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Architecture as Critical Exercise: Little Pointers Towards Alternative Practices

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Taking architecture as an event implies looking at it as an open process. This openness means not merely opening finished objects towards their use, but the openness of the whole process of design, building and use. Ultimately, it means the autonomy of builders and users and the end of a fragmented production of space. The question is, what would then be left for architects to do? In our opinion, some very relevant tasks: in the first place, a constant and incisive theoretical and practical exercise of critique; secondly, the production of interfaces or instruments for helping all actors involved to realise their own critical actions on space; and thirdly, any mediation required between the actors themselves and those interfaces or instruments. These possible practices, along with others we might not even be aware of, are attempts to overcome the production of space as 'reproduction of the social relations of production'.[1] We draw references from the informal production of dwelling space in the Brazilian *favelas*, as well as from the art of Lygia Clark, to suggest little pointers towards alternatives to the formal, heteronomous, normative and problem-solving practices of architecture.

[1] Cf. Henri Lefebvre, *The Survival of Capitalism: Reproduction of the Relations of Production*, (New York: St. Martin's Press, 1976).

In order to discuss alternative practices in architecture, and also to explain what our research group is trying to do, we may start with the definition of architecture itself. But, don't worry; this will not be a treatise on the whole range of intricate definitions that architectural theorists have delivered throughout history. Let us just examine three basic meanings of the term.

In a first sense, architecture refers to a corpus of specialised knowledge and practices which constitute an art, a profession, a discipline or, as Pierre Bourdieu would synthesise, a 'field'.[2] The object of that discipline or field is supposedly man-made space, just like the object of medicine is health, or the object of cooking is food. In spite of that architecture as a field does not accommodate most man-made spaces. Thus, in a second sense, architecture means the very small portions of man-made space historically addressed by this specialised knowledge.

[2] Cf. Pierre Bourdieu, *A Distinção: Crítica Social do Julgamento*, (Porto Alegre: Editora Zouk, 2007).

The Australian architect and sociologist Garry Stevens,[3] who has analysed the architectural field in terms of Bourdieu's theory, understands that the disciplines' main rationale since its establishment in the Renaissance has always been the design of buildings for the representation of power, and not the design of pleasant spaces for all. Therefore, architecture in this second sense consists of extraordinary buildings, places, or landscapes, which contrast against a background of other spaces not legitimated by the discipline. Although such outstanding objects are the main topic of specialised publications, academic lectures on the history of architecture, or discussions among professionals, they are rather irrelevant to everyday life. Moreover, architects' products are actually their drawings

[3] Garry Stevens, *The Favored Circle: The Social Foundations of Architectural Distinction*, (Cambridge: MIT Press, 2002).



Fig. 1. Central area of Belo Horizonte, Brazil, ennobled by a famous piece of architecture, which would score high in the (play)field of the architectural discipline. Photo: Marina Amaral Horta, 2005. Collage: MOM.

and not buildings, as since the Renaissance, the specialisation of the field has turned to abstract conceptions instead of focusing on concrete constructions.

We could add that the often-diagnosed crisis of architecture is in fact a crisis of the 'field'. The field as such has been at risk since the 20th century, because power has much more powerful ways to represent itself than by mere buildings. To mention just one symptom of this situation: every architect knows that winning a competition or having drawings widely published is as important as actually building anything. If it is true that the architectural field is ultimately focused on the representation of power, then it is just a consequence of the fact that for a politician or a government, announcing a new project underlined by beautiful drawings earns as many votes as the enterprise of building itself. Hitler was probably the first politician who systematically used this strategy of obtaining the effect of actual buildings through impressive representations (by means of architectural models shown in motion pictures).[4]

4 Cf. Documentary directed by Peter Cohen, *Undergångens Arkitektur*, (Sweden: 1989).



Fig. 2. The area shown in Fig. 1 as it really is. A small illegal self-produced settlement (*favela*) is surrounded by legal buildings designed by architects or engineers for the real estate market. The workers who build the legal buildings neither design nor use them. They probably live in places like the small *favela*. This illustrates two very different processes: one in which design, building and use are separate from each other and one in which they happen simultaneously. Photo: Marina Amaral Horta, 2005.

The third meaning of the term 'architecture', and the one we will insist upon, is *the transformation of space by human work*. The term stands for a process, not a product; it neither depends on size, scale or function, nor on the presence of a design or previous plan; and it emphatically includes everyday spaces, such as dwellings or unpretentious public facilities, which are the focus of our research to date. This is a very wide definition and we

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know that it does not satisfy some of our colleagues, but we have to go a bit further to show why we insist on it anyway.

According to the inner logic of the architectural field, the distinction between architecture in the second sense (also called 'real architecture') and architecture in the last sense (also called 'ordinary building'), is usually based on a sort of artistic, mythic, formal or metaphorical quality. It has, in fact, little to do with 'real' construction and use and seems very hard to explain—so hard, that it is employed like a secret code. Who gets it has some chance to reach a powerful position inside the field, who doesn't will at best occupy a subordinate position, working for other architects or designing mass products for the building industry that are not accepted as 'real' architecture. So, if we want to discuss alternative practices, the first step is to break through such an excluding logic and instead to take every transformation of space by human work as an object of investigation and reflection. This means giving up the ideals of authorship and integrity for the architectural work, as well as the assumption that users and builders are passive subjects willing to conform their actions to the imagination of the architect. It also means not to avoid questions related to sociology or political economy, such as the real estate market, public policies, or spontaneous and informal production. A theory about architecture in this wide sense is still unwritten, and this has a quite obvious reason, since the field as a whole tends to privilege exclusive and excluding discourses over those that could blur its own limits. In concrete terms, that is to say that architects prefer the certainty of their traditional roles to reasoning that undermines the exclusivity of their skills. If every transformation of space by human work were taken as architecture, what would be left for architects to do?

In our opinion, some very relevant tasks that are concerned with providing a means of autonomy for people involved in the production of space. In the following sections we will try to clarify those processes that we are investigating, though there might be many others. Firstly, the constant and incisive theoretical and practical exercise of critique; secondly, mediation, if and when mediation is desired; and thirdly, the production of interfaces or instruments to help actors realise their own critical actions on space. However, before explaining these possibilities, it is important to remark that we are not asking for the replacement of all conventional architectural practices by these alternatives. Besides being incredibly presumptuous, this would just be another constraint. What we intend is to try some different ways, without turning them into new norms.

Critique

Let us begin with the critique. It is quite common, at least in our architectural context, to hear complaints about people who just criticise without offering a better solution—it is called 'destructive critique' in

opposition to a supposedly 'constructive' one. In other words, if you don't know how to improve things, stay quiet and do not disturb others by questioning. This is probably one of the most ideological and conservative assertions ever put forth. Why shouldn't we express disagreement or uneasiness even without knowing the problem precisely or having a solution? In natural sciences no one would contend that a disease should not be described and debated until a cure is available. But this very logic is applied constantly to social or practical matters inhibiting protest, disqualifying opposition, and killing discussion. This is inconsistent; for a critique focused on domination and heteronomy—and every serious social critique is ultimately focused on these—to instantly delivery a new 'solution' would just reproduce the normative character of the very object of the critique. Prejudice against critique serves only to keep things going as they are.

The philosophers and sociologists, Max Horkheimer and Theodor Adorno put it in a more elegant way. They coined the expression 'critical theory' for the attempt to discern why, in spite of all the instruments available, human suffering has never stopped increasing in modern society. Adorno says:

> We may not know what the human being is and what the right form of human things would be, but we do know what the human being shall not be and which form of human things is wrong, and only this determinate and concrete knowledge keeps the other, positive, open for us.[5]

Or in Horkheimer's words: 'I see myself as a critical theorist. That means that I can say what is wrong, but I cannot define what is right.'[6] So, the task of a critical intellectual is to discern, to understand, to show 'all circumstances in which man is humiliated, enslaved, abandoned and despised'.[7] For Karl Marx it was a categorical imperative to change those circumstances. But modern industrial society humiliates, enslaves, abandons and despises people in ways that are far less evident and far more diverse than the oppression of the 19th century working class. Making those ways intelligible is the task of critical theory, whilst individuals must decide for themselves what to do.

Why do we then talk about the 'theoretical and practical exercise of critique'? How does the term 'practical' apply to such a critique? A critical exercise is at once a form of theory and a form of praxis. It tends to be more theoretical as long as it concerns society as a totality, and it becomes more practical as it approaches specific situations. But in no case is it intended as a manual, a manifesto or a problem-solving strategy. It does not supply universal rules or general statements of what kind of space would be good for human beings. It always remains critical and non prescriptive.

5 Theodor Adorno, 'Individuum und Organisation', in Theodor Adorno, *Soziologische Schriften I*, (Frankfurt: Suhrkamp, 1995), p. 456.

6 Max Horkheimer, 'Zur Kritik der Gegenwärtigen Gesellschaft', in Hermann Glaser, Karl Heinz Stahl (eds.), *Opposition in der Bundesrepublik: Ein Tagungsbericht*, (Freiburg: Rombach, 1968), p. 21.

7 Karl Marx, 'The Critique of Hegel's Philosophy of Law', in David McLellan (ed.), *Karl Marx: Selected Writings*, (Oxford: Oxford University Press, 2000), p. 69.

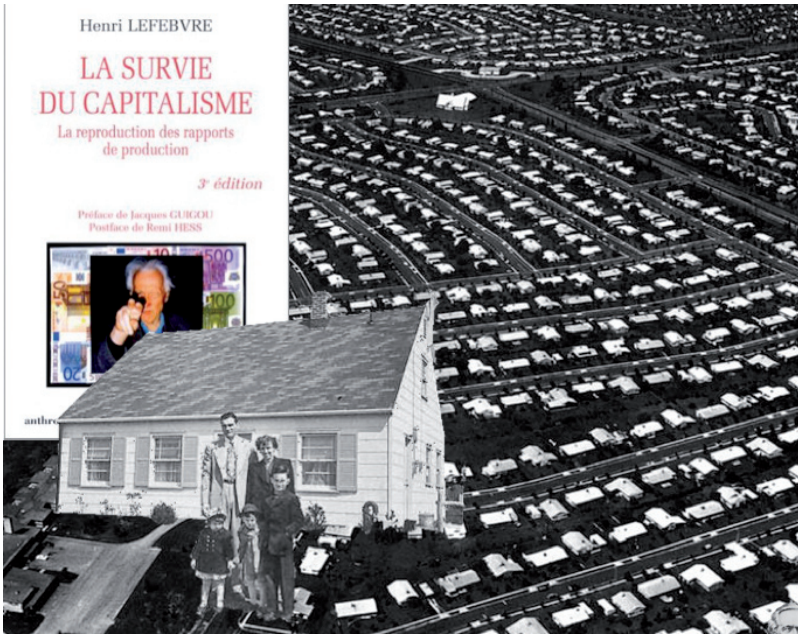


Fig. 3. 'Reproduction (of the relation of production, not just the means of production) is located not simply in *society as a whole* but in *space as a whole*. Space, occupied by neo-capitalism, sectioned, reduced to homogeneity yet fragmented, becomes the seat of power.' (Henry Lefebvre, *The Survival of Capitalism,* p. 83). Images: EA-UFMG Archive. Collage: MOM.

On a more theoretical level, two authors seem especially important to the critical understanding of architecture. The first one is Henri Lefebvre, the French sociologist who has investigated in detail the idea that space is the main structural element of social relations. In a very interesting book called *The Survival of Capitalism: Reproduction of the Relations of Production*, written just before *The Production of Space*, Lefebvre sets out some crucial statements about space and society.[8] He argues that the persistence of capitalist social relations is not self-evident. It is neither 'natural' nor 'obvious' that a mode of production to which crisis is inherent, manages to maintain productive forces constantly subordinated to contradictory relations of production. Marx had already clarified the mechanisms of crisis in capitalism, showing that recession, unemployment and poverty are part of the system, not its failures. This made him believe that capitalism would collapse. But he was wrong; in time, the crisis became worse and the mechanisms of domination became stronger. Therefore, Lefebvre asks how capitalism maintains and renews itself generation after generation. His answer is that capitalism survives due to its capacity to produce space according to its own logic, and to accommodate any resistant niches into itself. Capitalism is not a mode of production beside others, because in spite of its inconsistencies and contradictions, there is no 'beside' anymore.

It is easy to understand what Lefebvre means by looking at the spaces marginalised by this logic, such as exotic landscapes, historical towns, squats, or Brazilian *favelas*. Those spaces are the concrete figures of

8 Henri Lefebvre, *The Survival of Capitalism*; Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith, (London: Blackwell, 1991).

dialectics; they would not exist as 'exotic', 'historical' or 'illegal' without a dominant order categorised as 'normal'. But at the same time, especially in the case of squats and *favelas*, the very (economic) order that makes them marginal is also the one that has produced them in the first place, and has always depended on the labour force they provide. As soon as such spaces achieve some political or economic strength, they are neutralised by a set of 'plans', which may consist of direct physical interventions or 'requalifications', or of other abstract measures like the need for a connection to the international air transport system, the nomination of a place as cultural heritage or some regulation of urban property. All this may appear as an attempt at inclusion, but it also imposes the dominant order upon these spaces.

This dominant order means, first of all, heteronomy or that individuals and primary groups are no longer able to negotiate and to decide for themselves. Even if participation is part of public policy, the whole process of the production of space turns out to be bureaucratic, far from the understanding of most people, and dominated by so-called 'technical' decisions. Therefore, one of the main goals of a critique is to show how the general and abstract logic of the production of space determines people's lives and forces them into a passive role.

The very concept of 'user', so commonly applied in architectural discourse, only makes sense in the context of a capitalist production of space, as shown by Lefebvre. Users are people who by definition, do not produce space but receive it in forms determined by others more or less worried about their own well-being. Modernist architects generally

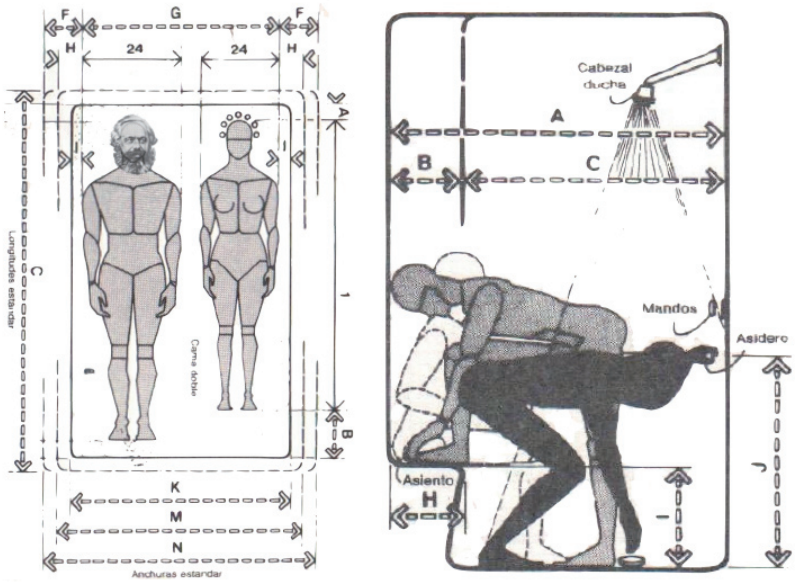


Fig. 4. Ergonomics playing the role of conforming users to spaces. Images: Julius Panero and Martin Zelnick, *Human Dimension and Interior Space: A Source Book of Design Reference Standards*, (New York: Watson-Guptil). Collage: MOM.

presumed that they knew the universal needs of the users better than the users themselves. Later, this position gave way to a more empirical approach, in which specific features of concrete communities and groups were taken into account. But as long as we work with the idea of having users, we are still operating within the same logic. The very fact that there is no better expression to designate people who live in the spaces produced with the help of architects, is itself a symptom of our imposing practice. Since we apply the term anyway, we should at least be aware of its entanglements.

Yet, some architects are working on a critique of the passive role of the user, seeing architecture more as an event than as an object. But often they do not really reach a point where relations of production are questioned. Bernard Tschumi, for instance, advocates that it is not important what a building looks like but what it 'does'.[9] In any case, who defines what a building shall 'do' is still the architect and not the user or the practice of use. The proposed design process for such an event-architecture is often based on prescriptions of movement. (An example is the American Pavilion at the Venice Biennale 2000. Hani Rashid and Greg Lynn, together with their students, have recorded the movement of a person within the empty pavilion and then created a kind of wire-frame structure representing her movement. This structure was placed inside the pavilion, resulting in it being a greater obstacle to other people's movement than the empty pavilion itself).[10] Alberto Pérez-Gómez and Louise Pelletier, for their part, stress the experience of the user in a given space. Pelletier even focuses on the role of ephemeral architecture in an attempt to emphasise experience over the conception of finished buildings.[11] But since the social process of production is hardly discussed, such a user remains a contemplator, or at best an interpreter of a given poetry. Finally, Sarah Wigglesworth and Jeremy Till see architecture as an event closer to the way we do, envisaging a design for action.[12] Their practice also contrasts to most designs in welcoming the change that an event-based principle of design and building will inevitably engender. But even in this case there persists the premise that conception, building and use are separate operations. Going a bit further, the way we see architecture as an event means that the whole process of the production of space needs revision, from designing to building and using. Instead of basing design on a prescription of events, on foresight, on previous experience, or on careful observation, our question is how to provide instruments or interfaces that allow people to communicate their desires: to simultaneously design, build and use their spaces. Such instruments would be like alphabets and words, with maybe some glimpses of grammatical rules, but surely no texts. Architecture would be part of the action, not its background and neither its well-defined outline.

A second very important author for a critical discussion on architecture, is the Brazilian architect and artist Sérgio Ferro. In the sixties, having

9 Cf. Bernard Tschumi, Lecture at Bartlett School of Architecture, UCL, 28 November 2002.

10 Cf. Asymptote.net, '2000 Venice Biennale U.S. Pavilion', (2008); www.asymptote.net.

11 Alberto Pérez-Gómez and Louise Pelletier, Lecture at School of Architecture, UFMG, Brazil, 5-7 August 2007.

12 Cf. Sarah Wigglesworth, 'Place setting—Wigglesworth and Till Architects', in Peter Cook and Neil Spiller (eds.), *The Lowe Lectures: The Power of Contemporary Architecture*, (London: Wiley, 1999), pp. 116–19; Jeremy Till, 'Too many ideas', *EAAE News Sheet*, 59(1)(2001): 20–24.

recently graduated, he took part in the design of buildings for Brasília, the new Capital. The contrast between the inhuman conditions of those building sites and the political and architectural discourses on freedom and democracy, which supposedly gave rise to the whole enterprise of Brasilia, led him to formulate a radical critique of all architectural design. In Ferro's view, design is nothing more than a way to turn architecture into a so-called 'commodity-form', or in other words, the existence of a previous design is the main condition for the systematic production of architecture as commodity.[13]

[13] Cf. Sérgio Ferro, 'O Canteiro e o Desenho', in Sérgio Ferro, *Arquitetura e Trabalho Livre*, (São Paulo: Cosac Naify, 2006), pp. 105–200, [our translation].



Fig. 5. According to Sérgio Ferro, design is necessary to turn architecture into commodity, controlling its process of production by predefining the product. Brazilian magazines of 1947, 1971 and 2007 show the privately owned home (in Portuguese, *casa própria*) as an unquestionable object of desire. Images: *Arquitetura e Engenharia, (*6)(1947); *Veja,* September 1971; *Veja,* March 2007. Collage: MOM.

As every other process that produces commodities for the sake of maximum profit, the modern building industry depends on the extraction of surplus value, which means that the employed labour has to produce more value than it receives in payment.

This condition is very difficult to achieve if builders work in largely non-hierarchised group, with widespread manual and intellectual skills, taking decisions and carrying them out as part of the same process, and defining its outcome only gradually. In other words, the prevailing order of almost every building site of medieval times, of most ordinary (non-monumental) building sites up to the 19th century, and all spontaneous or informal building sites is inappropriate for the capitalist building industry. It is called 'backward' and contrasted to a 'modern' approach. Ferro argues that Brunelleschi was the first to engage in such a 'modern' order, guaranteeing the extraction of surplus value. The way Brunelleschi acted in the Duomo's building site illustrates that:

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> Faced with a strike for better wages (already extremely diversified), he [Brunelleschi] imports non-Florentine workers, managing to end the strike. And he only accepts the original workers back for smaller wages than those that had prompted the strike (in another words, he is taking care of the absolute surplus value). Worried by the loss of time and energy, [Brunelleschi] installs a canteen on the top of the dome [...] to stop the workers going down to eat, drink, meet each other and talk (we can recognise his aim: the relative surplus value) [...]. He did not hesitate, for example, to fake a disease making the hated Ghiberti lose his position as construction manager as he was ignorant of the tricks of his drawings.[14]

[14] Ibid. pp.105–200 (our translation).

The design, conceived separately and coded in a drawn language builders may understand but are not able to operate with, makes it possible to 'modernise' the sector. Builders can be alienated from the decisions and results, hierarchised according to specific skills and employed at low wages. Disqualification of labour here is very similar to that of a classic factory, with the distinctive feature that its domination has to be consistently reproduced through violence, since on most building sites machinery is not complex enough to assure the division of labour. Unlike workers in a factory, building-workers are usually aware of the fact that the hierarchical order, which subordinates them is not a technical but an administrative feature, and that they would be able to do the same or even a better job without such an order.

Complementary to this short explanation of Ferro's main ideas, it should be noted that the production of surplus value depends on technologically less developed branches, or to be more specific, on labour-intensive sectors such as building construction. Every period of economic growth since the Renaissance was in some way related to intense building activity, not as its consequence but as part of its cause. And as far as we know such a building activity always provides jobs in the worst conditions and at the lowest wages. This was true of the 'Brazilian miracle' during the sixties and seventies, and is still true in the China or India of today. Even in rich countries, such as France, England or Germany, building is hard work carried out mainly by immigrants or other underprivileged social groups. In the face of such evidence, it seems quite bizarre to take Oscar Niemeyer's forms as an expression of freedom. They are in fact just metaphors of lack, because their legendary freedom of gesture only means bondage for others. Obviously we are not blaming architects for the whole mode of production of our society, but if we want to discuss any alternative practice we must question the economic function of design.

During the last couple of decades a lot has been said about the relation of autonomy to architecture, in most cases discussing architecture's status as an autonomous art or science. But autonomy, as well as heteronomy, involves the *nomos*—that is to say the norm. Norms are defined by





Fig. 6. A typical informal building site with no hierarchy at Aglomerado da Serra, Belo Horizonte, Brazil. Photos and Collage: MOM, 2007.

Fig. 7. The famous inverted dome of the National Congress in Brasília designed by Oscar Niemeyer. The structurally inefficient shape demanded an extraordinary reinforcement of the concrete only made possible by very hard and boringly meticulous work. Photos: Marcel Gautherot, 1959, Instituto Moreira Sales Archive; Reynaldo Stavale, Chamber of Deputies of Brazil, 2007. Collage: MOM, 2007.

people through human action and are not similar to natural laws or mechanical devices. Therefore, nothing but people can be autonomous. The expression, 'autonomy of architecture' only means that architects, editors, theoreticians and other actors of this cultural field—which, as said before, covers only a small part of architecture as event—follow a set of norms historically defined by themselves. And such norms serve a double function. Applied on the outside on users' lives and builders' labour, they

appear as heteronomy and take part in a larger context of domination. On the other hand, the assumption of autonomy protects us against the crude consciousness of this context. In the name of autonomy, the field can refuse to see mass production as 'real' architecture, even though architects mostly design ordinary spaces. Domination always seems more acceptable if it is only an exception: a means to an end, which is a noble art. About Niemeyer's work in Brasilia, most specialists would agree that it was worth the pain.

If we are really interested in a free society we should change perspective and privilege the autonomy of people affected by architectural practice over the autonomy of architects. The only norm for architecture in this case would be a negative one: the more an object or process restrains the autonomy of individuals or primary groups, or imposes dependency on large systems, institutions or interventions, the worse it is. On the other hand, the ideal of such a view would be to emancipate both groups by reverting their separation according to the economical functions of mere consumers or mere labour-power.

Mediation

An everyday production of space, which in some aspects resembles the idea of emancipation, happens in Brazilian favelas today. Nevertheless, the *favela* space should not be romanticised as it occurs out of necessity not choice. The relative autonomy of the *favela* dwellers in the production of their spaces is a direct consequence of their marginal position in the economic system, which excludes them from the consumption of architecture as a formally produced commodity. Any of its possible advantages are born out of its antagonisms within the socially dominant order. It is exactly this antagonistic situation that leads us to the second task mentioned above: architectural practice as mediation in the service of people's autonomy. Mediation means that architects act upon users' requests for removing obstacles to the construction of knowledge and taking of action.
Favela dwellers decide by themselves what to do, working within unconventional relations of production, without separating conception, construction and use. The low-income self-producers we have talked to do not have a plan to rationalise construction and make it cheaper, they keep no record of their expenses, and they do not hesitate to experiment. But in *favelas* building also means hard work because it uses techniques and materials forged by and for heteronomous processes. In fact, *favela* dwellers are excluded from the formal real estate market but at the same time they represent a significant percentage of the consumption of industrially produced building materials, such as cement and its derivates. These techniques and materials do not favour an autonomous process, for instance making difficult the engagement of women and children, the reuse of building components, or open experimentation. There is a basic

contradiction between quasi-autonomous relations of production and heteronomous means of production. Mediation can be useful in bridging this gap, provided that we distinguish very carefully between situations in which the mediation of an architect is desired and those in which it would only restrain autonomy.



Fig. 8. Mediation is not wanted in the building process of Francisco's house at Aglomerado da Serra. Photo and Collage: MOM, 2007.

Francisco, a self-builder in Aglomerado da Serra, the biggest *favela* in Belo Horizonte, is an illustrative example of someone who manages to bridge the aforesaid gap with his own inventiveness (we have already extensively described this in another paper).[15] Francisco is building his house as he conceives and uses it. There is no division between intellectual and material work and therefore he achieves forms and spaces that would be impossible to design. As most people in *favelas*, he does not know any other techniques and materials than the conventional ones, but he achieves his highly individual result because he is inventive enough to use these conventional resources in new ways. Perhaps if Francisco had more knowledge he could mobilise 'proper' technical resources for his specific architectural event and even increase his autonomy. But it could equally happen that a formal knowledge of techniques and materials developed for heteronomous production, would rather lead him to reproduce the formal logic of production. In his current work, he is not constrained by such a knowledge and at the same time his ignorance does not prevent him from acting. The same is not true of the mechanic Roberto, another self-builder in Aglomerado da Serra, who is in fact almost paralysed by his ignorance. Roberto is not particularly interested in building; he does it only because there is no choice. He seeks advice from his friends and neighbours and would surely welcome technical support. In his case, mediation means an increase in autonomy since it would enable him to develop his own spatial ideas.

[15] Ana Paula Baltazar and Silke Kapp, 'Learning from "*Favelas*": The Poetics of Users' Autonomous Production of Space and the Non-ethics of Architectural Interventions', in *Proceedings of the International Conference Reconciling Poetics and Ethics in Architecture*, (McGill University, Canada, September 2007) available; http://www.arch.mcgill.ca/theory/conference/papers.htm.

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Fig. 9. Mediation would be welcome in the building process of Roberto's house. The two images were taken in January and July 2007, showing that the only visible change in six months was the infrastructure installed through governmental intervention. Photos: MOM, 2007.

Another context in which mediation may be welcome concerns public infrastructure or facilities. In *favelas* people usually tackle only the immediate need of the dwelling unit, cutting out sanitation pipes just outside the house, or building in places with no vehicle access. Communities grow too fast to allow spontaneous negotiation and development of infrastructure. The usual institutional response to this situation is something between the radical extermination of the whole settlement or their urbanisation by means of an abstract plan. In all cases this is carried out from the top-down, being heteronomous, formal and normative, without any trace of the mediation we advocate. Instead of learning from the rich process of the production of space in *favelas*, the professionals involved just impose their own practices on them, reproducing the idea of predetermined finished spaces for generic users.



Fig. 10. Recent urbanisation in the Aglomerado da Serra, Belo Horizonte, Brazil. An abstract plan was imposed upon the concrete social and spatial organisation of the self-produced settlement, dismantling a long-established negotiation process. Photo: MOM, 2007.

In contrast, the urbanisation of the *favela* Brás de Pina in Rio de Janeiro, offers a glimpse of the kind of mediation we mean. This enterprise was very atypical because it happened against military policies, which dominated the scene in the sixties. At that time, Rio de Janeiro had two almost opposite agencies to deal with the 'problem' of *favelas*. The military group had created an agency called Chisam to remove them, and the journalist Silvio Ferraz had managed to create another one called Codesco for their local urbanisation. Codesco was only possible due to the elected governor Negrão de Lima, who tolerated it as long as it worked silently, without any propaganda and without affronting Chisam. In this context, the usual bureaucracy did not disturb the urbanisation of Brás de Pina and it was possible to provide mediation instead of an imposing plan. Ferraz hired a group of architects chosen by the local community and Brás de Pina turned into a process involving 998 families, including almost five thousand people.

> The scheme was simple: the people of the *favela* designed their houses (as dreamt by them), architecture students corrected any design mistakes and also estimated the costs; economy students verified people's ability to pay back debt by comparing their income with the estimated costs. Once this was done, people were able to get the cheque to buy building material in any shop registered with Codesco. This register was needed to make sure the shops were not overpricing. Eventually, more architecture and economy students were called in to supervise building and material delivery. Houses were not necessarily built with bricks and mortar. [...] There was no aesthetic prejudice. The only exigency was that every unit was to be connected to the water supply and sanitation systems. [...] Everyone had a say in every step of the decisions regarding the collective infrastructure, if not by directly deciding then by voting. As a result the houses built by the dwellers were almost 20m² bigger than those usually constructed through institutional intervention. [...] Lack of payment has never been more than two percent and was always justified.[16]

Negrão de Lima never sanctioned an event to inaugurate Brás de Pina's urbanisation, as it was clearly seen as an achievement of the dwellers, and not of the government. According to Silvio Ferraz it was also much cheaper and more effective in a range of social aspects than all other institutional interventions of that time.

We have tried a similar process of mediation, in the sense of removing obstacles to action, in the aforementioned *favela*, Aglomerado da Serra. The project was for a small institution, which offers complementary education for children and teenagers in dance, music, video, etc. They needed more teaching space. A contractor had suggested a building of bricks and reinforced concrete, which are the most common materials.

[16] Silvio Ferraz, 'Brás de Pina e Codesco', *Favela tem Memória*, (49) (29 June 2004); http://www.vivafavela.com.br/, [our translation].

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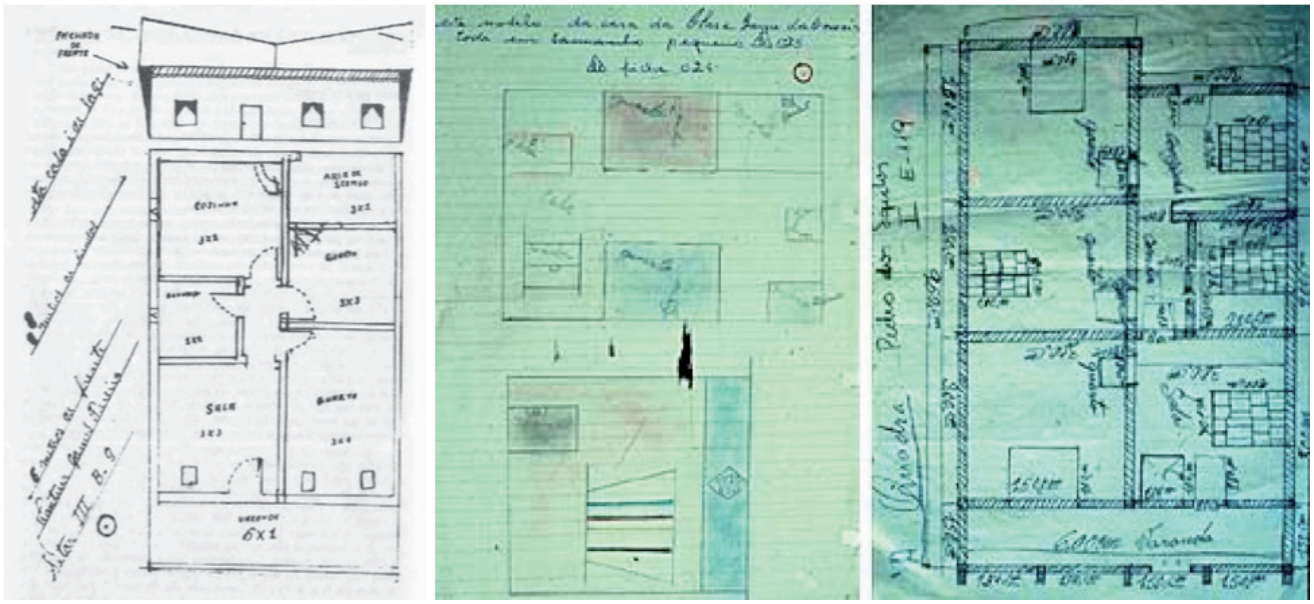




Fig. 11. Drawings from the dwellers of Brás de Pina. Images: Stella Pugliesi, *Urbanização de Favelas*, (São Carlos: USP, 2002). Collage: MOM.

Fig. 12. Teaching space at CIM, Aglomerado da Serra, Belo Horizonte, Brazil. The architecture is quite unconventional for its context, but the space is rather appropriate for the climate. It is now used for dance classes. Photos: MOM, 2006.

Since they had no money to build, they asked us for help. We found out that they already owned huge steel pipes and they could get some steel beams for free. Such materials are barely used in *favelas* and although they were freely available, there was no intention of using them. So we helped them to design and to calculate a structure using the steel components. The whole thing cost almost six times less than the conventional building proposed by the contractor.

It is our belief that if architects are to play a role in such processes, mediation is much more important than the design and control of finished spaces. As Brás de Pina illustrates, architects are only supporting actors together with economists, sociologists and other professionals. The mediation this favours is not intermediation: the architect in the centre trying to reconcile two strangers (whether two people or a person and a defined problem). Mediation means to remove social constraints, freeing the exchange of ideas and technical information. It is intended to strengthen people's experience, opinion and judgment, or in short, to enhance their autonomy.

Interfaces

In any case, the mediation discussed above still engenders a kind of dependency, since it assumes the presence of the architect in the event. A further step to increase autonomy would be the production of interfaces that could enable all actors involved to realise their own critical actions on space. Such interfaces can be concrete or abstract, already existing or invented, informational or operational, physical or digital, or any hybrid combination of these possibilities. But they are to be used without the presence of the designer.

For a first exploration of such interfaces, two examples created by the Brazilian artist Lygia Clark are useful: *Sensorial Gloves* (1968) and *Mask with Mirrors* (1967).[17] *Sensorial Gloves* is a set of off-the-shelf gloves and balls of different kinds, sizes, textures and weights, to be experienced by the spectators holding the balls with the gloves on their bare hands. *Mask with Mirrors* is a mask with small moveable mirrors in front of the eyes, juxtaposing and fracturing reflections of the self and the surrounding world. In both cases, Clark provides interfaces for interaction instead of finished art-works:

> Clark rejected the definition of the artist as deified creator, distanced from a spectator who, faced with the work that represents the poetic needs that he himself is incapable of expressing, remains completely passive. On the contrary, Clark handed over the authority of the work to the spectator so that he would cease to behave like one, rediscover his own poetics and become the subject of his own experience.[18]

[17] This argument is developed in detail in: Ana Paula Baltazar dos Santos, *Cyberarchitecture: The Virtualisation of Architecture Beyond Representation Towards Interactivity: Forming and Informing Spaces and Subjects*, forthcoming PhD thesis, (The Bartlett School of Architecture, UCL, 2008).

[18] Presentation of Clark's work by Fundació Antoni Tàpies, 'Lygia Clark', (1997); www.fundaciotapies.org/site/spip.php?article3058#, [accessed, 19 September 2007]

Clark's focus is not on control, authorship, or physical products. Instead of using expensive materials to obtain an enduring final product for spectators to consume, she uses everyday materials to create very simple objects, enabling people to experiment on their own with sensations beyond their habitual perception. In the case of *Sensorial Gloves*, this means a rediscovery of touch, while *Mask with Mirrors* enables a play with spatial perception. Even without moving the participant is pushed to explore new territories, to engage in new relationships with things, or to rediscover the sensory world. Therefore the art-works are not the objects handed to the spectators, but the outcome of the interaction of the spectators with the objects. The works' actual existence depends on people's presence and interaction, while the only 'final' product of such an event is the enhancement of perception itself. Clark is working as an interface designer, 'a person who induces and channels experiences'[19] without prescribing them. In this sense her interfaces go against the mere reproduction of social relations of production.[20]

Production of space is of course more complex than the events proposed by *Sensorial Gloves* and *Mask with Mirrors*. Nevertheless, we may take them as little pointers towards alternative architectural practices. Design in general, including architecture, is often concerned with realising potentials, with solving established problems rather than raising questions for the user. In contrast, Clark's objects indicate indeterminism and uncertainty as crucial for future designs. They are meant as pieces for experience or as tools to enhance experience by raising questions that are answered differently by each spectator. Considering this, we may go a bit deeper into the specific ideas of three authors we believe to be helpful in clarifying what the design of interfaces could be: John Chris Jones, Vilém Flusser and Ivan Illich.

Jones, in the 1980's version of his *Design Methods*, asserts that modules such as words, bricks, playing cards, etc. are the best examples of design he can think of.[21] According to him the design of modules '[...] is perhaps THE way of designing independently of any exact knowledge of aims, purposes, functions (the things which, in designing as we've known it, get fixed at the start)'.[22] Moreover, in his *Designing Designing*, he stresses that there are two kinds of purposes: 'the purpose of having a result, something which exists after the process has stopped, and does not exist until it has stopped', and 'the purpose of carrying on, of keeping the process going'.[23]

In order to shift from product-orientated to process-orientated design, Jones proposes a separation of the logic of use from the logic of objects and focuses on the latter. Leaving use aside to look at the object may seem strange if we consider the recent discussion on design focused on events aiming at people's participation. But what Jones indicates is that instead of designing finished objects of use with predetermined functions, we should try to look at the objects themselves and their intrinsic logic in the context

19 Manuel J. Borja-Villel, 'Introducción', in *Lygia Clark*, (Barcelona: Fundación Antoni Tàpies, 1997), p. 15, [our translation].

20 For image of *Mask with Mirrors* see; www.leonardo.info/isast/spec.projects/osthoff/osthoff1.html#b; for image of *Sensorial Gloves* see; www.leonardo.info/isast/spec.projects/osthoff/osthoff2.html.

21 John Chris Jones, *Design Methods*, 2nd edition, (New York: Van Nostrand Reinhold, 1992).

22 Ibid., p. XXXV.

23 John Chris Jones, *Designing Designing*, (London: Architecture Design and Technology Press, 1991), p. 162.

of open processes. This means designing modules as interfaces for people to keep on designing their own worlds. The purpose of such 'modules' is to 'carry on', to enable innovative use since they are not prescribing specific possibilities of use. This is developed further by Flusser.

In *Design: Obstacle for/to the Removal of Obstacles*,[24] Flusser introduces the concepts of 'responsibility' and 'dialogue' in the design context. He argues that objects of use are always designed with the purpose of removing an obstacle, of turning something that was impossible into the possible. Paradoxically, in order to remove obstacles we design objects, which are themselves obstacles. Therefore, and considering that an object of use is also a mediation between the designer and other people, designing means not only opening up communication and action but also restraining possibilities. The question then is how to make objects that create the least obstruction for those following us; or ultimately, to design objects that are not objective. Responsibility in design means this openness of the design to others. The more the objects designed obstruct other people, the less dialogical they are and the less responsible their design is. On the other hand, responsible design leads to less objective (obstructive) and more intersubjective or interrelational design products.

The questions discussed by Jones and Flusser from the perspective of the design itself are addressed by Illich in a wider social context. He considers that instruments and techniques are never neutral but consistent with a certain mode of production and its corresponding social formation. As André Gorz has pointed out, current technology 'imposes a certain technical division of labour, which on its part demands a certain kind of subordination, hierarchy and despotism.'[25] That is why emancipated production would depend not only on changing the ownership of the means of production, as claimed by classic Marxism, but also upon changing the very constitution of such means. Illich has developed this idea opposing the 'industrial tools of manipulation' to what he calls 'tools for conviviality'.[26] While the former are aimed at the interests of 'industries' (today we would say 'corporations'), the latter are aimed at social justice and free work:

> Convivial tools are those which give each person who uses them the greatest opportunity to enrich the environment with the fruits of his or her vision. Industrial tools deny this possibility to those who use them and they allow their designers to determine the meaning and expectations of others. Most tools today cannot be used in a convivial fashion.[27]

The purpose of convivial tools is to trigger events and to stimulate dialogue, intersubjectivity, interrelations and political processes of social construction. Therefore, the main principles of their design also apply to what we call interfaces:

24 Vilém Flusser, 'Design: Obstacle for/to the Removal of Obstacles', in Vilém Flusser, *The Shape of Things: A Philosophy of Design*, (London: Reaktion, 1999), pp. 58–61.

25 André Gorz, *Crítica da divisão do trabalho*, (São Paulo: Martins Fontes, 1996), p.12, [our translation].

26 Ivan Illich, *Tools for Conviviality* (1973), available; http://clevercycles.com/tools_for_conviviality/.

27 Ibid., paragraph 98.

> Tools foster conviviality to the extent to which they can be easily used, by anybody, as often or as seldom as desired, for the accomplishment of a purpose chosen by the user. The use of such tools by one person does not restrain another from using them equally. They do not require previous certification of the user. Their existence does not impose any obligation to use them. They allow the user to express his meaning in action.[28]

[28] Ibid., paragraph 101.

Being critical, Illich does not define how to design tools for conviviality but he indicates some features of manipulative tools to be reversed. One of them is called 'overprogamming', which means to over determine things, including objects of use, so that people just 'obtain' them and have to be taught how to operate them. They hardly have any chance to learn from their own doing. Illich also discusses the interventions in *favelas* or settlements in Mexico and Peru in these terms: professionally produced buildings in informal spaces not only create dependency but also devaluate self-production, since overprogramming is seen by many as 'progress'.

> Societies in which most people depend for most of their goods and services on the personal whim, kindness, or skill of another are called 'underdeveloped', while those in which living has been transformed into a process of ordering from an all-encompassing store catalogue are called 'advanced'.[29]

[29] Ibid., paragraph 109.

For Illich, we should instead 'simplify the tools' and 'enable the layman to shape his immediate environment to his taste'.[30]

[30] Ibid., paragraph 135.

Although Illich's view is similar to ours in many respects and although he uses the term 'tool' in a very broad sense (including institutions and 'productive systems for intangible commodities', such as schools),[31] we have a precise reason to prefer the term 'interface'. While Illich is critical of the goals of current western science, he seems to be quite confident in their main principles and methods. His choice of the term 'tool' echoes this confidence, his question being mostly concerned with the application of scientific discoveries or even just with the scale of such applications. He goes as far as to propose the recognition of natural scales and limits in order to enable a future society to not be dominated by industry. But science as well as technology is not neutral. Horkheimer, Adorno and other critical theorists consider the 'dialectic of enlightenment' far beyond the commonplace that 'machine enslaves human', being also critical of the very logic of science and philosophy.[32] So we prefer the term 'interface' because it is less entangled with this logic, especially the principle of causality. An interface is something that separates and connects at the same time; something that does not even determine the nature of the mediation it enables (separation or connection).

[31] Ibid., paragraph 97.

[32] Cf. Theodor Adorno and Max Horkheimer, *Dialectic of Enlightenment*, (New York: Continuum, 1976).

Our research group has developed an interface, a kind of 'tool for conviviality'. The 'interface of spatiality' as it is called, is a set of modular

plastic pipes, spatial joints made of laminated wood, pieces of fabric of different type, size and colour, ropes and pins to stabilise the structure. It may be used to create ephemeral spaces or to discuss and have a feeling about physical spaces before actually building them. Since it is very easy to assemble, people can quickly experiment with different spatial arrangements without constraints. As a design the 'interface of spatiality' was developed with the purpose to 'carry on'. We needed something to stimulate people's bodily, imaginative and collective engagement with the process of simultaneously building and using space. Therefore the design is open, or as Jones puts it, conceived according to the logic of the object and not the logic of any prescribed use. Its bits and pieces are carefully determined but the spaces created with it and their uses are not. This 'interface of spatiality' has already been used in several different contexts, sometimes with a well-defined purpose and ourselves as mediators, sometimes without our presence and only with the intent to 'carry on'. We learnt a lot from each instance of its use and this has fed back to us in our practical exercise of critique.

An example of an open use of this interface was the project *Lot of Ideas*,[33] for which it was primarily designed. It was a one-day event to publicly occupy a private vacant lot. In order to attract people we had invited several artist groups, who were not supposed to perform presentations of their work, but to engage with other people present in the appropriation of the lot, either using the 'interface of spatiality' or not. An interesting case occured as a duo of dancers decided to use it to perform an improvised dance. They danced in it as if it were a set, without (dis)assembling any part or changing anything. They were even distressed when they involuntarily dislodged a couple of pieces. The interface was used as any other finished space, as a background for the event they were creating. The temporarily finished space was more important than the potential for change.

After watching them we were quite unhappy with the limitation of the 'interface of spatiality' for the purpose of 'carrying on'. Although the time required to assemble the pieces was not a problem for other people, it was impossible for someone dancing to simultaneously build the space using the interface available. It had turned into a final object, at least temporarily. The dancers, though, seemed happy with the interface even if they were not able to actually use it as an open instrument, it was 'inspiring' as they put it. A couple of months later we learnt that one of our partners in the project, *Lot of Ideas*, was commissioned by the dancers to create the set for their next presentation. It ended up as their greatest performance ever and they won a number of prizes for it. All the scenery proposed was moveable and constructed as the dancers performed. Their performance depended on their engagement with the moveable scenery, objects and light. They simultaneously danced and built the space of the dance. The scenery was a perfect interface for the timing of their dance.

33 'Lot of Ideas' was conceived by a group of artists and architects including MOM, as part of the project, *Empty Lots: Collective Action of Experimental Urban Occupation*, conceived by architects Louise Ganz and Breno da Silva, 2005.



Fig. 13. 'Interface of spatiality': separates and connects without determining the nature of the mediation it enables (separation or connection). Photo: MOM, 2005.

We are not claiming that we have anything to do with the design of such an interface. But we would like to consider the hypothesis that the practical exercise of critique put forward by our 'interface of spatiality' has exercised a great influence on both the set-designer and the dancers. The apparent failure of the 'interface of spatiality' as a practical critique, when first used by the dancers, was immediately surpassed by the success of the critical virus it spread. The main point of this story is to acknowledge the limit of any interface and the unlimited range of the reach of critique (theoretical and practical). Interfaces are only welcome when they are critical and trigger autonomy.

Last Question

The main goal of MOM is to develop a strong critique of traditional architectural practices. In order to do this we resort to theory, field research and to our own experiments with mediation and the design of interfaces. These are informed by and inform back the critique. It is the aim of MOM to investigate and test open source means to enable alternative and autonomous practices for the production of ordinary, everyday spaces. Most architectural initiatives that deal with ordinary spaces are focused on problem solving and have systematically failed. The problems they tackle can be summarised as a collective problem of exclusion, which needs a thorough critique instead of poor attempts at solutions. It is unquestionable that space, thus architecture, is crucial to social practices. Therefore, architecture should be discussed as a socio-economic issue and not as a solution to immediate problems, which are always defined by the very same context that causes them.

An illustrative example of how problem solving works is the intervention of the Brazilian national health foundation (Funasa) in native Brazilian communities. Those communities used to produce their spaces according

to a circular logic, not only building circular spaces but also circulating over the land (in fact, such spaces were produced so that they could be built alongside work, leisure, and other everyday life activities, bit by bit and without any anxiety to finish). When the area's natural resources were nearly exhausted they would move to a new place. Nowadays, they have lost most of the land and are not able to keep living in the same way. Among other things, sanitation became a great issue and Funasa came up with a solution to their problem: a prefab toilet to be placed outside every house.[34] Not only did this solution not solve anything but it created several new problems. The toilets have become a breeding ground for insects, they generate a bad smell, and will end up contaminating the soil and water since their users have no means of carrying out the necessary maintenance.

[34] Cf. www.funasa.gov.br/Web%20Funasa/not/not2007/not211.htm.

Of course this example is almost a caricature. But the point is that problem solving strategies always reproduce a logic similar to the one described above. The first step, as the name indicates, is to clearly and precisely stipulate a problem. This alone is enough to isolate any further step from real life and from the complexity of its contingencies. Moreover, it neglects real people because real people do not behave according to the simple logic of cause and effect; they have imagination, judgement and free will far beyond this closed logic.

In opposition to problem solving practices are the possibilities proposed by Jones, Flusser and Illich. Their methods entail looking at processes not products: looking at the design of interfaces to enable continuity rather than designing finished 'solutions' for use. However, these possibilities would also mean a shift in the production of architecture as a commodity. We are aware of the fact that no manager or public administrator these days would consider this idea 'sustainable', since sustainability is mostly understood as the guarantee of continuous profit. But perhaps we should also consider that today one in every six human being lives as a squatter and that this number is constantly increasing. Therefore, alternative practices focused on use value rather than exchange-value may not be considered as 'utopian' as they appear at first sight. Informal practices could benefit from new instruments—legal, informational and physical—to provide greater autonomy for producers and to make it easier to experiment. And although our own research focus is not on formal practices, they could also become more orientated towards processes, decreasing their emphasis on buildings as commodities, and making the building process more flexible and less imposing, in order to accommodate everyday interferences from workers and users alike. We believe that critique, mediation and the production of interfaces are a means of achieving this. Although there might be many others, those are our research alternatives to normative, heteronomous and problem solving practices.

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