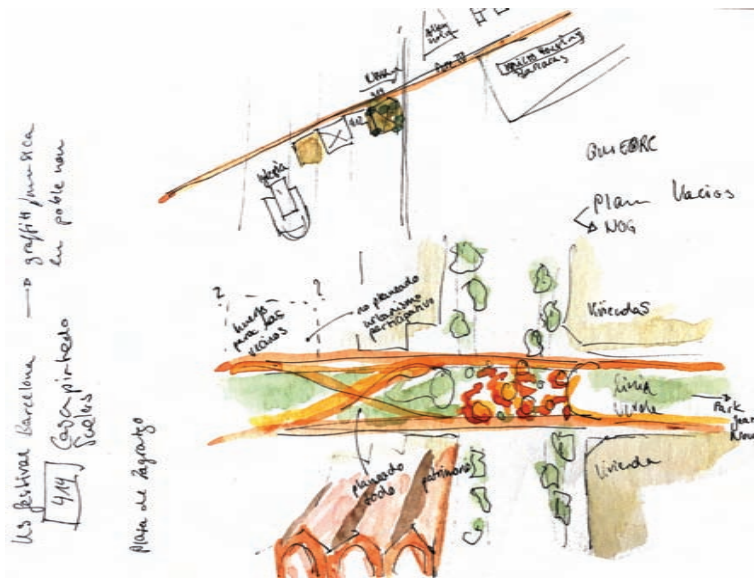


Figure 178

Explaining sketches.
Author: Vanessa Jansen.

the neighbourhood. Lapin, a professional illustrator participated that day and explained his personalised vision of the place, which is reflected in his book *Poblenou. Illustrated atlas of an industrial neighbourhood* (2018). According to Lapin, the heritage and social fabric of Poblenou is undervalued. He explained that he began to draw the places of Poblenou to remind the neighbourhood what he fell in love, which he saw was quickly fading. He also gave advice on drawing, from an illustrative point of view, using curvilinear perspectives. As a starting point, open sessions allow meetings that enrich the experience and the data collection.

- **Co-creation sessions (CO):** three co-creation sessions were planned. The first was to define themes on which to work, and the last two were to work on collective delivery. These sessions should have taken place in a round table with “snowball” dynamics in which the participants, in this case students, first meet in small groups of three people and then form a larger group of six until they reach the total number of participants. Rather than reaching the idea of consensus, the exercise had to consist of creating a discourse and a relevant manifesto about the place under study.

- **Final session (DS):** The final session was to involve an exhibition at the ETSAB and in Ca L’Isidret, with round table sessions.

Covid-19 and workshop transformation

On 12 March 2020, Spanish President Pedro Sánchez recommended halting face-to-face teaching in Spanish universities. All autonomous communities adopted this measure and decreed the closure of all educational centres to stop the expansion of coronavirus (Covid-19). On 15 March, the state of alarm was decreed and a flexible lockdown imposed, which was followed by a stricter lockdown, in which workers in non-essential activities had to stay at home.

This was an unprecedented, complicated situation, in which we had to rethink the workshop very quickly. At the time, it seemed that the experiment would fail due to the circumstances, although this was not so important given the severity and emergency of the moment. However, with clear guidelines for teaching online at the Universitat Politècnica de Catalunya (UPC), a new challenge emerged, namely how to transform a workshop that consists of people meeting in the urban space, so that it can go ahead during lockdown. As we were aware that the situation and measures were going to last for much longer than the first two weeks announced in mid-March 2020, we decided to choose to consider the workshop as a long-term project using the available digital tools.

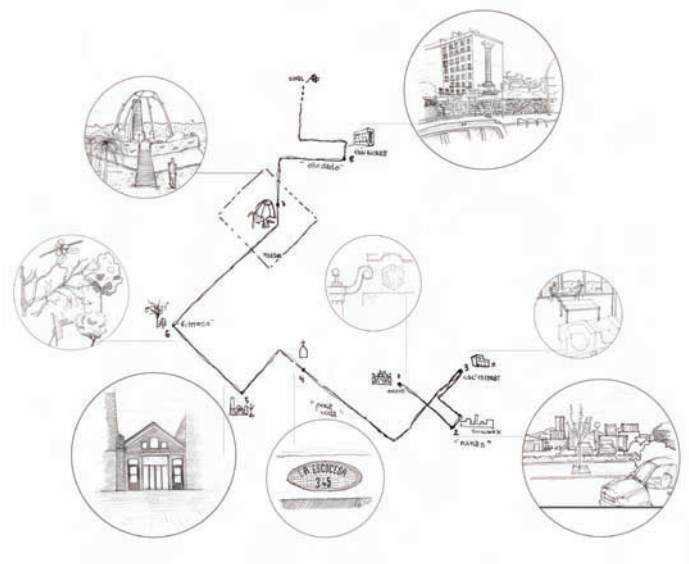


Figure 179

Mental map.
Author: Pol Soto.

The last face-to-face workshop (OUSK) was on 9 March. At that time, we had already provided a clear idea of what Urban Notes was about. We had completed the theoretical class (TC) and the tour with the neighbourhood association Pere Eix IV (WT), in which the students had made an effort to take notes, drawings and photographs of the places visited, and we had completed two (of the six) Open Urban Sketching (OUSK) sessions on the Rambla del Poble Nou and the old industrial complex of Can Ricart. However, we had not been able to carry out any co-creation workshops.

We then proposed to change the modus operandi of the workshop, without altering its essence. It would become an online workshop, in which drawing was a fortress to relieve the stress of the situation. The idea was to adopt the idea of a kind of therapy, a work of individual introspection that could be shared and discussed collectively. The scheme in the taxonomic template illustrates this change. Therefore, in the first workshop in lockdown, we chatted about the situation, with Erasmus and local students who had generally returned to their usual homes in New York, Munich, Lausanne, Barcelona, and other cities and regions of Catalonia and Spain. We agreed on the main idea to work on two different topics:

First the Poblenou theme, since we believed that an impressive amount of data had been collected, between notes and sketchbooks, recordings and photographs that were now shared online. In addition, we considered that the situation provided an opportunity to lean on the internet and map application servers such as Bing or Google Maps, using unusual axonometric points of view etc., without overlooking the images and all the references that can be found online.

The second, freer theme was on domestic space and drawing. Since drawings from home were going to be asked for in the workshop instead of on-site drawings, students were also asked to draw spaces and objects that they saw in their houses and to focus on the present moment and their feelings at that time.

To develop these themes and continue advancing towards the return to the neighbourhood, the online Urban Notes workshop consisted of two main types of action:

1. A collective action, with an online meeting (meet.google) involving a round table where we meet every Friday at the scheduled time to develop a proposal and discuss the progress of the workshop. For this collective action, students must also meet electronically outside the workshop to organize themselves. This action is in some way the co-creation workshop adapted to a digital format, in which the role of online networking, with shared folders, is predominant.



2. An individual action, with the drawings to be developed in the two themes. Instead of looking for the same spontaneity of urban drawing, we decided to work with slower techniques. The idea was to work slower and prioritize quality over the quick gestures that the street can provide us. Participants were reminded of the therapeutic and meditative advantages that drawing can provide, as well as its virtues of self-accomplishment. In addition, each student looked for references on the internet to work towards a personal drawing style goal and gradually form their own style.

To continue making progress on the issues, we decided to move forward with these two actions each Friday. First, we decided on themes and concepts to develop. In the collective online action, the snowball dynamic was developed in a similar way to the conventional method. A mental map of the walking route carried out with the association (before lockdown) was drawn up by students and then the route was discussed as a group. It was important to decide on groups of topics to work on a conceptual manifesto. Gradually, an attempt was made to integrate and organize these decisions from individual to collective level to construct together the final product that will serve as a possible exhibition once the lockdown has been lifted. Every Friday the students are invited to demonstrate their progress in front of each member of the group, and little by little the collective goal is being reached.

Hand-in presentation: final product and feedback

As a final part of the workshop, students are invited to create an exhibition format for the collective works. However, the lockdown in response to the Covid 19 crisis obviously affected the workshop and any potential exhibition. So the group of students suggested that the works could be exhibited online using an Instagram account (**@urbannotes_etsab**). The idea was not to present a specific proposal, but to generate a debate around the drawings, the place and the communities. From the previous sessions, three working groups were formed with different approaches.

The first group decided to work on the forms of appropriation of space, defined as follows: “The drawings and notes on this theme are represented through the movement(s) and visible and invisible marks that neighbours make to appropriate and occupy space. For example, there could be spaces that are literally made by people themselves or abandoned buildings occupied by neighbours-neighbourhoods, a community or a group of people (such as artists or children). The spaces may be dressed in graffiti, thematic, occupied or given a future local purpose. Poble Nou has spaces that are formally abandoned, but spiritually and socially occupied. In our drawings and paintings, we hope to show and create these types of spaces; a contrast between the visible and invisible. Revealing what is actually there (the

Figure 180

Can Ricart. Group Identity.
Author: Marlene Stechl.

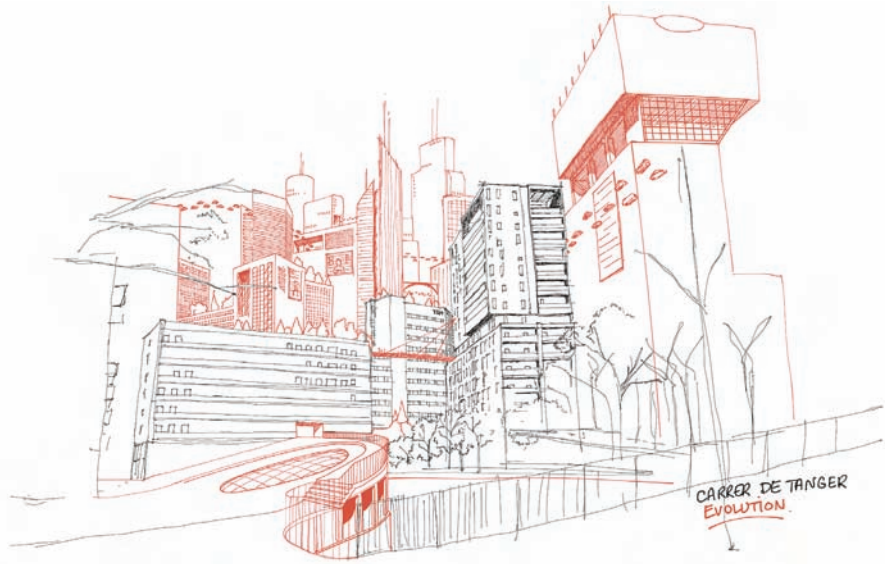


Figure 181

Dystopic futures in Poblenou
Author: Ronald Moucadie.

visible) and how the space functions (the invisible) are two different stories that intertwine. We want to show which identities the communities create in response to the upcoming anonymity of hotel and investor businesses” (Students: Griselda Valverde Conill, Vanessa Jansen, Jasmine Perez, Selva Vallverdú, Pol Soto and Ricard Ellis).

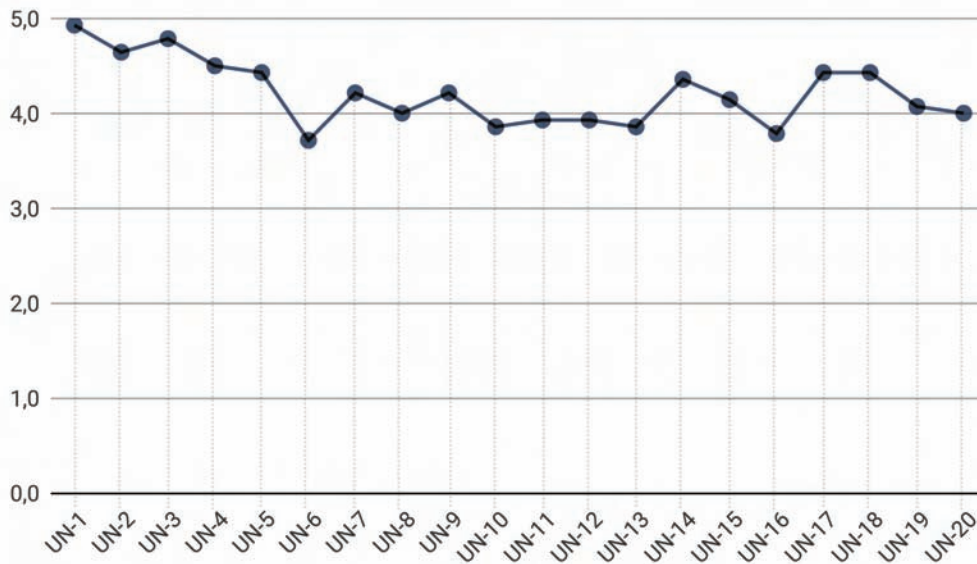
The second group worked on the identity of Poblenou, with all its contrasts and fragments of ancient cities that stand next to recent skyscrapers. There are transformed architectures, with a new use, new façades and new colours. There are old architectures whose future is uncertain but has obvious possibilities for reconversion, according to the students. Students Marlene Stechl and Louisa Herzog stated that “it is a question of documenting the existing buildings that we consider important for the identity of Poblenou and some of them will probably disappear within the next decades” (Students: Carla Roth, Louisa Herzog, Marlene Stechl and Pol Soto).

Finally, the last group called itself “Utopic and Dystopic Poble Nou”. One of the participants, Anika Zeman, described Poblenou as “a high-contrast district in many aspects. Modern skyscrapers tower above old rotten barracks, street art graffiti covers up patriarchal ruins, you can see planned urbanism versus abandoned thicket, 22@ versus Pere IV, tradition versus innovation, community versus investment... The aim of the exercises is to show (subjectively) the future prospects, the development of certain spaces, things, buildings and atmospheres, in both their best and worst possible formation.” Another, participant, Ronald Moucadie, stated that “the disappearance of today’s heritage is a warning signal about the disappearance of a lifestyle. The reinterpretation of abandoned places makes it possible to link the style of the past with the aspirations of the future, and this can be achieved despite the excessive new real estate constructions appearing in the district” (Students: Anika Zeman, Ronald Moucadie and Ricard Ellis).

Student feedback

Students’ assessments of the experiences are as important as the experiences themselves and perhaps even more so. Generally, students considered Urban Notes a collective work that could be used for big urban projects involving a number of participants, including external actors. It could shape new ways of working in architectural and urban offices. Its implementation in an academic environment improves motivation, involvement and satisfaction in the process of developing an urban project.

Sixteen students participated in this experience in 2020: 10 women and 6 men, from 21 to 28 years old and all of them between the 3rd and 4th year of the degree in architecture.



Quantitative aspect

We devised a method to measure the experiences quantitatively, similar to that used in the TEA/OSW experiment. We asked participants, who are now professionals, to answer a questionnaire using a Likert scale to rate from 1 to 5 their level of agreement with statements. The questionnaire contained 20 statements:

- UN-1 Freehand drawing is a tool of vital importance in the architectural or urban project
- UN-2 The use of freehand drawing to visualize projects is useful for understanding
- UN-3 With Urban Notes, I feel that I have improved my freehand drawing skills
- UN-4 Hopefully, I will use more freehand drawing and hybrid drawing in my urban and architectural projects
- UN-5 I am motivated to use freehand drawing in the initial phase of projects
- UN-6 I am motivated to use freehand drawing in the presentation phase of projects
- UN-7 In-situ sketching allows me to understand and learn about the place
- UN-8 In-situ outlining helps me to discover and learn more about the inhabitants of a place
- UN-9 In-situ drawing makes me feel like I've learned about the place
- UN-10 I am motivated to use freehand drawing to communicate ideas in a round table
- UN-11 When drawing in a round table, the dynamics are more participatory
- UN-12 I feel we have reached a consensus with the whole group
- UN-13 Urban Notes can be an outstanding way of working creatively on urban projects collectively
- UN-14 I remember more of a place when I draw it than when I photograph it
- UN-15 I find it really interesting to work on real issues, as we have done in Urban Notes
- UN-16 Drawing as a participatory activity with the inhabitants is interesting
- UN-17 I enjoy walking in the urban drawing classes. I consider this kind of experience fun and entertaining
- UN-18 This type of workshop, like Urban Notes, can shape new ways of working in architectural and urban offices
- UN-19 These types of activities are useful for my future and can benefit me
- UN-20 This type of experience helps me to interact with other users, which expands my social relations

The data interpretation and results were given a very satisfactory overall score (4.2/5), which indicates that the workshop was successful as a drawing class, as a collective way of working and as a way of involving and getting in touch with the local community. In detail, the results show that students consider freehand drawing a tool of vital importance in the

Figure 182

Results of the questionnaire



Figure 183

Identity. Contrasts in Poblenou.
In front, self-built settlements.
Author: Ghita Ouassani

architectural or urban project (UN-1: 4.9/5) and that Urban Notes improved their freehand drawing skills (UN-3: 4.8/5). After this experience, a majority consider they will try to use more freehand drawing and hybrid drawing in urban and architectural projects (UN-4: 4.7/5). This type of activity can shape new ways of working in architectural and urban offices (UN-18: 4.2/5), with a majority enjoying the onsite walking and drawing classes (UN-17: 4.4/5). Most of all, in-situ sketching not only helps students to understand and learn about the place (UN-7: 4.2/5) but also to come into contact with the local community (UN-8: 4.1/5).

Qualitative aspect

To support the quantitative feedback, we asked students to write an A4 page about their impressions of the workshop. First, Urban Notes provided a different vision of architecture. Some evocative first impressions were described:

“This workshop gave me a different feeling from other lessons, as it did not focus on drawing from one side of urbanism or another, but both in combination. We are part of the city and we are also creators.”

“Urban Notes is the class I have been looking forward to taking for a very long time... The thing I liked most was thinking about a real urban situation.”

“The course is well thought out and appeals to the different senses: discovering the unknown and rediscovering déjà vu. The principle is good and the idea is original. The collective creative workshop is, in my opinion, a good way to be introduced to large-scale workshops involving a number of participants, including external actors.”

“We were in high spirits when we met for this course that I was looking forward to. It involves discovering places and making drawings and sketches; multidisciplinary and freedom of expression. Often schools of architecture forget the importance of going on-site and meeting the people that live there.”

The workshop was considered a community activity involving associations, at least until the Covid crisis:

“Walking through the old and new of Poblenou and hearing the story of the community’s history and current changes gave us perspective while we drew.”

“It was very exciting to explore this side of the city and have the opportunity not only to



scratch the surface, but to investigate deeper. The recorrido [route] with Jordi from Taula Pere Eix IV was very interesting and helpful to understand some urban processes.”

“In fact, I also found it very positive that the neighbourhood was explained from the perspective of an association. It is important we draw things that we see and that we’ve lived and felt.”

In addition, students referred to co-creation and community cohesion as well as drawing impressions.

“After the first few classes, the group immediately developed good cohesion and people also liked to exchange ideas and give each other tips.”

“In particular, the group brainstorming was very productive because we spoke about our ideas and what we might not have understood. This helped us to talk through what was going on in the class.”

“Looking at other people’s work and sharing the work that you have done... this is building a community of artists. I believe we made a fine group, thank you for the experience.”

“While we are in quarantine, we have been online and sharing our progress and the continuous feedback from the teacher and classmates helps me personally to see the drawings in a new light.”

“Apart from the fact that drawing counts as work it is also time for yourself and is a very quiet process in everyday life. Almost a kind of meditative moment, in which one comes to reflect and becomes calmer - I enjoy it very much.”

The Covid crisis had a negative effect on the workshop. Nevertheless, a majority of students still think that the course was successful and outstanding.

“Due to the unlucky current situation, the class (had to) change unfortunately... I think that the potential of this course has been greatly damaged by the health crisis we are experiencing. In my case, I think that my work would have been more interesting and productive if I had continued drawing on the street, since my on-site drawings were more beautiful and precise than the subsequent ones made in lockdown. At least I have that feeling. Drawing on the street and perceiving everything around us allowed us to create images with more messages, which were more elaborate and perhaps more thoughtful.”

Figure 184

Identity. Can Ricart
Author: Ricard Ellis.



Figure 185

Utopic Tabula Rasa.
Author: Anika Zeman.

“Group cohesion is undermined by this situation. Communication is difficult and the exchange is more impersonal... But at least after this period, we can boast of having achieved collective work at a distance, which is not very easy.”

“It’s clear that the lessons before quarantine were much better, but we tried to stay in touch with online meetings.”

“Despite the radical change of form, I believe that the substance of this course has been maintained.”

“If a committee asked me whether I would recommend the course Urban Notes, I would definitely say yes. It is the course I enjoyed most this semester because of its versatility and group dynamics.”

Conclusions

In conclusion, Urban Notes is a new way of learning for architecture and urban planning schools. It brings together a neighbourhood’s local communities and architectural students through a pleasant activity. The sessions are open to the public and to groups of urban sketchers, so debates arise and progress is made on specific urban issues. Our students can work with collective tools, using brainstorming dynamics, collective maps and collective deliveries. This is community work in addition to improving architectural and urban drawing techniques. The disastrous aspects of this experience was circumstantial: with the health crisis that changed the course of the workshop. Although the essence of the workshop could be maintained, the lockdown has been a limitation. It also shows how students had the feeling that going on-site was so important. Fortunately, we hope that the next editions of Urban Notes can provide more results to improve the course. According to the students, Urban Notes can contribute to new dynamics in architecture and urban planning offices in the future.

3.4. Participatory Observation Workshop

Study of the historical market of Tlacolula de Matamoros

The participatory observation workshops propose, through a cross-cutting approach, to follow and understand participatory grassroots practices or social network communities. To date, we have completed one unique experience of studying the street vendors in the town of Tlacolula de Matamoros. The main idea of this experiment was to create a multi-faceted study to understand this historical temporary market, also called tianguis. In some way, tianguis can be considered an example of the emergence of the contemporary city within the city. To carry out the study, we used community interviews, drawing and in-situ street and drone photography as well as bibliographic research to understand the tianguis of Mexico, which represent a natural participatory practice occupying the public space. The indigenous tianguis of Tlacolula de Matamoros is located about thirty kilometres from the city of Oaxaca de Juárez. It is an ideal case study because, although it has evolved, it is still a traditional example of an open-air market. Visitors to the market know that they are experiencing a unique, rare temporary place.

The work was carried out through collaboration between ETSAB, the Universidad Autónoma de Benito Juárez (UABJO) and the Faculty of Architecture Ciudad Universitaria (CU). The data were collected by research professors Fabricio Lázaro Villaverde and Juan Manuel Gastéllum Alvarado in Oaxaca de Juárez, expert photographer Bernardo de Anda, and groups of students from the CU Faculty of Architecture. The data collection was mixed, with a study involving theoretical documents (historical, sociological and geographic), aerial photographs with a drone to understand the spatial occupation of city streets, experimentation workshops at street level, with and without the Sunday market, with the use of photographs, drawings and interviews with the local population. The objective of the study was to understand the close relationship between the temporary architecture of the market system, the place and the geography, and the market users, particularly the traders. These studies have been presented in a paper that is in the process of being accepted, so here we only summarise the results and the *modus operandi*. This chapter shows how we undertook the work, while the current research paper in publication gives a much broader view of the results of the study.

From an anthropological point of view, tianguis, like many markets of the world, are places where all kinds of information is exchanged as well as products. This helps personal and group community ties to be established. In addition, markets are spaces that are ordered from chaos and organic growth, where emerging networks and systems are regenerated. Emergence, as the computer scientist Steven Johnson (2001) describes in his book *Emerging Systems: or What Ants, Neurons, Cities and Software Have in Common*, is when a system of relatively simple elements is organised spontaneously and without explicit laws until it gives rise to intelligent behaviour. These systems may be ant colonies, as studied by Professor Deborah M. Gordon (2010), human brains or even the famous tianguis of



Figure 186

Urban sketches in situ. Work from UABJO Students. Source: CU, Fabricio Lázaro Villaverde, Juan Manuel Gastellúm.

Mexico. However, the issue of informal markets occupying public space raises difficult questions to answer, such as: Does the right to work take priority over the right to public space? Should we regulate the use of space, as some European cities do in an excessively authoritative way, or should we let activities take place like the impressive groups of street markets in Mexico?

Results

Bibliographic and theoretical research

This experience was supported by a literature search to understand the origin of the tianguis, so that we could analyse their current state in the context of their historical situation. Therefore, both historical and sociological references were sought.

The tianguis in Mexico are known to have existed since pre-Hispanic times in different places in Mesoamerica. Reference was made to the Nahuatl word *Tianquitzli* that means the exchange or selling of products. Later, these events became known as tianguis. The concept was used during the same epoch in the Central Valleys of Oaxaca. In the Mixtec language, these markets were known as *Zama-yo*, and in Zapotec *Guendaruchaa*. Over time, the Nahuatl word was adopted and simplified to *Tianguis*, which now refers to temporary markets that occur in the public space in Mexico. These mobile markets, called in Mexico tianguis, are places where users self-organize and occupy the urban (or rural) space to exchange goods, services, information of all kinds and establish a series of personal ties inherent in the creation of community. The study of these two participatory practices is extremely interesting, since they represent living examples of a type of spatial, social and community organisation.

In the state of Oaxaca, the central valleys, with an average altitude of 1500 m, represent a great corridor to reach Tlacolula de Matamoros, with an international road to which perpendicular branches are attached, surrounded by the Sierra del Norte and Sierra del Sur, with hills of over 3000 m. An indigenous tianguis is held in Tlacolula de Matamoros (22,545 inhabitants), about thirty kilometres from the city of Oaxaca de Juárez (300,000 inhabitants). It is the geography itself and the topographic characteristics that have undoubtedly allowed the arrangement of the market system that has been implemented increasingly over time. Today, the Tlacolula de Matamoros tianguis is characterised by its temporary location every Sunday of the year since pre-Hispanic times on the south side of the current Oaxaca-Tehuantepec international highway, which connects the territory to the Northeast with Oaxaca in the direction of Mexico City and towards the Southwest, with Tehuantepec, towards the Pacific Ocean.



Figure 187, 188

Juarez Street in Tlacolula de Matamoros, with and without tianguis. Source: author

The study reveals a complex historical system, expressed graphically by Nolasco (1976). It explains that in the twentieth century, the city of Oaxaca was the centre of a larger system of markets. There were four types of markets: the main market with headquarters in the same locality; Ocotlán and Tlacolula, the two secondary markets; another large number of smaller markets classified as dependent markets; and a large number of these considered limited markets, with no relationship between the dependent and limited markets, but a relationship between the secondary and main markets. This system is related through the reception and shipment of merchandise to markets located to the east of the state of Guerrero, and to the west of Guatemala.

Since its appearance in pre-Hispanic times, the market system has continued to operate with some modifications. In some places, it has continued in much the same way to this day (Diskin and Cook, 1975; Warman, 1982). The Sunday tianguis in the municipality of Tlacolula de Matamoros have maintained an important place within the system. They are still located in the outstanding place that the tianguis of Oaxaca city have occupied for hundreds of years. Over the years, the inhabitants of the area have fulfilled the important role of conserving the tianguis, which are a fundamental element of the Zapotec culture and part of the customary law of their ancestors (Cordero., 1982). In the tianguis, the practice of barter continues as a form of trading, which also allows personal relationships between speakers of the Zapotec language, and between them and visitors from other cultures, to be maintained. The tianguis continues to contribute with most of the economic exchange between the towns in the central valley. In all cases, it seems clear that there is real evidence that the Tlacolula market is part of a complex system that surely emerged with the indigenous peoples of Oaxaca, and evolved due to the geographical and historical characteristics of the place.

Today, those who come to sell, buy or exchange their products also come to socialize in the public space. In the Sunday market in Tlacolula, there is real biocultural wealth: 78.95% of participants speak Zapotec in addition to Spanish (Carolina Teresita Benítez Hernández and Raúl Enríquez Valencia, 2018). However, the tourist attraction linked to this historic market, together with the neoliberalisation in the central valleys of Oaxaca, have led to an increasingly precarious situation of the system and its actors (Carolina Teresita Benítez Hernández and Raúl Enríquez Valencia, 2018).



Figure 189, 190

Zoom in. With and without tianguis. Source: author

From the merchant's experience

The study of the user's experience was multi-faceted. We chose to visit the city of Tlacolula de Matamoros on several occasions. Three visits were required to obtain enough information: two on Sundays to meet the merchants and collect other data during the tianguis and another to understand the public space and its daily use the rest of the week. Information was gathered using a 25-question survey, which the teachers and students studied previously so that the interviews were more fluid. The interviews became conversations in which it was also possible to write down various anecdotes that provided important details for the study. Some questions were about the territorial scale: traders were asked where they came from, how long it took to get to Tlacolula, and if there were any incidents on the journey. They were also asked what they thought about the environment in the tianguis, the social ties created in it, the length of time they had been doing the work and how they started. They were also asked what kind of products they sold. Some questions focused on the occupation of the public space, to understand how it is established, whether it is self-organised or if, on the contrary, it is regulated by the municipality. They were asked who had given them permission to use the location, whether they had been occupying it for a long time, whether there were any regulations and if they had to pay any taxes to occupy the place. As for the architecture, the questions were about the construction of the tianguis, so that together with the photographic material and the notes with in-situ details, we could understand the typologies of stalls imagined and self-built by the traders. Finally, they were asked if they would like a family member to continue with the tradition and if they considered their activity pleasant. Along with the surveys, teachers and students were invited to draw sketches and notes about the place, to fully understand this practice. Finally, photographs and recordings were used from a drone to document the work. These data, together with the theoretical work presented above, led to convincing conclusions about the tianguis.

Most of the traders are women (74%), of an average age similar to that in previous studies (48 years), ranging from 19 to 67 years, from varied origins, including the city of Oaxaca de Juárez (31%), a population from the nearby Tlacolula region (42%), and other localities in the valley that follow the geographic and topographic logic. The products sold are diverse, but they are usually local products from the region that come directly from the environment in which they are found, which can be considered an interesting local, ecological practice. Products included huaraches, typical clothing of the region, crafts, belts, local fruits, local vegetables, seeds, vegetables and some grains and cereals such as corn, chickpea, wheat and beans and even food stalls. Despite the precariousness mentioned by some street dealers associated with their views of neoliberalisation in the city of Oaxaca, 17 out of 19 consider that the work is noble, beautiful and calm, takes place in a friendly and community atmosphere, and, if their descendants wanted to, they could continue with the family tradition.

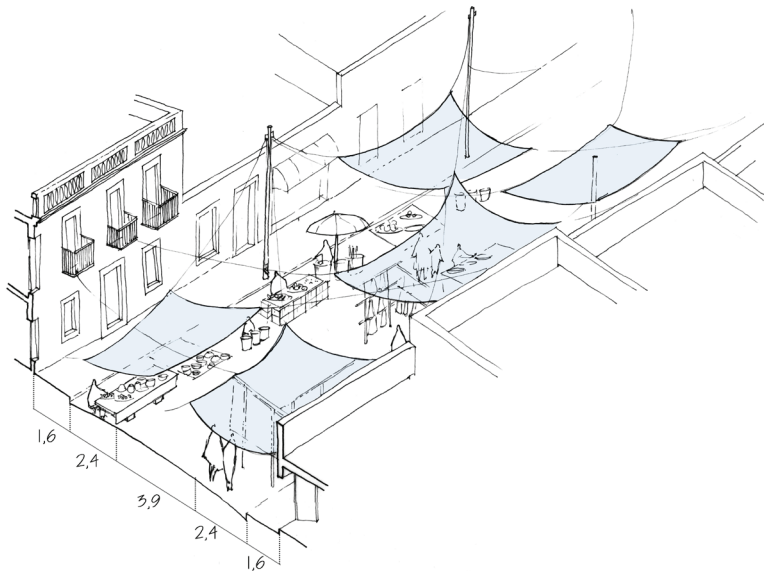


Figure 191

Spatial analysis. Source: author.

Spatial analysis at urban scale

This analysis was carried out from various perspectives, using aerial photographs from the drone, photographs at street level and urban drawing. It stands out as the study of a public space in section, showing an intrinsic logic of occupation of the space. Figure 152 illustrates how the stalls are arranged in strips, with two side pavements and a central passage. There are spaces between the passages that allow people to cross from the centre to the side, and thus to the traders.

Regarding the right to occupy space, our study shows that there is a regulation and traders must pay to occupy the position on the street (between 10 and 25 pesos depending on the place and surface area). Everything indicates that the traders occupy the site first, and then ask the municipality for permission (in 85% of the cases). Thus, various ways of occupying space are denoted, with a differentiation that is not officially standardised and that arose naturally over time as the nature of the products changed and expanded. In other words, the practice started in a traditional way, without prior regulation. Then, the municipality adapted to the practice.

The data collection through conversations with traders revealed the basic architectural units of the Matamoros tianguis system. Great ingenuity was found in the construction of the stalls, from the simplest to the most complex, although all were traditional. The most notable aspect continues to be the large network of tarps that protect the stalls and part of the pedestrian routes from the rain and sun, to provide comfort as people go around the market. Tarps are tied to posts that the municipality placed for this purpose on the sidewalk, and to supports such as telephone poles, electricity poles and ironwork on windows or doors of shops or houses. Some traders report that there are no posts in some streets and that they would like some additional posts to be installed to facilitate the placement of the tarps. The sum of the stalls, the tarps and the merchandise is what ultimately shapes the great tianguis system. In this system, we can define four groups of stalls: a, b, c and d.

Group (a): the simplest and most rudimentary way to occupy the space. This is the case of itinerant, stationary stall holders who use a hand truck, wooden boxes, a folding table, sacks or baskets on the ground. In this group, generally only two components are used: some element to display the merchandise, which can be the floor directly, a mat or fruit boxes (plastic or wooden slats), and a place to sit.

Group (b): a combination of group (a) with some type of protection, such as a tarp to protect from the sun and rain. Craft items are usually placed on the floor, while clothing and food are often displayed on stands at table height. Fruit or spices are usually placed at

Figure 192

Diversity of stalls. Four groups. Source: author.

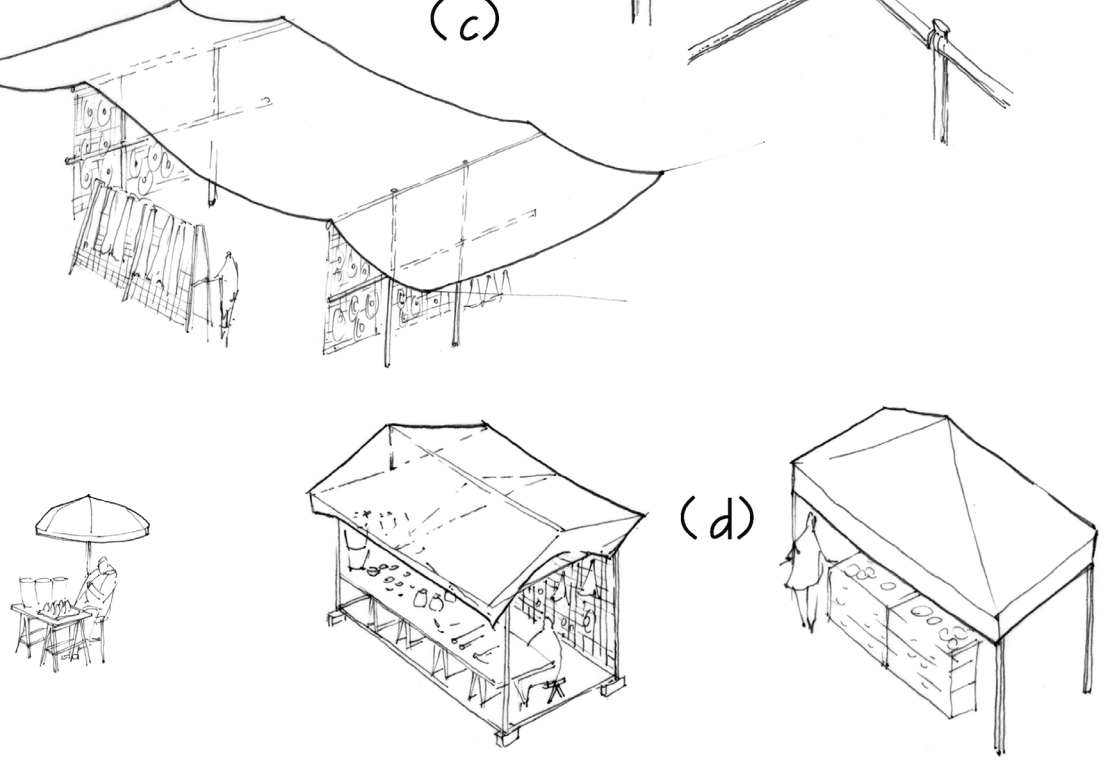
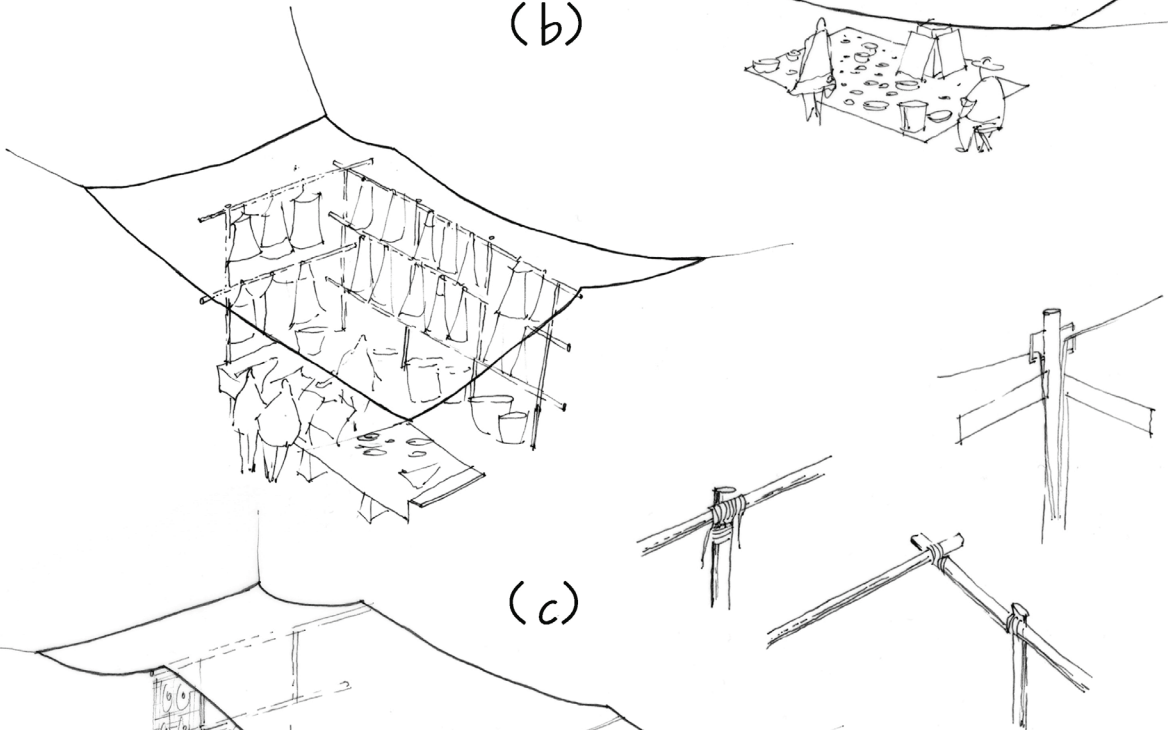
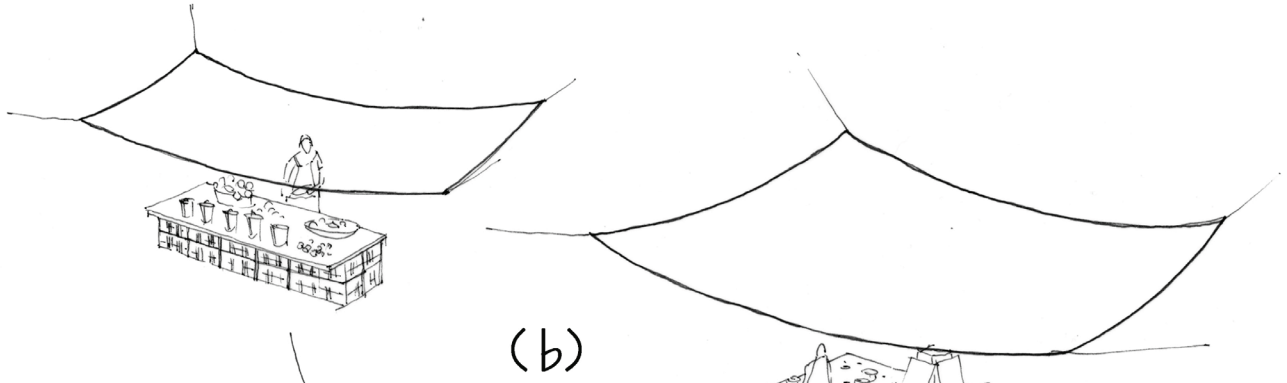
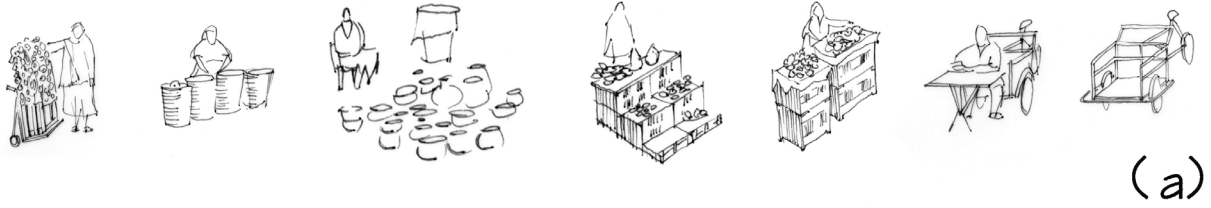


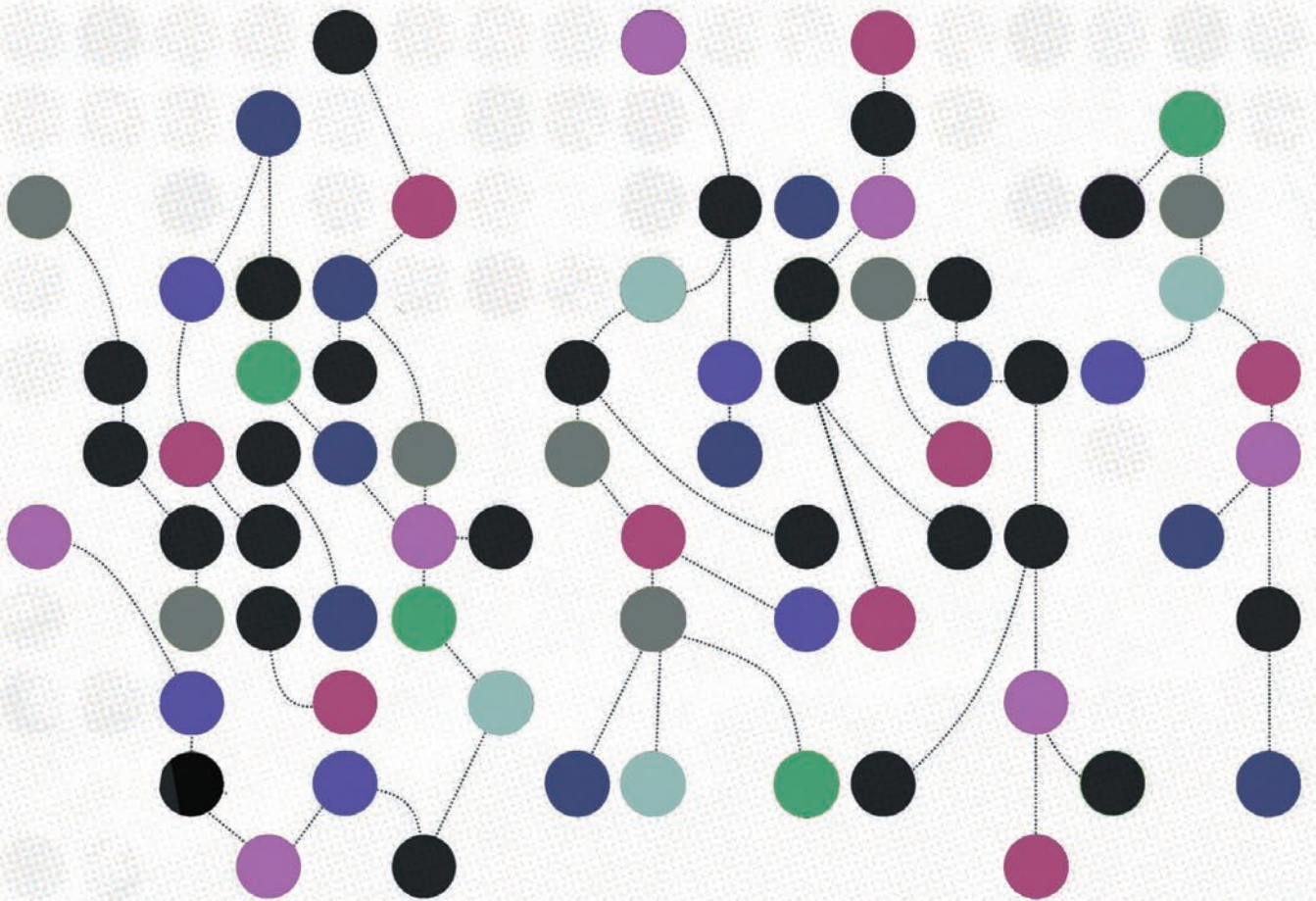
table height, sometimes on iron benches with a wooden cover and a plastic tablecloth, large plastic boxes, small plastic buckets to show the fruit, and a tarp to cover the stall.

Group (c): this usually has a higher degree of complexity and is generally for the sale of clothing and textiles. A vertical wooden hand-made structure is added to the tarp, with hook or grid systems to place the clothes. In this case, the weight of the whole provides stability, making it unnecessary to lay bases. The bases of the structure rest directly on the ground. The traders explained that the assembly was fast, in less than an hour. Some stalls are made up of two partitions with vertical supports in wood and horizontal ones tied together with strips of fabric. Over this system of partitions and table, the mantedo is installed, which is tied to the vertical wooden structure. This textile mantedo that protects from the sun has over it a plastic tarp that protects from the rain. The combined system is cooler than if only plastic tarpaulin were used, and more waterproof than just textile cloth. It is an ingenious system that has been around for generations.

Group (d): industrial “booths” consisting of a structure based on a tubular steel profile. It has vertical and horizontal stringers that define the space of the stall, as well as a metal grid. This typology was defined by the municipality in an attempt to standardize the image of the street market in its most central part. Two to four metallic triangular trusses are placed on this frame, to create a profile of two slopes on which plastic tarpaulin is installed to protect the stall from rain and sun. However, the plastic generates excess heat. The installation of this typology does not take more than an hour. This last typology that is imposed on merchants changes the atmosphere and morphology of the tianguis. These “booths” do not provide, like the ingeniously invented system of tarps, a continuity of protection for visitors, and do not allow for the ingenious double-layer system that naturally ventilates the stall. Fortunately, in the Tianguis de Tlacolula de Matamoros, the typologies are diverse and the tarps have not disappeared from the streets.

Conclusion

As a living example of an emerging, complex system, tianguis depend on a series of sociological, historical, cultural and spatial criteria of the place and its local population. This balance is today weakened by the arrival of the neoliberal era in the central valleys of Oaxaca, and the arrival of large malls and supermarkets just 30 km away. However, the Tianguis de Tlacolula de Matamoros continues to be a place with an impressive diversity of population, in which each person contributes and participates in the operation of occupying public space. We can compare this diversity to biodiversity, which is exclusive to nature, but that we are beginning to understand to plan and comprehend our cities. This means that architects and urban planners must observe the place carefully and meticulously, without imposing radically simple models. In this sense, “making the city” and improving our urban spaces necessarily requires the support and reinterpretation of what already works and benefits the population. The implemented methodology is based on an observation approach including interviews, historical research, street drawings and photographs and can help to develop a convincing discourse on the observation of the place. This observation should be the first step in understanding how urban space works and then determining the community’s needs. Hence, that study represents a good way to teach how our praxis can approach the community to understand the city.



CONCLUSIONS

Conclusions

A creative participatory method in the urban planning context

It may seem difficult to explain the conclusions of this investigation concisely but critically. However, as we mentioned at the beginning of this document, our conclusion should meet the main aim of the thesis: to establish a creative participatory method in the urban planning context. To achieve this, we have organised the conclusion as an ordered, concise, understandable manifesto that can be used by those who want to undertake a timely urban regeneration process. This proposal can only be defined here at the end of the thesis, since each part of the research is interrelated.

First. Taking part. A General concept of participation in the urban planning context

In most democratic countries, participatory processes are proposed at the beginning of an urban project so that the population is involved in the decisions. For some, participation is a process used to involve stakeholders in decision-making, while for others it represents grassroots activities or community activities in the urban context. Therefore, we should first summarise concisely what participation is in the urban planning context.

The etymological origin of the word participation is the fact of taking part. This is a broad, ambiguous concept, which explains why there are divergences in its application. However, the concept also represents the only true starting point for anyone who wants to undertake an activity or a participatory process, since it encompasses all facets of participation in the urban planning concept: grassroots practices, community building practices, public engagement etc. If the concepts are clear and well-defined, the reader will then be able to interpret the concept of participation at will and with awareness.

The lack of concise conceptual clarification has led to the use of the label of participation to either partially or fully manipulate the general public. Sometimes these practices are not intentionally malicious but represent misunderstandings and doubts regarding the interpretation of the concept. As reflected in one of the most emblematic articles “The Ladder of Participation” (Arnstein S., 1968), there are several levels of participation, ranging from citizen power to population manipulation. Today, most experts in the field point consider that participatory processes in urban processes resemble false participation.

Fortunately for the urban planner, students, group, or group of students who want to work in this area, there are numerous cases and experiences of good practice. Recently, there have also been groups of emerging urban planners who have transformed participatory professional practice, in which the project begins and develops with the local population. However, in this manifesto, we stress that participation is above all an approach to local communities. Therefore, experimentation is a mandatory step for good practice.

Second. Deepening of the concept: three paradigms of participatory practices

The general definition of the concept of participation encompasses many facets of participatory practices that can be described to undertake an urban project collectively. There are numerous approaches, including bottom-up practices, grassroots movements, placemaking, community planning and other public engagement processes such as conciliation. However, a concise way to explain and clarify the multiple facets of all these participatory practices is to classify them by origin and way of operating. In this research, the concept of participation appears to be a practice as old as architecture itself. Its maximum representation is the act of self-construction that dates back to 8000 BC (Smith, 1990). From the analysis of numerous cases and examples, we identified three paradigms of participatory practices in architecture for the transformation of our built and natural environment:

(1) Architecture without architects and other community practices, which are often not intentionally designed to be participatory. Self-build with its possible organic development of cities is part of this category. Some of these community practices are still alive today, and represent fluid ways to build, care for, or transform our built and natural environment. This is the case, for example, of the *tianguis*, a living example of an emerging and complex system that arises from the population, but which also depends on a series of sociological, historical, cultural and spatial criteria of the place and its local population. Some experts like John F.C Turner or David Harvey recognize how we should consider these practices as opportunities, instead of trying to consider them as problems. These practices have also inspired architects, such as Walter Segal and his famous method.

(2) Actions or rather reactions of protest and awareness, which stem from grassroots movements as the natural evolution of protests and marches associated with the right to urban space. Groups often use collective action from the local level to effect change at the local, regional, national or international level. Using self-organisation, community members are encouraged to contribute by taking responsibility and carrying out actions for their community. This category includes urban gardens, actions in public space to reclaim the area for non-polluting civic uses and mobility, or the reactivation of symbolic buildings that may have been abandoned. Some municipalities have adopted participatory practices to allow a change of mentalities for gradual urban transformation with the involvement of residents. This is the case in Barcelona, which has recently started to introduce new policies to integrate community grassroots gardens or stop traffic one day a week in symbolic central streets so they can be used for civic activities.

(3) Participatory urban planning. These are the tools and methods that have been created

in urban practices and generally involve urbanists, sociologists, architects and artists, among others. This is the vision of the professional interpreter who tries to find ways to involve users; at the request of Giancarlo De Carlo, a scientific process that begins with the discovery of the users' needs with the formulation of formal and organisational hypotheses before entering the phase of use. This category includes pioneering works in the domain, such as Lynch's mental maps, Halprin's public space experiences, Jane Jacobs's works and Sanoff's tools analysis, as well as new architecture collectives that can shift between the three type of practices.

Third. Open processes and resilience

These three types of architectural and/or urban participatory practice paradigms lead to a clear first conclusion. The transformation of our built and natural environment should (and can) be the fruit of a participatory process, as an essential condition. History and the current situation teach us that it is possible to adapt our professional practices, considering the numerous facets of participation. In this context, we can highlight the role of cognitive artistic creation to draw up the urban project, and propose urban planning models and regulations that allow local communities to directly change urban space, as has been achieved with community gardens or the recovery of old industrial buildings like Can Batllo in Barcelona. Genuine participation must be understood as an open model that receives continuous contributions from the community. A vision shared by numerous experts, in which each part contributes its visions, plans or manifestos, and carries out direct interventions in the urban space. This leads us to the achievement of real urban resilience, that is, a democratic urban space must be flexible and allow its citizens to appropriate it and even transform it. We refer here to the concept of emergence, in which collectives, associations and grassroots movements occupy an important place. However, to implement this new vision, we must consider giving more time and flexibility to citizens to participate. In general terms, a society needs to be formed that is more focused on the common good instead of the accumulation of individual goods and services, as is the case in our neoliberal societies today. In this proposal, public space (and by extension urban space) is no longer just a product that is consumed in a relatively superficial relationship, but each individual can transform it and has direct responsibility for it. This vision must be implemented. It has already begun to be introduced in two spheres, top-down and bottom-up activities, and has a close relationship with visions of sustainable transformations, such as permaculture. However, our research does not seek to idealise or examine in depth the theoretical and utopian aspect. Instead, it seeks to provide some specific advances in the methodology to propose and understand participatory experiences in the field of the urban project.

Fourth. Analyse and be creative. Using the taxonomy template

Now that the basic concept of participation has been explained, we can assume that in our proposal of an open collective process, the three participatory practices defined in the second point can be combined.

A crucial starting point for implementing a participatory project is to be creative or to have a cross-cutting team that can lead to a creative vision. Apart from the obvious contribution of sociologists, the added value of architects, designers or artists is their creative capacity to create innovative and community practices. Here, we note the added value of the architect, who has the ability to connect numerous arts, with deep knowledge in addition to the built and natural environment.

In this initial conception phase or in the analysis of a participatory process or a specific participatory activity, we propose the use of our taxonomy template. This tool highlights some notions that can be combined to help to generate new experiences or simply understand existing ones in a systematic way. The template has the categories of tool, time, place and purpose, and its use is quite intuitive. The taxonomy with its icons clearly shows the combination of participatory tools and their purposes and allows anyone to understand participatory, bottom-up processes in a simpler, exhaustive way. It was built from the analysis of many case studies, and is a useful tool not only to analyse cases, but also to propose new creative participatory experiences. The use of the template confirms the idea that a participatory practice can be the product of the combination of several tools, applied to specific urban spaces, with different objectives. One important point in the use of the template is how it allows a considerable degree of flexibility and requires an effort of creation. The taxonomy aids users. It is a roadmap that anyone can use, a tool for clarification and reasoning. Since an image is worth a thousand words, we present our taxonomy template again.

Fifth. Experience & experiment

“You cannot acquire experience by making experiments. You cannot create experience. You must undergo it” (Camus A., 1935-1937, 1998).

Finally, the most important point to start creating collectively is without a doubt experimenting and experiencing. We recall here that in French, the word *expérience* encompasses both the word “experience”, that is, knowledge acquired through interaction with the environment, and the word “experiment”, that is, scientific practice, and interaction with the environment intended to verify a hypothesis in the framework of a refutable theory. We consider that it is not enough to develop new participatory experiments to improve participatory methodology in the urban context. First, one must experience the urban space on which one is going to work.

To achieve this, one can of course disassociate knowledge from the practice or try to build processes that allow *expérience* in all its senses. In our case, we propose some methods that allowed us to both experiment and experience in the framework of architecture schools and groups of students. The co-creation workshops, established with the help of the taxonomy, generated exciting positive feedback. We can highlight here the Open Spaces Workshop/Taller Espacios Abiertos, a co-creation and urban DIY workshop on a 1/1 scale. The TEA method is comprehensive, with activities ranging from neighbourhood tours to DIY workshops. It starts from a simple idea, to give a group of architecture and design students the opportunity to interact artistically on a real scale, with the local neighbourhood, to improve the immediate natural and built environment. In the Urban Notes experience, the idea is to involve the local community, urban sketchers and architecture students to give their urban artistic visions and perceptions at street level. It is carried out in several urban drawing sessions with different activities during a semester and is held directly in the urban space. The use of numerous creative tools and their combination have generated participatory operations at two levels: first, with the work and collective organisation between students, and second, with the integration of the local population in their work. This virtuous circle is based on a playful, creative artistic dynamic that we have developed in various experiences. The testimonies of the students shows that they learnt new skills in architecture, urbanism or other crafts, and that they consider these workshops living experiences.

Final considerations

Finally, improving this research is undoubtedly the work of a lifetime, since we would need to develop more experiences every year that would allow us to feedback into our theoretical concepts and advance in the subject. We consider that great effort should be made to network between universities that work in the same area. As we recognize the close relationship between sustainability and participatory urban practice, we should emphasize the importance of our policies to facilitate the creation of laboratories with greater economic solvency and the corresponding bureaucratic simplification. We all work in a cross-cutting way but in the same direction, with concise, clear, practical concepts. Here, we speak of sustainable urban planning in an alternative, renewed form, which numerous collectives and emblematic figures such as Jane Jacobs, Lewis Mumford, Giancarlo De Carlo and other recent architects have already implemented. This research contributes its grain of sand to a collective vision of sustainable urban transformation, so that we can keep planning wisely, in line with what Socrates stated a long time ago: “By far the greatest and most admirable form of wisdom is that needed to plan and beautify cities and human communities.”

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