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Exploring Urban Geography in Italo Calvino's Invisible Cities

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Abstract

This paper builds on previous work that explored the contribution of photography to teaching urban geography (Sidaway, 2002; Hall, 2009; Sanders, 2007; Rose, 2006). That work focused on how photography could be used to acquaint university students with the skill of "directed observation". It argued that teaching geography with photography is not merely asking students to go into the field and take pictures but rather, it is to sensitize them to the process of looking with intention (Sanders, 2007) and appreciating what the camera sees. While the picture taker decides what to photograph and which perspective to capture; the camera's eye behaves as a curious child whose eye catches a glimpse of everything. Here, we explore a different concern driven by the desire to extend the reach of the photograph beyond where it uncomfortably resides (as one of several tools in a large established toolkit of visual methods (Becker, 2004; Brown, 2011; Harper, 2002; Pauwels, 2010; Pink, 2003; Baetens, 2009) and deploy it as a medium of translation – enabling students to "see" written texts that may be difficult, uninteresting, incomprehensible, or cognitively "invisible". We refer to this translation, unpacking, or decoding as re-presenting text (Hall, 2010). Re-presenting and interpreting what we read is the essence of building knowledge (Hibbing and Rankin-Erickson, 2003). Accordingly, while camera technology can certainly be used to capture the landscape as it is a receptacle for human ideas and will, we suggest here that it can also be a medium of translation-an intermediary between the landscape of action and the topography of consciousness. In our view this interpretative element that the photograph provides; transforming and visually representing text is as important – if not more – than the act of actually taking the picture. We use the book *Invisible Cities* by Italo Calvino as fodder for making our case. This process is not unlike what has been referred to in other fields as active learning (Prince, 2004); subjective semiotics (Krogstie et al., 2006); knowledge building (Scardamalia and Bereiter, 2006); and re-engineering (Buchanan, 1998).

Keywords: Urban Geography, Photography, Re-presenting Text, Italo Calvino, Geography Education

1. Introduction

"*Images… once they are fixed in words, are erased. On the other hand, once you have seen what the words say, it is impossible to unsee*".

As noted, we use Italo Calvino's Invisible Cities as our textual playground to demonstrate how the photo can be used to portray, interpret and represent written texts. We deploy a

carefully selected group of photos to capture critical elements of specific text. What makes the enterprise valid and successful is the extent to which the photos, if viewed independently as parallel text give rise to the ideas expressed in the written text. This process is mental work, similar to that which accompanies the process of gaining literacy in mathematics or chemistry – recognizing the "right" signs that realize the abstract notions expressed on the page.

We also use Calvino's work because of the provocativeness of the title. *Invisible Cities* enticed us but as we learned later, Calvino was a true lover of cities – a dreamer of how cities could be and whose dreams often directed the words he put on the page. Thus we are privy to something other than an author's desire to offer information and explanation.

We begin by exploring some of the literature that frames our thinking. This includes semiotics (De Anker, 2012; Cunningham, 2007; Duits, 2012); visual studies (Harper, 2002; Spencer, 2010), artificial intelligence (Davis et al., 1993; Ricoeur, 1991), geography (Sidaway, 2002; Sanders, 2007; Rose, 2006; Rose 2008) and education-particularly reading comprehension (Stokrocki, 1983; Bustle, 2004); Hibbing and Rankin-Erickson, 2003). The common theme running throughout is a concern with re-presentation as a means of understanding how we make meaning and construct knowledge. These ideas are the basis for our assertion that photographs as interpretative devices that re-present knowledge can indeed be used to translate written text and thus are essential in knowledge building. Semioticians, designers, artists, and scholars interested in artificial intelligence all rely on signs and codes, going so far as to argue that the world we inhabit is made up of entirely of signs and these speak more than facts (Lurie and Mason, 2007). Active reading, the process under scrutiny here is the practice of simultaneously coding, decoding and encoding. Some would suggest that without the creative, visual activity that asks us to "see" what is on the page and compels our mind's eye to bring forth images, no understanding can take place. Understanding or misunderstanding what we read owes as much to our willingness to imagineer as it does to the power of the author to evoke imagination. Semioticians (Duits, 2012) debate whether or not the foundations of meaning making are structural or subjective. They contend that semiotic analysis has relied too heavily on the role of structuralism in accounting for understanding. What has been lacking (though not fully developed as yet) is a basic existential semiotic analysis that considers the "subjective" experience. "Meaning is not actual or capable of being deployed in the interpretation of signs without understanding and understanding is a cognitive event that takes place within one's mind (Duits, 2012; Krogstie et al., 2006). Thinking about understanding in this way is insightful. It means that understanding is difficult to investigate (Duits, 2012). However, that is not a reason not to investigate it. Geography is indeed a discipline that is interdisciplinary and informed by curiosity and the ability to synthesize myriad practices and knowledges borrowed from a wide range of scholarship, institutions, and countries.

After this, we delve into the truly difficult, and according to Gore Vidal, "the perfectly irrelevant", task of describing *Invisible Cities*. As a backdrop to our thinking, we reflect on Calvino's assertion that a book is a universe where a reader must enter, walk around, and even loose oneself; but ultimately have the possibility to find an exit or even several exits (Viesel, 2002). In this way, *Invisible Cities* the book is itself like a city simultaneously a product of spatial imagination and the imaginative space of the mind. Ultimately we use this section to suggest that the cities described in the book provide us with the essential nature and destiny of all cities.

Finally we provide the visual accompaniment to our work – photographs that we put forth as re-presenting and translating selected passages in *Invisible Cities*. By attaching these images to selected text from *Invisible Cities* we construct a parallel text (Viesel, 2002) and engage in the act of putting flesh on the imaginations of Calvino and the dialogue he fabricates between the Emperor Khan and the explorer Marco Polo[1]. He

[1] According to Fan Shen (1989) the idea of attaching images to text is an ancient approach (yijing) which existed in China for many centuries and is still widely discussed. It is the process of creating a pictorial environment while reading a piece of literature. It is

links the past and the present and portrays the character and essence of cities as more than material spaces but as sites of our emotional, psychological, and intellectual lives; our hopes, desires, and fears, independent of the peculiarities of time and space. Indeed our photos aim to portray the city as both muse and protagonist asking us to ponder its enduring existence and essential qualities in our imagination and in our photos.

2. Meaning making and semiotics: "seeing, re-presenting and understanding" what we read

"*Meaning does not become functional without an act of understanding*".

The photograph is but one of a large number of visual mechanisms that contribute to meaning-making and knowledge representation. Not unlike other epistemological approaches that favor ways of knowing based on qualitative (thought to be less replicable) methods, its use in the classroom is very controversial. Much of the controversy centers on whether or not it constitutes a valid, "scientific" research method (Wagner, 1979; Rose, 2006). According to critical theorists, the major shortcoming of the photograph is that it says more about the picture taker than the picture (Rose, 2006). The camera does not act; it has no agency. It is the picture taker who decides what to photograph and which perspective to capture. Our opposition to this is not just the analytical paralysis and frustration associated with "no exit," but that it runs the risk of depriving the photograph of any potential it might have in the creating knowledge in the classroom.

Sociologists and anthropologists (Becker, 2004; Harper, 2002; Pink 2003) suggest that these tensions have created an ever widening gulf between the theoretical/interpretive work undertaken by those engaged in critical reflection and those engaged in the realist practice of actually doing photography. It seems that when the emphasis shifts to the interpretative and evocative qualities of the photograph, interest in doing photography is pushed to a back burner. The result is that photography takes a back seat to other methods of visualization, geovisualization.

These discussions are dominated by 3 groups – those who see the limitless potential and legitimacy of photography (and the photograph), those who view it as excessively subjective and arbitrary, and a much smaller, but very passionate group who just love "doing" photography, do it well, and with great success! Aside from the controversy around theoretical/interpretative vs. realist/practice, another discussion hinges on how the photograph can (and should) be used in meaning making; is it the photograph itself that is meaningful – as an artifact situated in a larger socio-cultural context or is it a receptacle for content that renders understanding. Third, there is considerable discussion over how it is read. In other words, what knowledge does it provide? What questions does it prompt? What is it possible to know by re-presenting knowledge through photographs? These questions speak to the issue of whether or not the photograph is a realist document, an iconic document, or an evocative document. For a thoughtful, well-reasoned discussion of this highly charged issue, see Sturken and Cartwright (2001).

Beyond these questions, there is the question of how it contributes to knowledge. How does it make meaning and provide understanding. And assuming that it does, how do we evaluate its contribution? It is the latter set of concerns that interest us here. Artificial intelligence, semiotics, computer programming, design studies, education (reading and art education) and visual sociology are helpful.

When knowledge is re-presented visually, the cognitive load of meaning making shifts away from that part of the brain that engages in logical-rule, language-based reasoning to another part that draws on the human perceptual, sense-making system. This perceptual system is constituted by visual and spatial skills that have developed over the course of human evolution,

independent of the text it is associated with. It is both creative and critical – the process of inducing oneself to create mental pictures in order to reach a unity of nature, the author, and the reader. This nonverbal pictorial exercise is not a process of logical thinking in the Western tradition which involves moving from premises to conclusion. It involves creation on the reader's part (Shen, 1989).

e.g. ability to recognize patterns, detect things that stand out, respond to variations in color, shape, and (dis)continuity (Kosslyn, 1980). Researchers at AT&T labs have developed computer software (WordsEye: An Automatic Text-to-Scene Conversion System) that converts written text into representative 3D (animation) scenes. The program "provides a blank slate where the user can literally paint a picture" based on words on a page (Coyne and Sproat, 2001). They employ a set of "depiction rules" that convert the words into a set of "depictors" representing objects, poses, spatial relations, color attributes, etc.[2].

While the computer program does indeed provide a way to code based on visual features such as color and texture and can succeed in making words visible, it is unable to represent abstract concepts and emotions, e.g. cold, fear, love, desire, anger, curiosity. Human language is so abstract and contains so many subtleties; it is doubtful it will ever be possible for computer programs to fully re-present words in images. Arguably however this is something a photograph(er) can do.

Charles Mendelsund when interviewed about his recent book, *What we See When we Read*, remarked that when reading one becomes aware of the white page and the black marks on it; but that's… a neutral experience. There is "something" beyond the veil. According to him, going beyond the veil is how we arrive at meaning.

"…with music you have a direct sensory input, the sound of the notes. . . with the visual arts (e.g. photography-insertion mine) or dance or architecture you have a direct visual apprehension of the thing that you're looking at, but with text the sensory information is… limited" (Mendelsund, 2014, p. 3).

What this may suggest is that the importance of the photograph for translating and interpreting knowledge does not rest solely on its being precise but rather in the act of thinking about what the text is saying. The essence of meaning making/understanding/knowledge is its ability to support the combined actions of interpreting and producing a re-presentation. In this line of thinking, knowledge is not found in passive presentations of information (e.g. text). Text alone lacks the ability to support action and thus is not meaningful (Krogstie et al., 2006). Only when interpreted and re-presented, does it contribute to knowledge. Education researchers support this and classroom studies have shown that students who are unable to form mental images and re-present what they read suffer from a lack of reading comprehension (Hibbing and Rankin-Erickson, 2003). Classroom teachers seem to understand that images have become a ubiquitous and influential aspect society today (in the form of television, film, advertisements and other mass media). They actively explore ways to incorporate visual representations in their classrooms. The difficulty they run into is recent trends in standardized testing that have not kept pace and have promoted traditional ways of teaching and learning (Bustle, 2004). In part this results from the issue noted previously – failure to fully understand *how* the visual makes meaning and produces knowledge and understanding. Here, we turn to the work of computer programmers interested in artificial intelligence.

Much (some would say all) of the information we receive is symbolic – numbers and texts. What we do when we visually re-present information is engage in intelligent reasoning based on perceptual sense-making and visual stimuli (Lurie and Mason, 2007). In other words, we:

(a) provide something that is a substitute for the thing itself (the "something" may be material or abstract/conceptual) – we cannot capture the limitless complexity of the real world and therefore must lie, by omission at least;

(b) support an ontological commitment (in what terms should I think about the world?) – this means making a decision of what to focus on and what to ignore, keeping in mind that all re-presentations are imperfect;

(c) engage in thought (intelligent reasoning) that results in sanctioning and recommending a set of inferences. There is no

[2] For example, "a pose can be loosely defined as a character in a configuration suggestive of a particular action" fighting, running, climbing, or sitting.

one correct answer to what constitutes intelligent reasoning. In general, it should be intuitively satisfying, explicit, precise, and the output of accumulated experience;

(d) organize information to take action or facilitate making the recommended infe-rences, and

(e) engage in human expression (Davis, Shrobe and Szolovits, 1993).

Clearly then re-presenting knowledge can not only be subjective, imperfect, but disappointing. Mendelsund observes the "weird revulsion that we feel toward bearing witness to the reality behind a work of fiction. It's disappointing to have something rendered that existed purely metaphysically before, and was special because of that". Despite this, we can still think about how to re-present (Heidegger, 1996).

3. Invisible Cities-the book

"*…however the city may really be, beneath this thick coating of signs . . . you leave. . . without having discovered it*".

One might conjecture that the city and life in the city is changing dramatically because of the massive demographic, economic, and cultural transformations underway. Interestingly however, a close examination of the images attached to the city and life in cities do not bear this out; rather what we see is often a recycling of the predictable array of metaphors – a jungle, a labyrinth, a cesspool, a spectacle, a machine, an arena, a nightmare, an urban village, or a cesspool – or other depictions that are comfortable skimming the surface. And yet, in spite of this, the city continues to be a focus for scholarly examination and analysis; pregnant with possibility and fullness.

Invisible Cities is a novel. It does not deal with recognizable cities – not Cortazar's Paris or E. B. White's New York. The cities in the book are all inventions (and all named after women). In an interview shortly before he died, Calvino remarked that the descriptions contained in the book were intended to give rise to reflections which hold for all cities or for the city in general (Calvino, 1983).

He himself singled the book out as the most satisfying of all his work because it allowed him to concentrate on an image of timelessness and inherent complexity. As a result, he has been described as "extraordinarily successful in his unmistakable contemporariness" (Ragusa, 1983). As further proof of its eternal appeal, *Invisible Cities* continues to receive attention from scholars in a range of fields – architecture, critical theory, geography, art, sociology, and planning. As recently as last year, it was acknowledged as the inspiration for Sacro GRA a documentary film directed by Gianfranco Rosi that depicted life along the Grande Raccordo Anulare (GRA), the ring-road highway that circles Rome[3]. The text is also lauded as a geography of tensions between the new and the past… the invisible and the unlivable (Chiesa, 2006). Like the work of Bruno (2002), it is seen as a new genre of narrative in which geography is not a cold scientific discipline but rather is in a relationship with psychology and emotion, and except for its avowed rejection of politics, *Invisible Cities* can be seen as an example of psychogeography.

The book chronicles conversations between the aging Emperor Kublai Khan and the youthful explorer Marco Polo where the latter recounts stories and tales of his experiences travelling to 55 cities in Khan's empire. These short dialogues are provocateurs extraordinaire in their imaginative potential. They are written with a power that allows the reader to feel the rhythm of the city; to grab hold and ride the crest of Polo's memories and experience the visceral sensations. One can almost taste the roasting cat meat, smell the cornucopia of ginger, nutmeg, and raisins and hear the noises in the marketplaces.

Calvino's work is also noteworthy because of its association with the school of literary work known as Oulipo. The Oulipo movement was a loosely organized gathering of writers and mathematicians who used words and the alphabet to establish patterns and structures that would reveal things that were unanticipated. For those associated with the Oulipo movement,

[3] Sacro GRA was the first ever documentary film to win the Golden Lion at the 70th Venice International Film Festival.

writing was a pleasurable activity and the pleasure was to be found in creating structural puzzles and underlying relationships which would set literary boundaries and create something else that could be seen only as a result of solving the structural puzzles[4]. This is important here because the Oulipo School was a predecessor of the situationist movement that aimed to create situations and circumstances that would force individuals to critically examine their everyday lives and look beneath the obvious. Thus, the Oulipo movement is also linked to psychogeography.

Invisible Cities is divided into 9 chapters. Each chapter begins and ends with a dialogue between the Kahn and Polo, 18 in total. Within each chapter there are descriptions of a select number of the 55 cities and each description focuses on one of 11 themes-cities and memory, cities and desire, cities and signs, trading cities, thin cities, cities and eyes, cities and names, cities and the dead, cities and the sky, continuous cities, and hidden cities.

In relating the information he gleaned from his travels around Khan's empire, the young Polo played a game of charades and improvised pantomimes for the entertainment of the Khan. Each understood the other through visual recognition of gestures and objects. Each charade conjured up an image – a perception of place shaped by memory and desire, as well as by history and language. It soon became clear that each of the fantastic places Polo described was really the same place. Calvino's "sguardo" in *Invisible Cities* has been described as myopic – precise when applied to close observation but becoming unfocused as it tries to take in a broad view. Mee (2005) suggests that the visual occupies a central place in *Invisible Cities* – both in its lack of clarity and focus and at the same time, its acute accuracy of detail. In every interaction between Polo and the Khan, it is the visual which is the center of the experience – without seeing and drawing interpretations from what each other sees, communication would be impossible. Calvino declared that… the visible is a way of knowing the world but serves as a foundation for questions rather than a way of finding answers; travel is good only for the eyes.

In addition to emphasizing the importance of the visual, some (Pilz, 2003) have noted that the dialogue between Polo and the Khan is a form of mapping an epistemological terrain. The Khan and Polo have two diametrically opposed approaches to knowledge and understanding – Khan is rational and ordered while Polo is lyrical and playful. Polo's whimsical accountings nonetheless provide the empirical data upon which the Khan's deductions and abstractions are based. Calvino, like Khan and Polo looks and describes what he sees. He has a scientist's respect for data – the opposite of the surrealist or fantasist. He wants us to see not only what he sees but what we may have missed by not looking with sufficient attention (Vidal, 1985).

Ultimately Calvino's work reminds us that cities exist not just in bricks and mortar but as rhythms, experiences, feelings, imaginaries, and possibilities. Even under the weight of time and the influence of today's global economic forces characterized by time space compression, hypermobility, and illegibility; the experience of the city remains the same. Taking this a step further, *Invisible Cities* is a work based on the notion of re-presentation (the communication between the Khan and Marco Polo) and in the manner of all great literature, desires re-presentation.

Having explored how visual images are produced, how the mind makes meaning, and provided a review of the book; we now turn to the task of using photographs to re-present *Invisible Cities*. We have chosen to provide photos that re-present five passages in the book. We *italicize* words in the five passages that serve as crucial visual markers or "depictors". The *italicized* words isolate the elements of the text that we have chosen to visually interpret and in the process of thinking, provide a verbal signpost that directs our gaze. In this way, it is possible to evaluate the success of the re-presentation. Ultimately, re-presentation works (or doesn't work) for mysterious reasons; but

[4] In Calvino's work the number of letters in each of the chapter titles when counted and graphed resemble the repetitive variation associated with an oscillating sine wave or a city's skyline. Similarly when cities are listed by chapter number and chapter title, they resemble a set of points around a line where the chapter title is directly proportional to the chapter number.

you know when it doesn't (Harper, 2002). What is clear is that the process of re-interpreting which gives rise to thinking, meaning-making and understanding is a worthy undertaking. In this case, photographs make *Invisible Cities* visible.

Example 1: "...consists of *two cities, the rat's and the swallow's*; *both change with time, but their relationship does not change...*". See Figures 1, 2, 3.

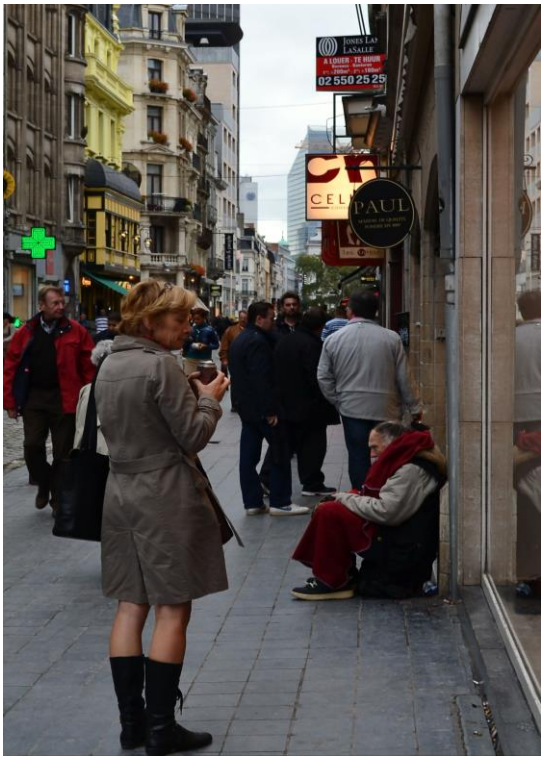

Figure 1. Brussels, Belgium. Photo: B. Jankowski.

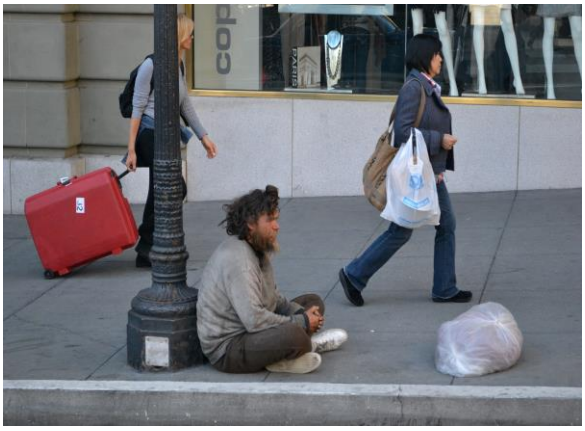

Figure 2. San Francisco, USA. Photo: B. Jankowski.

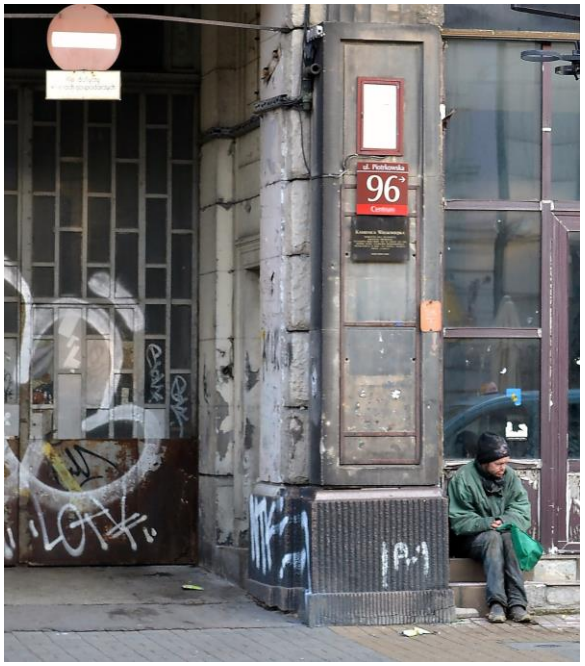

Figure 3. Lodz, Poland. Photo: B. Jankowski.

Example 2: "It is all useless, if the last landing place can only be the infernal city, *and it is there that – in ever narrowing circles – the current is drawing us*". "*…The inferno of the living is not something that will be; if there is one, it is what is already here,* the inferno where we live every day…" p. 165. See Figures 4, 5.

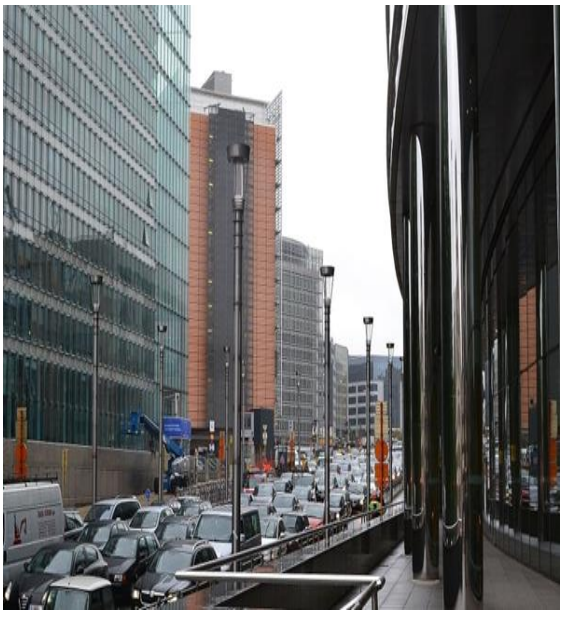

Figure 4. Brussels, Belgium. Photo: B. Jankowski.

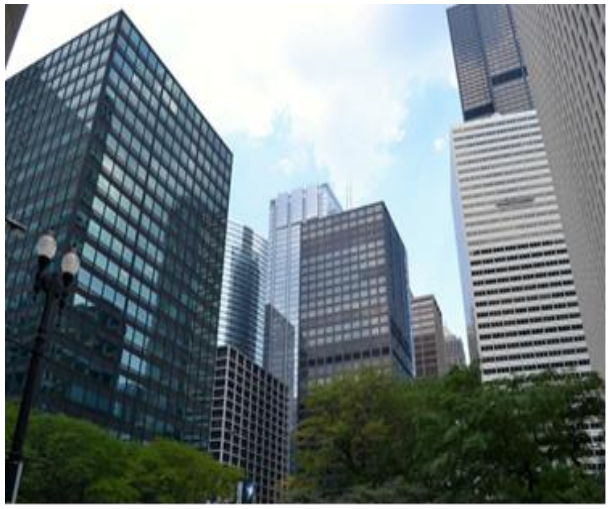

Figure 5. Chicago, USA. Photo: B. Jankowski.

Example 3: "However the city may really be, beneath this *thick coating of signs, whatever it may contain or conceal you leave… without having discovered it*" p. 14. See Figures 6, 7.

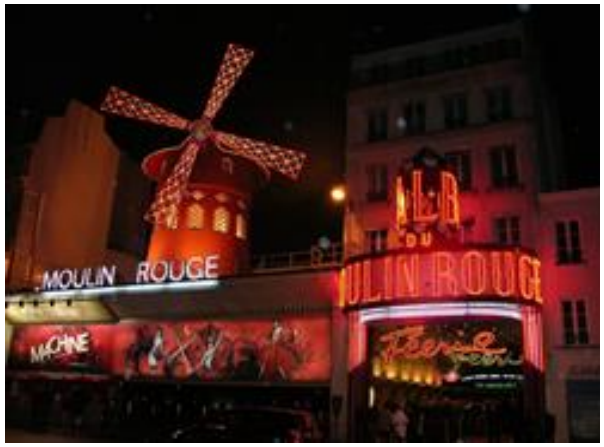

Figure 6. Paris, France. Photo: B. Jankowski.

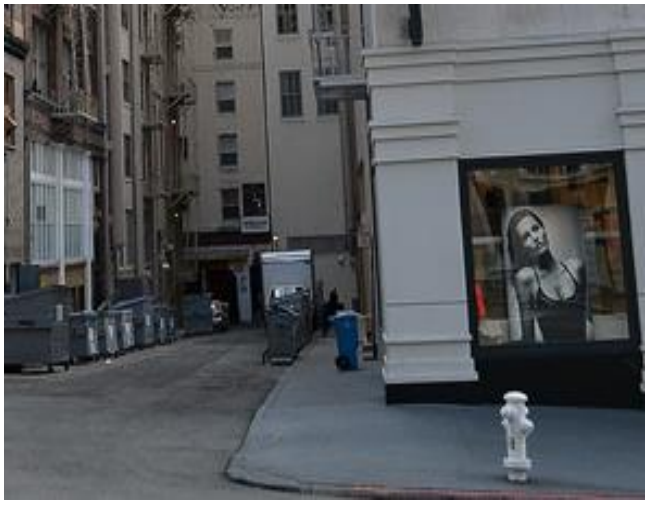

Figure 7. San Francisco, USA. Photo B. Jankowski.

Example 4: "…in the square *there is the wall where the old men sit and watch the young go by…* desires are already memories" p. 8. See Figure 8.

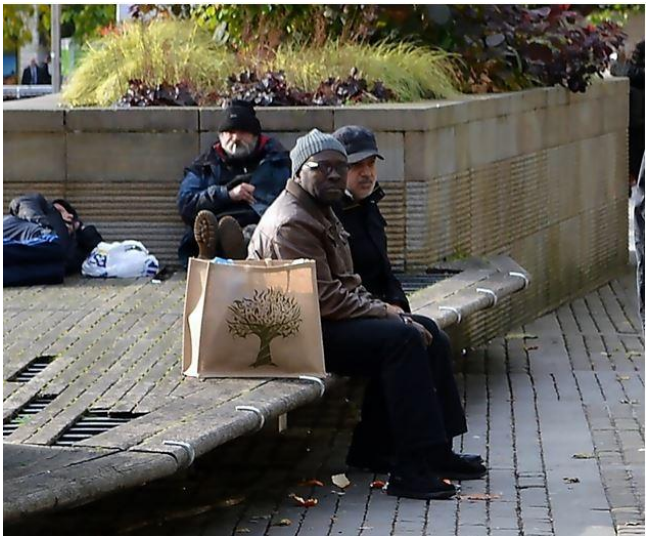

Figure 8. Manchester, United Kingdom. Photo: B. Jankowski.

Example 5*: "…*if *for 8 hours a day you work. …your labor gives form to desire takes from desire its form, and you believe you are enjoying… wholly when you are only its slave*" p. 12. See Figure 9.

Figure 9. Milan, Italy. Photo: B. Jankowski.

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