Abstract

Eighteen or 65 years old, 50 years of contributions, three months maternity leave, three-year degrees, 40 hours a week, eight hours a day, two-hour data downloads, 15 minutes away or five hours from the city. Time, in this context, does not only appoint the dissected measure of seconds, minutes or years but provides the syntaxes through which contemporary architecture and urbanism structure the specific spatio-temporalities of cities, buildings, inhabitants and their ways of living. Consequently, the increasing desynchronisation of space and an ongoing synchronisation of time are shaping a process that erodes the diversity of our lives and simultaneously expands the differences between those who can and cannot share the market velocity. In this article, the conflict of synchronicity will be made visible within contemporary cities through the notions of heterogeneity (*chronopolitics*), power (*syncropolitics*), repetition (*rhythmpolitics*) and speed (*acceleratiopolitics*) as an emerging field of action to be explored by architects, artists or designers.

The Conflict of Urban Synchronicity and its Heterotemporalities: Asynchronous Citizenship

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RODRIGO DELSO GUTIÉRREZ

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Canadian traffic drone

Introduction

What would happen if traffic lights would turn every seven minutes instead of one? Cars would possibly turn off their engines. Pedestrians would agglomerate on the pavement. The silence of the muted vehicles would be overshadowed by citizens' conversations. Pavements should be wider to accommodate the waiting groups, and some benches might even be welcomed. Floor materials would become softer and smoother to let people sit and play. Flower beds would propagate near every intersection. Crossing jugglers would proliferate to entertain both drivers and pedestrians. Shops and markets would concentrate near these points and citizens would be able to get their daily purchases during these synchronic periods. One might have a spare key cut, or buy an aubergine for dinner's moussaka. Of course, many people would turn to their smartphones to answer emails, read the newspaper or watch a piece of a TV show. Facade alignment could be set back and be more interactive with travellers. Buildings could occupy less space to let shared time have more of it. Building block dimensions could be reduced to increase public engagement. Edifice depth could be reconsidered in order to make space for trees to be planted to protect from both rain and sun. Perhaps cars would not need nor should have a speed limit exceeding 30 km/hour. Cabs, bicycles, cars, motorbikes or skates might share their speed, have the same velocity. Perhaps the existence of traffic lights at every crossing would not be necessary. Zebra crossings might generate a civilised and synchronic agreement between parties, but they could mutate into the connective points of a continuous public space-time that would take up half of the city's total surface area. If traffic lights only changed every seven minutes, this text could have been written on an iPad while seated in a grassy field waiting to cross to the other side, where someone would be there, at the agreed time, to have a coffee with you.

What if urban services opened 24 hours, seven days a week? What if roads closed at midday? What if daily employment were for four hours only? What if maternity leave lasted 12 years? What if we had 100 holiday days a year? What if we worked three days a week? What if there were no weekend? What if car traffic was banned half of the week? What if half of the population were 70-year olds—retired—and the other half 17-year olds—underage? Temporal synchronisation determines most of the possibilities that lie within built environments and, simultaneously, forbids its alternative existence. In this article, the conflict of synchronicity will be made visible within contemporary cities through notions of heterogeneity—*chronopolitics*; power —*syncropolitics*; repetition—*rhythmpolitics* and speed—*acceleratiopolitics*—as an emerging field of action to be explored by architects, artists or designers.

From this point of view, our actual synchronic system, mainly inherited from a capitalist and industrial organisation of space-time, is designed only to accommodate the temporality of motorised workmen, where urban environments have become perhaps the most sophisticated devices of time control. They guide citizens' *chronopolitics,* where logistics means the channelling of speed and the management of time by moving people in space, leaving tempo as a leftover of this process.[1] This simplification of multi-space design, by applying the same temporality in all of them, turns into the most

infra-ordinary mode of power: "who decides the periods and rhythms? Who can place people under the pressure of time?"[2]

From operational legal framing[3] to academic research,[4] urban agents continue to project cities as exclusively spatial products.[5] This process produces an increasing *desynchronization* of space—elite neighbourhoods and slums coexist side by side—and an ongoing synchronisation of time—workdays, opening times or energy usage—that erodes all differences and specificities of everyone's lives. We all have to work eight hours a day, get our degree in three years, go shopping from ten to seven and wait one minute at the traffic light. But, in a world of a single urban temporal synchronicity, the question remains: what happens to "other" temporalities? Who can have control over their own time?

Aldo Van Eyck, "Playgrounds", 1954.

Several agents from disparate fields have worked, and continue to work, on altering this status quo temporality, producing alternative possibilities that hold the potential to modify the different organisational structures within built environments and establish different political, sociological, cultural, artistic and architectural urbanities. For the purpose of this paper, we have labelled as "asynchronous citizenship" all those strategies that fight for alternative forms of urban synchronisation and that mitigate, consciously or not, against actual temporal dynamics within cities where most of their tactics are to subvert normative tempos in order to defend the urgent need for current human habitats[6] to accommodate the emergent *heterotemporalities*[7] of their inhabitants. In the following sections, we will

1. Virilio, P. *Amanecer Crepuscular*. Buenos Aires: Fondo de Cultura Económica. 2003. pp. 11-12.

2. Innerarity, Daniel. "Un mundo desincronizado". *Claves de la razón práctica*. No. 186. 2008. pp. 12-16. Prisa Revistas. p. 13.

3. In the case of the urban legislation of Madrid from its first sentence—defining the community of Madrid as an "area of eight thousand and thirty square kilometres, located geographically in the centre of the Iberian Peninsula" (LDSCM, Preamble I)—to its last one—demarcating its "breach of the rules of distance" (LDSCM, Article 223)—is a spatial product. Ley del Suelo de la Comunidad de Madrid (LDSCM) Ley 9/2001, BOCM 17 July 2001.

4. From Vitruvius' definition of architecture—as *firmitas, utilitas* and *venustas* (Vitruvius. *Ten Books on Architecture*, Cambridge, Cambridge University Press: 1999)—to Philipp Johnson's one—as "the art of how to waste space" (New York Times interview, 27 December 1964)—every variable has been related to space.

5. Examining the definition of city as a "large town" (Oxford Dictionary, see: http://www.oxforddictionaries.com/definition/english/city (accessed 2015-10-14), as the "dwelling place more permanent and more stable than themselves" (Arendt, Hannah. *The Human Condition*. Chicago, IL: The University Chicago Press. 1958. p. 152.), as a "relatively and permanent human settlement" (see https://en.wikipedia.org/wiki/City (accessed 2016-07-26), as the "theatre of social life" (Mumford, Lewis. *What is a City?*. Architectural Record, 82. McGraw-Hill, Inc. November 1937. p. 185), as a "region with ubiquitous information technology" (Einman, E. and Paradiso, M. "When space shrinks—digital communities and ubiquitous society: Digital cities and urban life: A framework for international benchmarking". Winter International Symposium on Information and Communication Technologies. Cape Town: Trinity College Dublin. 2004 or see: wikipedia http://en.wikipedia.org/wiki/Ubiquitous_city (accessed 2009-04-28) or as "gigantic man-made object" (Rossi, Aldo. *The Architecture of the City*. New York, NY: The MIT Press. 1984. p. 29.), we are able to track its spatial production.

6. Urbanisation will have produced 27 megacities by 2025. By 2050, more than 70 per cent of the global population will live in cities and around 84-90 per cent of Europeans, North Americans, Australians and New Zealanders (UNDESA. *World Population Prospects*. New York, NY: United Nations. 2008).

7. *Heterotemporality* refers to the diverse and heterogeneous time needs of the multiple citizens that inhabit an urban environment, opposed to historical time as a model of temporal totality and alignment, but connected with Ricoeur's notion of public/social time as the result of the overlapping of multiple time frames. See Ricoeur, Paul. *Time and Narrative*. Vol. I. Chicago, IL: The University of Chicago Press. 1983.

depart from Paul Virilio's notion of *chronopolitics* to highlight the existence of a huge part of citizenship that is forced to assimilate *homotemporal* urbanity, while piercing this narrative with acts of citizens' resistance against spatial politics that continue to divide neighbourhoods through distance to services and goods.

Urban *Chronopolitics*: From Homo to Heterotemporality

Space has dominated the discourse around the polis.[8] The friction comes from a citizenship that does not need to be in the same space, but at the same time. Urban events are not measured in the capacity to assist citizens but in the ability to connect with them.[9] Old cities fixed to their territorialities mutate into hybrid urban environments, spatially freed but temporary entangled, forming an urbanity not only based on streets, buildings and squares but also connectivity, programming and coding. "The present epoch will perhaps be above all the epoch of space. We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed."[10]

Here is where *chronopolitics* appears through the need to reconcile everyone's times in a common space that works in continuity: 24 hours of connection to upload and download videos, chat, work, buy, entertain or inform simultaneously.[11] Any initiative can be developed in less than a day and become a media giant that goes through obsolete spatial barriers.[12] C*hronopolitics* has been engaged with an interesting part of postcolonial literature located in the critical position where geopolitics has tended to conceptually reduce global politics to "a spatial spectacle".[13] Here the term is used to resist the subordination of geopolitics to space in Western intellectual thought and its simplifying idea of a linear time called progress.[14] Because, ultimately, "othering" is always simultaneously geopolitical and chronopolitical.[15]

When analysing contemporary urbs, in an age of chronopolitics, "chronology is elevated over geography and pace over space".[16] Here, synchronicity can have a heterogeneous use across 24 hours, by varying the opening frequency of shops that are allowed to perform certain activities[17] instead of others and an asymmetric intensity depending on the day of the week.[18]

Furthermore, time cannot be homogeneous and objective, but must be "understood as necessarily heterogeneous, intersubjective and political".[19] The imbalance comes from an existing, and ever alive, plurality of times[20] in urban environments and an unavoidable synchronicity towards the one and only temporality of the *heterospatial*[21] designed cities: the temporality of the male worker who has to use a car to get to his office. Every other time is discarded and forgotten: the time of old people, children, women, animals, youngsters, housekeepers, the unemployed, students, the disabled and so on.

The simultaneous government of both space—by dividing it—and time—by homogenising it—constitutes a substantial element of social power;[22] the "ideological and political hegemony in any society depends on an ability to control the material context of the personal and social experience."[23] This situation has generated an imbalance between both entities: "For tribal man space was the uncontrollable mystery. For technological man it is time that occupies the same role."[24] Today, we are living in a digitalised world, where in 2015 IP networks transferred more than 7.3 petabytes every 5 minutes—the equivalent of all the movies ever made every 300 seconds; where Warcraft players count more than twice the population of Austria; where Facebook is the third most populated country in the world with over 500 million users; or where eBay is the largest market.[25]

Chronopolitics has to acknowledge a change in the arena of urban politics.[26] Constructing a real and intermingled alternative to the "politics of

space"[27] that has demonstrated itself as incapable of sustaining the Planet-Society and lays it out as an unsolvable problematic from its own nature,[28] an ecological crisis manifested itself through the deterioration of the environment.[29] This is a Western crisis, because of unsustainable progress, a demographic crisis in its overpopulation, an urban crisis that is contaminated and polluted, a rural crisis in its desertification, a political crisis for its incapacity of making viable decisions, a knowledge crisis that demonstrates fragmentation and lack of communication, and an ideological crisis that produces division and radicalisation devolving into anxiety and violence.

8. See Mumford, op.cit; Jacobs, Jane. *The Death and Life of Great American Cities*. New York, NY: Random House. 1961; Rowe, Colin. *Ciudad Collage*. Barcelona: Gustavo Gili. 1981; Koolhaas, Rem. *La Ciudad Genérica (The Generic City)*. Barcelona : Gustavo Gili. 2006; or Alexander, Christopher. "A city is not a tree". Architecture Anthology. Vol. 122, No. 1. 1961. pp. 580-590.

9. The 2010 World Cup final between Spain and the Netherlands was the biggest online event with more than 10.3 million clicks every minute, and the 2014 World Cup was the most live-streamed event in history.

10. Foucault, Michel. "Of other spaces". *Diacritics*. Vol. 16, No. 1. 1986. p. 22.

11. *Chronopolitics* is a term introduced first by Paul Virilio on his hypermodern texts about speed and war. It designates the relation between time perspectives to political decision-making, the relation between the control of time and the decisions adopted by a specific institution. In his essays Virilio joined the term *chrono* with geopolitics. In our case we extend its scope of action to form an entangled entity that cannot be separated from space.

12. On 14 July 2010, Old Spice launched the fastest growing online viral video campaign, gathering 6.7 million views within 24 hours and 23.2 million within 36 hours by building a bathroom set and allowing the actor to answer online questions instead of producing a TV ad.

13. Tuathail, Gearoid Ó. *Critical Geopolitics: The Politics of Writing Global Space*. Minneapolis, MN: University of Minnesota Press. 1996. p. 60.

14. Mamadouh, Virginie. "Reclaiming geopolitics: Geographers strike back". *Geopolitics*. Vol. 4. No.1. 1999. pp. 118-138.

15. Prozorov, Sergei. "The other as past and present: Beyond the logic of temporal othering in IR theory". *Review of International Studies*. Vol. 37. No. 3. 2010. pp. 1273-1293.

16. Derian, John D. "The (s)pace of international relations: Simulation, surveillance, and speed". *International Studies Quarterly*. Vol. 32. No. 3. 1990. pp. 295-310 (297).

17. On 30 June 2009, the former president of France, Nicolas Sarkozy, declared: "Is it normal that on Sunday, when Mrs Obama wants to do some shopping in Paris with her daughters, I have to take my phone to get the shops to open? [...] We are going to change that." See http://www.lejdd.fr/Politique/Actualite/Delanoe-gele-les-ouvertures-le-dimanche-198430 (Accessed 2014-08-21.)

18. The debate around dominical rest visualises time as a socially constructed entity: leisure activities are also produced (and productive), although they are proclaimed free and even "free time". Isn't this freedom also a product? See Lefebvre, Henri. *Rhythmanalysis: Space, Time and Everyday Life*. London: Continuum. 1992.

19. Klinke, Ian. "Chronopolitics: A conceptual matrix". *Progress in Human Geography*. Vol. 00. No. 0. 2012. pp. 1-18.

20. From the biggest frames such as obsolescence time, universal time, historic time, circadian time or global time, passing through contracted time, self-time, family time, biographical time or interaction time to the small scale of body time, shared time, donated time, biological time, block time, real-time or mitotic time.

21. By *heterospatiality* we understand the diversified ways by which architects design built environments to accommodate spatial differences such as elite neighbourhoods—with its own kind of urban planning, infrastructures or legislations—dormitory towns, suburbs, industrial areas or rehousing neighbourhoods.

22. On 22 May 2014, the lawyer Michael Lewis filed the first-class action against HFT trading towards 13 US stock exchanges and their subsidiaries for not providing information that was timely or accurate and was not fairly distributed among the traders becoming the first trial on time distribution. Smith, Andrew. "What just happened", *The Guardian*, 7 June 2014. See https://www.theguardian.com/business/2014/jun/07/inside-murky-world-high-frequency-trading (Accessed 2014-06-07.)

23. Harvey, David. *La Condición de la Posmodernidad (The Condition of Postmodernity)*. Buenos Aires: Amorrortu. 1998. p. 227.

24. McLuhan, Marshall. *The Mechanical Bride: Folklore of Industrial Man*. London: Duckworth Overlook. 2011 (1951). p. 85.

25. Citing the United Nations special rapporteur: "Internet has become an indispensable tool for realizing a range of human rights combating inequality, and accelerating development and human progress, ensuring universal access to the Internet should be a priority for all states." La Rue, Frank. Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression. General Assembly 16 May 2011, Human Rights Council, Seventeenth session, Agenda item 3. United Nations.

26. On 27 December 1999, in Jun (Granada, Spain) Internet access was declared a universal right for any citizen for the first time. This meant the birth of *active teledemocracy*.

27. Walker, Rob B.J. "International relations and the concept of the political". In *International Relations Theory Today*. Oxford: Blackwell. 1995. pp. 306-327.

28. See Morín, Edgar. *Seven complex lessons in education for the future*. Paris: UNESCO Publishing. 1999. pp. 37-38.

29. The Global Footprint Network indicates 13 August 2013 as the day in the year that the earth reached its ecologic maximum budget: when our resource consumption is higher than the ability of the planet to replace them. In 1993 it was 21 October. See http://www.footprintnetwork.org/ (Accessed 2015-10-15.)

Access door of the Veneta Wall in Bergamo, Italy.

Urban *Syncropolitics*: The Notion of Asynchronicity

At exactly 10 o'clock, the bells inside the tower that dominates the Piazza Vecchia in the Northern Italian city of Bergamo used to ring 180 times. Its sound lasted precisely the 10 minutes it took to close the gates of the Veneta walls. When the sound started, every citizen hurried to climb the hill in order to access the city. After the last bell rang, whoever had not been able to reach the gates would spend the night extra-mural.

Synchronicity has always fed any organisational system, independently of the fact that its structure fostered security, surveillance, power, production or control. Regarding urban environments, every city used to have its own time synchronisation based on mean solar time that was easily approximated with simple technology.[30] It is remarkable that the first adoption of a standard time, and also the beginning of global synchronisation, was on 1 December 1847 in Great Britain, when railway companies used GMT to synchronise their stations. By 1855, 98 per cent of Great Britain's public clocks were using it.

Urban and territorial synchronicity, together with its social doppelganger, are fundamental features of standardised industrialisation systems and contemporary cities.[31] If "motion is life",[32] flow should be controlled, redirected and synchronised.[33] City is "a dwelling place organized by channels of communication and transportation […] Each crossing has its speed limits, its regulations, and its systematic enclosure and spaces within a system of societal organization."[34] Infrastructural planning has devoted a lot of effort to this task: the synchronisation of urban environment pushes users towards the temporality of the car worker.[35] Every other time exudes from this labour time frame forming a one-way system—a socially constructed one[36]—towards one of manufacture: the "production of money".[37]

The synchronisation of urban *heterotemporalities* towards a unique and linear one has a huge impact on citizens' lives and urban planning. Anyone aside from this *homotemporal* system is in a constant state of jammed sync that has to accommodate its own pace and tempo to that of the dominant urban organisation. Looking at gender temporalities within Madrid, we find that women perform 39% less movements for work than men—decreasing after marrying—where women mostly use public transport or walking while for men the private car dominates, where women move more than three times in activities related to house care than men, or where married women move closer to their place of residence than single people in a city whose urban planning fosters the "distancing of quotidian activities to the living quarters".[38] This is only part of an urban dilemma that produces a tremendous asynchrony between the different times of citizens and the decreasing amount of temporal possibilities that the city offers to them.

The synchronic conflict has increased recently due to the exponential multiplication and visualisation of temporal alternatives.[39] In this development, mass synchronisation has forgotten about the origin of *temposcapes*[40] and their basic principles by which the fathers of the internet designed them using notions of free-flow communication—"information wants to be free"[41]—self-managed politics—"a Declaration of the Independence of Cyberspace"[42]—low cost, uncensored counterculture, no commercialisa-

tion, open software and the re-use of data. Today, updated *temposcapes* function as an asynchronous escape from spatial dominance providing the potential to explore alternative temporalities[43] if data connection exists.[44]

Actual urban synchronisation appears to be unsustainable, maintaining both the old spatial borderlines—elite neighbourhoods, slums, congested areas, isolated suburbia, ecologically devastating developments; the old temporal barriers—reduced mobility for certain groups, different accessibilities, *homotemporal* synchronisation; and the new real-time ones—surveillance, tracking, access to information. Contemporary cities become duplicated and outpaced by time infrastructures that are faster, cheaper, more adaptive, complex and global in their synchronisation systems in an "informational society"[45] that demands more complex synchronic systems that allow the *asynchrony*[46] of its citizens, depending on their personal temporalities, the *diachronic* approach[47] for urban studies, the same speed of connection and at different velocities, the ability of the system to allow mutations and work in real time,

30. Humans regulate their times according to different systems and political visions—mystic beliefs, production systems, natural cycles, war or urban mobility. Long before the 1884 International Meridian Conference—held in Washington DC—where the time of the Royal Observatory at Greenwich (UK) was established as the standard—Greenwich Mean Time—countries with large maritime army needs such as Portugal or France had their own *in sync* models.

31. In a classical context, synchronisation (from Greek *σύν*: syn = the same, common and *χρόνος*: *chronos* = time) is the "coordination of events to operate a system in unison" (See https://en.wikipedia.org/wiki/Synchronization, (accessed 2015-10-05): occurring at the same time, agreeing with something else or remaining identical in more than one location.

32. Müller, Jorgen Peter. *My system*. London: Ewart, Seymour & Co. 1912. p. 9.

33. For an extension on this field, look at the work of Paul Virilio on speed and politics: Virilio, Paul. *Speed and Politics*. Los Angeles, CA: Semiotext(e). 2006 [1977]; Stan Allen on infrastructures: Allen, Stan. "Infrastructural Urbanism". In *Points + Lines: Diagrams and Projects for the City*. New York, NY: Princeton Architectural Press. 1999. pp. 48–57; or Manuel de Landa on history and engineering: Delanda, Manuel. *A Thousand Years of Nonlinear History*. Cambridge, MA: Zone Books. 1997.

34. Virilio, op cit. p. 6.

35. Cities as *homochronous* systems refers to the synchronisation between different traffic flows—roads, streets, motorways—in order not to clash with each other. Examples such as the construction of the M30 motorway in Madrid, with more than 43 kilometres underground and €7,000m investment, demonstrate the huge endowment of cities towards motorised synchronisation.

36. The actual day-night temporal organisation is under discussion as it is not only one through which human beings have organised themselves. The myth of the eight-hour sleep and the night as a continuous time for sleeping is debatable. See http://www.bbc.co.uk/news/magazine-16964783. (Accessed 2015-10-15.)

37. Hülsmann, Jörg Guido. *The Ethics of Money Production*. Auburn: Ludwig von Mises Institute. 2008. pp. x and 1.

38. García-Palomares, J.C and Gutiérrez Puebla, J. "Pautas de la Movilidad en el Área Metropolitana de Madrid". *Cuadernos de Geografía*. Vol. 81-82. pp. 007-030.

39. Applications such as Tinder, Grindr, GeoCaching or Urban Curiosity. Video games such as DayZ, SimCity, Grand Theft Auto or Minecraft. Interactive movies such as *Johnny Rock* or *Freedom Fighter*. Design software such as Grasshopper or Karamba.

40. *Temposcapes* designate the environments that are not based in spatial conditions but mainly in temporal ones. Contexts include the World Wide Web, the technologies of communication or virtual platforms.

41. Himanen, Pekka. *The Hacker Ethic: A radical approach to the philosophy of business*. New York, NY: Random House. 2001. p. 95.

42. Barlow, John Perry. "Electronic Frontier Foundation (EFF)". 9 February 1996. Obtained from https://w2.eff.org/Censorship/Internet_censorship_bills/barlow_0296.declaration. (Accessed 2016-07-28.)

43. The Internet has helped to form communities not based on distance—neighbours—but on common interests: music, political views, subcultures, fashion, hobbies, etc.

44. Nowadays, global internet usage or the right to Internet access is an important matter of discussion that will not be explored here.

45. Manuel Castells offers this term opposed to the information society emphasising the attribution of a specific form of social organisation in the generation, processing and transmission of information. Castells, Manuel. La Era de la Información: Economía, sociedad y cultura. Vol. 1 México siglo XXI. 1999. p.47.

46. Asynchrony here has to be understood as the ability of not having to be completely synchronised with the system in order to make the most of it; to have the ability of connecting at any time. Examples such as asynchronous learning, which uses online learning resources to facilitate information sharing among a network of people, or collaborative editing, which produces work through individual contributions. See https://en.wikipedia.org/wiki/Asynchronous_learning. (Accessed 2016-07-26.)

47. Diachronic linguistics is the study of language at different periods in history as it changes opposed to synchronic linguistics which studies language at a single historical period of time. See https://en.wikipedia.org/wiki/Diachronic (Accessed 2016-07-26.) The first model argues for a dynamic system where change and movement are the main focus.

the simultaneity of actions and its asymmetric uses or the instant availability and freedom of use.

> *The diffusion and development of this technologic system has changed the material base of our lives, and therefore life itself, in every aspect: in how we produce, how and in what we work, how and what we consume, how we are educated, how we inform and entertain, how we sell, how we bankrupt, how we govern, how we make war and peace, how we born and die, who is in command, who is enriched, who exploits others, who suffers and who is marginalized.*[48]

With its own legislations and protocols the need for a new urban (a)synchronic system is urgent; an organisation that takes account of its citizen's timings and accommodates changes to itself.[49]

Urban *Rhythmpolitics*: Disconnected Paces

In 1931, the philosopher Lucio Pinheiro dos Santos sent a piece of his unpublished essay entitled "Rhythmanalysis" to the French intellectual Gaston Bachelard. Both that article and the whole research project was lost in a process in which no editor wanted to publish it, ending in the late 1950s when his widow burnt the manuscript in front of the offices of the Imprensa Nacional. Today, we know about Pinheiro dos Santos' work, also called the "ghost philosopher", as a result of the effect he had on the work of Bachelard, and, later, on Marxist philosopher Henri Lefebvre, who posits rhythm as the key element in cities, which presupposes the "unity of time and space: an alliance".[50]

Using Pinheiro's home city—São Paulo—as an example of rhythmic activity, we found that Paulistanos felt the consequences of urban spatial politics; spending 46 minutes travelling to their job daily, reaching 150 hours each year, being interrupted by events such as public demonstrations on Paulista Avenue that modify this rhythm between one and two hours every two days. The work of urban agents only frame São Paulo in certain ways: the average of seven million vehicles moving daily, for instance, trying to sync with more than 15,000 buses, with a weekend peak-time threshold from 11am to 1pm that usually generates traffic jams of a total of 100km. This statistic and scientific data is, perhaps, the greatest of all fictions, making us believe that by acknowledging them we will know the one and truthful reality of "Sampa".

We have all heard of that city described by the static urbanity of statistical data, the mapped city of the averages or the immutable city that has no time, but is continuously enacted through visual reality. Urban environments are not defined by their apparently unchangeable materiality—objects, architecture and structures—but mainly characterised by its citizens' flows. Urbanity depends on the rhythms of the city—on its tempo—that are plural, diverse, often colliding and asynchronous. "Although each of us knows that on Earth all the seasons of the year, all climates, and all hours of the day and night exist together at every moment, we generally do not think about it."[51]

When confronting the idea of a temporary and spatially divided city in pieces of commerce, leisure, bureaucracy or residence to the simultaneous 24-hour society brought about by global time connectivity, the problems of a citizenship that is not synchronised towards the car-driving workers' temporality, become visible. The 24-hour opening times of gyms, food shops, restaurants, libraries or childcare services becomes a symptom of a growing part of the citizens that use forgotten time frames. Legislation has even been adapted to meet these needs, as in the case of Melbourne, Australia, with its 24-Hour City Policy that "does not seek to create an environment that supports continuous, high-level activities throughout the entire day and night. The policy recognises that the city progresses through different rhythms over the course of 24 hours."[52]

Urban planners need to acknowledge citizens' temporalities and act accordingly, not just in legislative terms, but also in their profession—its strategies and tactics. "If we attend to the size of a city, we will discover that it is not the space that defines its size but that it is time. Time is responsible for the possibilities that I have to cover a territory within twenty-four hours and those possibilities depend on our technical means".[53] And from a citizen's point of view it is also about cultural temporalities: of the top ten most nocturnal cities in the world, six were in Spain—Malaga, Zaragoza, Madrid, Barcelona, Valencia and Seville. Contemporary citizenship synchronisation seems to be tending to a continuous spatio-temporal envelope in which every instant seems to have the same importance, despite its different intensity in contrast to the current urban dissection through time frames.

One of these time frames, the labour rhythm, has produced fruitful research and practice in the artistic field, producing critiques of the eight-hour working day. This symmetrical rhythm was devised by the eight-hour movement in the UK, led by Robert Owen (1833), campaigning for "eight hours labour, eight hours recreation, eight hours rest". It cost many years for workers to achieve[54] this work-life balance during the industrial revolution, as Owen wrote: "eight hours daily labour is enough for any human being, and under proper arrangements sufficient to afford an ample supply of food, raiment and shelter or the nec-

48. Castells, Manuel. "La sociedad de la información" (The Information Society). *El Pais*. 25 February 1995. pp. 50-52.

49. Double-ended synchronisation, Phase-locked loops, Synchronization Rights, Time Protocol or Time Synchronization Function (TSF) are all entries on Wikipedia (Accessed 2015-08-13.)

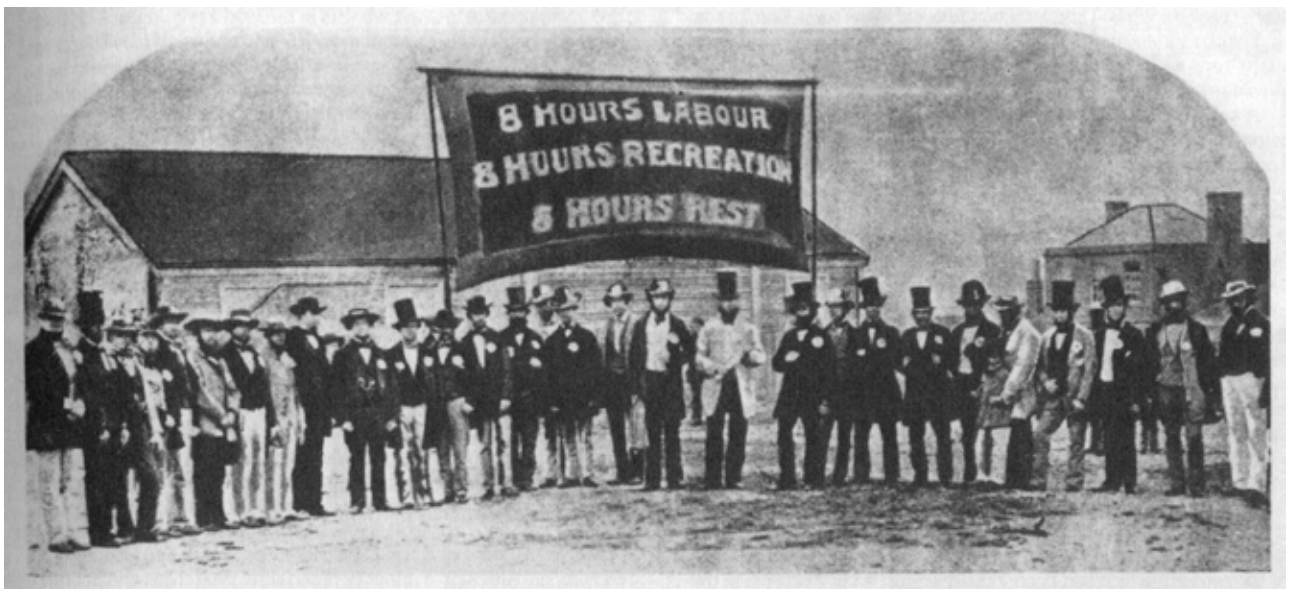
50. Lefebvre, op. cit. p. 60.

51. Lem, Stanislaw. *One Human Minute*. London: J. Johnson and S. Johnson Moon Publishers. 1986. p. 5.

52. Community Service Committee Report. *City of Melbourne's Policy for the 24 Hour City*. Policy, Melbourne. Agenda Item 5.3. 9 September 2008. City of Melbourne Council.

53. Saènz de Oiza, Francisco Javier. "Creadores de hoy". 24 December 2010. Obtained from Radio-Televisión Española at http://www.rtve.es/alacarta/videos/creadores/creadores-hoy-francisco-javier-saenz-oiza/973318/ (Accessed 2016-07-28.)

54. In 1856, workers even built the *Monument to the Eight Hour Day* opposite to the Trades Hall in Melbourne (Australia).



Eight hour work movement, Movimiento 888, Reino Unido 1843.

essaries and comforts of life, and for the remainder of his time, every person is entitled to education, recreation and sleep."[55] From performances such as *Secret Strikes* by Alicia Framis[56], to video projects like *Workers Leaving the Factory* by Harun Farocki[57], through exhibitions such as "Time & Motion: Redefining Working Life"[58], the synchronicity system of urban labour has been a field of exploration.

Ultimately, the urban environment and its synchronisation is the result of the fastest rhythms—related to production, power and consumption—and cannot accommodate the slower ones; the "others". It is in this context where "slow" movements emerge, not as utopian or retrograde demands, but with the intention to reconcile everyone's temporalities through claiming that urban rhythms should be based on the weakest, slowest inhabitants.[59] Uniquely, during so-called "states of exception", urban environments abandon their routine rhythms and establish a synchronisation based on different variables such as protests, carnivals, cultural events or parades.[60]

Citizens in a constant rhythm of mutation coexist with frozen urban processes, provoking a tremendous *asynchronised* urbanity that is not entirely dynamic or static but entangled. The need of an old mass rhythm towards the durational and extensive time of the motorised worker disappeared when the real-time technologies introduced an (a) synchronicity that allowed each citizen to choose their own temporality, including its resistance.[61]

Urban *Acceleratiopolitics*: Real-Time Synchronisation

> *During the last decades, time has become what natural resources were in preceding epochs. Constantly measured and priced, this vital raw material continues to spur the growth of economies built on a foundation of terabytes and gigabits per second.*[62]

The systems of measuring—aka imposing—time are as countless as their precisions: calendars, time zones, clocks and any other kind of timekeeping device—pendulums, chronometers, clepsydras, sundials or obelisks. Different devices, but the same kind of time: the linear system of the second.[63] In this system, time is more developed and accurately measured—0.000 000 000 000 001s—than any other entity in the world and the second has become entangled in relations the metre was in before: of power, sovereignty, control and politics. "Time must never be thought of as pre-existing in any sense; it is a manufactured quantity."[64]

When status-quo agencies start to realise that synchronisation is just a fiction, they start to take advantage of it by setting up rules in which arriving at a specific time decides who wins and who loses.[65] If you can measure with more precision and calculate with more accuracy, you become the reference point of synchronisation.[66] As Paul Virilio puts it: "if time is money, as they say, then speed is power."[67] Some of these synchronicities are entangled in an emergent field called *accelerationism*,[68] which diagnoses the present context as the destruction of long term thinking: "in this paralysis of the political imaginary, the future has been cancelled."[69]

On the radical edge of this synchronisation, we find smart cities based on the promise of business growth and knowledge sharing that will be accomplished by efficient management, integrated ICT and active citizen participation. Their temporal synchronisation is again reduced to a simplistic but accelerated version: a unique temporality for their citizens towards the hunt of money production and with the bonus reward of wireless connection.[70]

"Improvement of citizen everyday life in the city for instance can mean the simplification of citizen transportation, the access to city resources or the opportunities for employment and local growth."[71] For a market opportunity of US$1.5 trillion,[72] most

of these cities are ground-zero master-planned over greenfield or depopulated sites, where any trace of innovative urban planning is nonexistent, forcing citizens to inhabit the same spatial urban morphology of the past, but, at the same time, live at the rhythm of the immediate real-time logic. Again, the city of the future is based on distances and areas of fragmented use, avoiding the fracture between a temporal citizenship and an immutable architecture that hosts it as the main conflict in urban environments "because at the same time society is a technological and medical feat, and marginalizes broad population sectors that are irrelevant to the new system […] what should be laid out is how to rebalance our four-star technological development and our social underdevelopment."[73] As Michel Feher puts it, the neoliberal condition has compressed the world into the near future, not allowing us to plan through different temporalities producing only "one second spectacle architectures"—Gehry's Guggenheim (Bilbao), Calatrava's Culture City (Valencia) or the entire Dubai's new architectures.

55. Owen, Robert. "Foundation Axioms of Society for Promoting National Regeneration in 'Man vs Machine'". *Morning Chronicle*. 7 December 1833. p. 3.

56. For example, Alicia Framis´ Secret Strike at the Tate Modern in 2006 (See: http://aliciaframis.com.mialias.net/2006-2/secret-striketate-modern-2006/ (Accessed 2015-10-07). For the original video, see: https://vimeo.com/103331198 (Accessed 2015-10-07.)

57. For example, see: http://www.museoreinasofia.es/en/collection/artwork/workers-leaving-factory-eleven-decades. (Accessed 2015-09-24.) For the video, see: https://vimeo.com/59338090 (Accessed 2015-09-24.)

58. See: http://www.fact.co.uk/projects/time-motion-redefining-working-life/. (Accessed 2015-08-15.)

59. See http://www.slowmovement.com/ (Accessed 2015-09-22.)

60. Agamben, Giorgio. State of Exception. London: The University of Chicago Press. 2005. Especially Chapter One: *The State of Exception as a Paradigm of Government*. pp. 12-43.

61. The tumblr blog Vaginas of the World is an action of online synchronisation that reinstates old-school feminist activist practices arranging meetings in a specific place where to look at their own genitals censored by medical and social conventions.

62. See "A Matter of Time". *Scientific American*, New York, NY: Scientific American Inc. 2006.

63. Whose very definition has reached its atomic stage being "the duration of 9,192,631,770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium 133 atom." See: http://physics.nist.gov/cuu/Units/second.html. (Accessed 2015-09-27.)

64. "A Matter of Time", *Scientific American*. 2006. p. 21.

65. It is also used to intensify social claims: the Doomsday Clock by the Bulletin of the Atomic Scientists, the Surveillance Society Clock by the American Civil Liberties Union, the World POP Clock by the Census Bureau, the Earth Clock by Wisdom Academy, the AIDS Clock by UNFPA, the Military Spending Clock, the Drug War Clock, the National Debt Clock or the Incarceration Clock by Prisonsucks.com—2,183,523 people in US prisons and jails today. See http://www.prisonpolicy.org/clocksource.html. (Accessed 2015-10-02.)

66. On 15 September 2008, George W. Bush gave a talk on the fall of Lehman Brothers with the financial market disciplining him in real time with every word he said that led to a paralysis in the construction of new community colleges, schools or community clinics. See: http://www.nytimes.com/2008/09/24/business/economy/24text-bush.html. (Accessed 2015-01-13.)

67. Armitage, John. *Paul Virilio: From Modernism to Hypermodernism and Beyond*. Theory, Culture & Society. Vol. 16. pp. 25-55. p.36.

68. Despite all polemics around the notion, its definition could be the idea that either the prevailing system of capitalism, or certain techno-social processes that historically characterised it, should be expanded and accelerated in order to generate radical social change. See https://en.wikipedia.org/wiki/Accelerationism (Accessed 2016-07-26.)

69. Williams, Alex and Srnicek, Nick. "ACCELERATE MANIFESTO for an Accelerationist Politics". *Critical Legal Thinking*. 5 February 2013. See: http://criticallegalthinking.com/2013/05/14/accelerate-manifesto-for-an-accelerationist-politics/. (Accessed 2015-09-29.)

70. Only provided free of charge as method for being connected 24/7 and synchronised for business opportunities.

71. Anthopoulos, Leonidas and Fitsilis, Panos. "From Digital to Ubiquitous Cities: Defining a Common Architecture for Urban Development". *Intelligent Environments* (IE), Sixth International Conference. Kuala Lumpur: IEEE. 2010. pp. 301-306.

72. See http://www.forbes.com/sites/sarwantsingh/2014/06/19/smart-cities-a-1-5-trillion-market-opportunity/ (Accessed 2015-07-10.)

73. Castells, Manuel. *La sociedad de la información*. El Pais Newspaper. 25th February 1995. pp. 50-52. See online article: http://elpais.com/diario/1995/02/25/opinion/793666808_850215.html. (Accessed 2015-07-10.) My translation.

Indignados at Puerta del Sol, 2011. Image courtesy of Left Flank.

Activism is often an urban and architectural moment, and, again, cities become the ground were Indignados at Puerta del Sol (2011) to some of its politics while at the same time reappropriating its technological possibilities. The 15M as the major demonstration and success of the Spanish Indignados movement was developed in public space, occupying the streets and square of Sol (Madrid) for more than twenty days. From the very beginning of the camp site (16 May 2011), real time was used as a weapon through social networks by synchronising people through hashtags such as #spanishrevolution, #democraciarealya—real democracy now—#nonosvamos—we are not leaving—#15M, #juntaelectoralfacts or #notenemosmiedo —we are not afraid—to transport food and drink, to inform about meetings, public assemblies, technical needs or to move from one place to another to fend off the baton charges, synchronising flows of people and protest, using speed to challenge the status quo and displaying an unprecedented precision and accuracy in their achievement of goals. John Posthill speaks about the importance of techno-political knowledge for a real activist action where real-time synchronisation is visualised and used.[74] After the dismantling of the campsite, several real-time synchronisations of the movement continued: 15MpaRato –virtual platform to denounce corrupted actions and sue politicians—DemocraciaRealYa—the hashtag became a blog for

synchronising the protests—or Partido X—a political party where candidates and policies are decided on online.

Time cultures reflect their society's values, developing what Edward T. Hall called the "silent language" of the rules of social time, where there is no distinction between domestic and urban contexts, between transport and work activities or between home, neighbourhood, square and city. The actions are maintained, the way we carry them out and their synchronisation is what has changed. These conditions alter the spatial context where it happens: domestic and public activities could happen in the same space (Change[75] or Partido X[76]), but also the innocent and the perverted (Grindr[77] or Tinder[78]), the near and the distant (Flightradar24[79] or Tasker[80]), the visual and the informational (Polluted Air[81]) or the digital and the real (Root Explorer[82] or Sleep[83]). Things not only happen in a specific time and space, but also at the same time. Contemporary cities need to confront this dilemma where their inhabitants tend to change at accelerating velocities and they at the same time are designed to set out stable systems towards a social cohesion that no longer endures. "While solids have clear spatial dimensions but neutralize the impact, and thus downgrade the significance of time (effectively resist its flow or render it irrelevant), fluids do not keep to any shape for long and are constantly ready (and prone) to change it; and so for them it is the flow of time that counts, more than the space they happen to occupy: that space, after all, they fill but 'for a moment'. In a sense, solids cancel time; for liquids, on the contrary, it is mostly time that matters."[84]

Conclusions: *Asynchronous Citizenship*

Synchronisation has embedded itself into the mechanisms of society, both in its forms of control and resistance, and, ultimately, in the ways we live. The question of who decides on our times remains the vital critical question. Every citizen is forced to live at the rhythm of the motorised worker, while alternative temporalities are disregarded in an entangled urbanity in which inhabitants demand a complex system of synchronisation of every mode of living, rather than the existing simplistic version.

Nowadays, urban borders are created by speed and crossed by acceleration. The need to reflect on its synchronisation becomes a crucial aspect in how to improve the ecosystems that we inhabit. The difference is made through transit speed, where a techno elite is synchronised in a real-time world, arriving everywhere first—together with its capital and properties—while the rest of the population is either offline—has no access at all—or slowed down—is without technology. Moreover, this conflict becomes radicalised in urban environments, where we are forced to inhabit the old spaces of architecture and, at the same time, live at the rhythm of the new immediate time logic. We are asked to respond and be synchronised in real time. Today, this global sync model moves through cities and ends up with the reinforcement of already established powers even after activists' attempts to reappropriate them.

This synchronic logic has overtaken space, becoming the main battle field

74. Postill, John. "Hacker, lawyer, journalist, spy: the field dynamics of techno-political expertise in Spain's new protest movement, 2010-2014". Launch of media ethnography group, Goldsmiths College, 21 January 2014, London.

75. See: https://www.change.org/ (Accessed 2015-09-06.)

76. See: https://partidox.org/ (Accessed 2015-09-06.)

77. See: http://www.grindr.com/ (Accessed 2015-09-06.)

78. See: http://www.gotinder.com/ (Accessed 2015-09-06.)

79. See: http://www.flightradar24.com/ (Accessed 2015-09-06.)

80. See: http://tasker.dinglisch.net/ (Accessed 2015-09-06.)

81. See: http://aqicn.org/map/world/#@g/40.1397/-3.3641/7z (Accessed 2015-09-06.)

82. See: https://play.google.com/store/apps/details?id=com.speedsoftware.rootexplorer&hl=en (Accessed 2015-09-06.)

83. See: http://sleepgenius.com/ (Accessed 2015-09-06.)

84. Bauman, Zygmunt. *Liquid Modernity*. Cambridge: Polity. 2000. p. 2.

where the struggles for power, sovereignty and dominance are played out. Its reasoning has extended, through atomic technology, to every human sphere: transport (digital data), domesticity (augmented home), labour (telework), economy (algorithmic trading), health (time cultures), access (bandwidth), learning (open access information), or communication (immediate availability). Urban environments have become the most radicalised and visible scenario of these conflicts, in which different agents are claiming the need to control their own time.

Urban synchronicity has trespassed the "geometry of power",[85] moving towards a "*heterochronia* of power" where the question changes from what kind of mobility we have to whether we have control over it or not. After the utopian optimism of the start of the World Wide Web, in addition to the legacy of cyberpunk that emphasised the possibility of "not repeating" the offline world in the new online one, we have ended up in a totalitarian synchronised ecosystem of highly sophisticated technologies. The study of urban synchronicity visualises the agents at play, the dynamics that are substituted and the new imposed ones, the new ways of control, their asymmetries, the ways of resistance, their quotidian hidden agenda and, ultimately, it provides a critical exposé of how we live and why we live like it in order to engage with it through committed interventions.

The prevalence and growth of synchronic infrastructures that work online is building an uneven world in which, as several intellectuals have claimed, the concept of exclusion that we used to express in spatial terms, should be reformulated into temporal ones. Today, the new strangers are not the ones who live far away but the ones who live literally in another time. The temporal *asynchronisation* that is imposed upon us does not allow a coordination of life with the space in which it is lived and thus engenders new forms of struggle and

85. Massey, Doreen. *Space, place and gender.* Minneapolis, MN: University of Minnesota Press, 1995. p. 4.

86. Virginia Woolf quoted in: Zafra, Remedios. *A Connected Room of One's Own*. Madrid: Fórcola. 2010. p. 10.

87. De Kerckhove, Derrick. *Design Renaissance: Selected Papers from the International Design Conference*, Glasgow. Salisbury: Open Eye. 1994. p. 156.

domination. Sovereignty is enacted through urban practices and its spatial doppelgangers. Cyberspaces coexist and melt with Stone Age spaces, resulting in a tremendous *asynchronised* world that is not a single ecosystem but an entangled one: "I am rooted, but I flow".[86] We live in the same bedrooms as our ancestors but we develop completely different activities —voyeurism, public speech, work, leisure or learning.

The fight against *homotemporal* urban synchronisation is being fought across many disciplines through multiple technical means and, also, in many fields. "Asynchronous citizenship" shares the demand to set up an ecosystem for human beings—in some cases all living beings—capable of taking account of its citizens' *heterotemporalities* to propose a complex urban environment where the challenge is to use time, everyone's time, to perform a synchronisation of the plurality of times as the basis for a more dignified, fair and equitable society without difference of gender, capacities—physical, economic or cultural.

This article aimed to outline the urban synchronisation controversies and the agents at play by unveiling a conflictive arena that remains silent, in order to ignite a productive debate about the organisation of action in a field of crucial importance for citizenship: its habitat. Twenty-three years have passed since Derek De Kerckhove noted that it "is to designers and artists that more and more people will turn to ask for an intelligible and liveable technological environment; it is designers and artists who they will ask to be comprehensive in their approach to reality", and urban environments assume most of it.[87]

Big Ben, Houses of Parliament, London.