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Interlude

Marylou Petot,
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in eco-design and sustainable development.
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Under the supervision of Julien Borie, Sophie Clément
and Catherine Pradeau for the english abstract.

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Big cities are confusing, because of their sensory pollution problem. Nowadays, we mostly use them as fonctionnally as possible: we just cross them. So, urban areas are not perceived and appreciated for what they are really worth. We need our senses to know where we are, and to understand the world in which we live. So, if people cannot understand their perception of urban areas, we have to admit that there is a design problem.

The accumulation of perceptions, mostly sound and visual stimuli, make urban dwellers feel overwhelmed. So, since designers are the creators who imagine our environment, shouldn't they create sensory pauses in cities if they want to calm people and fight against this feeling of over-stimulation?

Can such pauses be enough to achieve this goal with a long-term effect? Actually, are we using our senses as best we can? It is time to enable people to gain control over what they perceive.

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Preface

First of all, I would like to explain why I chose this particular subject.

Nowadays, lot of people can feel overwhelmed because of too intensive and misunderstood feelings, and I am particularly sensitive about this problem. Indeed, I am hypersensitive, and I really wanted to know why it is so difficult for me to feel correctly and to understand what I perceive, and why sometimes I react in a bad way. So, I am very concerned about the subject of the over-stimulation problem in urban areas, it is very important to me.

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Introduction

Nowadays, human beings can feel overwhelmed in urban areas. Indeed, an excess phenomenon exists, but the problem is that it's not visible, or palpable. We call it "sensory over-stimulation", a kind of "too much" effect which oppresses city dwellers' sensory systems in cities. By the way, this phenomenon is not really modern: in 1920, postwar mutations in cities changed the humans' perception system because of the expansiveness and rapidity of urban growth. Accumulations of people, accelerating speeds and increased traffic actually created an extreme sensory experience.

Today, it acts like a kind of pollution, made by a sound and visual accumulation. The author Gilles Lipovetsky¹ calls our behavioral model "hypermodernity" characterized by an exaggerated and instant way of life. Hypermodern people act in an ephemeral way, and want to live with immediate sensations. Moreover, the excessive speed phenomenon, which represents the acceleration of our transportation and communication modes, is another cause of being overwhelmed. Lastly, our over-connected society also favors it, because today humans are constantly being stimulated. But, the problem is that there's a denial of this feeling. People are looking for stimulation because they try to fill the void created by the claustrophobic isolation, which is the consequence of over-stimulation.

1. Lipovetsky, G. (1983), *L'Ère du vide: Essais sur l'individualisme contemporain*. Paris: Gallimard.

It is an endless loop. Stimulus' accumulations favor bad behaviors, those which overwhelm mankind.

Florence Doléac¹ is a designer who highlights humans' mechanical habits by creating surprise effects where the gesture has become automatic. Then, our questions are: can we put into question our way of life which favors over-stimulation? Could surprise effects, like new design effects, bring pauses in our urban perceptions? Is it interesting to reduce stimulation in cities, to encourage urban dwellers to focus? Is it a good idea to encourage slowness in towns? Could a new environment, out of the city context, bring these needed pause and hindsight? And finally, is there a current lack of understanding of the human sensory system? Shall we put into question the usual hierarchy of senses?

Ultimately, a main issue will pervade this thesis: can designers divert people from over-stimulation by a new design effect that would be both punctual and durable?



Ventilator, Florence Doléac, "La crise du logement" exhibition at the Dominique Fiat gallery, Paris, 2007.

1. Dautrey J. and Quinz E. (2014), *Strange Design: Du design des objets au design des comportements*. Paris: It: editions.

I. To focus, by reducing all the stimuli and by slowing down

How does the sensory system work?

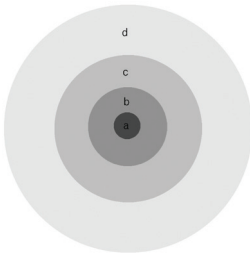
To perceive, everything starts with a stimulus perceived by one of our sensory receptors (our eyes, ears, skin, nose and mouth). This first step is the feeling stage. Then, the sensory message runs through the body to the brain, which analyzes it. This sensory analysis makes people consciously understand their environment, indeed it makes them decide if they are in a pleasant, unpleasant or aggressive place. In urban areas, the bigger issue is the accumulation of stimuli, which cannot be analyzed by our sensory system. In this case, the reaction of the human body is a kind of sensory overload, which inhibits people's response to any stimulation, and finally prevents them from understanding what they feel. Generally, as urban dwellers, we take the time to choose what we would like to perceive, like a voice that we especially want to listen in a conversation. Indeed, we take the time to focus. So, is it possible for designers to reduce stimuli to make people focus again in cities? Actually, it is very interesting to make people focus, but the reduction of stimuli has its limits.

Multi-sensoriality

Human beings have five senses, and two of them work in a complementary way: the sense of sight and the sense of hearing. There is an interconnection between them, first because we need both of them to orient ourselves and to stay balanced in space. Moreover, we hear something better if we look at it. But the main issue in urban areas is that there is an unbalanced senses' stimulation. Indeed, eyes are highly used to the detriment of other senses in cities, so there are dysfunctions in the relation between our eyes and ears'. The sounds of cities are not taken into account during the creation process of city objects, designers usually do not think about it when they create them. For example, the sounds of engines in the street are particularly aggressive, and because we perceive with a multi-sensoriality process, these noises make people imagine an unpleasant visual universe. So, our sensory environment is not comprehensively designed to make people feel calmer, the sense of hearing is totally depreciated in compared with the sense of sight. So, once we are aware of this complicated problem of an accumulation of perceptions, which is amplified because of the bad use of multi-sensoriality (bad noises make us perceive in a generalized bad way), could we consider it interesting to insulate people in urban areas, as these places are too hard to perceive with calm? Should designers make people step back in order to favor hindsight?

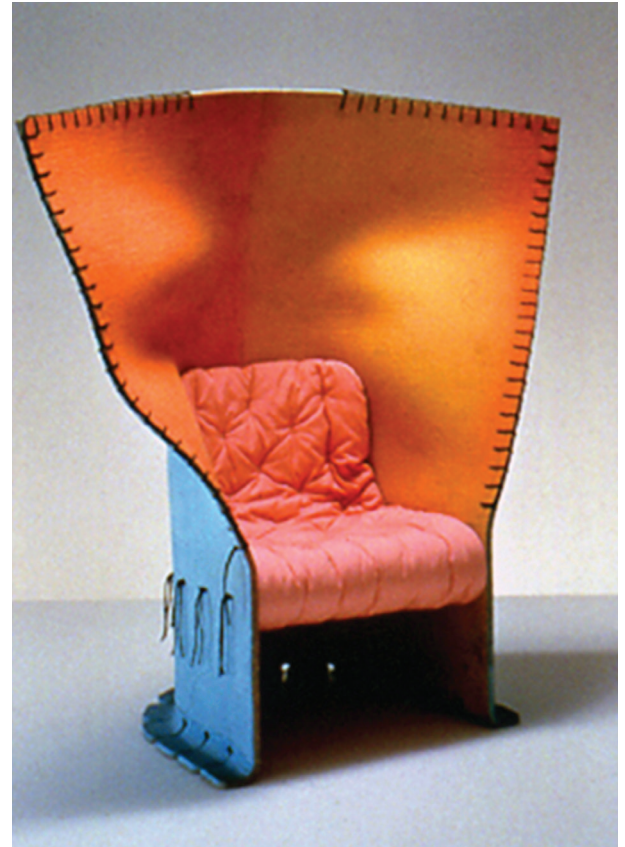
The limit of isolation.

The anthropologist Edward T. Hall explains that mankind uses and feels the concept of proxemics¹: different emotional zones exist around the body even if they are unseen. The bigger area is the public zone (four meters and more, *d* on the drawing), and the smaller is the intimate area (less than 40 centimeters, *a* on the drawing), where the sense of touch prevails. So, is it relevant for designers to preserve this intimacy zones in cities and to create a protection area? If we look at the *I Feltri* example (created by Gaetano Pesce in 1984), we could say that the user's sense of touch is delicately stimulated. Pesce, by creating a seat mixed with a blanket, delimits and protects users' intimate area. But this object is only intended for residential use. It can be difficult to imagine it placed in public urban zones. Indeed, is this kind of confinement able to make people better perceive in cities? Actually, as the urban environment overwhelms people nowadays, this system seems to be too isolating, its distance seems too abrupt. As they seem to fear big and stimulating spaces, urban dwellers tend to look for isolation, and comfortable loneliness, which are not in tune with our design goal: to make people step back to perceive better. Then, we have to think this "change of rhythm zone" in urban uses, and cities are precisely speed and movement zones.



1. E.T. Hall (1971), *La Dimension cachée*, Paris: Seuil.

- a. The intimate zone (less than 40 cm)
- b. The private zone (around 1,20 m)
- c. The social zone (between 1,20 et 4 m)
- d. The public zone (more than 4 m).



I Feltri, Gaetano Pesce, 1984.

To add slowness in our way of moving in cities

Our first thought about this issue is that designers may be able to promote walking in our busy cities. Pierre Redon is a French sound artist, and his work is very special: he creates sound walks in France. For instance, one of his creations is called *Vestiges* and takes place in Saint-Ouen-l'Aumône, it was created in 2009. For this sound walk people take an MP3 player and a map, wear headphones and follow a route through the city. The goal is to make people discover this city by a new and different way: by the sense of hearing. First, the creation is an experience realized with common people. Indeed, they can follow the route established by Redon for three or four hours and discover the reminders of humans who used to live in this place: for example they are drawn up to urban wastelands and brownfields. With the headphones, they can hear sounds from the evoked time like machinery noises. Also, they can listen to nostalgic voices who give them information about the place. At the end of the itinerary, they are asked to discuss this experience with other sound walkers, while Redon is listening to find out if people can be more united when they learn more about their territory.

First, this sound walk induces slowness in our speed society. While they are listening to different sounds, people are encouraged to wander in brownfields. In a way, walking requires the temporality and availability aspects of human perception. Walking for several hours can teach people : this experience creates a big contrast between the typical speed of their way of life and the necessary slowness in order to walk while listening. By seeing this contrast, and by talking about it after the experience, people can start a kind of self-medication.

Indeed, they recognize the over-stimulation problem caused by speed, and this is the first and one of the most important things to do if we want to encourage ourselves to be calmer in our life. But, has this kind of break, this wandering, got a long term effect? Can it create a durable lifestyle? This slowness seems to relieve people only in a short term temporarily, and we cannot be really sure that it can change permanently their way of life.



Sound Walk, Land of Felletin, Pierre Redon, 2013.

The limits of slowness.

People need speed, and the example of Pierre Redon's work, which is rather an art performance, is too limited to fight against the long term effect of over-stimulation. Sound walks are unfortunately punctual experiences. If this kind of slowness has to be possible, then people have to feel like changing their rhythm, and this is complicated... If walkers like to slow down and be calmer in this contemplating moment, after the experience, this calm state disappears quickly in favor of a revival of speed. Indeed, they need to be quick in their everyday lives. Now, designers' interest is to find the right amount of "slow" which has to be added to speed. Finally, as the choice of slowing down can be difficult to make for urban dwellers, designers now have to find some strategies to create durable breaks in cities. Moreover, they finally have to reconsider the place of one sense before the others, which is principally responsible for the sensation of being overwhelmed.

II. A decompression space: to reintroduce the sense of hearing

The "out of context" environment

First of all, we can think about design strategies which can reassure people before helping them to perceive better. For example, the urban furniture made by Marc Aurel in 2009 for the Arcades Rougé neighborhood in Cholet is particularly interesting. The designer borrows different visual codes from people's domestic universe to reuse them in his furniture creation. Indeed, the benches' pattern looks like patterns from a 17th century domestic couch. This reuse is surprising, but it seems logical because if a place raises our level of intimacy and comfort, it helps us to relax, to take a break and maybe, to take the time to perceive our environment. This kind of trick is very interesting for our design goal. Moreover, if the designer is trying to domesticate urban spaces, he does it in a soft way. His principle is first to play on the fair use of our visual imagination by just using a small code, in order to arrange an extension of our home and not an imitation. Then, the creation appears like a superposition of our intimate sphere on the public zone. So, what does this addition create?



Place Rougé (Arcades Rougé) at Cholet,
Marc Aurel, Tortel, T+T Design and Metalco, 2009.

The third social zone of humans

Our perception is obviously not the same in intimate and public zones. In our private areas, our attention focuses on fewer things because the distances are reduced (according to the concept of proxemics). Aurel's furniture secures our attention, it calms it. Then, our perception is redirected to closer things, like others users which are seated in the square. Indeed, does the presence of others help to better perceive our environment? Human beings are social beings, and according to Aristotle¹, nature has made them to make them live in groups, in community. If urban dwellers need to step back in cities, they also have to take care of the others. Indeed, with the over-stimulation problem, people tend to isolate themselves and to feel more and more lonely. Then, by its strategic design approach, the Rouge square by Aurel becomes the third human social zone where people can take the time to perceive together. It is a kind of "bridge" between our comfortable environment and urban spaces. However, this idea has shortcomings. If we analyze it with a sensory approach, it appears that the consolation it provides doesn't stop every overwhelming stimulus. Indeed, if our eyes can focus on the third zone, our ears can always suffer from sensory disturbances. Polluting stimulation still exists, and seems hard to eradicate. So, are sound stimuli mainly responsible for the over-stimulation?

1. Aristotele (1856), *La Grande Morale*, Book II, Chapter XV. CreateSpace.

Why is it so difficult to decompress? Fighting against noises by understanding them.

According to Murray Schafer¹, sounds are consequences of what we create. Indeed, designers don't often think about sounds emitted by their objects when they produce them. Moreover, the accumulation phenomenon amplifies the depreciation of sounds in urban areas. If designers have to use a reassuring visual environment to bring people to pauses, it is also important to reassure them in another way, by controlling what they hear. Nowadays we can't say that people "listen" in big cities: they just hear. Listening is an action which involves particular attention, a kind of control. Hearing can be considered as submitting to a noise. So, if people are led to understand what they perceive by their ears, they would take back the control of their perception, and maybe definitely fight against over-stimulation. Finally, designers can use different strategies to calm urban dwellers... But, if urban dwellers learn how to feel and perceive better by themselves with some help from designers, then it's definitely better: the calm effect would be durable.

How can design make people learn to listen in cities?

For now, it is all a matter of design strategy. First, with the multi-sensoriality phenomenon we analyzed, we know that we better listen to things that we look at. For example, in a concert, if we look at the bassist,

we will be better able to perceive his instrument's melody. Then, it is smart to use this connection to give the control of sound perception to users. Besides, giving the choice of perception through hearing is also encouraging a certain concentration on sounds. Then, we have to think about the most adapted posture for users to concentrate: the sitting position is the most appropriate one since it is a symbol of break and already suggests a break in people's mobility.

As we saw, urban sound messages enter our intimate spheres and cause stress. They are sensory stimuli that man constantly endures, and that's why they are generally responsible for any anxiety feeling. Noises are considered inevitable, so they become for users kinds of "scapegoats" responsible for any feelings of stress. Moreover, our brain naturally has the ability to eliminate "bad" noises: when a sound is constant, it slowly escapes our attention to become less and less noticed. The perceptual system thus creates its own protective barrier against over-stimulation. Even deliberately ignored, sounds are still perceived: this barrier is misleading. Then, if urban dwellers are not responsible for sound pollution, they tend to get rid of any responsibility about this problem. Maybe, making people feel responsible and create sounds is a good way to make them understand noises' consequences. We can take the example of the *21 musical swings* located in Montreal on the Promenade des Artistes, created by Mouna Andraos and Mongiat (2013). The project is located in an environment with speed, stress and noises due to the amount of cars. These devices make people swing, and thus they create a melody that intensifies as the swing is dynamic.

1. Murray Schafer R. (1993), *The Soundscape: Our Sonic Environment and the Tuning of the World*. Londres: Inner Traditions Bear and Company.



21 *Musical swings*, Mouna Andraos and Melissa Mongiat, 2013.

As each musical tune from every swing has the same tone, a melodious synergy is created, if more people take part to the game. This example is seriously interesting, because the device makes people actors and creators of sounds. But, this strategy has limits too. It makes people only listen to new sounds, totally different from their environment. So, they are not helped to perceive it better, the system just hides the sound identity of its location... If people have to learn how to listen to their environment, our work raises a fundamental question: should we listen to everything? Some sounds are recurrent in cities: from fountains or carousels for example, and they are frequently parts of urban dwellers' everyday lives. Now, the notion of sound identity emerges to face what is subjectively called a nuisance. In fact, according to Murray Schafer¹, to analyze a soundscape, there are different distinctive points: the tone of a place, or the constant and predominant sounds that characterize it and influence human behavior; sounds that highlight ordinary events (a sound that appears in the foreground, which is consciously listened to as it indicates a message that must be understood by the community); and noise footprints, the unique sound objects belonging to a specific place, which makes it special.

1. Murray Schafer R. (1993), *The Soundscape: Our Sonic Environment and the Tuning of the World*. Londres: Inner Traditions Bear and Company.

So, the sound identity (or the soundscape) of a place is understood, recurrent and reveals a message understood by the community. It has a function and a strong symbolic and cultural value, like an old bell sound. These characteristics are what people have to listen to conscientiously. Noises from public works don't have any function or symbols. So it is the kind of sound source what we have to call nuisance, and that's what our design effect definitely has to filter, leaving people's ears attentive to what builds the soundscape of his city.

Conclusion

An interlude is an event that interrupts the course of something. The surprise effect that we first thought about is still a good idea for our design goal, but it's a strategy. For now, our design effect has to be a kind of diversion, using a calm, soft and comforting design and the multi-sensoriality strategies for example, which can lead users to listen actively. However, we can add another approach in our work. As our future design device will filter nuisances and let people choose to hear their city's soundscape, it can also make them realize how harmful sounds can be for them. Indeed, it can be interesting to think about a sound design approach: if our future system filters nuisances, it could transform them with another new calmer sound, which can be better perceived by human ears. Some technologies like the acoustic vibrators New'ee can really help us to easily make this kind of experience. Then, users can realize that on one hand some sounds can be better conceived and created, and on the other hand that some invisible stimuli can really affect them. Our design action is now more educational, and that makes it durable.

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