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Recetas Urbanas (Urban Recipes): Hacking Architectural and Urban Codes

By introducing Recetas Urbanas (Urban Recipes), a practice developed by Spanish architect Santiago Cirugeda in 1996, this paper presents a dissident alternative to normative standards in architectural practice, which are currently governed by technical over-codification and bureaucratic homogenization in urban planning. Recetas Urbanas operates in the liminal space between the unregulated and the not explicitly banned, exemplifying disciplinary decoding in architecture and urbanism. Cirugeda's practice aims to democratize city-making through norm hacking and reinterpretation, translate these alternatives into open, replicable protocols, and experiment with models for environmentally friendly, collaborative buildings. In doing so, it creates infrastructures for socialization that exist outside the prevalent market dynamics of extraction and production.

◁ Opening Figure. Santiago Cirugeda, Kuvas SC, Sevilla, 1997. (Credit: Recetas Urbanas for all figures unless otherwise noted.)

Keywords: Recetas Urbanas, Decoding, Hacking, Collaborative Building, Infrastructures for Socialization

1. From Code to Archive: Hacking a Hegemonic Model

According to Gilles Deleuze, the diagram is an abstract model that connects different elements in the form of apparatuses aiming to promote specific societal norms. The best-known example, widely studied since the last third of the twentieth century, is Jeremy Bentham's panopticon, which serves as a diagram for disciplinary societies (Foucault 1977). Through the panopticon model, schools, factories, prisons, and housing emerge as key apparatuses conforming to disciplinary societies. In the late 1980s, thinkers such as Deleuze and Haraway suggested that the disciplinary model was blending with a new diagram that was becoming widespread and was seen as the catalyst for a new type of society, defined by Deleuze as a 'society of control' (1992), a term coined by William Burroughs in 1990.

Although various thinkers and intellectuals have explored the idea of controlling society in the last 30 years, few have tried to define in abstract terms the framework on which society's current mechanisms are based. McKenzie Wark's interpretation of Haraway's work points to code as our current framework (Wark 2015).[1] In this model, code is applied using algorithms to create hierarchies among seemingly equal elements. Deployed by invisible entities using 'objective' criteria, these algorithms, which remain inaccessible to most of the population, define conditions such as search results on digital engines, making some elements more visible and some more difficult to find. According to Alexander Galloway, we should understand protocols that structure access to digital apps as the governance standards of various technologies (2004, 65). However, protocols have made their way outside the realm of computing; we encounter them when trying to access a public service, at a border, or in the form of a compulsory signature in any given process (Mitchell 2003, 194).[2]

Code has become an indispensable tool for dispossession. It is used as a disciplinary mechanism, rendering certain domains increasingly inaccessible to those who are not considered part of a specific community. The industrial period is crucial for understanding how coding has influenced our cities. Mass migration from rural to urban areas resulted in cities being built at an unprecedented speed. Consequently, the quality of buildings declined significantly compared to their predecessors. Although this problem could have been addressed in various ways, such as conducting more thorough building inspections or seeking training support from public entities, the technical role of the architect was ultimately established as the sole one capable of taking responsibility for overseeing the construction process. As a result, constructions not certified by an architect became potentially hazardous for the city and thus illegal. The architect shifted from being a craftsman involved in specific aspects of city-making to being responsible for implementing regulations to construct urban spaces.[3] For this transition to occur, the types of knowledge comprising the field of architecture had to be redefined through the incorporation of standards and protocols. The most significant of these protocols was the architect's signature, which acted as a means of segregation from the rest of society, establishing the architect as a paramount expert.

However, the architect is no longer considered the only authority. In Spain, the norms and regulations for the appropriate construction of buildings are gathered under the Technical Building Code.[4] This code includes protocols and calculation algorithms that label projects as authorized or unauthorized. Thus, protocols are no longer defined by the discipline of architecture but by the construction industry.

In this sense, architect and scholar Izaskun Chinchilla states that this process leads to 'over-codification.' The inaction of practitioners facing this issue is responsible for the gap between social needs and architectural concerns: "As architects, we have not been capable of positioning ourselves objectively concerning the actual achievements of our practice. We must work harder to present desirable, ambitious design outcomes to our clients." (Chinchilla 2023). Indeed, the tension between regulations and architects' actions is also recognized by Andrés Perea, who states that "[his] professional experience allows [him] to describe not just how alienating norms torture project-based work, but also the increasingly inept displacement of architectural regulations towards prescriptive cultures that impinge on urban planning, security, and construction" (Perea 2006). In light of these compliant codification practices, we may either acknowledge our submissive positions as architects or embark on a long journey to find value. However, there is also a shortcut: we can undertake an exercise in re-reading or hacking these codes.

Developed within the Spanish regulatory framework from 1996, the work of Santiago Cirugeda, Recetas Urbanas (Urban Recipes), responds to the latter premise. His dissident practice establishes collaborative and participatory urban design processes and has been replicated and translated globally as a countercultural open-source model.[5] This study explores this case through a qualitative methodology based on ethnography, reconstructing the scenarios that explain its singularity through vignettes and direct quotations.

2. Urban Recipes: Decoding the Regulated City

Cirugeda's practice began in Seville around 1996, in an environment of academic dissidence from the Seville School of Architecture that crystallized in the debate and production space La Casita. Shared among about 20 architecture and art students from 1994 to 2000, La Casita became an incubator for subversive architectural practices. In 2003, Cirugeda renamed his office Recetas Urbanas, explicitly embedding his practice within the popular culinary term 'recipe.'[6] In this way, Cirugeda consolidated some of the interests he had been working with since the beginning: describing the processes and components of each architectural intervention (materials, operations, safety measures, affected regulations) and opening and hacking urban codes and regulations aimed at

the common good and the construction of a shared, replicable repository accessible to other citizens.

In this sense, Recetas Urbanas was developed during the consolidation of political, economic, and estate neoliberalism in Spain through José María Aznar's government (1996–2004), the first liberal conservative administration the country had seen in decades. Aznar's 1998 Land Law promoted indiscriminate land development in Spain, leading to the country's housing bubble bursting with the 2008 construction crisis. Two other legal figures appeared during this time: the Building Planning Act of 1999 and the Technical Building Code of 2006.[7] Together with municipal regulations, these elements regulate and codify city-making processes in a conservative, protectionist, and uncreative manner, as we shall see. Faced with the widespread construction of low-maintenance concrete squares across the country, the privatization of public land, municipal inaction regarding citizen needs, demands for accessible public housing, and excessive power of the construction market, Cirugeda's practice proposes a disciplinary decoding and an alternative, activist professional practice:

> *We've had to sue…municipalities to be able to bring forward the issue of public heritage. Through complaints, not lawsuits…. They [the administrations] have learned a lot from many struggles, from people who were fighting for the alternative use of things. It's the people who have taught politicians…. For me, learning comes from practice. And from revealing practices. From practices that question bloody legislations and ways of doing things…. I do believe it's possible to create laws that come from practice but doing it the other way round is complicated.*[8]

While the work of Recetas Urbanas has received some attention from the academic community, particularly in Spanish-speaking contexts and, to a lesser degree, in Italian and Portuguese, it remains largely unknown to the English-speaking world. Several monographs (Cirugeda 2007; 2018) and Marta Manca's PhD dissertation (Manca 2020) narrate the multiple projects descriptively, utilizing the figures of the urban recipe and the anecdote. Additionally, various interviews discuss the political motivations behind the practice, along with concepts such as the 'a-legal' condition of their interventions (Cirugeda 2008; 2011a; 2011b; Recetas Urbanas 2010; 2014), the transition from individual to collective hacking practices (Cirugeda 2007), and economic autonomy as opposed to working for public administration (Cirugeda 2013).[9] Furthermore, Spínola and Blanco (2014) have analyzed Cirugeda's practice as an artistic intervention, defining his production as an alternative architectural space conceived as a common good from the standpoint of 'a-legality.' They identify three conditions in his processes: sociopolitical education, collective participation, and urban sustainability. In this essay, we aim to explore an unexplored aspect of Recetas Urbanas' practice, hypothesizing that hacking and decoding are essential for building a truly open, participatory architecture.

2.1 Recipes for an Open City: Architectural Games Through the Cracks of Urban Codes

> Most of the projects we have carried out were born in the absence of support from government bodies or public authorities: they constitute a body of what we call '"constructed jurisprudence." This accumulation of precedents works as proof that other solutions are possible and effective in the face of the distrust and the static bureaucratic culture that often prevails in public administrations. On the other hand, it works as an antidote to overcome the conformism or discouragement that sometimes spreads among citizens…. All the urban prescriptions shown next are public domain and may be used in all its strategic and juridical proceedings by the citizens who may try out to do it. Recommends full research on the different urban locations and situations in which the citizen may want to intervene. Any physical or intellectual risk produced by such interventions will be on each citizen's account.

Warning message by Santiago Cirugeda on the website www.recetasurbanas.net:

> *We are in Seville in 1997. An architecture student and resident of the city applies for a road occupation license to the city council to place a building site container in a small square in the Alameda neighborhood of Seville. He is not doing any building work—he does not even own a house—but the license application form to occupy a public road does not require any further proof, building permits or ownership deeds. After paying a small fee, Santiago rents a container, which he paints with red and white stripes and stencils with his mobile phone number and the name "Kuvas SC." At his workshop space La Casita, together with other colleagues, he welds together several different structures using steel pipes—two swings, a pergola, and a turnstile—also painted red and white, which they move and install on the container, after a crane truck has placed it in front of the Church of Santa Marina. During the days that follow, the spot where a car used to be parked is filled with children from the neighborhood, who play with the various versions of a playground that the container has become. After a few days the container is removed to a warehouse. The promoter of this action is indeed Santiago Cirugeda, who appears in several newspapers narrating his hacking act and encouraging other neighbors to phone him and take the Kuva container where it may be needed.*

Since 1996, Cirugeda explored the cracks, failures, and opportunities of urban codes and regulations. Cirugeda revolutionized the Spanish architectural scene with four seemingly simple actions: subversion, dissent, and heterodoxy. In 1997, he carried out the action *Kuvas SC*, already described above, in which he hacked a public road occupation license for construction site rubble containers, denouncing the lack of public spaces in the Alameda neighborhood of Seville. In 1998, he


SEVILLA

Amplía su casa con un andamio

■ Un estudiante de Arquitectura de Sevilla gana cuatro metros a su vivienda

■ El joven trata de llamar la atención para que ciudanos conozcan normativa

El andamio está recubierto con una especie de ventana

Cirugeda ya protagonizó el año pasado otra peculiar acción urbana

△ Figure 1. Santiago Cirugeda, Image at a conference of the impact on the local press and the public debate associated with the project Andamio. Sevilla, 1998.

developed the action Andamio (Scaffolding), once again decoding municipal regulations and hacking a road occupation permit that allowed him to install scaffolding to paint over a vandalized façade in the historic center of Seville (Cirugeda had previously vandalized the façade with the letters SC, his initials, and he was able to request the occupation permit without even having to prove ownership of the heritage-protected building). This action ultimately aimed to install a prosthetic structure operated as a house extension designed to be accessible from public space for three months (Figure 1). In 2000, he carried out Desobediencia Civil (Civil Disobedience). This self-construction project consisted of building housing on a rooftop without a license and outside existing regulations, intending to report his infraction, and simultaneously getting the media to talk about the existing lack of housing and urban illegality. In 2002, he built Casa Rompecabezas (Jigsaw House), a temporary dwelling that mobilized several key strategies. On the one hand, it was built with materials reused from a previous project for an official organization; on the other hand, it activated public land transfer protocols for vacant lots, in this case under the figure of a minimum rent (€150/month). Finally, it took advantage of the regulatory cracks that allow construction without foundations to be considered mobile and, therefore, free from urban legal restrictions and codes.

These four actions, which took place before the rebranding of Cirugeda as Recetas Urbanas, became the basis for his subsequent practice. They mobilized alliances and collaborations with locksmiths, neighbors, fellow architects, and lawyers that transcend the prevailing logic dominated by linear relationships between the client, architect, construction company, and surrounding legislative bodies. Furthermore, Cirugeda edits and disseminates open-source documents that enable these actions to be carried out and replicated (Figure 2). To do so, he decodes protocols to use regulations in subversive ways, asking for a permit, for example. He creates guides and production sheets for others to design or execute these actions. In this way, the practice of Recetas Urbanas empowers citizens to engage in city-making at their own responsibility. It explores the gaps in urban codes and regulations between the unregulated and the "not explicitly banned" (Álvarez 2013).

The monopoly of quantitative values in decision-making processes in urban spaces has resulted in a disconnection from its narratives. This issue relates to Wolfgang Ernst's perspective on another essential tool for understanding our present: the archive. Ernst defines the archive as a hardware-based apparatus with solid organizational energy, which is incapable of producing narrative and only relevant from an administrative viewpoint: "In the archive, nothing and nobody 'speaks' to us, neither the dead nor anything else. The archive is a storage agency in spatial architecture" (2018, 4). The cataloging of public spaces and their quantification in square meters differs from their qualitative assessment for public use. Recetas Urbanas insists that in contrast to the hegemonic model, tools for accessibility to public use must be developed. In other words, Recetas translates the question of ownership or property into the problem of usability; for example, who uses these spaces and how—a premise that it aims to multiply through interventions that enable different possibilities in these "public" environments. Another issue brought forward by Cirugeda's practice is the creation of jurisprudence (Deleuze 1988): instead of relying on abstract regulations granting *priori* citizen rights to housing or certain public services that do not materialize in the end, the cases shown here represent an urban alternative that opens up rights and opportunities through concrete actions in specific realms, creating legal precedents that recode the city.

2.2 The Crazy Army: Decoding the Construction Market and Its Protocols

> People say that our practice was more romantic when we started…, but it's just that it's more difficult now…. [T]he real heroic act is to get as many people as possible into the building site, to include so many people that things end up blurred, while the actual aim of such an intervention, which is collaborative work, is emphasized…. Having to deliver on a building in a limited time, with 1200 participants, with no support regulation…. There's a bigger risk, but it's definitely more fun.[10]

We are in Olivar de Quintos, Seville, in autumn 2023. The sign displayed at the entrance to the construction site of the new Bioalverde warehouse—the non-profit, socially inclusive agri-food company promoted by the local branch of the NGO Cáritas Diocesana—reads "Entrance allowed to all persons not involved in the construction site." The change of the word "prohibited"—which usually appears on such signs, replicating the law—for its antagonist "allowed" anticipates that construction protocols on this site are managed

Recetas Urbanas
Santiago Cirugeda

OPEN CALL
15 April - 12 May
Sign-up form

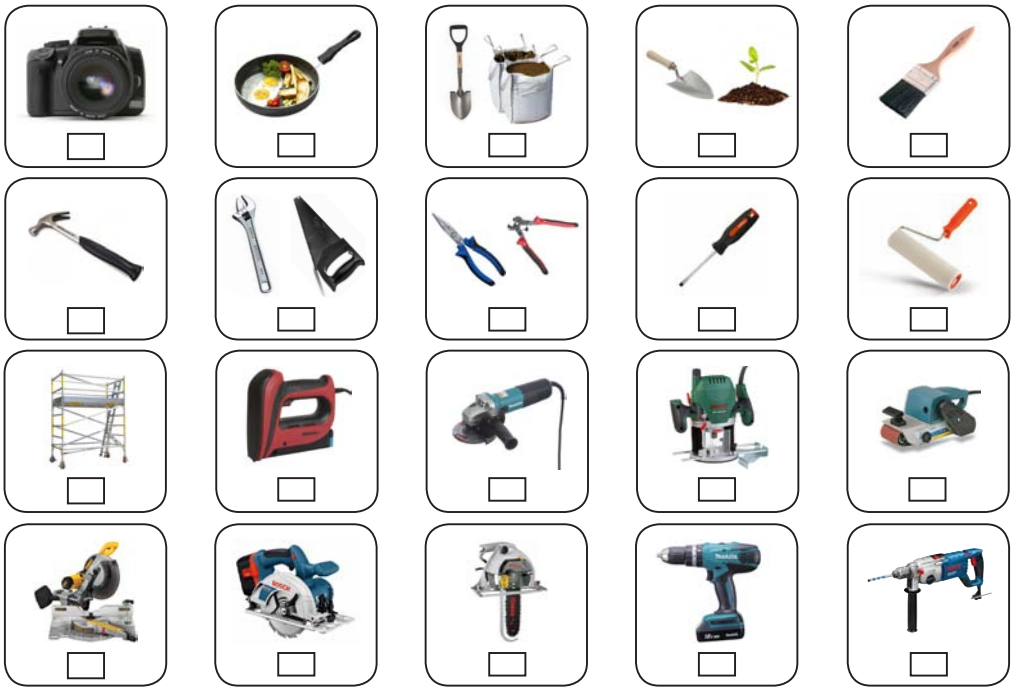
JUBILEUMS PARKEN

Name*
E-mail*
Phone

LET'S BUILD TOGETHER IN JUBILEUMSPARKEN THIS SPRING!

Mark each box using this legend:

E	L	W	X
Very easy for you	You know a little	You want to learn	NO WAY!



Are you familiar with construction-related activities? Please include any experience you have as a professional or as an amateur.

.....

.....

	M	T	W	T	F	S	S
APR	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
MAY	29	30	01	02	03	04	05
	06	07	08	09	10	11	12

The set dates are indicative of the team's availability on the site. In order to effectively facilitate your participation, mark the days that are convenient to you.

Work sessions:
M> morning
A> afternoon
F> full time

please fill the file, name it with your full name and send it to: **gotworkshop@recetasurbanas.net**

ÄLVSTADEN | Göteborgs Stad

Interreg North Sea Region BEGIN European Regional Development Fund | EUROPEAN UNION

△ Figure 2. Recetas Urbanas, Jubileumsparken, Goteborg, 2019. Tool and skills sheet.

in unconventional ways: rather than suggesting a legal and labor closure of the site, visitors are welcome. The design, site management, health and safety coordination, and construction of the building are the responsibility of Recetas Urbanas, working with a team of four architects, four construction workers, and dozens of collaborators, users, and volunteers, who make up what Santiago calls "The crazy army." For example, this very morning, eighty students from the architecture schools of Alicante, Seville, and Malaga have assembled and varnished several laminated wood trusses in four shifts and groups of twenty people, coordinated by Cirugeda and aided by four workers from his company. The teams set to work after receiving a brief introduction to construction procedures, tools, and safety measures, signing in the attendance register for personnel entering the site and putting on their gloves and helmets.

The hacking actions described affect not only conventional construction protocols but also the business logic of construction. They originated from two experiences developed by Recetas Urbanas in 2005 and 2006 in Málaga and Granada, respectively, with university students. In Granada, an elective course on construction was organized as part of the Aula Abierta (Open Classroom) program at the School of Fine Arts. To this end, Cirugeda drew up a sophisticated protocol containing tool and operation sheets and safety measures, which enabled the enrolled students to dismantle a building belonging to the Provincial Council of Granada that was soon demolished. Subsequently, this raw material was reused to design and build the students' workspace in response to a lack of infrastructure and a need for spaces of freedom that the community had been calling for. In Málaga (Figure 3), a similar exercise took place, although without material circularity, again activating a learning space where a large group of first-year Fine Art students were encouraged to build a classroom on the roof of their faculty, using instruction manuals and construction systems that allowed them to work collaboratively (Figure 4), following the sheets and protocols envisioned by Cirugeda (Figure 5).

These practices, which became more sophisticated in later works, such as those at the Madrid School of Design or the Dos Hermanas school canteen, peaked with the construction of the Cañada Real Community Centre in Madrid in 2019. Recetas Urbanas won a public design and construction tender for the Madrid administration with a proposal for a construction model that introduced 12 social clauses: identification, education, inclusion, resources, environmental sustainability, shared tasks, flexibility, events, savings, maintenance, fractal dimension, evaluation, and dissemination, providing added value. In these exercises, Cirugeda's concept of 'structures of socialization' unfolds. According to Lara García Díaz (García Díaz 2020), these are "intricate ecological systems of social relations that gain value through processes of self-construction, self-management, and self-governance." The figures in this project demonstrate the potential of the collaborative construction model as a social and inclusive experience: the project involved 1,200 people, including approximately 600 minors, and 17 social organizations, from women's associations to neighborhood associations

△ Figure 3. Recetas Urbanas, Aulario Trinchera, Málaga, 2005.

△ Figure 4. Recetas Urbanas, Aulario Trinchera, Málaga, 2005. Collaborative self-construction process with students.

and migrant community centers, a prison, three universities, and numerous volunteers, all participating in a new construction process that lasted five months. The Recetas team mediated this process through operation, tool, and material safety data sheets, providing training in construction and occupational hazards, alongside social and community-building experiences such as paellas, shared meals, and moments of celebration and music. Characteristic of both technical and open cultures, the manuals used are an evolution of the technical-legal recipes proposed in previous years in projects for the occupation of public roads and the transfer of vacant lots, as previously discussed. In short, these resources enable cooperative building, guarantee necessary safety measures on-site, and allow for replication, evolution, and modulation of these processes (Kelty 2008), similar to how Linux open software functions.[11] Furthermore, they enable a particular work to become an open prototype, a citizen infrastructure (Corsín 2014), and a community space for learning and care shared among various interdependent actors (Puig de la Bellacasa 2017).[12]

Recetas Urbanas challenges a primary enclosure in architecture: construction governed solely by experts (Figure 6). Until the mid-nineteenth century, architecture manifested as

△ Figure 5. Recetas Urbanas, Aulario Trinchera, Málaga, 2005. Assembly diagram.

△ Figure 6. Recetas Urbanas, Centro Sociocomunitario in Cañada Real, Madrid, 2019. Hacked work safety measures signboard.

unique urban objects defined by use or significance (Habraken 2015). The displacement of a large part of the rural population to urban areas, alongside industrialization, created saturation that overwhelmed traditional protocols of city-making. This led to a need for planned urban growth, where housing had to be designed by an architect. In many instances, this was not a drastic change; rather, self-build and planned construction coexisted until they became dominated by expert knowledge. One technique in this process of domination was the codification of building art. Codification has intensified over the years, with the underlying aim of concentrating control of the construction process in fewer hands.

In contrast, Recetas's actions suspend this tendency by decoding the internal building processes, allowing a broad spectrum of citizens to participate (Figure 7). It is essential to recognize the role of these city-making processes in including people and groups at risk of social exclusion: migrants, prisoners, women, and the unemployed. Acting as members of "The Crazy Army," they are not only recognized as part of a group but also acquire motivation and skills that can improve employability. To this end, Cirugeda carried out a new hacking act allowing him to organize building work in an unprecedented way: therapeutic and training activities are exempt from complying with all building planning and security regulations. By falling into this category, the activation of this unregulated space created an educational and caring environment nested within these "structures of socialization." Furthermore, conditions for inclusion, equity, care, intersectionality, and participation are established by implementing workdays for women only and including a crèche and a community kitchen in the working space (Arrojo Naveira 2023). Though somewhat limited, these methods of going beyond conventional construction processes hack existing codes that usually separate the market from citizen participation from the perspective of shared practice.

2.3 Architecture in the Web of Life Beyond the Concept of the Carbon Footprint

> Rather than hacking, I'm interested in the alternative use of things. Now, everyone seems super interested in a circular economy, but it's fair to say that we have been moving around materials for 22 years. In the beginning, we did it because we were precarious—we'd use materials that were lying around in municipal warehouses, junkyards, or building rubble containers.... We started using them 'cause we were fucking broke. These days, there's a widespread environmental vision. But 22 years ago, I hadn't even heard of sustainability.... We did things with the tools that we had. And we still do. We've

△ Figure 7. Recetas Urbanas, Bioalverde, Sevilla, 2023. Workshop with students. (Credit: Authors.)

maneuvered more than two million euros in materials. Everything's taxed, listed…

…In the [use and] maintenance [manual] for the school in Dos Hermanas, it's stated that people have to get together every two years—it's written in a very formal way—15 families have to get together around a barbecue or a paella…. A cooler full of beers is fundamental…. White enamel paint, a brush, paint roller, and paint thinner…live music. And repainting will then be carried out. People will probably say, "this guy is joking." No. We're introducing regulations that relate to the fact that the way to self-renovate and maintain a building is not just physical but social. And an architect can do that. That's where the creativity is—knowing that every two years, we have the option to meet in that school to paint the façade and have a feast. Because it even says so on a piece of paper![13]

In February 2007, in Zaragoza, Santiago Cirugeda gave a lecture. In the audience was Juan Rubio, a technician from the city council's Municipal Society, who, after learning in detail about the practice of Recetas Urbanas, approached Santiago and told him that 14 temporary municipal dwellings, linked to the rehousing of a settlement, were going to be dismantled and that the 42 prefabricated containers used to make them were going to the scrapyard. Cirugeda visualized the potential for the material reuse of these architectural objects. On March 1, he activated a network of like-minded contacts, including the collectives Straddle3 and Todo por la Praxis. He suggested lending these containers to build new spaces for citizen initiatives. New projects would have the technical support of Recetas Urbanas. Given the free raw materials, they would only need to find land, a community, and the necessary permits and resources to build each project. Between April and November 2008, near Vigo, in Galicia, the association Alga-A and Recetas Urbanas converted six of the 42 containers into a space for artistic and cultural creation and production after obtaining a ten-year land lease.

Material circularity has been a principle in Cirugeda's architecture since its inception. Reusable catalog pieces, such as building stabilization elements, scaffolding systems, and standardized wooden beams, coexist with reused items, including recovered windows, dismantled roofing sheets, and other usable materials.[14] This reduction in ecological footprint also leads to economic savings in construction, which Cirugeda conveys to the client through a format inspired by standard purchase receipts. Nevertheless, the environmental impact

Recetas Urbanas
ESB91582346

AMPLIACIÓN AULAS ESCUELA SUPERIOR DISEÑO
DIRECCIÓN: CAMINO DE LOS VINATEROS 106, MADRID.

.....

TRABAJOS PREVIOS			2,15
MOVIMIENTO DE TIERRAS			0,03
ACOND.DEL TERRENO			0,51
CIMENTACIONES			2,56
ESTRUCTURAS			31,61
Ahorro Autoconst.	-4,16	27,45	
CUBIERTAS			4,27
Ahorro Autoconst.	-1,19	3,08	
ELECTRICIDAD			5,21
ILUMINACION			3,09
CONTRA INCENDIOS			0,70
AIRE ACONDICIONADO			7,97
AISAM.E IMPERMEAB.			1,99
Ahorro Autoconst.	-0,31	1,67	
CERRAMIENTO			7,96
Ahorro Autoconst.	-3,26	4,70	
CARPINTERIAS			2,38
Ahorro Autoconst.	-0,18	2,21	
VIDRIERIA			0,93
GEST.RESID.DE CONST.			0,56
SEGURIDAD Y SALUD			2,39
CONTROL DE CALIDAD			0,27

Ahorro por reutilización		
Estruct.REHASA	56%	- 3,84
VigasyTableros T20	43%	- 4,12
Pasarela T20	8%	- 0,07
Containers-cas.obra	50%	- 3,61
PanelSandw.Cubierta	52%	- 1,34
Vigas Terraza	34%	- 0,17
Aislamientos	42%	- 0,71
Paredes T20+OSB	23%	- 1,65
Revestim. Fenólico	38%	- 1,65
**********		
TOTAL OBRA (PEM)		48,32
Ahorro en obra	35%	26,27

Desgloses	G.G. 13%	6,28
	B.I. 6%	2,90
		9,18
	IVA 21%	12,08
**********		
TOTAL A PAGAR **MILES DE EUROS**		69,58

FECHA: 19/11/2014 HORA:12.30

△ Figure 8. Recetas Urbanas, La Escuela Crece -ESDM-, Madrid, 2016. Budget ticket, including material save.

of his projects does not adhere to the prevailing market logic. Concerning energy certification, standards such as LEED, BREEAM, or Passivhaus are not direct concerns for the communities he engages with. Thus his work does not aim to set a benchmark for ecological aesthetics, which is why concrete, aluminum, and steel still feature in his constructions.

On the other hand, for Recetas Urbanas, the work does not end when the last screw is put in place. Their *Libro del Edificio* (*Building's Book*), another compulsory codifying element according to the Spanish Building Planning Act, regulates how a building must be constructed and maintained in the future to preserve its functionality, decorum, and performance. It not only describes the technical tasks strictly necessary for this endeavor but also proposes additional conditions or clauses legally inscribed, which imply events of socialization, celebration, learning, and reciprocal care (Figure 9). Through this approach, maintenance represents an emotional added value for the community involved. The discipline has often undervalued this compulsory document, a fact related to architecture's self-reclusion to the design and execution phases of building. In doing so, architecture has forgotten that beyond the value of the architectural piece itself, the connection between architecture and society lies in allowing buildings to be inhabited and transformed time and again.

Cirugeda's practice connects to a genealogical line going back to Cedric Price. This line includes the useful life of a building and its materials, as well as the conditions for disassembly and assembly. The concept of a building as infrastructure for socialization is a standard feature of Price's Interaction Center (1970) and Recetas Urbanas's Community Center (2019) (Figure 10). Beyond construction, Recetas Urbanas's practices reveal new elements, such as the carbon footprint of a building, which integrate the ecological sphere into the social realm. Unlike the traditional concept of the carbon footprint, which enforces obscure algorithms and complex calculations, these practices aim to create inventions that engage people, make concepts tangible, and foster socialization. This approach introduces alternative parameters for ecological and social sustainability.

3. Conclusions

If we accept that code isn't just a technical element but a central aspect of contemporary governance, we must explore coding and its implications in architecture to unpack how this discipline has been complicit in coding processes. For example, urban spaces have shifted from social negotiations to planning exercises managed by experts. Architecture has often struggled to recognize that its role can be valuable beyond the disciplinary circles that separate it from society. In this context, examining the work of Santiago Cirugeda serves as a powerful tool for reimagining the field. Although relatively unknown in the English-speaking academic world, his practice challenges prescriptive city-building codes. The overlap between protocols in urban space and the architectural discipline has long influenced professional practice and distanced it from its social environment. Despite its limitations and peripheral position, it can be argued that Recetas makes a concerted effort to decode 17 architectural actions that are significant for various reasons.

△ Figure 9. Recetas Urbanas, Centro Sociocomunitario in Cañada Real, Madrid, 2019. Collaborative meal during construction.

△ Figure 10. Recetas Urbanas, Centro Sociocomunitario in Cañada Real, Madrid, 2019. Collaborative self-construction process.

First, these practices expand the scope of architecture into legislation. To this end, Cirugeda has collaborated with lawyers and journalists from the beginning. His projects often highlight legal loopholes that allow the city to be utilized in different ways, while addressing the precariousness of public space—due to neglect, disuse of empty lots, or housing conditions in a city like Seville. In other words, the architect's role in the city evolves from that of an object-maker to encompass the realms of law and public opinion, weaving together diverse perspectives (Farías 2009, Farías and Blok 2016).

Second, they experiment with alternative construction methods that step outside the conventional construction market. Cirugeda utilizes prefabricated, reused, and reusable elements, expanding the imagination and aesthetics of architecture within the realm of what is under construction.

Third, Cirugeda's practice focuses on collaboration to challenge the logic of the construction market. To achieve this, he utilizes standardized catalog material systems that can be easily assembled by nonexperts without special machinery—just hands, screwdrivers, spanners, hammers, and pulleys. Furthermore, his practice considers work and leisure as infrastructures of care, learning, and socialization, employing technical specifications and legally binding protocols.

Cirugeda's work is part of a larger network, a recursive public (Kelty 2008) of well-known architectural practices that go beyond the material design of objects. Developed over the last 25 years, these practices relate to the broader realms of urban management and legislation. They move from project and building to open-source design protocols or hacking regulations and construction processes. In so doing, they offer alternative perspectives for urban action in the face of current hegemonic models that are compliant with an overly coded world.

Data Statement

Data is available on request from the authors.

Notes

1. M. Wark uses the exact term 'master layer' instead.
2. On the transference of the digital realm into physical space, see William Mitchell's key work *Me ++: The Cyborg Self and the Networked City* (2003): "Most of us, in our daily lives, need access to many different physical and online places. Consequently, we must carry numerous access devices and remember multiple IDs and passwords.... As our identities become more complex and multifaceted, they increasingly require sophisticated management, and software is emerging to fill the need," Mitchell, 194.
3. Following Foucault (2003), norms are not natural laws, but a series of principles and the effects they cause where they are introduced, ultimately legitimating specific ways of exercising power.
4. Translator's note: Código Técnico de la Edificación (CTE) in the Spanish original.
5. Recetas Urbanas (Urban Recipes) is the name of the office and network of urban activism through which the Sevillian architect Santiago Cirugeda has operated since 2003.
6. Translator's note: Ley de Ordenación de la Edificación (LOE) in the Spanish original. This is the current applicable legislation in Spain. The LOE defines basic requirements in construction, determining their scope of application and the competences and obligations of building agents. The Technical Building Code establishes the basic requirements for safety (structural, fire, and use) and habitability (health, energy, and environmental conditions) of buildings, setting objectives, requirements, verification methods, and accepted solutions.
7. He had previously used the name "Architectural Games," to underline a playful dimension of city-making.
8. Santiago Cirugeda, interview carried out by the authors, 2021.
9. Although the term "alegal" is not officially recognized by English language dictionaries, there are some debates that suggest its relevance as a foreign word. Through a brief graphic manifesto called "trilogy about legality," Santiago Cirugeda distinguishes some differences dealing with what is possible in a sociopolitical framework (legal), what is forbidden (illegal), and what is unclear or not

previewed (alegal), which is in fact an interesting figure that activates the possibility of hacking the code.

10. Santiago Cirugeda, interview carried out by the authors, 2021.

11. Linux is an operating system (or rather the GNU kernel), created and released by Linus Torvalds in 1990. The particularity of Linux is that it is a free and open system, developed and improved by a global community, and that it is used for its reliability in most of the servers that support the Internet. Christopher Kelty explains the relevance of this type of social practice, which we connect with certain ways of making cities explained in this paper: "Linux and Apache are more than pieces of software; they are organizations of an unfamiliar kind. My claim that they are 'recursive publics' is useful insofar as it gives a name to a practice that is neither corporate nor academic, neither profit nor nonprofit, neither governmental nor nongovernmental. The concept of recursive public includes, within the spectrum of political activity, the creation, modification, and maintenance of software, networks, and legal documents" (Kelty 2008).

12. Working with guides and manuals becomes common among other groups. Two relevant cases would be those deployed by Raumlabor in numerous workshops and urban experiences, another would be Inteligencias Colectivas (Collective Intelligences)—www.inteligenciascolectivas.org—a project developed by Zoohaus which operates as an ethnographic archive of popular architectures, including original design sheets and upgrades thereof. Cirugeda himself, within the Network of Collective Architectures, which brings together 100 European and Latin American architecture groups, has worked on the edition of open manuals for the activation of public infrastructures (empty urban lots, abandoned buildings), or on the management of digital platforms to share reused material resources, such as Grrr.tools.

13. Santiago Cirugeda, interview carried out by the authors, 2021.

14. One of the latest sources of materials for Recetas Urbanas comes from the shootings of production companies that work for platforms such as HBO or Netflix, whose sustainability departments Santiago is in contact with. These platforms comply with American regulations and oblige their production companies to comply with sustainability standards (Green Production Guide) in which a reused origin and a reusable end for their sets are valued. The entry of Recetas Urbanas into this organization scheme allows the circle of material sustainability to be closed.

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