critic|all

V International Conference
on Architecture Design & Criticism

DIGITAL PROCEEDINGS

Delft 10-11 October

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01 ▌ Presentation

This 5th edition of Critic|all Conference consolidates the initiative that the Architectural Design Department of the Madrid School of Architecture at the Universidad Politécnica de Madrid (ETSAM-UPM) started ten years ago to provide an international forum for architectural criticism.

The Conference enhances its scope as a place for knowledge production from which to convene relevant voices around the proposed topic at each edition. This time, with a join event co-organized with the Department of Architecture of the Faculty of Architecture and the Built Environment at the Delft University of Technology (BK-TU Delft).

We would like to thank all participants for their work and trust, as well as the members of the Scientific Committee for their effort and commitment.

We want to reinforce the idea contained in the conference's name. Critic|all is a *call* on *criticism*, and also a *call* for *all*. An appointment that, beyond the scope of each edition, we hope will be able to reinforce a more general debate on the role of architecture in the present context.

Silvia Colmenares
Director of Critic|all

02 | Call for Papers

The study of the origin and history of words has played a central role in the recurrent search for a deep, allegedly forgotten, meaning of architecture. The strikingly persistent and often problematic influence of Martin Heidegger's *Bauen Wohnen Denken* proves the fascination of architects with the ancestral power of words. The same fascination explains the equally recurrent urge to explore new meanings and invent new terms in architecture, in order to alleviate the weight of old cultural prejudices and connotations. Hence, etymological lines extend in two opposite time directions: one pointing to roots and sources, the other to future visions and transformations. Architectural thought oscillates between the illusory stability of conventional, present meanings, the mystery of remote, often obscure, connotations, and the poetic, creative drive of language invention. Choosing between communication (order) and noise (entropy), the opposite terms used by Umberto Eco, becomes a typically architectural problem, one which relates both to words and forms, terms and materials.

The heavy architecture-is-a-language fever of the 1960s is long overcome. Robin Evans' "all things with conceptual dimension are like language, as all grey things are like elephants" might suffice to prevent its return. However, the multiplication and transformation of architectural words has probably accelerated since then, pushed by the development of competitive research production. In fact, every research problem is, at its core, a problem of language, of word use and word definition. Research on the contemporary urban and architectural condition can be no exception.

Meaningful arguments about the changing meaning of architectural words need to address the role of language in the description of current matters and realities as well as its potential to unchain innovative perspectives and actions. New situations call for new terms as much as new terms provoke new situations. Today's interface of architecture with other disciplines is exemplary in this sense. The growing need to establish meaningful communication between experts from different fields fosters both codification and distortion of language, the homologation of terms and its expansion through translation and borrowing. In the first case, the descriptive precision is favoured to produce an objective (codified) system, whereas misunderstandings, metaphors and inaccuracies can lead to the generation of new knowledge and actions in the second. Such complexities are especially evident in the terminology emerging from practice-based or design-based research. In fact, the translation between visual and verbal signs, which is at the core of architectural practice, tends to obscure the distinction between descriptions and actions.

While the transdisciplinary context might certainly lead to an intensified look, in the last decades architecture has engaged in a process of expansion and adjustment led, in part, by new combinations of old keywords (ecology, landscape, urbanism, infrastructure, logistics…). Beyond disciplinary discourses, contemporary debates addressing the social, ecological and political connotations of architecture are providing a new set of critical words. Adjectives ("post-anthropocentric", "non-human", "inclusive", "transcultural") names ("decolonization", "decarbonization") and phrases ("climate change", "race and gender identity"…), have gained increasing visibility over the last two decades, both to inform and transform architecture's critical thinking. The proliferation of prefixes in many of them (post-, de-, trans-), denotes the urge to build new words and concepts from existing materials, pushed by the speed of contemporary culture. The problem of meaning persistence and change, but also of the tacit positions inscribed in words, can be exemplified by the crucial differences between "post-colonization" and "decolonization".

These and other terms are generated by a sequence of adjustments and oppositions, distortions and borrowings. The study of such processes, not in strict etymological terms but in a broader sense including the complex relations between words, practices, disciplines, is key to unveil the cultural and ideological positions behind current architectural debates. We propose to carry out this critique as a tool to explore today's emerging terminologies, and the ones to come.

The 5th edition of Critic|all Conference welcomes contributions that critically address the uses and misuses, the creation and wearing, the transformation and timeliness of the words with which architecture is – or has been – described, historized or updated through time. We expect interpretive work that draws new relations between words, concepts, things and practices, not strict etymological studies.

The most basic structure should present the expression or word under scrutiny, explain the reasons that justify the choice, formulate new interpretations or perspectives stemming from it, support these with arguments in the main body and bring the paper to a conclusion.

04 | Index of selected papers

05 ▌ Papers

P.V. (Dromo)logies
From the Ultracity to the Hypercity

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Abstract

In the foreword of Paul Virilio´s book "A landscape of events," Bernard Tschumi refers that in a series of texts from 1984 to 1996, P.V. establishes the "procès verbal" of our contemporary society, where time has overcome space as our main mode of perception.

I would argue that P.V.´s contribution to a meaningful contemporary understanding of architecture is based on two key words: He coined the term "Dromology" (from the greek δρόμος "dromos") the logic or science of speed, and "Ultracity" to develop his vision of the transformation of "la ville" into the cities of beyond, the over expanding urban realm, as the last field of resistance of space and the body over the acceleration of new technologies.

His collaboration with Braque and Matisse (50s), as student of Merleau Ponty in la Sorbonne (60s), and the exchanging concepts with Deleuze (80s), allowed him to waive concepts from different disciplines - somehow repetitive, fragmentary and inconsistent - into an extensive written body of work.

I propose four key terms: The "Bunker", his research of the Atlantic coast-wall; the "Oblique," his collaboration with Claude Parent (1963-1968) and their built work based on a new slanted order; "Dromology" and "Ultracity" as a continuous thread through which P.V., resists the increasing speed of communication technologies and the recovery of the body.

John Armitage, expert in Cultural Politics, considers P.V. was a "hypermodern" or "new modern," solving P.V.´s non-fitting work within post-modernism.

Coinciding with the fifth anniversary of his dead in September 2018, I consider very relevant to revisit P.V.´s terminology. I coin the term "Hypercity" to face the urbanisation of technologies, and for their humanisation in search for more sustainable and healthy environments to the fully recovery of our bodies.

Key words: "Bunker", Oblique", "Dromology", "Ultracity", "Hyper-city".

Foreword

In the foreword of Paul Virilio´s book (P.V.) *A landscape of events*,[1] Bernard Tschumi refers that in a series of texts published from 1984 to 1996, P.V. established the "procès verbal" of our contemporary society, where time has overcome space as our main mode of perception.

I had the opportunity to interview Paul Virilio in la Rochelle (2005) [2]. He was a radical architect, a visionary urbanist and a prize-winner French critic, distinguished philosopher in technology, author of phrases like "the screen has become the square of the city."

Fig.1

This paper continues my doctoral research and thesis (2021), where I condensed the Virilian cosmogony in four terms: **Bunker**, **Oblique**, **Dromology**, and **Ultracity** as forms of "resistance" before his corresponding technologies to recover the body from the impact of "technologies."

During nearly two decades, I conducted an archaeological approach compiling and digging through his intense and fragmentary French style writing, 43 books written in French between 1975 to 2013, out of which 32 have been translated into English, and only 23 books have been translated into Spanish, plus an uncountable number of articles, contributions, and interviews, to various languages.

In the second volume of my thesis, I cartographed his dispersed body of work in an Atlas. Maps and diagrams, routes and quadrants to guide the reader to navigate through his written work, and better understand the evolution and continuity of his most relevant concepts.

Furthermore, this paper continues to develop the "**Hypercity,"** a term that I coined to update and criticise P.V.´s concepts into the actual urbanization of technology.

Coinciding with the fifth anniversary of his dead in September 2018, I consider very relevant to revisit P.V.´s terminology. P.V.´s position in the architectural discourse offers a very interesting distance for architects and urban thinkers, as he is not anymore an author of our time but he is still very relevant.

1. Paul Virilio (P.V.)

Paul Virilio (Paris, 1932-2018), born to an Italian communist father and catholic Breton mother, lived the allied bombing in Nantes during his childhood.

He studied German and French phenomenology with Maurice Merleau-Ponty at la Sorbonne; was the last of a group of distinguished French thinkers in the second half of the 20th century, such as Michel Foucault, Gilles Deleuze, Jean Baudrillard, and Jaques Derrida.

Later on, his documentation of his exploration at the Atlantic Wall, confronts him to a radical different vision of the war model, as the truly precursor of technological advances, economy, and the city.

"The Fonction Oblique" (1966), by the hand of Claude Parent (C.P.), their seminal manifesto, resists and re-defines modernism architectural discourse, under the term "Hypermodernism," coined by John Armitage.[3]

After having participated in the student uprisings in May 1968, P.V. was nominated professor by students. He taught at La Ecole Speciale d'Architecture (E.S.A.) from 1969 to 1999; he was the Director from 1972-1975.

His first book, *Pure War*, ironically, was not written by him, it is a result of the edition by Semiotex(e) of the interview (1982), held with his friend and colleague Sylvère Lotringer, who introduced P.V.´s thinking to the culture and the avant-garde architecture in the U.S.

He was a provocative theorist, winner of the Grand Prix National de la Critique Architecture (1987), prolific writer, social activist, radical architect, and visionary urbanist.

After leaving his academic activity at E.S.A., and after the 9/11 tragic events, P.V. dedicates himself near a decade, to studying the accident and the city, as a visible form after the impact of speed and acceleration upon space and matter. He warns about the inherent consequences in technology, as a

double-edged sword, pointing out such relevant concepts as "the university of disaster," "city of panic," "grey ecology," "the futurism of the instant," in advance to "cities of beyond" and "the ultracity."

He was a professor at the European Graduate School, was author and curator of the exhibitions: "La Fonction Oblique," "Bunker Archeologie," "Ce qui arrive and Terre Natale."

P.V. passed away in September 2018. His written work, in the phenomenology line of Merleau-Ponty, provides a unique criticism before the repercussions of the impact to new transportation, information, and communication technologies (TIC) on the space and the body; as well as its affectation on society and the city, in relation to the architecture and speed. The urgency to recover the body before the potential and the threat of the accident, and the influence of TIC´s to the growing technological culture that favours comfort and commoditization.

2. Roots and sources

P.V.´s production may be divided into two large stages: The exploration and architectural practice (1950-1969), and the theoretical and written work stage starting in 1969.

His contribution may be firstly divided in an artistic phase, in collaboration with talented artists like: Henri Matisse (1950), Georges Braque (1955), and Le Corbusier (1955); followed by the architectural phase in Architecture Principle (1963-1968), his manifestoes, projects, and built works with Claude Parent (1964-1969); and years after, his collaborations with Daniel Libeskind (1997), Diller & Sofidio+Renzo (2008), and Lebbeus Woods (2010).

For the 60s decade, the post-war reconstruction in France had not yet finished. But, the architectural proposals already talked about multi-disciplinarity, the need to mix the arts by joining painters, sculptors, and architects. A radical architecture emerged of productive logical systems with networking nature, means of communication, or events. "The Fonction Oblique" of Architecture Principe co-existed with radical projects, such as "New Babylon" of Constant; "the connected cities" of Archigram; the "unitarian urbanism" of the Internationale Situacioniste, influenced by Henri Lefebvre; "Non-stop City" of Archizoom; and the manifesto of Aldo Rossi, "L'Architecture Della Citta" (1966); and "Complexity and Contradiction in Architecture" of Robert Venturi (1966).

Not only his architectural contribution adds light to an already fertile period of the 1960s architecture in France; but furthermore, most of his legacy is based on his critical body of work, where different vectors converge in a prodigious moment of French critical thinking.

3. Reasons that justify the choice

P.V. represents a key figure to understand the relationship between new T.I.C, and transportation with the territory.

P.V. was one of the most important interpreters of phenomenology in recent architecture and urbanism, for his catastrophic perception of the technology induced by war and speed. One of his most important input is to have revealed the logic of speed as political conditions of the 20th century, through a critical analysis of modernism and modernity, with which he significantly contributed to postmodern theory, to the world culture of information, to critical cultural theory, to social and political science, and to architecture philosophy, with an extensive influence in various countries and in an ample range of disciplines.

To deepen into his terminology has the benefit of becoming familiar with the legacy of Husserl and Heidegger; phenomenology, existentialism, hermeneutics, structuralism, deconstructivism, including modernism and postmodernism.

Therefore, to study his writings on war and territory, technology and resistance, art and the body, space and the city, is necessary in order to understand the fast transformation that has affected our physical environment (space-time), by advance military technologies, the speed of mass media, the acceleration of digital technology, and the exponential growth of the quantity of data and information.

For one part, there is the validation of recovering the body, last front of resistance before TIC, and the social networks; to again have contact with the other and re-think the new public spaces; especially, at times marked by our great dependency on TIC for the performance of almost any type of activity.

For the other, the city as a place for a new radical urban architecture, able to incorporate the instantaneity of communications, a perpetual connectivity, and the normalization of total mobilization, to reprint again the importance of the body and place; as well as to resolve the division between real space vs. virtual space, and the need to redefine our input to the society as architects and urbanists

There is also the opportunity to make his concepts more readable, in spite of the fragmentation, repetitiveness, and lack of depth in his writings.

4. Terms

As a critic, fascinated by, but resistant to technology, speed, and the impact in architecture and the city, P.V. developed four key terms:

The "Bunker," his research of the Atlantic coast-wall; the "Oblique," his collaboration with C.P. (1963-1968), their built work based on a new slanted order; "Dromology" and "Ultracity," all conform a

continuous thread to resist the increasing speed of communication technologies and the recovery of the body.

Although in life, he received criticism from geographer Nigel Thrift about his ideas of the city; and from Alan Sokal and Jean Bricmont, for abusing scientific concepts wrongly cited, and of terminology without sense[4]; I would argue that his significant contribution to a meaningful contemporary understanding of architecture is based on two key terms:

He coined the term "Dromology" to refer to the logic or science of speed, and "Ultracity" to develop his vision of the transformation of "la ville" into the cities of beyond, the over expanding urban realm, as the last field of resistance of space and the body over the acceleration of new technologies.

4.1. Bunker

In *Bunker Archeology*, his research of the Atlantic Wall of the Nazi Germany - the defensive system which expanded from France to Scandinavia during the Second World War - links up the impact of military technologies in the organization of the territory.

The bunker gets its form from the resistance to the speed of projectiles. It is independent from the ground, yet is part of the territory.

Documenting the different typologies of the bunker, on a variety of objects along the Atlantic Coast, helped P.V. prove the principles of phenomenology. The confinement that the body experiences inside the bunker contrasts with the protection given by its massive - more than 66 cms. thick walls - structure. The bulk, self-supportive structure of bunker, makes the object independent, deployed from the ground but attached to the territory.

Years later, together with C.P., they built the bunker church of Saint-Bernadette du Banlay in Nevers (S-B.d.B), a built manifesto in which P.V. would project his fascination for the Bunker's negative architecture, its resisting capacity before war technologies and the speed of missiles.

S-B.d.B., materializes during the 60s, the resistance of P.V. and C.P. before modern architecture, the inflection of the "Oblique Function" in the architectural discourse of the 70s, 80s, and 90s; and continues being an important reference to those architects who explore strategies to recover the body from the commoditization dragged by advanced technologies, and to resolve the incorporation of the virtual into the experience of real space.

Adam Sharr, British Architect, links P.V.´s architecture with Peter Zumthor's [5], based on the resistance quality of architecture before the deterioration of form and significance, an architecture of enclosure, isolated in its interiority.
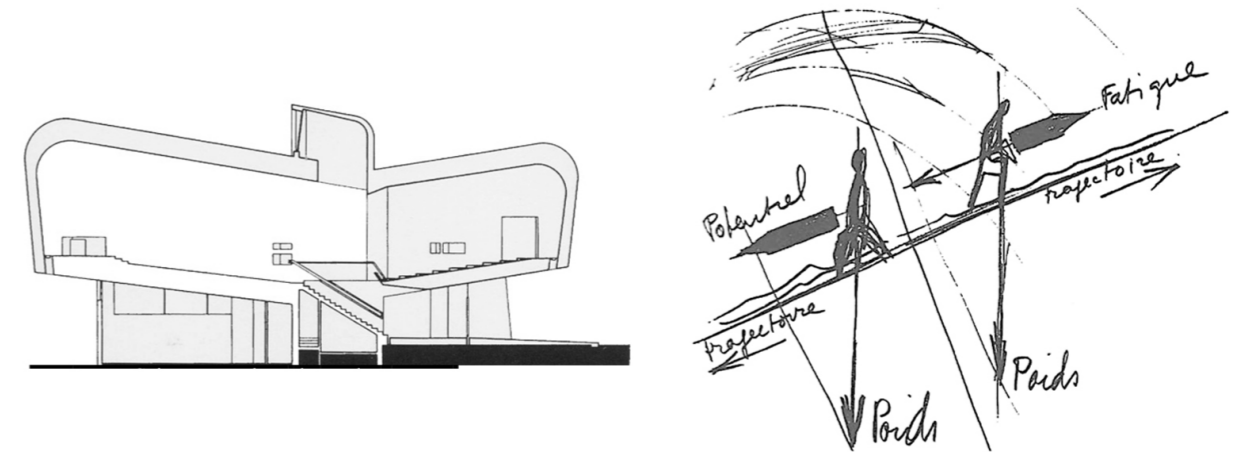
Fig.2

4.2. Oblique

The "Oblique Function" was conceived in the 60s in collaboration with C.P., as a new order against orthogonality. The inclined plane as motor to move the body, generating fatigue when ascending, and potential when descending. A manifesto to resist the emergence of communication technologies and the invasion of the TV at home during the 60s.

The oblique, explored the adherence of the body to different grades of inclination in order to define livable forms of occupation and circulation. The behaviour of the body in inclined spaces, orientation, balance, effort, alternative trajectories, etc.

The "Oblique Function" is tested for the first time, in S-B.d.b.(1963 -1966), materializes the convergence of C.P.´s discourse, influenced by Andre Block's ideas of the fracture; with the phenomenology that P.V. develops in his research on the Atlantic Wall, and his extraordinary contribution for experimenting with different degrees of inclination.

During the 90s, a generation of architects and designers replicated the formal seduction of the inclined and its qualities, thanks to the possibilities of Design Assisted by Computer (D.A.C.), and the use of digital programs for representation that left behind, in many cases, its content principles upon the body; resistance vs. potentiality; the association between circulation and habitation; form and structure (structural furniture); and the activation of the ground.

Many years had to go by for the anticipated concepts of the "Oblique Function" to be revived for experimentation. Homothetically are the proposals of architects who had, sporadically, contributed with P.V. and C.P., such as Jean Nouvel, Daniel Libeskind, and Coop Himmelb(l)Au. There is also the difference of scale dilemma, between S-B.d.B. with the Opera of Oslo (Snohetta, 2007), the Yokohama Port Terminal (FOA, 1995), the L'Ecole d'Achitecture in Nantes (Lacaton & Vassal), etc.

However, our future architectures and typologies continue to be pending for the introduction of time into space; the search for an instability to activate inhabitants; for developing the potential of "inclisite"[6] in the urban scope; for the idea of how gravity, lightness, and suspension can increase sensorial tactility and motricity in the domestic rituals; and the vanishing of binomials as exterior-interior or circulation-inhabitation.

4.3. Dromology

"Dromology" (from the Greek δρόμος "dromos") is his treaty on space occupation by speed, as a new field of study of architecture, the city, the body, and society.

For one part, it reveals the loss of relevance of physical space due to the immediacy, ubiquity, and synchronization of technologies. For the other, it affirms that without time there is no space, and without space there is no body, demanding for architects a solution for resolving the relation between real space and virtual space.

Technologies of transmission, information, and communication (T.I.C.) have a deep impact on space. Speed and acceleration, make T.I.C technologies ubiquitous, instantaneous, and synchronous taking away the relevance of physical space and becoming only visible with the accident. The occupation of space by speed and the irrelevance of space before time, made P.V. raise his hopes on the public space of the city, as the last front of resistance before the advance of the urbanization of technology, and the endo-colonization of the body.

Dromology condenses P.V.´s concern about the effects of speed and acceleration on space, architecture, and the city. The compression of time in each aspect of our contemporary daily life that disregards and even breaks up space.

There is a big disconnection between the actual digital design methodologies used to conceive architectural environments, and the physical experience for what they are finally built.

What will architecture become with the advent of spaces defined by technologies of communication instead of construction techniques? With what sense something can be built when interfaces replace surfaces, and instantaneity reduces space to nothing?

Fig.3

4.4. Ultracity

The concept of "Ultraville"(outre-ville), was first described as "Omnipolis" in *L´Art Du Moteur* [7], briefly elaborated in *Vitesse et Politique* [8], and in *La Bombe Informatique* [9]
However, the term "Ultracity" is fully developed in: *Le Futurisme de l'instant* [10]. The second part of the book "Ultraville" is dedicated to the term "Ultracity".
The term connects the connotation "Ultravi" (ultralife) with the word ville (city).
The term "Ultracity" summarises P.V. concern and criticism about space-time, speed and the urban realm, the relation amongst cities and technologies of information and communication, about the quotidian digitalization in the form we perceive and experiment the city in the cyber-space era.
In his book *Lost Dimension*, the chapter "The Overexposed City," claims that the urbanization of real space gives pace to the urbanization in real time. While real space privileges the continuity of living experience in physical spatiality, virtual space privileges the discontinuity of living experience and physical rupture.

In the "Ultracity," very high-buildings urban developments, make masses of people sedentary in non-exit vertical alleyways (cull-de sacs in the air), which confine motionless bodies transported by elevators; while the technological mediated inter-urbanity, drifts migrations between cities. Both phenomena co-exist with the digital city of screens and mobile devices that redefine the new places.
The "Ultracity" concept allows us to understand how the mobilization of nomad and multi-ethnical populations, guideline now the economic rhythms, the security strategies, and investment flows.
However, I would argue that the "Ultracity" is characterized by two contradictory phenomena:
For one part, an increasing sedentarism provoked by the new doors and windows of the technological interfaces and the application of domotics. Spectating citizens adrift in here and now migrating to nowhere. As a consequence, there is almost no need to activate our body in the contemporary panorama of our urban environment, defined by corporate spaces and over congested territories.

For the other part, an increasing nomadism defined by uncontrolled migration, flows to cities that provoke an increasing babelization, an uncontrollable demographic concentration, and an excessive technological and energetic dependence. We are experiencing, at a worldwide level, an exodus of millions of people moving due to affectations caused by natural and artificial accidents, war, and an unbalanced distribution of resources.

Fig.4

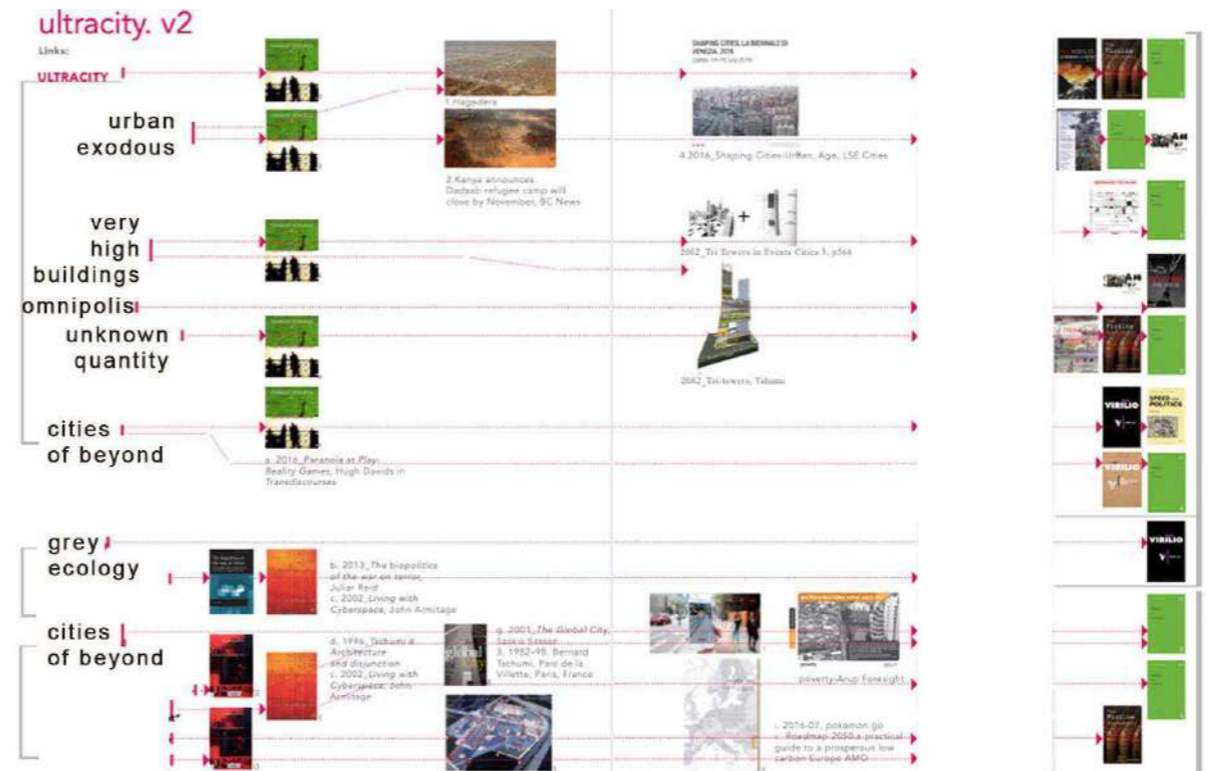In the "Ultracity," P.V. foresees the return to the body in the emergence of new urban drifts, inter-urban and intra-urban migrations. It is the increasing ecological awareness together with the imperative need to provide healthy environments that make resistance to technology still possible.
P.V. changes his belief from architecture to the city, as the social laboratory for antonomasia, and as

the last bastion of resistance of space before the acceleration and speed of technologies. The final stronghold to recover the body from the immobility to which is subject by faster means of transportation; from the confinement in very high buildings; from tele-activities that screens made possible and gained terrain during the pandemic. Public space as refuge for co-living and the arena for in situ cultural exchange before virtuality, the creation of sustainable spaces, and the generation of healthy environments.

4.5. From the "Ultracity" to the "Hypercity"

John Armitage, expert in Cultural Politics, considers P.V. having been a "hypermodern" or "new modern," the term solves P.V.´s non-fitting work within post-modernism. In accordance with his term, I propose the term **"Hypercity"** to face the urbanisation of technologies and their humanisation in search for more sustainable and healthy environments to fully recover of our bodies.

Fig.5

5. New relations between words, concepts and practices

The **"Hypercity"** to study the information processes by which we experience our urban realm, as the iPhone had a profound impact on how we operate in our existing cities. To cope with big data as informational architects adopting a hybrid approach, where technology becomes as extension of the designer's imagination in the information age of the network society. As Jane Jacobs reminds us, the city as the result of incremental behaviours by a multiplicity of users at street level.

Considering that in year 2050 two thirds of the population will live in cities, and the importance of recovering the body which has become global after the coronavirus crisis, the **"Hypercity,"** is also to face the age of A.I.

P.V.´s theoretical arguments deviate the central importance before in space to time; before in architecture to urbanism; before in form to content. These are consequences of his comprehension of the impact of the screens and mobile devices in our lives; of the control, the surveillance, and the militarization of our urban environment; of the growing migration of people displaced by wars, by climate change, and their search for life better conditions amongst frontiers.

5.1. Real space and virtual space

P.V. is interested in digital technologies and the idea to rationalize them, humanize them, and incorporate them. He warned about the potential thread that each artefact generates its own accident; was convinced of the need of recovering the body from sedentarization, commodification, eugenics; and his calling out to the urgent conciliation between physicality and virtuality.

For P.V. the big problem of contemporary architecture is the temporal compression, "dromospheric pressure, " standardization and synchronization as the two sides of space-time. Architecture is not only vulnerable to bombs, but proves to be defenceless against the new digital information and communication technologies that transgress the doors and windows of our homes, reorganizing the time and the space we live in.

To a large degree, contemporary architecture is returning to abstraction, an abstraction that in most cases, does not go beyond merely formalism.

Real time demands from architecture the need and capacity for reacting before the demands of communication instantaneity, the virtual portals of big data, and serve the physical space as well as the virtual space. Housing must host the virtual space as facilitator for domesticity to link virtual space with real space, and so reduce the real-virtual gap.

It remains in us, architects and urbanists, to find the affinity of real space and virtual space, to solve the real space-virtual space divide, incorporating into our design and construction process new technologies; authorship techniques for the co-existence of mental images with design projects assisted by computers; strategies for the use of mixed programs, reinforced by augmented reality and artificial intelligence; the association amongst form, structure, program, and virtualization; construction and ecological codes for health planning to incorporate the Internet of things.

6. Potential of innovative perspectives and actions

On one side, there is the central idea of returning to the body in order to resist the negative consequences of communication technologies on the territory, and devices in people. On the other side, there is the idea of incorporating, rationalizing, and humanizing the new information technologies in order to reconcile the physical city and the digital city.

6.1. Resistance to technology

P.V.´s discourse was based on three main axes: Technology, resistance, and the body.

P.V., as an irritating catholic in words of Claude Parent, saw the attributes of divine totality reflected in technology: Omniscience, omnipresence, and omnipotence.

According to P.V., one of the most perceptible consequences of the irruption of new technologies of communications and speed, is the tendency to abolish time and space for having produced a general temporary dislocation-relocation, a total dissociation-relocation in which there are no specific places, instead the emission and reception of sensations.

He positions himself against to transportation and information technologies for their acceleration of the social, and the displacement of physical space by politics of speed.

6.2. Recovering the body

As a phenomenologist, the human body is central in P.V.´s work. He was concerned with the vanishing of the proper body after the dehumanize effect of technologies, by processes of endo-colonization [11] – Body, technology, and social nature

The affectation of speed in the body and in space describe the impact of technology in our lives, and they form the spine of P.V.´s phenomenological input to architecture and urbanism.

P.V. claims the urgency to return the importance to the body, by redesigning new social and spatial organizations; by rethinking architecture and the city. For P.V., the large urban concentrations are the origin and destiny of the urban exodus, of world-scale migrations, of a continuing nomadism in which the body reappears. But, along with its growing densification in the form of vertical urbanizations with generic typologies, the emergence of very tall buildings that sedentarize the body through the elevator as the most used vehicle. P.V. anticipates the need to reconcile the local physical city and the world virtual city, which tends to dissipate the body through communication networks.

7. Things and practices
7.1. Pandemic and the ecological model

Although the last pandemic did not have an impact on the city for long, it indeed accelerated tendencies, the technological adoption process in tele-activities as well as in solutions and devices for tracking and testing: artificial intelligence, mobile applications, fingerprint and facial recognition, etc. It catalysed the digitalization of public services. It has made tele-work, on-line education, and tele-medicine to become a norm. It has increased the gap between real space and virtual space, i.e., consider the two-meter interpersonal security distance in relation to the ubiquity of the screen.

The idea of the local was again revisited by the return of a new security. It made us recognize the interdependence between country and city; the need of a new urban-rural discourse, and to rethink the city values of density and compactness and the role of urbanism as a tool for a positive transformation. Years before, P.V. already pointed out that those who are connected are at home anywhere; while those who are not connected are not home, nowhere. Although during the pandemic we counted on technology, which in a digital way takes us to ubiquity, those connected turned out to be anywhere at home, but confined everywhere.

COVID-19 raised the need to make the individual confinement compatible with the proximity of collective compactness; rethink the design of spaces that could facilitate new dynamics; adapt architectural typologies in order to increase the capacity of isolation. Private yet exterior spaces as Maria Buhigas suggested in *Confined in the City, Rock*: balconies, halls, large windows, grandstands, scaffolds, etc., which had been forgotten for aesthetic reasons (the weight of modernism), and for economic reasons (the weight of profit).

The socio-economic challenges that the pandemic brought up, force us to re-think how we can harness technology, of the need of more sophisticated mechanisms for statistical analysis, the value of data, the democratic control of personal information, the impact of technology for the right to digital privacy, in order to move on to an increasing social and urban resilience.

At present, the relationship between technological nature and the perception of human experience continues to be approached by Bernard Stiegler, French philosopher influenced by Virilio, in his trilogy "Techniques and Time" (1994, 1996, 2001).

7.2. Urban models

The outbreak of COVID-19 exposed both, the excesses as well as the deficiencies of the contemporary society, after being forced to reduce speed and put our fast ways on hold.

The crisis taught us the need to maintain a balance between density vs. compactness in our cities.
For P.V., resistance is to recover the proximity to real places and existing spaces.
The superblocks of Ada Colau in Barcelona, the 15 min. City of Carlos Moreno in Paris, and the Low traffic neighbourhoods in London are implementing initiatives that foster values of the city of proximity, which could count on the economical offer and the infrastructure to reduce emissions, decongestion, and optimize time to reinforce social cohesion. The mixture of residential neighbourhoods with commercial areas, work, education, and leisure, communities that produce and share food again, domestic and community orchards that use composts, etc.

8. Future visions and transformations
P.V. challenges us, architects, to rethink space before it disappears after the immense speed of technologies and the gravity of time.
After big data and augmented reality, in the next years we will face the burst of Artificial Intelligence (AI), and its impact in real space and the body. The question of how we adapt to technology and absorb it so it becomes a prosthetic extension to our bodies, is more relevant than ever.
Wolf Prix, of Coop-Himemb(I)au, is already using AI to improve the design process. Patrik Schumacher, of Zaha Hadid Architects (ZHA), has used AI to simulate the behaviour of occupants in its buildings.

9. Conclusions
Tschumi´s opinion is that architects must learn P.V.´s lessons about the analysis of the city and of architecture.
The "Hypercity" to rethink architecture and the city, to rethink time and space after the impact of digital technologies of information and communication.
P.V.´s preoccupation with technologies were related, on one hand, to their constructive, destructive, and transforming force upon the body, architecture, and the city; and on the other hand, the result in temporal compression, standardization, and synchronization.
Much of what is still relevant about P.V.´s contribution, is that technologies play a fundamental role in forming our individual and collective experience. We live in an exponential crisis of perception, precipitated by visual technologies of militarization and the incorporation of these technologies in the familiar environment on streets, homes, and in the daily living architecture. The "Hypercity" to solve the crises where the transparency and fluidity of media open up their pace through the solid geometry of buildings.
Since the 60s, the impact of technology, which accelerates the communications and transmissions, has been critical for spatial and social organizations, affecting the role of the body and questioning the importance of the physic space. Today is even more notorious for the effects of the Internet and the mobile phone industries, that generate a world dominated by the instantaneity, the ubiquity, and the omnipresence.
Paul Virilio´s thinking went way ahead of the development of the events in his time. Before the shift of the millennia, in relation with space, he anticipated matters of tele-presence against presence; tele-portation against presentation, highly relevant for the dominating tendencies for our times, as the virtual reality, augmented reality and AI.
The theoretical terms of "Dromology" and "Ultracity" are fundamental to approach the transformations caused by the digital space. The city, being today unthinkable without the convergence of the digital networks, undoubtedly represents the social laboratory by antonomasia. The "Hypercity" continues trying to recover the bodies of isolated individuals in the global society, uncommunicated despite the synchronicity of digital media.

Notes
1 Bernard Tschumi, "P.V.," in *A landscape of events*, Paul Virilio & Julie Rose (Massachusetts: The MIT Press,2000), viii
2 Paul Virilio, Juan Carlos Sánchez Tappan, Tilemachos Andrianopoulos, "Paul Virilio in Conversation," (London: AAFiles 57, 2008) 32
3 John Armitage, "From Modernism to Hypermodernism and Beyond. An Interview with Paul Virilio"," in *Paul Virilio. From Modernism to Hypermonernism and Beyond"* John Armitage (London: Sage, 2000), 16
4 Alan Sokal, Jean Bricmont, "Paul Virilio" in *Intellectual impostures*, (London: Profile, 1997), 169
5 Adam Sharr, "Burning Bruder Klaus: Towards an Architecture of Slipstream" in *Virilio Now*, John Armitage (Wiley, 2011) 30.
6 A Project of Claude Parent for inclined sites, 1974
7 Paul Virilio, *The Art of the Motor* (Minnesota: U. Press:1995 (1993))
8 Paul Virilio, *Speed and Politics* (Los Angeles: Semiotext(e): 2007 (1977))
9 Paul Virilio, *The information bomb* (London: Verso: 2000 (1977))
10 Paul Virilio, "The Ultracity" in The futurism of the instant (Cambridge: Polity, 2010 (2009)), 37
11 The possession or decomposition of the body by technology, or the dislocation of the body presence in the real space-time.

Image captions
Fig.1. Left. Interview with Paul Virilio at La Rochelle, May 2005. Right. Interview with John Armitage at Winchester, June 2016
Fig.2. Left. Section of Saint-Bernadette du Banlay, bunker church in Nevers, 1963-1966. Right. Oblique Function diagram, 1966.
Fig.3. Dromlogy in V.II of the PhD thesis: *Paul Virilio: Resistance to technology and the recovery of the body*
Fig.4. Ultracity in V.II of the PhD thesis: *Paul Virilio: Resistance to technology and the recovery of the body*
Fig. 5. Left. Media Burn-AntFarm, John F. Turner, 1975. Right. L.A.2049, Blade-runner 2, 2017

References
Books:
Armitage, J. *Paul virilio. From modernism to hipermodernism and beyond* Sage, London, 2000
Armitage, J. *Virilio Now*, Wiley, 2011
Armitage, J. *The Virilio Dictionary*, Edinburgh University Press. 2013
Parent,C. Virilio,P. *The Function of the Oblique- The Architecture of Claude Parent and Paul Virilio 1963-1969.* Pamela Johnston. London: Architectural Association Publications, 1996
Virilio, P. *Pure War.* New York: Semiotext(e), 1997
Virilio, P. *Bunker Archeology*, Princeton. Architectural Press, 1998
Virilio,P. *The futurism of the instant*. Cambridge: Polity, 2010
Book chapters:
Armitage, John. 'The Ultracity' in: Armitage,J. *Virilio for Architects*. Routledge, 2015
Tschumi,Bernard "Foreword" in *A landscape of events*, Paul Virilio & Julie Rose, viii-ix. Massachusetts: The MIT Press,2000
Virilio, Paul. "Critical Space"; "Improbable architecture"; "The overexposed city". In: Virilio,P. *Lost Dimension*. 1991
Virilio, Paul. "The Ultracity" in: Virilio,P. *The futurism of the Instant*, Polity, 2010
Webb, Michael. "Boys at heart" en: Cook, Peter. *Archigram*. New York: Princeton Architectural Press, 1999.
Journal article:
Armitage, J, Virilio,P. 2009. "An interview with Paul Virilio". *Cities of beyond* . Open 18- 2030- War Zone Amsterdam
Canguilhem, Georges. 2001. "The Living and Its Milieu". *Grey Room*. 1, no. 3: 7-31.
Virilio, P., Sánchez Tappan, J.C. & Andrianopoulos, T."Paul Virilio in Conversation", 32-41. London, AAFiles 57, 2008
Thesis:
Sánchez Tappan, Juan Carlos. *Paul Virilio: Resistencia a la tecnología y recuperación del cuerpo*. Tesis doctoral-UIC. Escola Superior d'Arquitectura de Barcelona, 2021.
https://urbannext.net/on-paul-virilio/
https://urbannext.net/migration-ecology/
https://urbannext.net/speed-technology/

Biography
Professor **Juan Carlos Sánchez Tappan** is a Mexican-Spanish PhD architect, educator and critic. He holds a Masters in Architecture from the AADRL (London). Founder Partner and Principal of STUDIO OF ARCHITECTURE RESEARCH, SOFAR (2003). Director of the Visiting Universities Mexico - Summer abroad program, and the Visiting Inter-Professionals B2B tour in Barcelona and London, in collaboration with FUNDARQMX. International Professorship at ITESM (Puebla, Torreon, Guadalajara, and Mex.): "Housing and metropolitan imaginaries." External Researcher at Anahuac (CDMX): "Urban sprawl, new territorial identities." He has been visiting lecturer at the Doctorate School ADD INIGE (IT); Texas A&M (US); Tung Hai University (TW); and London Metropolitan University. He was a member of the Urban Research Bureau, Urban Flashes, Metropolis graduate program in Architecture and Urban Culture. Interests: "IKIGAI urbanism," to identify the vocation of cities. "The Hypercity," to develop a built environment to foster the humanisation of technologies and recovery of the body.

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