

Urban Instant 2 Observations following the execution of the second urban instant.

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Abstract

This paper reports on progress related to the “Urban Instant” project (fondecyt 11110450) developed by the author as a tool for a systematic immersive/phenomenological assessment of the patterns of behavior of our visual field (photographically abstracted) regarding information in the shape of people during our navigations along the streets of any given city. Instead of simultaneous photographic journeys undertaken by a single person along the streets, in this occasion the applied method consisted of one simultaneous record made by more than a hundred voluntaries. This, we believe, might be the first urban instant ever to have been taken with this methodology. The case study remains the city of Concepcion, Chile.

Keywords: Urban instant; Urban Polaroid; Space Syntax; Concepción; Phenomenology.

Introduction

This paper reports on the advances of the Urban Instant project, alternatively called Urban Polaroid (Araneda 2013a, 2013b). It arose as a response to the sheer lack of analytical tools able to deal with information in the shape of people (as supposed to information in the shape of space) in the field of urban analysis. It acknowledges and distinguishes the existence of two main distinct lineages of urban thought: the Lynch (1960) lineage and the Jacobs (1961) lineage. The former is characterized by its intrinsically archaeological nature for it derives its knowledge from the study of the built city. The later in turn is characterized by its anthropological nature for it derives its knowledge from the observation of people. Whereas the former has been able to develop a highly organized and complex methodological/analytical corpus and, as a direct result of this, of building an impressive portfolio of evidence (the most updated and representative of it to be found published in paper format in the Space Syntax Symposiums proceedings as well as in the Journal of Space Syntax studies), the later has remained analytically underdeveloped and, as a direct result of this (save a few notable exceptions, such as Jan Gehl’s work (Gehl 2000, 2011, 2013), with little evidence to support its claims. This being the case, when it has come to retrieve, process and communicate urban space related information, researchers in the field have been at their most scientifically rigorous with themselves as well as demanding with others. Yet when it has come to retrieve, process and communicate information in the shape of people, they have behaved incomprehensibly lax and complacently. It is with the aim of overcoming this

state of complacency regarding information in the shape of people in urban analysis as well as of furthering the development of the Jacobs lineage of urban thought that this project was conceived. This paper gives insight into the logistics involved in the execution of the second urban instant (alternatively called urban polaroid). This time, all captures were taken simultaneously as supposed to one person taking all the captures belonging to one whole street. It discusses the advantages and disadvantages of using one person or machine per capture (as supposed to one person doing a whole urban journeys) in order to obtain urban instants as by this research proposed. It briefly compares the results of the two Polaroids, discusses the inherent difficulties of resorting to fixed machines and ponders on the pertinence and versatility of the video record as probably the most precise way of obtaining urban instants. The case study remains the city of Concepcion, Chile.

Urban Instant 2

Format

One of the main differences between the first and this second urban Polaroid was the amount of people necessary in order to execute it. It must be remembered that in order to execute the first Polaroid, we resorted to “lynchean” journeys undertaken by volunteers, each of them in charge of making a photographic record of their assigned street (Araneda, 2013). The intensity of the registry was two captures per street segment (that is, between corners), which in Concepcion appear at regular intervals of approximately 100 meters (the check-

erboard plan's classic distance between corners). The journeys were undertaken in a time window that varied between 10 and 15 minutes. The number streets contained within the chosen area was 26 thus so was the number of people involved. This determined that in approximately 15 minutes, these 26 volunteers produced a number of 609 frames in total. Now, in the hypothetical case that we wanted to produce exactly the same polaroid but this time round each capture be taken at exactly the same time, we would need 609 volunteers! Whereas conceptually we consider this to be the ideal Urban Polaroid (for all the shots are taken at exactly the same time in different parts of the city) logistically, it turns out to be a most inefficient and costly enterprise. For this reason, we chose to execute it with the lowest intensity that we could afford which was of one capture per block. This yielded an urban Polaroid of 112 simultaneous frames taken by 112 volunteers.

We made a Facebook call to all the architecture school community inviting to participate in the execution of what we termed the first urban polaroid ever taken in urbanism history (until otherwise proven) in the sense that all the shots were going to be taken at the same time. A few days before the execution of the Polaroid, we gathered all the volunteers (mostly students) for a briefing. After an historical introduction regarding urban analysis, we explained the details of the formatting of each capture as well as their location. We produced a map for each of the 112 volunteer. It specified time, location, direction, height, angle or field of view and a few indications regarding the position of people within the frame (mainly, that no people should be cut above their knees in order to keep them at a regular distance). We randomly gave one map to each volunteer and urged them to be at their allotted place on the agreed day and the right time. The delivery of the record would take place in "Plaza de Armas" where we would be receiving and downloading each image immediately after making the capture.

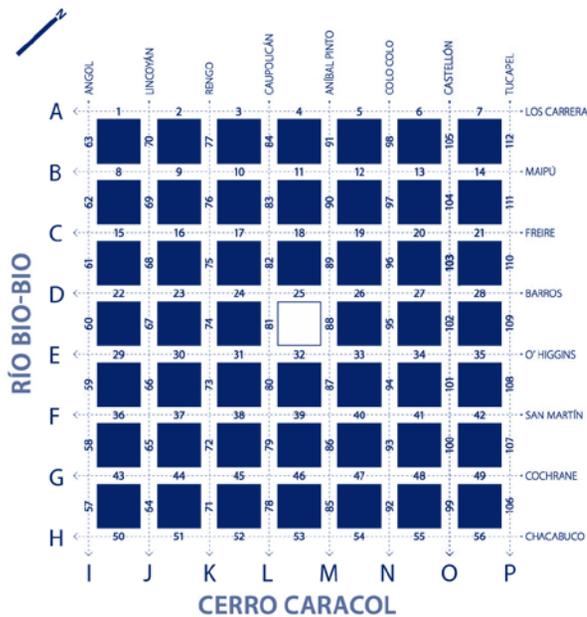


Figure 1: Mapped area indicating location of each capture.

Execution

On the agreed day, we arrived around 15 minutes before the agreed time to the agreed spot (that is at 11.45), found a comfortable place to sit with our computers and waited. Around 12.05 the volunteers started to arrive from all sides. Two persons (my colleague and the author) collected the pictures. We assigned to each picture archive the number allotted on the map. It took us around half an hour to complete the collecting process. Once done, we made a picture of the photographic patrol and bid our farewells. Of the 112 pictures, 5 were not taken.

Results

At first sight, it would appear as if the present Polaroid exhibits high values of information in the shape of people scattered more evenly across the analyzed area than the previous one. Yet, the fact is that while retaining its geometrical center (the central square)



Figure 2: Rasterized frames in film format.

the area under scrutiny this time was considerably smaller than the previous one. Concretely: three blocks smaller on three sides and one block smaller on one. Therefore, the results of this second Polaroid are in fact consistent with the previous one. The highest values of information in the shape of people tend to appear on the main commercial streets while the lowest values appear to be markedly on the edges. Indeed, just like in the first Polaroid, some of the lowest values appear consistently once again along Victor Lamas street, where the city meets the hills and a park runs along it. In contrast, the highest single value (frame 84) is to be found outside one of the busiest and more traditional markets of the

city where the photographer obviously struggled to stick to the required format.

The fact that Tucapel and Angol streets also exhibit low values goes on to show how reduced the presence of information in the shape of people can be three blocks away from the main city square in so called Chile's second city at midday. This said, this is just the second Polaroid ever taken. The scientific validation of these germinal findings will only be possible once an organized database is set up and once a considerable number of Polaroids are taken for each city under scrutiny.

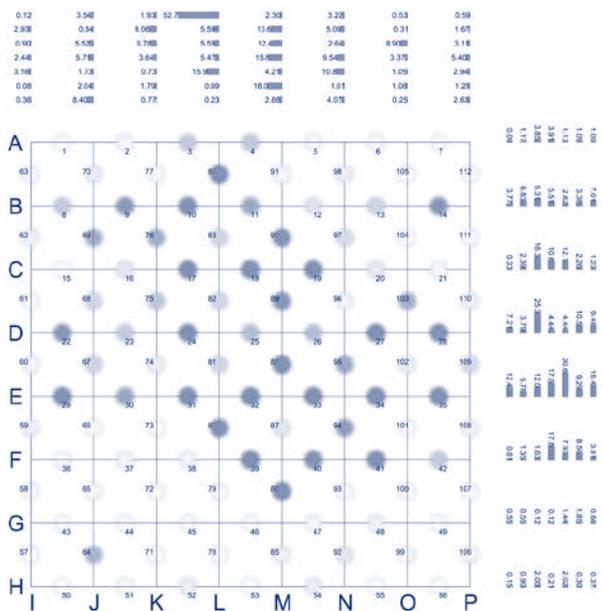


Figure 3: Syntax of values of information in the shape of people.

Observations following the execution of the second Polaroid Whereas the one person per capture methodology might bring us closer to the epistemological ideal of the Polaroid project- that is, all captures be taken at exactly the same time- it turns the logistics of its execution more troublesome and costly. Thus it would seem that the closest to its ideal, the most unfeasible the Polaroid Project turns. This made us think on the possibility of installing fixed cameras at observer height level. Yet, we immediately stumble upon another problem: that of vulnerability due to burglary and vandalism. Indeed, we are not dealing here with surveillance cameras (which for the very same reasons are placed high above observer level) but with cameras that will map the state of our visual field. In order for that to happen, we need them at observer height and ideally right in the middle of pedestrian protected areas. Thus at first sight, the idea of installing them permanently seems at least risky. In order to discuss yet another alternative for future development we would like to focus our attention on frame 84 for we consider it to be a symptom of the difficulties posed by the one person per capture strategy here used and indeed, by the photography based method at large.

As above mentioned, one important indication regarding the format of the capture concerned the distance of the closest person to the photographer. Concretely, that they should not be cut above the knees. This obeyed practical reasons: namely, that a person walking past us just when taking the snapshot could potentially fill about 70% of the total of the frame while at the same time potentially being the only person in that street. Thus in order to avoid this distortion, we tried to keep them at distance in order for other kind of information (chiefly, urban space and nature) not to be overtaken by the information in the shape of people. Regardless of the fact that frame 84 was taken in a very busy spot and therefore that the photographer could have struggle to find a time window to comply with the format requirements, the fact remains that in it, people are cut above the waist and therefore constitutes an anomaly within the universe of frames. For this reason, we believe that the best format for carrying out urban Polaroids is the video record. The reason is simple: what in the discreet photography based Polaroid constitutes an anomaly is absorbed as one more variable (frame) in the total continuum of the video record. However, as yet, we have not found an automatized way to detect silhouettes of people. In this and the previous polaroid, we resorted to a manual process of rasterization of each picture which could then be in turn subjected to pixel count. Hence the low intensity of the Polaroids so far (2 and 1 frames per segment/block).

Red Data	Frame 1	Frame 1	Frame 2	Frame 3	Frame 4	Frame 5	Frame 6
Street A	0,09	1,17	3,85	3,92	1,13	1,09	
Street B	3,78	6,83	9,31	5,51	2,62	3,38	7,01
Street C	0,34	2,39	16,32	10,86	12,17	2,26	1,23
Street D	7,21	3,80	25,35	4,45		10,59	9,49
Street E	12,44	5,78	12,07	17,63	30,64	9,29	15,47
Street F	0,82	1,36	1,63	17,86	7,93	8,56	3,81
Street G	0,56			0,13	1,44	1,85	0,56
Street H	0,16	0,91	2,00	0,21	2,03	0,31	0,37
Street I	0,37	0,09	3,16	2,44	0,90	2,93	0,12
Street J	8,41	2,05	1,74	5,72	5,52	0,54	3,55
Street K	0,77	1,79	0,73	3,65	6,78	9,06	1,93
Street L	0,23	0,10	15,97	5,48	5,60		52,74
Street M	2,89	18,01	4,22	15,81	12,46	13,65	2,30
Street N	4,07	1,01	10,85	9,55	2,64	5,09	3,22
Street O	0,26	1,08	1,05	3,37	8,91	0,32	0,53
Street P	2,63	1,28	2,95	5,41	3,12	1,67	0,59

Figure 4: Table with values of information in the shape of people per frame.



Figure 5: Frame 84. The close up confirms that it corresponds to people buying and standing outside the market.

Thus it must be born in mind that what we need is an accurate way of quantifying the information in the shape of people in each frame. A team of researchers at the Max Planck Institute for Informatics in Germany has already taken important steps in this direction (Tang et al. 2012, 2013, 2014, Dollar et al. 2012) The film based digital tools by them developed allows the detection of all the people within the camera field of view regardless of the direction they are moving while, at the same time, the filmmaker himself journeys through the city. However, it does not detect the exact silhouette of people. Once this becomes possible, the quantification of the information in the shape of people as proposed by this research should follow. This is the Polaroid Project's most important current line of research as well as the key technological challenge, which we envisage as a kind of "google pavement view", so to speak.

Conclusions

By being based in direct experience and as such, by dealing with actuality and not with probability, the Urban Polaroid project has proven to be a simple yet thoroughly innovative immersive way of complementing current trends in urban analysis, which are still characterized for being abstract and eminently speculative. It has also proven to be an engaging methodology for the study of urban life and the city for it requires the participation of citizens in order to be obtained. Finally it has proven to be a very didactic tool for urban analysis as well as a versatile research tool, making it readily accessible to experts and laymen alike. This has been demonstrated by the successful application of its principles both in undergraduate studio courses in Universidad del Bío-Bío as well as in PhD researches in the same institution. This said, it remains an idea in its infancy and as such in need of expert technical assessment,

especially regarding a standard, universal format for carrying them out as well as for the development of a formal notation in order to interpret and express the results. So far, experience indicates that the video (continuous) record presents the most accurate alternative for furthering the project for it eliminates the distortions that appear in the photographic (discreet) record. This has led us to the idea of a "google pavement view" opening up the doors to potential interesting new collaborations".

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