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edited by
Valentina Albanese, Valentina Greco, Matteo Proto

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Via Ugo Foscolo 7, 40123 Bologna
tel. (+39) 051 232 882
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www.buponline.com
info@buponline.com

In copertina: Geo-referenced *Carta de' dintorni di Roma* by William Gell and Antonio Nibby (1827) and location of the place names (elaboration by Arturo Gallia).

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SARDINIAN TERRITORIES AS TOLD BY GOOGLE STREET VIEW: THE "ISPERIADAS" PROJECT

Marcello Tanca

I play the street life because there's no place I can go
Street life, it's the only life I know
Street life and there's a thousand cards to play
Street life, until you play your life away

The Crusaders, *Street Life* (1979)

Introduction: The geographic information technologies between lights and shadows

In this paper, I would like to consider some geographical implications of Google Street View and more precisely of *Isperiadas - Sardigna Street View* a photographic project about the contemporary Sardinia began on 2012. The peculiarity of *Isperiadas* – the use of Google Street View as a source to tell the contradictions and transformations facing Sardinian territory – triggers questions concerning the possibility that the new technologies can help us build original narratives, which are different from the official ones and at the same time respectful of the complexity of the territories. These are clearly open matters (to which it is unthinkable to give a final and complete answer), and with which we have been dealing for not long. Indeed, it is enough to think that the possibilities made available by Geographic Information Technology were unimaginable just a few decades ago:

> Geography and geographic information hold the key to any civilization. Man, from the prehistoric to the modern ages has required geographic information in some form or the other to fulfill his need for navigation. Civilization has come a far way from

> the simple caveman's community to the highly complex modern cities. The changing needs with time has altered the quality and complexity of geographic information, the medium of storing, and the pattern of utilization of such information. As society changes with the advent of the new technology, the technology also changes the complexion of civilization deeply. Information and Communication Technology is one such technology on which modern societies are heavily dependent upon. Over the last four decades, we have developed extremely complex systems for handling and processing large volumes of data at fastest possible time. As part of the broader technology revolution that has taken place in the society, the information related to space has taken a sea change. It has influenced Geography, Cartography, Earth Science, and other sciences dealing with space and earth surface immensely. [...] GIT functions in collecting, measuring, sorting, managing, planning, designing, storing, analysing, and presenting geography specific data. It has wide applications covering all disciplines and professions that use earth related information such as Geodesy, Geography, Cartography Land Survey and Settlement, Infrastructure, Engineering, Agriculture, Environment, Natural Resource Management, Town Planning, Regional Planning, Project Management etc.[1].

It is normally agreed upon that the meeting of new technologies and geography represents an epic moment, a 'digital turn', if not a true revolution which has given way to an altogether new phase – to be considered even a 'genetic mutation' – of geographical knowledge. This common opinion seems to be endorsed by the spreading of neologisms used to refer to the diffusion of innovative methods to represent the world such as: neogeography, e-geography, cybergeography, geoweb, etc. As Jean-Jacques Bavoux explains, "All these terminological suggestions unambiguously demonstrate the convergence of ICT and the enormous development of telecommunications and multimedia, mainly with the Internet and its extraordinary abilities to communicate"[2]. It is undeniable that among the innovations brought about by the so-called Geographic Information Technologies (G.I.T.) we can find the *democratization of geographical knowledge*, which is tightly linked to the widespread availability of tools for the observation and representation of territories: the websites which offer both the consultation of cartographic and photographic archives and resources, and the production of brand new maps according to one's needs undoubtedly mark a break with the past, no matter how this is interpreted. Indeed, they proffer everyone – and especially those who are not professional cartographers – the chance to get to know a language which was, up to just a few years ago, limited to experts:

> Mapping has become interactive, social, creative or ludic, and the making and using of maps is no longer limited to professional cartographers. Amateurs can make or modify maps, and collaborative, social mapmaking gives communities and networks a platform for exchange. Moreover, due to technological innovation in the tools of

[1] Choudhury, Chakrabarti, Choudhury 2008, p. 3.
[2] Bavoux 2016, p. 204.

> map-making and map using, this representational change signals a different way of thinking about maps and what maps tell us[3].

Nevertheless, all that glitters is not gold. We might wonder, for example, whether this 'facility of participation' of cartography 'from below' corresponds to an awareness of the implicit prerequisites (for instance, the ontological ones) of the terminology used; and whether it [web cartography] either produces an actual progress of geographical creativity or encourages, beyond the use of even very sophisticated computer technologies, a mental laziness and traditionalism:

> The computer does not substitute neither the cartographers' knowledge, imagination and necessary rigour, because they must think "in geographical terms" along every phase of their work and especially at the beginning when choosing data, so as never to surrender to automatism and effortlessness[4].

Therefore, *on the one hand* new technologies are for the cartographer a chance to get in touch with portrayals and demands which are often neglected during their work, and a precious help in adding value to the 'sense of place' of local actors. From this point of view, we might say that G.I.T. are the meeting point of those hermeneutic abilities which Angelo Turco respectively defines as 'topical competence' and 'topical knowledge'. The first term refers to the ability to understand the territory to the depth of its history, its cultural values and its emotional resonances and it is brought forth by taking part daily in the places and the *éspace vécu*; the second term conjures, on the other hand, a formalized knowledge, made up of notions and needs which are external to the places they are applied to[5]. As Robert Laurini and Sylvie Servigne remark, one of the strongholds of this new geography is the fact that it actually eliminates the traditional difference between those who own the means of production of information and those who passively benefit from this information. Anyone can participate in the construction of the *imago mundi*: knowledge is not made up of a series of closed contents which are to be passively assimilated just as they are, but they can be shared, modified, corrected, updated and expanded in a virtually infinite process[6]. Lastly, we should not overlook the didactic and pedagogical usefulness of new technologies in putting in contact students with the study of geography and making them grow wiser of their place in the world[7].

On the other hand, G.I.T. offer the pretext to make what has been defined as 'topical knowledge' prevail over the 'competence', that is to say an experience of the land which is only virtual, thus substituting the 'thing' with its 'image', the

[3] Verhoeff 2012, p. 139.
[4] Bavoux 2016, p. 306.
[5] Turco 2010, p. 174; Turco 2012, p. 83.
[6] Laurini, Servigne 2011.
[7] Merle 2011.

complexity of the real and lived space with its reproduction on the screen of one's personal computer or smart phone. There are even those who advocate the coming of "a new surveillance regime at the era of mobility"[8] that is to say of new ways of controlling people and their trajectories through the geolocation function, which is integrated in the most recent web-based digital devices, the so-called *locative media*[9].

Laziness or creativity? In the end, it all comes down to acknowledging the fact that the field of Geographic Information Technologies is a complex one, where certain risks live side by side with more positive aspects such as, as we have seen, availability, user-friendliness, comprehensiveness and the chance to share data. This duplicity of options highlights the urgency of a serious reflection in the geographical field concerning the premises and consequences of the use of these tools: not in order to refuse them, but to understand them, that is to say to understand how the beneficial, liberating effects might prevail over the alienating ones.

Google Street View: A location-based image application

We shall now shift our attention from the wide world of GIT to one of the best-known location-based image application: Google Street View. It is a technology that provides panoramic views from positions along many streets in the world, launched in 2007 in several cities in the United States, and that since then has been expanding to include cities and rural areas worldwide (2007, Australia; 2008 Europe; 2009, United Kingdom, Netherlands, Canada and Taiwan, etc.) (**Fig. 1**). This service displays panoramas of 360-degree (horizontally) and 160-degree (vertically) stitched images which are 10-20 metres apart; images are explorable through in-built track, pan and zoom functions. Most photography is done by car, but some is done by trekker, tricycle, walking, boat, snowmobile, and underwater apparatus[10]; Google pays close attention to many factors, including the weather and the population density of various areas, to determine when and where to collect the best possible imagery (these are all taken in day-time and regularly updated). An important detail, which is certainly not to be underestimated, is that Google takes steps to protect the privacy of individuals when images are published on-line through the blurring of faces and car licence plates (by means of a particular algorithm). In the first years the Google-cars bore no logo or signs of recognition, but at present

[8] Firmino, Duarte, Ultramari 2011, pp. 298 and following; Manjoo 2017.

[9] Geolocation is the identification on the Earth map of the exact position of a small, highly-technological electronic device (such as smartphones; e-book readers; tablets; personal computers, etc.) connected to a data network.

[10] They are responsible for catching the parts of the planets cars cannot reach: archaeological sites, the inside of a building, unpaved roads, and even the seabeds.

Fig. 1. In this map, the blue areas show where Google has collected Street View (Source: https://www.google.it/intl/eng/streetview/understand). The figure highlights how the vast majority of the African continent, North America, Asia and Russia are still to be discovered (could they possibly be the harbingers of a new age of explorations, with Google trekkers as the new Livingstones and Stanleys?).

they are required to display the Google logo; in this way, passers-by are aware that they are being involuntarily filmed and this leads to several amusing photographs in which the people's annoyed reaction is clear[11].

Even though it has recently begun to function on its own through a website specifically devoted to it (www.instantstreetview.com), Street View was originally designed – and still can be used – as a tool that works along other Google services: Google Earth, a computer program that provides a 3D simulacrum of the Earth based on superimposition of images obtained from satellite imagery, aerial photography and geographic information system (GIS) and Google Maps, a web mapping service which collects satellite imagery, street maps, real-time traffic conditions, and route planning for travelling by foot, car or public transportation. In particular, urban streets with Street view imagery available are shown on Google Maps with blue lines; it is possible to 'jump' from one to the other – you can zoom

[11] On this matter, see Hoelzl, Marie 2014.

into Street View from Google Maps, or conversely move in the Google Maps, zoom in and come back to explore the facades of houses. This means that in the creators' original plans, the 'map' and the 'street view' were just two sides of the same project:

> building the world's database, and in so doing of using the world *as* a database. And it is in this world as database that the photographic and cartographic converge as two correlated and conjoint 'viewing modes' of Google Maps/Street View, which are both part of one and the same navigational trajectory[12].

The world's database, the world as database...this matter stands halfway between geography and philosophy and it leads us right to Martin Heidegger's well-known 1938 essay *The Age of World Picture*: "Understood in an essential way, 'world picture' does not mean 'picture of the world' but, rather, the world grasped as a picture. [...] The fundamental event of modernity is the conquest of the world as picture"[13]. On the other hand, the very same images of Google Street View submit what could be referred to as the problem of *sprezzatura*, to use a term dear to the Italian writer of the sixteenth century Baldassarre Castiglione, that is their pretentious ability to "conceal design and show that what is done and said is done without effort and almost without thought"[14]. We should not forget that what appears to us as 'realistic', 'accurate', 'straightforward' is after all mediated, the result of bringing together enormous technical means and human resources: choice and selection of routes; cars with panoramic cameras developed by Google; quality control and selection of collected images in Google headquarters in Silicon Valley... etc.

These observations require caution: Google Street View is not only a mere collection or database of photographs of streets and squares, buildings, infrastructures or green areas, but more "a highly complex ensemble of images, data and software» which is «embedded in (and embeds) a range of operations"[15]. Therefore we can say that its complexity is a prerequisite for a heterogeneity of uses and functions among which are to be included not only those planned by its creators, but, as we will see, those that can be developed from its operating principles, too. But let's proceed in order. For those who may still not know it, how does Street View work? A first basic, elementary function is the navigation of a determined location (urban scene, countryside, and so on), that is to say the possibility of an anticipated virtual experience of the places: after typing in an address in the Google Maps search field we can shift to the "street view" modality by clicking on the preview image of the street on the left. In this way we are suddenly transported on the location, where we can tread the places by clicking on the direction we are interested in and rotate the images by

[12] Hoelzl, Marie 2014, p. 261.
[13] Heidegger 2002, pp. 67 and 71.
[14] Castiglione 1903, p. 35.
[15] Hoelzl, Marie 2014, p. 262.

Fig. 2. S. Giovanni in Monte Square, headquarters of the Department of History, Cultures and Civilizations of the University of Bologna, as it appears on Google Street View.

360° horizontally (**Fig. 2**). Navigating is simple, straightforward: to look around, click and dray the mouse; to zoom in or out, scroll with the mouse.

Such a tool as this might prove useful in reconstructing the different periods of the most recent history of a territory. Through the option positioned in the top left corner, created by Google in 2014[16], by clicking on a counterclockwise-oriented clock icon you can access the old street-level imagery from the Street View's archives (though historic imagery might not be available for every place that has Street View). This is an interesting visualization modality which can be used to explore the transformations of the urban space through time. Jenn Swann, a writer from Los Angeles, was one of the first to realize this, and in June 2014 she published in the *LA Weekly* (a free weekly alternative newspaper in Los Angeles, founded in 1978), *20 Before-and-After Google Street Views Show L.A.'s Dramatic Changes Since 2007*, a report dedicated to the many alterations undergone in the Californian city:

> Google Maps recently rolled out a new feature that essentially lets you travel back in time by accessing street views from as far back as 2007. That wasn't so long ago, but it's pretty remarkable to see how our streets have changed in just seven years. Remember 2007? It was the start of what's now considered one of the worst recessions since the Great Depression. It was also the year in which Apple launched the iPhone and Google Maps unveiled its Street View panoramas – and thus began our collective obsession with photographing and documenting the world from our phones and computer screens.
>
> We used Google Maps' Street View imagery to compare how L.A. streets have evolved. In some cases, formerly abandoned buildings got a restoration or a new paint

[16] Lowensohn 2014.

> job. Beloved businesses have come and gone. In more extreme cases, skyscrapers have been erected in what was once a vacant field. Let's take a trip back in Google Street View time and see how some of our most rapidly changing streets have fared in the last several years[17].

The challenge – to practise an innovative narration of the changes of the city by exploiting the possibility made available by Google to travel back in time, between today and yesterday – is immediately accepted by Virginia Montanez, a *Pittsburgh Magazine* columnist who in a few days publishes her own article with the title *Google Street View Shows Pittsburgh's Incredible Transformation*, in which she writes: "After hours spent virtually driving the streets of Pittsburgh with one eye on the present and one eye on the past, I found that Pittsburgh truly has undergone a metamorphosis in the past seven years" (where it is obvious that Street View is seen as a 'virtual' travel which nonetheless enables you to discover a 'true metamorphosis'). The article opens with a realistic, significant image, which contrasts Pittsburgh as it was 'then' with Pittsburgh as it is 'now' (**Fig. 3**).

The same matter was tackled by Amanda Ferreira and Billy Sandora-Nastyn's article, which appeared in *The Public* in May 2015, where the transformations undergone by the city of Buffalo, in the western New York state, are dealt with, in its attempt to revitalize its economy and urbanscape between the first decade of the 21st century and the early 2010s, when its economy has begun to see significant improvements[18]. In this case, too, the results of the contrast between 'then' and 'now' show how very often the Buffalo neighborhoods have dramatically altered, for better or for worse, their appearance:

> If you're familiar with navigating maps using Google Street View, then you've probably noticed that you can toggle between viewpoints from previously captured years. When *LA Weekly* and *Pittsburgh Magazine* pointed this out, we wanted to explore some of Buffalo's most contrasting finds and compile them on a regular basis.
> The street-view car only makes its way around every so often, which can make a very big difference in a place like Buffalo. We took the initiative to update spots that hardly look the same since the car's most recent spins around the city. Also, we chose some of the more contrasting street-view years to get a real feel for the change, for better or for worse.
> Take a ride with us around the Queen City of then and now and be sure to comment with transformative locations that you would like to see in future posts[19].

Geographic and urban planning research, too, is slowly realizing that such a locative media as Google Street View might prove to be a precious resource full of possibil-

[17] Swann 2014.
[18] Ferreira, Sandora-Nastyn 2015a and 2015b.
[19] Ferreira, Sandora-Nastyn 2015a.

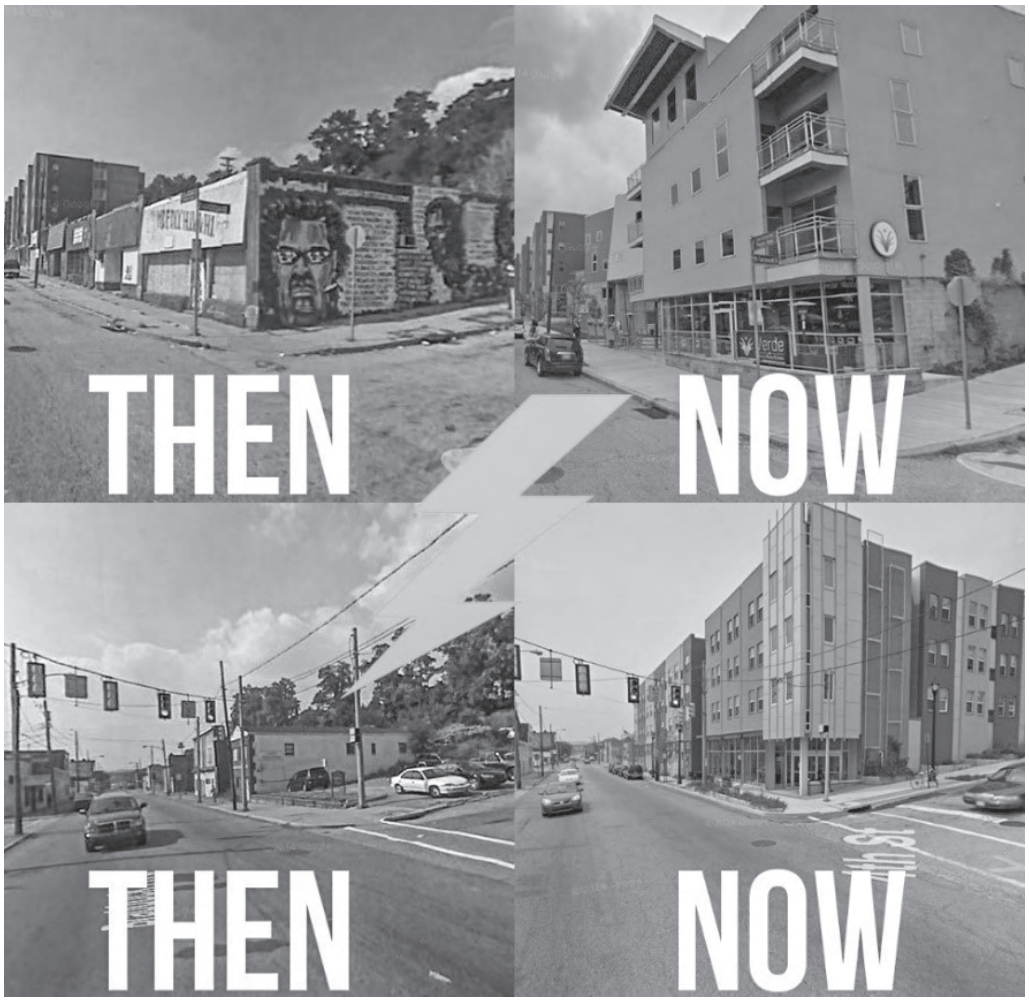

Fig. 3. 'Then' Vs. 'Now': the opening image of *Google Street View Shows Pittsburgh's Incredible Transformation* published in the *Pittsburgh Magazine* by Virginia Montanez (2014).

ities to explore places and transformations of the city. For instance, it can be used to studying gentrification[20], as an urban greenery assessment tool, and therefore to evaluate the visual quality of urban landscapes[21] or quantify urban tree cover at the street-level[22]; for audit neighborhood environments[23] and to measuring visual enclosure for street vulnerability[24]. In their article, Li Yin and Zhenxin Wang claim in particular that Street View might represent a useful tool for going beyond the intrinsic limits of traditional approaches:

[20] Hwang, Sampson 2014.
[21] Li *et alii* 2015.
[22] Seiferling *et alii* 2017.
[23] Rundle *et alii* 2011.
[24] Yin, Wang 2016.

> Big data sources such as Google Street View imagery and big data analytics like machine learning technology together can help fill the gaps on current approaches to measuring street level urban design qualities that have been traditionally subjective and limited based on small samples. The results can provide new insight into the pedestrian friendly design and urban planning[25].

On the other hand, Weixing Zhang and other co-signatory authors of a recent article, in which they develop a mixed methodology to study a urban land use classification that uses Google Street View together with airborne light detection and ranging data and high resolution orthoimagery, observe:

> Mixed residential & commercial buildings are difficult to classify using general remote sensing technologies because they have a lot of common characteristics (e.g. building-relevant characteristics, parcel-relevant characteristics, and vegetation characteristics) with single-family houses and multi-family residential buildings. Therefore, we extracted text information from Google Street View (GSV) images and used it in urban land use classification to better distinguish mixed residential & commercial buildings from residential buildings, because the former ones have shop signs but the latter ones do not have[26].

Since 2015 in collaboration with the US Environmental Defence Fund and researchers at the University of Texas, Google has been taking part in an "air quality project" to monitor pollution levels in cities and offer users alternative 'healthier' routes. A first test was made in Oakland, California, with a Google car fitted with sensors that detect pollutants, enabling to map out exotic hotspots in city centres[27]. The results of the research, which show a very detailed picture of the risk areas, have been recently published in the periodical *Environmental Science and Technology*[28].

Another kind of more recreational service – which leads us to consider uses its creators might not have thought about – is the one implemented by Tumblr "Filmap" and "CineMaps!" (tumbrl is a microblogging and social networking platform). Both projects combine topophilia and cinephilia. "Filmap" (http://filmap.tumblr.com) tries to identify time after time on Google Street View, through the selection of individual frames, the exact location of a film, of which it provides the exact address (**Fig. 4**). "CineMaps!" (http://cine-maps.tumblr.com) uses the street views which overlap with film frames (more precisely, Neorealistic Italian cinema and *commedia all'italiana*, Italian comedy). This tumblr, too, aims at tracking the film locations in order to understand whether in the meantime

[25] Yin, Wang, 2016, p. 148.
[26] Zhang *et alii* 2017, p. 176.
[27] Smith 2017.
[28] Apte *et alii* 2017.

Fig. 4. Above: a frame taken from Woody Allen's film *Sleeper* (USA, 1973). Below: the location where the scene was filmed, evidently chosen by the director for its 'futuristic' architecture (it is the *Mesa Lab Visitor Center*, in Colorado: it offers free exhibits about weather and climate, guided and self-guided tours, a gallery featuring local artists, an outdoor weather trail, and more) (Source: http://filmap.tumblr.com/post/143937702958/sleeper-woody-allen-1973-future-architecture-3).

those sets have changed or not. In order to do this, an individual frame is inserted in the Street View framings and the right correspondence between the two is sought (**Fig. 5**)[29].

[29] Many thanks to Simone Giannangeli, the "CineMaps!" author, for the precious information provided.

Fig. 5. In the example, published in "CineMaps!" on 22 June 2016, we can see Ugo Tognazzi in a scene taken from Mario Monicelli's 1975 movie *Amici miei*. The frame taken from the film perfectly sets in the Street View image which portrays the location in which the scene was filmed (Renai Street in Firenze) (Source: http://cine-maps.tumblr.com/post/146305318300/amici-miei-mario-monicelli-1975-via-dei).

The Dario Costeri's Isperiàdas project

We have seen in the previous pages how Google Street View offers a multi-purpose service open to new uses, which are not limited to enabling us to take amusing virtual journeys in different places of the Earth; it can be used not only to refer to panoramic views from positions along the streets, but also to travel back in time, measure the presence of green areas in the urban space or play with cinema locations. Nevertheless, there are still some lingering matters, of which one is particularly dear to me, and which concerns the possibility to use *Information and Communications Technology* to build multiple narratives, which are different from the official ones and at the same time respectful of the complexity of the territories. In order to tackle this long-standing issue, I would like to talk about the *Isperiàdas – Sardigna Street View* project. What is it all about? Firstly, I would like to cite the words with which the project is presented – both in the Sardinian dialect and in English – by its author on the official website:

> ISPERIADAS is a project about the contemporary Sardinia began on 2012. The impartiality of the Google eye is mediated by human sensibility through the reframing of the author that creates a visual and conceptual duplicity. ISPERIADAS is curated by Dario Costeri.

We shall start by taking into consideration the name itself of Costeri's project: *Isperiàda* is a Sardinian term (from the *logudorese* dialect, spoken in the Central and Northern part of the island), which means 'glance', 'faraway look'; *isperiàre* means 'to look',

'to observe', but also 'to explore'; *isperiàdu* is the past participle and it means 'seen'. Thus the author has clearly chosen a name which triggers conceptual routes towards semantic fields and areas of expertise and knowledge which are related to one another and he has inflected it in the plural form: *isperiàdas*, therefore – as if to say, the act of looking and what is looked upon, the glance and the thing on which this glance is laid down, the subject and the world. The concept stems, as he himself declares, from the desire to depict contemporary Sardinia with a distancing effect, which is able to convey instances of defamiliarization (thanks to which we see the objects in a new way) by means of the encounter between "the impartiality of the Google eye" and "the human sensibility", hoping that this activates a high-voltage, creative short circuit:

> Throughout my architecture studies, I have often used Google Earth and Google Street View to get to know and document the various project areas I have dealt with. I had a kind of intuition one day: I realized I could "take photographs" with Google Street View. I had an extremely powerful – though limited – instrument at my disposal, which was in a way "objective", "random", "impartial", therefore as far away as possible from every visual stereotype of Sardinia, from "clichés" which do not belong to me, from all those picture postcard images, folkloristic and artificial with which Sardinia is very often portrayed. And I could mediate this "objectivity", "randomness", "impartiality" of Google Street View with my sensitivity, by choosing the subjects, the framings, the atmospheres, the places, the "worlds" I was interested in myself. This ambiguity of the means and this sort of "short circuit", both visual and conceptual, thrilled me.
> I looked online for other artists who might have had the same idea and I found out Doug Rickard's work "A New American Picture" (http://www.dougrickard.com/a-new-american-picture), Jon Rafman's work "9-Eyes" (http://9-eyes.com) and Aaron Robson's "Cinemascapes" (http://aaronhobson.com/streetview.html).
> So I decided to carry forward a monographic work concerning Sardinia and I opened the Tumblr page "Isperiadas" in April 2012, where my passions for photography and, most of all, cinema, the need to express myself with images and the willingness to depict contemporary Sardinia have merged[30].

After typing in the tumblr address (http://isperiadas.tumblr.com, but there exists a similar page on Facebook, too), we run across a gallery of images, coming from the huge Street View database, which show a series of glimpses and landscapes of Sardinia that have been chosen and selected by the author (**Fig. 6**). Indeed, once the location has been chosen, just as he really found himself in that place, Costeri looks for the best framing, by rotating and zooming the image and, when he thinks he has found it, he cuts his "snapshot" from the street view on the monitor in the format chosen for the Isperiàdas project; he slightly intervenes in the contrast of the image obtained by increasing it, and on the saturation, by de-saturating it a little, though not in order to obtain 'vintage' or 'Instagram filter' effects (these operations are fundamental to

[30] Costeri 2016.

make the 'photography' of the images of the project more consistent and unvarying). It is important to notice, for an evaluation which is conscious of the results gathered, that the Google watermarks, if present, are not removed, and neither are the elements in the images modified, so the content remains unaltered (for example, potential human figures, cars, etc. are not cancelled, hidden or moved). To use Costeri's words, with its 'objectivity', 'impartiality' and 'randomness', this tool represents the most suitable means to carry forward a project that is explicitly characterized by the refusal to propose again an 'already seen' image of the Sardinian territory, that is to say a representation which not only does not disregard the outsider's expectations, but that also confirms what they knew (or thought they knew). On the contrary, Isperiàdas exploits the extraordinary ability of Google Street View to throw us 'on the spot', its immediacy and its realism[31], to portray a less known Sardinia, that is to say a land which is far more complex and structured than some 'picture postcard images' might make us presume. Of course, it is an ambitious project: depicting contemporary Sardinia, with all its contradictions, is not an easy task – for a geographer, too, even more so if you want to avoid the common stereotypical and exotic images with no scientific value. Indeed, the leading arguments draw a semiotic network made of stereotypes, preordained schemes and recurrent situations that confirm and validate each other. The result is a banal interpretation of the Sardinian territory, imbued with real geographic determinisms[32]: Sardinia as a happy and wild place, immaculate and authentic, isolated and out of time, free from change and transformations, a attractive tourist destination where it is possible to experience an authentic meeting with nature. By carefully browsing the archive patiently put together by Costeri, we slowly realize that the overall picture that his project offers is very different, it even contrasts this idyllic portrait. Not a different world – where, to put it as Ernst Jünger does, it is possible to sleep a light slumber between the atoms of a-temporality – but a 'dense' land, totally immersed in contemporaneity, of which it reflects sometimes in a dramatic way contradictions and ambiguities. In the following pages I will therefore attempt a little experiment. In order to prove *if* and *to what* extent *Isperiàdas* is able to portray contemporary Sardinia, thus bringing to light the numerous aspects

[31] This does not mean that Costeri is a naïve victim of the *sprezzatura* of Google Street View; actually, his words denote the full awareness of the filtered and constructed character both of his project and of the source he draws from: "The difficulties I encountered are not really technical – he says – I have a full mastery of the tools I produce the images with, *they are rather innate of the Google Street View platform*: for example, not every road has been trodden by the Google car, or they have been trodden in the 'wrong' moment; in some of them there is a 'light' I do not like; all the images have been necessarily taken in day-time – how I would love having some taken in night-time! Or sometimes a view I am interested in is blocked by an obstacle... *These limits and these restrictions are, on the other hand, possibly the strenght of the project*. In the Google Street View 'world' I nevertheless try, like a true photographer, to 'seize the moment' in a time and place which, however, are 'suspended' between the moment the Google car passes by and my present exploration" (Costeri 2016; my italics).

[32] Loi 2009.

Fig. 6. The mapping of the localities chosen for the *Isperiàdas* project (December 2016). The most represented provinces are the ones from the South of Sardinia, Nuoro and Sassari. Personal elaboration.

and the many faces, and contributing to the geographic representations of the places, by relying on the reiteration of a certain number of images and recurring situations (which seem to suggest further tracks or directions of study), I have deliberately chosen three topics or fields of research: the demographic and territorial characteristics of the island marked by a dramatic and apparently irreversible depopulation and ageing of the inhabitants; the documentary value of the project, that is to say its ability to witness the cultural and economic transformations its landscape is facing; finally, more generally, the evaluation of its heuristic charge, in this case its potentiality in showing us that another point of view on things is possible.

As far as the first point is concerned, we might begin by noticing that Sardinian people are fewer and fewer and they are a population which is demographically getting older and older. A witness to it is the persistence with which expressions such as 'state of demographic uneasiness', 'desertification risk', 'state of abandon', 'endangered districts' occur more and more often in the official reports and in the analyses of researchers that have been dedicating their attentions to the characteristics of the population during these years. Despite the contribution of immigration in Sardinia (little more than 45,000 foreigners in the island), the total sum of the inhabitants is decreasing year after year: from 2007 to 2015, notwithstanding the presence of non-European foreigners, the Sardinian population has grown of just about 3,843 unities. This demographic fall is linked *on the one hand* to very low birthrates, which are decreasing

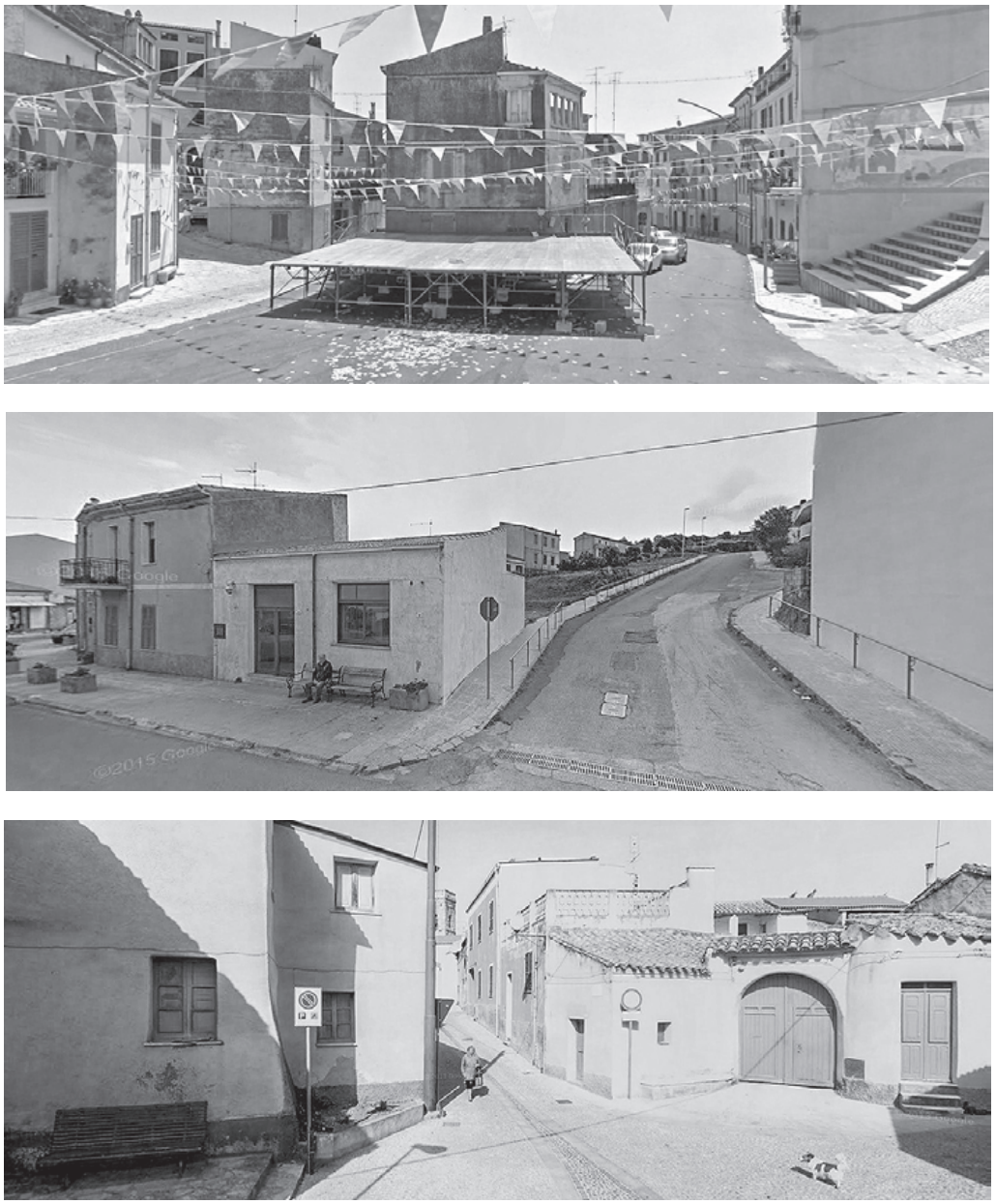

Fig. 7. The depopulation of Sardinia and the ageing of the inhabitants are transforming the inland districts in an empty space, a land with no actors. Above: Bultei (Sassari); at the middle: Villanova Monteleone (Sassari); below: Vallermosa (South Sardinia) (Source: http://isperiadas.tumblr.com).

more and more, from 8.1 per thousand of 2002 to 6.9 per thousand of 2015 (the Italian average is of about 8.3 per thousand); *on the other hand* to the ageing of the population, both in absolute terms (Sardinian people are older than they were in the past) and in relative terms (the number of the elderly is greater than other age groups).

Fig. 8. The site of Ottana, once the location of several industrial activities (thermoelectric stations, production of acrylic fibers, storage of fuel oil and diesel, etc.), today heavily in crisis (Source: http://isperiadas.tumblr.com).

It is enough to think that people over the age of 65 have gone from 18% of 2007 to 21.6% of 2015 and people over the age of 75 from 8.2% to 10.4%. In such a region as Sardinia, which has a density of population among the lowest in Italy (just about 68.02 inhabitants per square km), the uneven spatial distribution of the population, which tends to move from the inland, thus thickening along the coasts, resembles more and more a doughnut, full on the outside but empty on the inside[33]. In the images of *Isperiàdas*, we find the reflection of this dramatic situation in a huge number of pictures (14% of 408 pictures examined): in this little atlas of depopulation, Sardinia does appear as a land without actors, as **Figure 7** witness, among the others.

Apart from depicting Sardinia as progressively emptying in its internal areas, the photos collected in the *Isperiàdas* archive might help us to document the transformations of the physiognomy of the locations and thus of Sardinian society. Here we can record the presence of parallel, concurrent and in some cases even contradictory processes; true momentous mutations such as the urbanization of the countryside and the diffusion of new lifestyles, which have brought about new ways of dwelling, the sedentarisation of the pastoral activity and the appearance of widespread, anonymous urban buildings, characterized by the adoption of new construction materials of industrial origin (concrete, mortar, plastic substitute basalt, granite, slate and limestone), cases of property speculation, unauthorized development, residential thickening along the coast. To this we have to add the wrecks of the big industrial structures which have been abandoned or underused, whose destiny was marked by the economic crisis and by international competition; emptied of its productive functions, the industrial landscape resembles more and more the facade of a building where no one lives any longer (**Fig. 8**).

[33] Tanca 2016a.

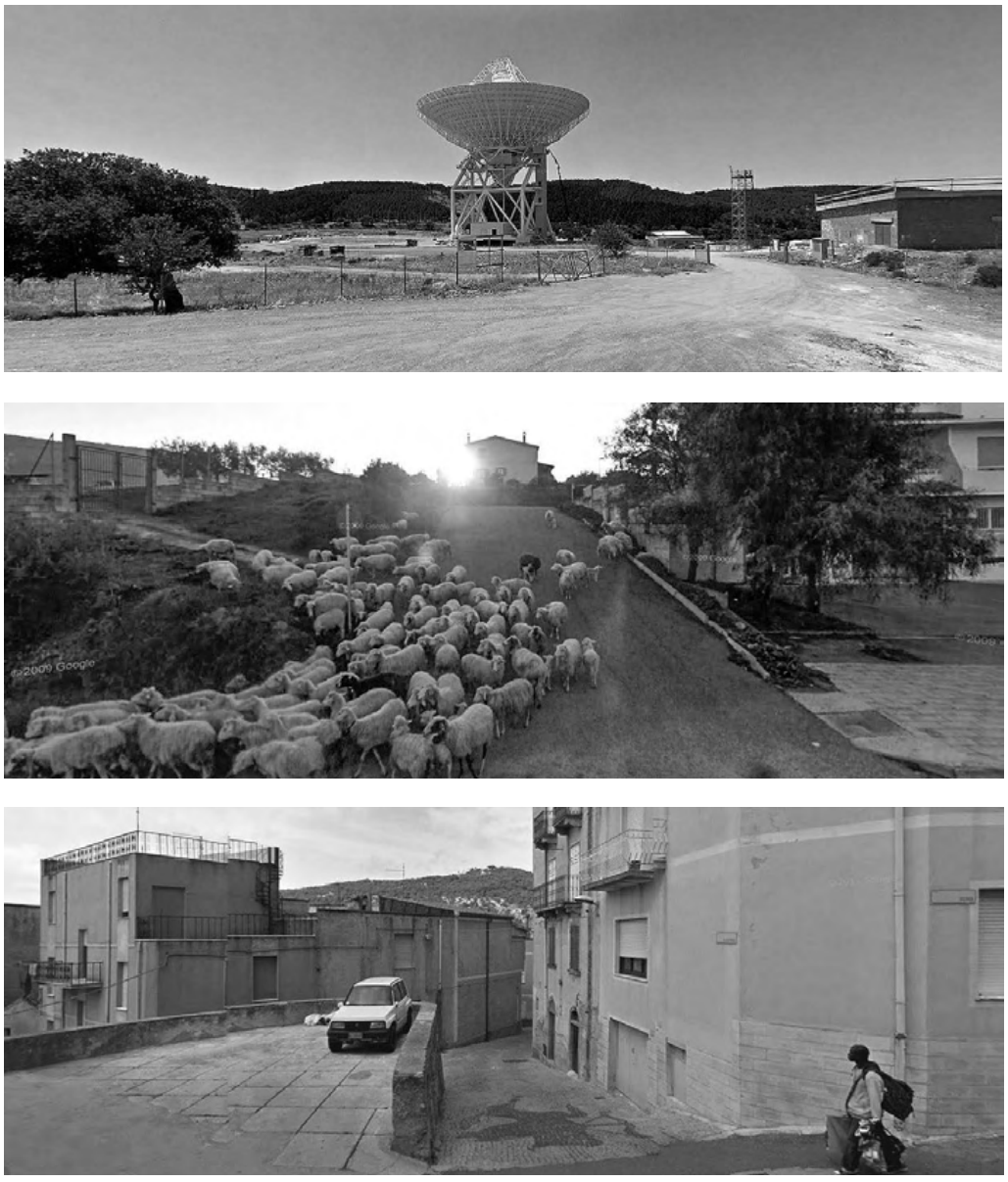

Fig. 9. The Sardinia that changes, that endures, that hosts in the images of *Isperiàdas – Sardinia Street View*. Above: Sardinia Radio Telescope at San Basilio (Cagliari); at the middle: sheep flock at sunset at Narcao (Sud-Sardegna); below: African peddler at Orune (Nuoro) (Source: http://isperiadas.tumblr.com).

And then again the Sardinia that endures, and which is always the one of its most common and widespread *iconemi*, the pastoral landscape[34], which coexists

[34] An *iconema* is a landscape archetype or, as Eugenio Turri wrote, "images that represent the whole, of which they express the peculiarities, the most characteristic, most distinctive elements" (Turri 1998, p. 170). On the Sardinian landscape and its latest configurations, I refer the reader to Tanca 2016b.

with the Sardinia in which seasonal immigrants from Maghreb come and where you can record the presence of the most processes technologically-advanced radio telescope, the biggest in Italy (**Fig. 9**); seem to validate the words written during the '70s by the great Brazilian geographer Milton Santos:

> The landscape is not something static, motionless. Every time society knows a global process of change, the economy, the social relations and the policies change themselves, though with different rhythms and intensity. The same goes for the space and the landscape which transform themselves in order to conform to the new needs of society. [...] A given landscape, observed in a specific moment in time, represents the different moments of the development of a society[35].

Finally, there is a third direction which is worth exploring and which has to do with the idea that the way we look at things, the point of view we choose to adopt define the nature itself of the things we are looking at. As Leibniz observes in §57 of *Monadology*, "the same town, looked at from various sides, appears quite different and becomes as it were numerous in aspects"[36]. The city does not exist as a 'total' object, its essence lies in the fact that it is not a comforting and definite entity. Hence perspectivism can help us to discover different points of view – street views! – on things, that is to say *to discover different things*; to tear down déjà-vus, to look at places as if we saw them for the first time, to discover, in a way, the 'other side' of geography. It is the writing Orgosolo, an inland district, in the Nuoro province, that follows the Spencerian italics font of Coca Cola; it is the peculiar sign that stands out on the façade of the conservatory in Cagliari, with those unaligned letters, irregularly arranged as musical notes on a pentagram (while we can see on the left a musician walking along the road, a little bent because of the burden of her instrument); it is a road which suddenly stops in front of the sea, in Quartu Sant'Elena, with a parked car that seems about to plunge into water: all these images have some peculiar, surreal, or dreamlike element – just as if they came from another planet, whereas they are actually there in the Google archive, waiting to be seen by somebody (**Fig. 10**).

Conclusions

In *Terrae Incognitae: The Place of Imagination in Geography*, the prophetic essay published in 1947 in the *Annals of the Association of American Geographers*, John Kirtland Wright draws a sort of mapping of what he himself calls *the realm of geography* – a geography of geography, we might say. He asserts:

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[35] Santos 1978, p. 67

[36] Leibniz 1720, p. 248

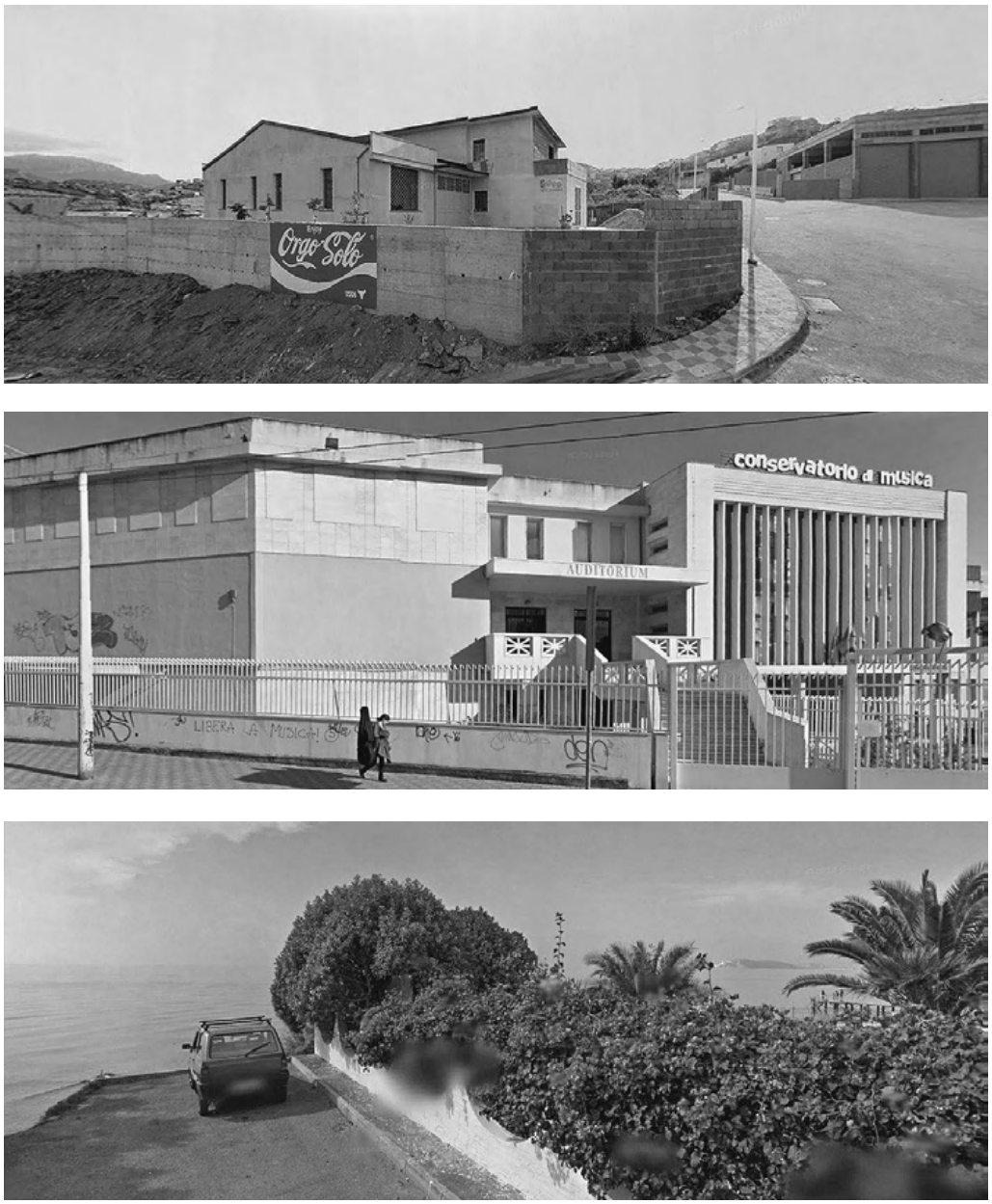

Fig. 10. Looking at things in a different way in order to try to see different things with *Isperiàdas*. From above: Orgosolo (Nuoro); the Conservatory in Cagliari; a suggestive "non-place" in Quartu Sant'Elena (Source: http://isperiadas.tumblr.com).

> The realm of geography – geography in the sense of all that has been written and depicted and conceived on the subject – consists of a relatively small core area (to borrow Whittlesey's phrase) and a much broader peripheral zone. The core comprises formal studies in geography as such; the periphery includes all of the informal geography contained in non-scientific work – in books of travel, in magazines and newspapers, in many a page of fiction and poetry, and on many a canvas.

> Although much of this informal geography offers little of value to us, some of it shows an insight deep into the heart of the matters with which we are most closely concerned[37].

Reading these lines should mean for every geographer eating humble pie: indeed, Wright is reminding us with simple and linear words an essential truth, and that is that the realm of formal geography (scientific, academic, conscious, etc.) is actually a rather small area compared to non-scientific geography (informal, widespread, spontaneous). If Wright had had the chance to know Google Street View and such projects as *Isperiàdas*, he would have undoubtedly included them in those "informal geographies" which back in the day already comprised travel books, magazines and newspapers, fiction and poetry. In other words we might affirm that Google Street View represents a flexible and fertile tool which can certainly work alongside (without substituting them) the traditional instruments of knowledge and representation of the territory, thus marking the convergence of 'topical competence' and 'topical knowledge'. It is more a starting point than an end point, more than a purpose it is a means that can lead us very far. After all, the strong presence of Google Maps on the web – Street View function included – is by now a matter of fact: 41% of Internet users worldwide use Google Maps services; 1 Billion monthly users of Google Maps; 30% of Google searches have local intent or geographic aspect. One thing is for sure: in order to appreciate (and set free) the quality of truth which is potentially contained in the pictures which *Isperiàdas* offers we have to reflect on their 'representations of representations' status. They are not realistic as in naïve realism; as Roland Barthes explains, realism consists not in copying the real but in copying a (depicted) copy of the real[38]. This is exactly what Costeri does: he puts a frame on a picture – the one captured by the Google-cars – which in its turn is a cut out, a fragment of reality at the same time both precise and fortuitous; in this way, he mediates contents which have already been mediated[39]. Therefore, remembering that defining the status of the glance which sets itself on things is just as important as defining the status of what this glance is set on, *Isperiàdas* indirectly talks to us about the way we know things: it places at the heart of the representation *a project*, thus the value of the choices, of subjectivity, of the glance and of human sensitivity, that is to say every thing that Google puts in second place and then cancels in order to promote a 'neutral' and 'objective' output. By giving new life to these fragments of truth, by restoring at the heart of

[37] Wright 1947, p. 10.

[38] Barthes 1990, p. 55.

[39] Another project, which is in a way similar to *Isperiàdas* is *Agoraphobic Traveller* posted on Instagram by Jacqui Kenny, a New Zealander living in London, which in its turn relies on Street View screenshots, too. This project has a therapeutic value, so to speak: the author is not interested in using Google Street View as base of a study on a certain territory; *Agoraphobic Traveller*, as the name suggests, has become a way for Kenny to visit places that she could never go to herself (see Denhoed 2017).

the representation such typically human elements as the wish to be moved and to wonder, Costeri 'defrosts' the Street View images, thus turning them into alive and vibrating testimonies which are able to narrate all that is happening around us – the present. As some of the studies mentioned in the previous pages demonstrate, closing our eyes in front of these new ways of telling the world would mean not wanting to see deep "into the heart of the matters with which we are most closely concerned", to devote ourselves, on the other hand, only to our little backyard; it would be a serious mistake.

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