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Maps for Teaching, Teaching to Map. Digital Tools and Didactic Workshop Models for a Geo-Cartographic Analysis of "Lived Space"

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Abstract

The paper aims to present the main outcomes of two Didactics of Geography laboratory courses held at the Free University of Bozen-Bolzano and Roma Tre University. Both relied on the same methodological approaches and analytical digital tools (Google MyMaps) and aimed at understanding and digitally mapping students' different perceptions of urban space. The analysis will focus on the processes that enabled students to acquire pieces of information and useful data on their own, as well as to gain more in-depth knowledge of their territory. Such processes entailed the use of digital technologies for the graphical representation of geographical space.
By presenting two extremely different case studies, the purpose is not to draw a comparison between two different spatial contexts, in order to understand in which of them the application of the presented theoretical and methodological approach would be more successful. The study rather focuses on evaluating the effectiveness of such methodology when it is used at different scales. Furthermore, the goal is to acknowledge the shades, similarities and differences of different spatial perceptions by peers who come from different parts of the country.

Keywords: Digital Tools, Metropolitan Cities, Small and Medium-Sized Towns, Student Mobility, Teaching to Map, University Students

1. Introduction

In the last few decades, growing mistrust of geographers towards great theoretical narratives, and the characterization of plural points of view and representations have led to the implementation of new research strategies. These are more "evocative" and less text-based and, as such, they enable researchers to detect and highlight the emotional aspects of social relationships and of the connection between individuals and a given territory more effectively. Such approaches do not neglect the centrality of the visual dimension in geographical research; rather, they introduce new methods for observing the world. Accordingly, geography has been exploring new ways of investigating and representing a territory, of more effectively describing and interpreting the complexity of reality and of providing different and complementary gazes on places (Bailly, 1985; Bignante, 2010; Dodge et al., 2011; Casti, 2013). Cartography has always been a didactic tool whose intrinsic features include representative, narrative and planning languages, as well as self-representative functions (Ricciardi, 2003).

As is well known, didactics extensively uses maps and plans for reading and analysing complex and articulated geographies (De Vecchis, 2011; Roberts, 2013). Indeed, at all levels of education, cartography, cartographic drawings and interactive maps, as well as other iconographic tools in general, facilitate the transmission and reception of geographical information, which would otherwise be hard to welcome, organise and process. "Geography of perception […] has definitely expanded interpretative schemes of the relationship between men, society and the environment (De Vecchis and Fatigati, 2016, p. 17). In such respect, cartography can act as a link, overcoming spatial and even time dilation. A systematic and planned use of geospatial technologies makes it possible to operate profitably and adopt a constructivist perspective. The latter distinguishes itself for the active and independent learning process it encourages through the analysis of relationships and personal interpretations of data and events (Pasquinelli d'Allegra, 2009). Hence, digital maps are not mere sources for retrieving objective data, but tools for producing knowledge, a further interpretative moment in which implicit and explicit relationships between a map and its creator/user are relevant. For primary school students and university students alike, cartography is one of the first means of spatial and geographic orienteering, through which they can undermine their innate spatial egocentrism and understand their "place in the world" (Giorda, 2014).

In the light of these considerations, the essay presents the results of two analogous didactic laboratory experiences aimed at students from the Free University of Bozen-Bolzano and Roma Tre University, who were asked to create individual digital maps with the aim of representing the perception of their own urban space. The activities intended to develop and enhance the subjective and expressive dimension of relationships with lived space, in order to promote students' acquisition of several skills. Among these are a stronger sense of direction and an increased ability to read digital maps; awareness of the existence of individual and collective dimensions within space perception and production; a greater perception of the physical and cultural phenomena characterising the places they live in. Such aspects form a set of essential skills for interpreting territorialisation processes underlying the production and transformation of a given territory.

With the aim of expanding existing networks of academic connections, two professors from the two universities planned and implemented the theoretical and practical activities that would take place during the course together, engaging in close dialogue, before, during and after the course at the evaluation stage[1]. They carried out envisaged activities by using the same methodological approach, with respect to both theory and practice. Hence, it has been possible to

[1] Such synergy and dialogue have been possible thanks to the fruitful and longstanding collaboration between the Geocartographic Laboratory "Giuseppe Caraci" of Roma Tre University (scientific director Carla Masetti) and the Geo-Cartographic Centre for Study and Documentation (*Centro Geo-Cartografico di Studio e Documentazione*, GeCo) of the University of Trento, directed by Elena Dai Prà.

conduct the ensuing research using results of the same kind, which could be included in one single argumentation and epistemological narrative.

2. Methodology

As in any other field of geographic application, digital tools have become essential to teaching geography and cartography. They are a geographer's means of supporting their own methods of investigation, of carrying out detailed or summarised interpretative analyses, of evaluating phenomena and logical connections, of noticing specific evidence or of coming to original conclusions (Pesaresi, 2016). In the last years, simplification processes of such digital tools have made their use increasingly more widespread (Grava et al., 2020). In the field of didactics, digital and interactive cartography currently integrates analogue maps, as not only teachers but also students of every age extensively use them[2]. Among various available tools, aerial image visualizers are generally considered particularly useful for building new technical professional skills. By providing simple functions and without requiring specific technical knowledge, such applications enable the drawing of routes, the calculation of distances and the analysis of historical images (Pesaresi, 2016).

However, their use is not limited to mapping. These tools support behavioural geography theories, which consider emotions and perceptions emerging from direct experiences with places to be a privileged means for the establishment of solid bonds with a territory. Such field of geography focuses on the perception each individual has of a given place or phenomenon being studied. Hence, it exploits the evocative possibilities of digital maps and recognises the extraordinary didactic potential of subjectivity, which, alongside training, can achieve the goal of being interesting, dynamic and timely (De Vecchis, 2012). Subjective perception, which can be both personal and the result of a collective dialogue among different individuals, boosts knowledge and nurtures the connection between men, society and territory. Such approach results in the idea that a universally recognised objective world, one that is external to the individual, does not so much exist as do subjective views of the world that surrounds us (Cirio et al., 2015). These views themselves depend on knowledge of places, and their sensorial experience makes connecting with societies and their symbolic and cultural systems possible, as well as discovering the keys to reading and interpreting a particular human community and an ongoing territorialisation process (Giorda, 2011). The European Landscape Convention of 2000[3] stressed the key role of communities' perception in knowledge and understanding of landscape. The landscape component is, in fact, fundamental to individuals' spatial orienteering, a skill that cartography can help develop. Cartography can be the *medium* through which to decipher the stratifications that have led to shaping a landscape, in both its symbolic and its semantic dimension (Farinelli, 2009).

The methodology of the above-mentioned didactic experiences, entailing the mapping of inhabited space and of its perception (Frémont, 1976), was meant to facilitate the acquisition of spatial knowledge, which could help students become aware of their active role as territorial actors. The development of useful skills for identifying values, resources and relationships between social phenomena allows them to feel a

[2] 2012 National Guidelines already stressed the need for students to be able to read and understand the "language" of geography, decode different symbols in maps, to orient by using spatial reference points or systems and to use reduction scales (Sarno and Fischetti, 2020).

[3] In 2020, the organisation of several conferences for the celebration of the Convention's 20th anniversary, despite the Covid-19 pandemic, testified its importance. Among such events: *Oltre la Convenzione. Pensare, studiare, costruire il paesaggio 20 anni dopo* (Beyond the Convention. Thinking, studying and building landscape 20 years later, 4th-5th June 2020), which was organised by the Society for Geographical Studies (*Società di Studi Geografici),* and *Vent'anni di Convenzione Europea del Paesaggio. Sfide, risultati, prospettive* (Twenty years since the European Landscape Convention. Challenges, results and prospects, 29th-31st October 2020), organised by the Regional Landscape Observatory (*Osservatorio regionale per il paesaggio)* and by the four universities in the Veneto Region.

part of the urban context they live in and to form the desire to protect it (Giorda, 2006). Cartographic tools favour the recognition of landmarks within everyday space and improve one's ability of locating them on a map (Casagrande and Carpineti, 2019). The realisation of a map of one's own lived space and relational space, both individually and collectively (Bignante, 2010), encourages the development of orientation skills and the understanding of one's place in the world (De Vecchis and Morri, 2010; Giorda, 2014). It enables students to "express their sense of belonging to their territory" (De Vecchis and Morri, 2010, p. 74).

From a technological point of view, the digital tool used for the creation of cartographic representations has been Google My Maps[4]. It is a free and easy-to-use software, which allows users to create custom maps and itineraries by combining points, lines and polygons. Hence, it represents an interactive didactic tool. Indeed, students can get involved through the creation of windows that open on the computer screen when surfing the internet and through the making and documentation of itineraries within a chosen territory that include geographically and historically relevant places. They can thus strengthen their digital skills and their ability of reading landscape in a critical and creative way, as requested by Ministerial guidelines for primary school teaching. For the purpose of the workshop activity described in this paper, which was to create a collective image, students had to trace, delimit, indicate or locate the boundaries of their lived urban space; they also had to set it apart from less relevant or more rural areas.

The first case study, the Didactics of Geography laboratory held at Roma Tre University, analyses cartographic renderings of the macro spatial dimension of Rome and its Metropolitan Area and of a mega dimension including student mobility from within and outside the Lazio region. The second one, the Didactics of Geography laboratory held at the Free University of Bozen-Bolzano, focuses on micro and mini urban contexts and on the different dynamics occurring in the Autonomous Province of Bozen/Bolzano and its neighbouring areas. By presenting two extremely different case studies, the purpose is not to draw a comparison between two spatial contexts, attempting to understand in which of them the application of the presented theoretical and methodological approach would be more successful. The study rather focuses on evaluating the effectiveness of such methodology when used at different scales. Furthermore, the aim is to acknowledge the shades, similarities and differences in the perception of a territory by groups of students – all aged between 20 and 25 years old, with a few exceptions – who live in different contexts but are all "citizens of the world" (Giorda, 2014).

3. The macro and mega spatial context: Rome and its extra-urban and extra-regional attractiveness

The Didactics of Geography laboratorial course, held during the 2020/2021 academic year as part of the degree in Primary Education at Roma Tre University, aimed to provide students with some basic geographical, technical and cartographic skills. These will help them address certain topics related to teaching Geography in primary schools and kindergarten more effectively (De Vecchis et al., 2020, pp. 308-319)[5].

During a first phase, frontal lessons focusing on theoretical aspects of cartography and on the use of drawing and cartography for teaching Geography to children were held[6]. These mainly

[4] Google My Maps, https://www.google.com/intl/it/maps/about/mymaps/.

[5] Access to the single-cycle master's degree in Primary Education (*Scienze della Formazione Primaria,* SFP) of Roma Tre University is limited (maximum 300 students). According to the degree's curriculum, the Didactics of Geography laboratorial course takes place during the fourth year, in combination with the course of Geography and Didactics of Geography. The course entailed eight hours of lessons (1 CFU), divided into two 4-hour-long meetings; these were followed by additional hours of self-study. Given the high number of students, mostly female (about 95%), three groups of 100 people were made, and lessons repeated to each group.

[6] Due to the reduced number of laboratory activities hours and since the course of Geography already

dealt with the features of maps – among which, scale and symbolism –, as well as with the subjective/perceptive dimension of landscape and critical understanding of a territory. Subsequently, the focus shifted towards the use of drawing as a didactic tool and the potential issues that primary school students might face upon learning about cartographic drawing (De Vecchis and Morri, 2010).

A presentation of the cartographic tools that would be used during the course followed. Participants also learned about the final assignment they would be requested to complete for their evaluation. When introducing the Google My Maps software, the preliminary focus was on explaining how to access it and, then, on how to create and rename a new map. Afterwards, students were taught to use the spatial data management panel and drawing, research and measurement tools, as well as how to change a basemap. The drawing tools were used by way of example, highlighting the different types of existing geometrical elements – points, lines and polygons – and explaining their semantic value. At the end of such rapid *excursus* on how to use the software, each student created a new map, identifying the University building[7] and drawing a polygon matching its perimeter, then indicating its entrance and the walking route to nearby Termini Station. This is the arrival and departure point of most course participants. Finally, students were shown how to research known Points of Interest (POIs), by using the Google research browser, and add them to a map. Among the selected POIs were the seat of the Rectorate, the academic central Offices and those of the degree course[8]; each of them was renamed. All the above-mentioned elements were collected in one "layer", entitled "Roma Tre"[9].

After such first mapping of shared landmarks, students had to work individually, analysing, representing and "giving meaning" (De Vecchis and Morri, 2010) to some places of their own daily experiences, related to both academic and non-academic activities. They thus created a new "layer", naming it with their surname and name. Through an instruction sheet, which was introduced and explained to them verbally, each student was asked to map a series of elements based on previously made considerations. First, students had to use a polygon to delimit their neighbourhood, not considering its administrative borders (e.g. municipality, urban area or other), but those of the urban area they experienced daily, i.e. the space they lived in and perceived as their own (Frémont, 1976). The polygon's popup had to include a description of about one hundred words of the chosen neighbourhood, with respect to both its features and the student's perception of it. Within such space, students had to identify some points that, in their opinion, were of interest to the majority of the neighbourhood's inhabitants. Once these were identified and mapped, the POIs had to be photographed[10] and the images inserted in the corresponding popups. Then, after leaving their own neighbourhoods, students had to trace the routes from their home to the Didactic building, and mark them with a simplified, straight or broken line. The description of each itinerary had to include the different aspects of moving

deals with such topics, only a limited amount of time was dedicated to theoretical explanation. Students had already received some material on cartography and the history of cartography beforehand.

[7] The Department of Scienze della Formazione is spread in three different buildings: one in via Ostiense, with offices and lecture rooms; one in via Milazzo, with offices and conference rooms; one in via Principe Amedeo, hosting the Didactic Building where the analysed didactic activities took place.

[8] The university has different seats; these are mainly along via Ostiense and close to viale Marconi, in the south-central suburb of the city. Other buildings are in the central area of Rome (D'Ascenzo and Gallia, 2017).

[9] Please note that My Maps identifies a "Layer" with a set of geometries, which can also be different (points, lines, polygons), that belong to a single thematic group decided by the author (https://support.google.com/mymaps/answer/3024933).

[10] Students had to insert self-taken photographs instead of Internet pictures. This encouraged additional considerations on the perception/ representation of place, while further highlighting personal points of view. For example, a square with a statue of a horse at its centre, which is also considered a gathering area by students, would be photographed by the latter focusing their gaze on the meeting point. Instead, a picture from the web would highlight the presence of the monument.

from one spot to the other, among which were the means of transport and students' perception of it[11]. The final part of the analysis consisted in identifying three overall positive and three negative places, while considering the broadest possible dimension, not just that of the neighbourhood or of the city. For each of these places popups were added that had to include a keyword or a #hashtag. Beside such basic guidelines, students were free to expand the contents of the popups and of the description field. From aesthetic, stylistic and symbolic points of view, students were granted maximum freedom and autonomy, except for the colours to be used for positive points (green) and negative ones (red) (Figure 1).

During the lessons, students started to create their cartographic representations, with their professor's support, who helped them solve technical problems or clarify doubts regarding given instructions. However, a good deal of the work – i.e. the analysis and cartographic elaboration – was carried out later, according to students' own timing[12]. Some interesting aspects related to the perception and representation of urban territories have emerged from analysing the submitted maps. Firstly, since many students were commuters, two spatial dimensions were detected: one related to the Capital itself (the macro dimension) and one including the entire Lazio region and even expanding outside that area (mega dimension) (Gemmiti, 2019). Such twofold dimension mainly influenced the identification of students' own neighbourhood, the distance covered daily to reach the didactic building and the distribution of the mentioned POIs. In the urban (macro) dimension, students generally identified lived space with the streets of their home neighbourhoods, especially with the ones where "personal landmarks" were located. These may be linked to everyday life, but also to past experiences, such as, for example, one's old primary school, church or gym (Di Santo and Landi, 2007, p. 11). In the suburban (mega) dimension, lived space often corresponded to villages or towns as a whole; in such case, students needed to create more than one polygon in order to identify their own space. However, the frequent use of cars to move from one polygon to the other and the short distance between them reduced spatial fragmentation to the benefit of semantic continuity and producing a polycentric own lived space (Figure 2).

Within both types of contexts (macro and mega), primary services (the post office, the newsstand, the grocery store, etc.), as well as places of aggregation (squares, churches, bars, etc.) were deemed as relevant. However, itineraries from home to the university differed in the two dimensions, even though travel dynamics were similar, given the large size of the urban context. In the majority of cases, the route was divided into different bits, each of which required the use of a different means of transport. Roman students used a broader range of public transport, taking the bus, the subway or their own vehicles – cars, motorbikes/scooters, bicycles; only rarely did they reach the building entirely on foot. Those travelling from outside the city mostly came by train or bus, rarely by car or other private vehicles. In the (macro) urban dimension, the main means of transport turned out to be the underground[13], even though students normally also had to walk, ride or drive to the closest departure station. The suburban (mega) dimension generally entailed one part of the journey by car (from home to the train station) and one by train, usually ending at Termini central station[14] (Figure 3).

[11] Given the heterogeneity of the students' places of origin and the different means of transport being used, there was no limit to the length of the text.

[12] The deadline for completing and submitting the final cartographic product was set for twenty days after the end of frontal lessons. Such large amount of time was justified by the high number of working students and the scheduling of internship activities during the fourth year of university. The maps were submitted by sharing them on Google My Maps.

[13] The Didactic building can be reached through the two main underground lines. The "Vittorio Emanuele" underground station on the A Line is about 100 metres from the entry of the building; the "Termini" station on the A and B Lines is about 600 metres away.

[14] Regional trains also arrive at the Ostiense e Tiburtina stations, which are linked to Termini, and thus to the Didactic building, by the B underground Line.

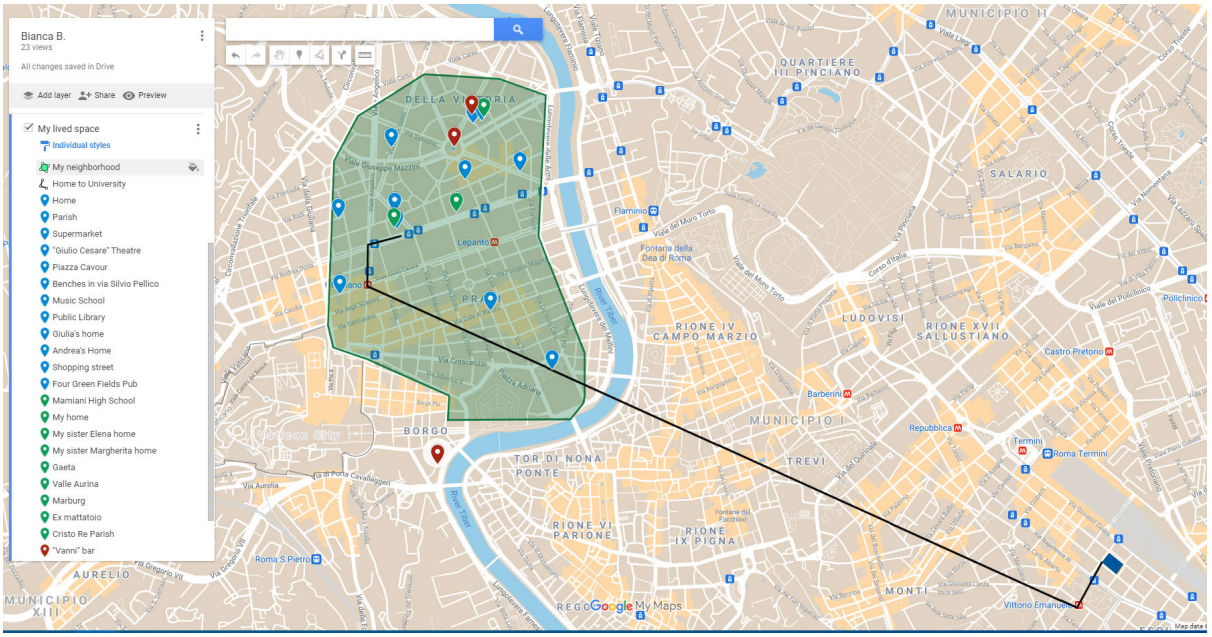

Figure 1. A Cartographic example of own lived space, produced at the end of the course by a student. Source: A. Gallia on Google My Maps.

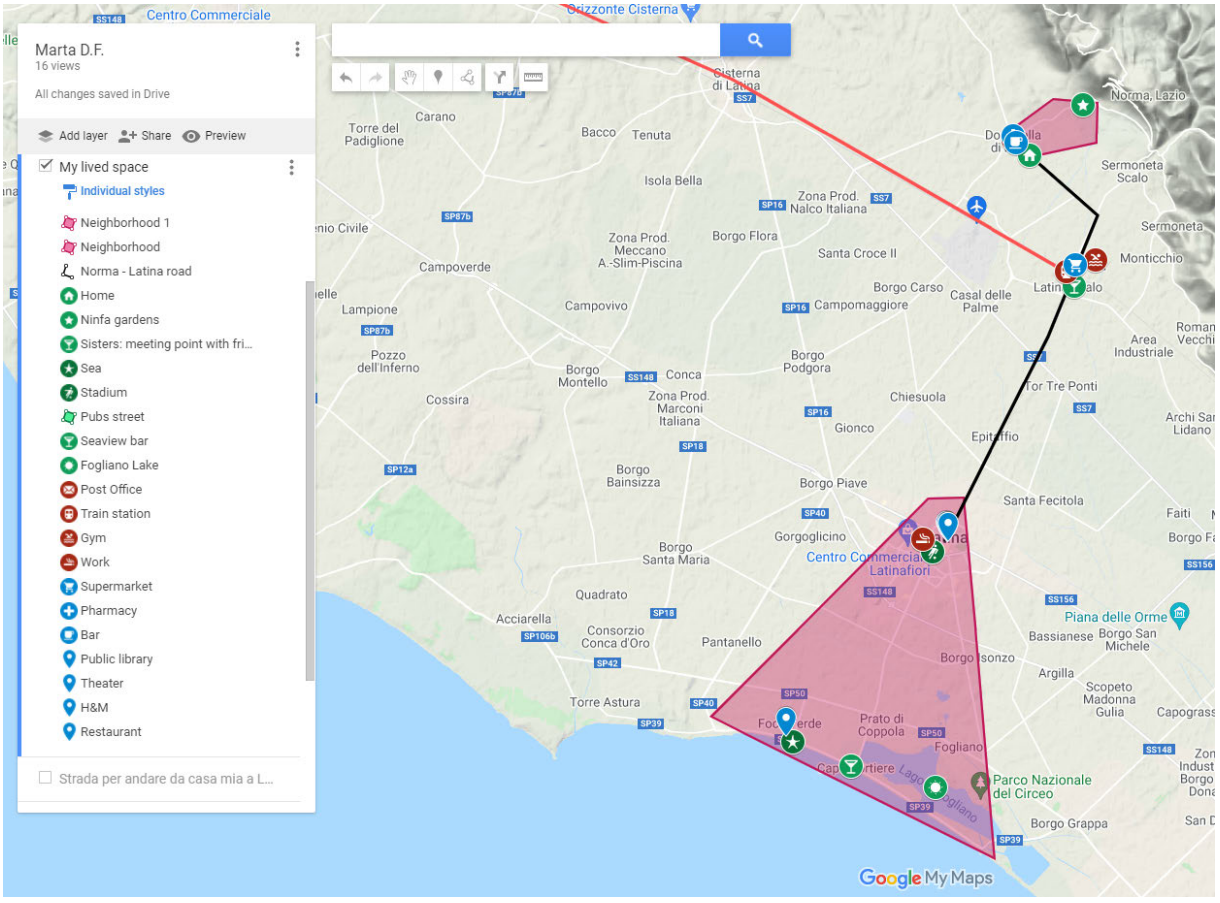

Figure 2. Example of polycentric own lived space. Source: A. Gallia on Google My Maps.

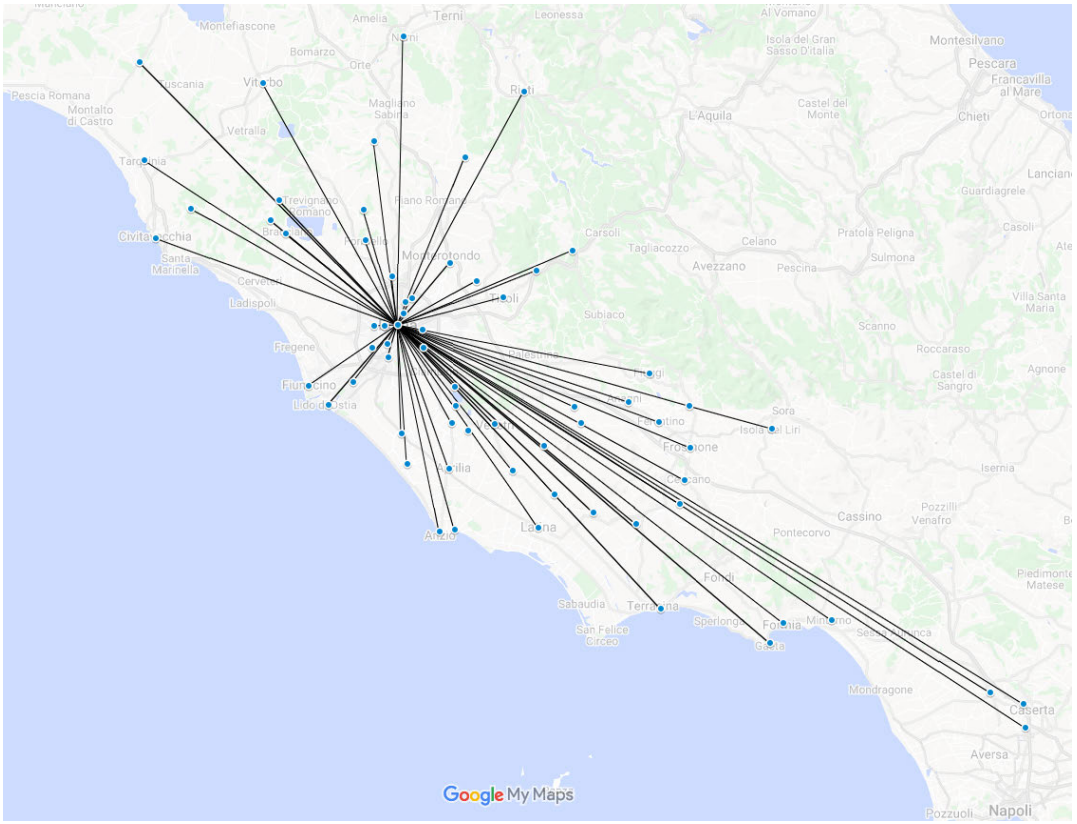

Figure 3. Main places of origin of students. Source: A. Gallia on Google My Maps.

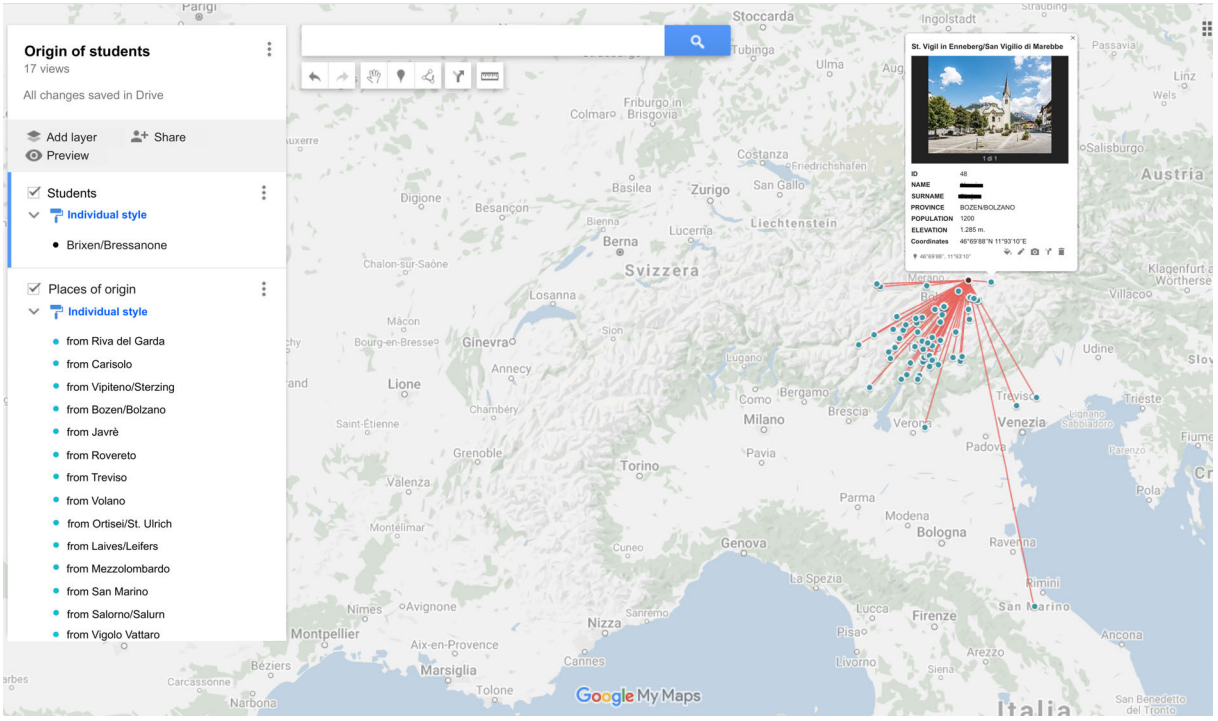

Figure 4. Collective map representing the places of origin indicated by participants of the Didactics of Geography workshop, within the master's degree course in Primary Education held in Brixen/Bressanone. Source: G. Scaglione.

Students' identification of positive and negative POIs has highlighted a particularly interesting dynamic related to the perception of a territory. On the one hand, the choice of certain POIs depended on the perception of the beautiful or ugly side of a landscape (a nice view, a monument, a pleasant part of the city; a degraded area, a bad neighbourhood). On the other, the majority of places became a POI based on lived experiences that had previously turned them into "positive" or "negative" (Albanese, 2017). In an overview, positive places were those connected to trips with family and friends, life-marking encounters, the achievement of particular goals, experiences of social cohesion, etc. Negative places were those where the separation from or the loss of loved-ones, car accidents, invasive medical treatments or even physical aggressions took place. Lived places and their perception and memory (Frémont, 1976) translate into one's "own cartographic composition". Indeed, even though overlapping between places and neighbourhoods that individuals mark as important is possible, the juxtaposition between "experiential place[s]" hardly is (Tuan, 1975; Thwaites and Simkins, 2006). While each individual cartographic composition can be added to those by others, "place as experience" remains unique and personal (Tuan, 1975).

4. The micro and mini spatial context: the influence of the town of Bozen/Bolzano within and outside the boundaries of the homonymous Autonomous Province

In the light of the abovementioned considerations, the experience of the Didactic of Geography workshop, held at the Faculty of Primary Education of the Free University of Bozen/Bolzano, located in Brixen/Bressanone, will now be presented and discussed. The workshop, which relates to the course of Environmental and Socio-Cultural Geography (*Geografia naturale e socio-culturale*), takes place during the fifth year of a single-cycle master's degree, as part of the Italian language section's educational offer[15]. Its activities, which included the creation of digital maps, were aimed at a class of 81 students, the majority of which were girls (91%). For organisational reasons, they were divided into three homogeneous groups[16]. The course, which was initially supposed to take place in presence, was held remotely, due to the worsening of the Covid-19 pandemic crisis (Morri, 2020). The digital platform Microsoft Teams, provided by the Free University of Bozen-Bolzano, was used[17].

Throughout the lessons, students were asked to produce personal maps, which then merged into a group map. Such map enabled them to "co-produce" collective thoughts, by starting from individual experience (Bignante, 2010). The practical work envisaged two separate phases, both of which essentially focused on the representation of space and place.

First, following a lesson on theoretical and practical aspects of cartography, participants started to test the graphic potential of the My Maps digital tool. Subsequently, each student created their own map, by using shared graphical criteria. The maps had to have a common vertex, i.e. the Primary Education Faculty. The latter was then connected to students' places of origin through a representative radius. Resulting cartographic elaborations were made "open and sharable", and the professor grouped them in one single cartogram (Figure 4). Students were asked to provide additional information on their home villages or towns (name, inhabitants, altitude, geographical coordinates and photographs). Such data were included in popups within the digital map. Distribution radii, whose vertex was Brixen/Bressanone, the seat of the Faculty, were mostly directed towards the Italian geographical space, i.e. the territories of Südtirol/Alto Adige, Trentino, Veneto and Romagna. In most cases, students came from the two Autonomous Provinces constituting the Trentino-Südtirol/Alto Adige region[18]. Their places of origin were either

[15] Courses offered by the Faculty of Primary Education are divided into three linguistic sections: Ladin, Italian and German.

[16] Twenty-seven students formed each group; the workshop lasted tewnty hours (five lessons of four hours for each group).

[17] Special thanks go to Daniele Ietri of the Free University of Bozen-Bolzano for his numerous and valuable pieces of advice, which helped improve the didactic activity's results.

[18] In particular, forty-five students came from

small and very small centres (78%) or medium-size towns (22%)[19].

Secondly, workshop participants had to produce graphical elaborations expressing their thoughts, imagination and memories with respect to given places and past experiences of them. Each gaze decodes the territory in which sensorial experiences have taken place differently, and thus produces different pieces of information, both in time and in space. Indeed, a subjective description of a place or phenomenon is not or will not necessarily be in line with previous, present or future descriptions provided by the same person of the same environment (Bignante, 2011). Among spatial representations, geographical ones have long been recognised as being particularly relevant, as they are related to a particular environment, that of the Earth. This is a very complex context, whose structure and functioning are widely unknown and, thus, cannot entirely be controlled (Dematteis, 2001).

Public urban space is to be intended on different levels, which can be traced back to a common matrix, such as the fact that it is a delimited area that people recognise as being "public", ideally open to everyone. Such definition applies to spaces of any urban centre (squares, markets, public parks, etc.), to which at least two different meaning should be conveyed. Public space is a physical space with its extensions and its limits, defining the formal image of a town and setting it apart from others. However, it is also a relational space, where encounters and exchanges take place: a shared place of urban living, in which communities identify themselves (Torricelli, 2009).

In view of these considerations, course participants produced maps of their lived space and of the relational space of their home villages or towns. Such approach makes it possible to retrace spatial relations, with reference to relevant places or phenomena, and then to express them through the identification of measurable indicators and the use of points, lines and polygons. Meeting and gathering places, main roads and squares, historical centres, urban market areas, highly respected or identity-related monuments, spaces of fear and danger, public parks and the division between urban and rural areas were thus mapped on several cartographic layers. Each of such different qualitative variables was distributed on multiple layers, and differentiated by changing colours for each selection. Hence, the logical connections that exist within space (Portugali, 2011; Lynch, 2013) became easier to identify. It is important to once again stress the fact that maps should not be envisaged as points of arrival, but rather as topo-psychological tools for reproducing personal perception of places and for exploring and getting to know the space around us (De Vecchis and Morri, 2010). The maps created by students depict a series of interesting places. Thanks to shared knowledge and symbols, these can be used to interpret the values possessed by ordinary citizens. In order to get to know and understand one's own urban centres better, an experiential game was used; this helped gain a deeper knowledge of lived places.

Some particularly interesting aspects related to the perception and representation of urban territory have emerged from the analysis of the elaborations. Graphical representations enabling a comparison between the various spatial selections have been examined, and some significant considerations made. To such end, the maps produced by students living in Bozen/Bolzano have been used. Their identified spatial references have proven the existence of different ways of reading urban landscape. Lived space of the town of Bozen/Bolzano, which is the capital of the homonymous Autonomous Province, seems to have been collectively perceived in a subjective way. The limits of the urban area, as well as those of the historical centre, and the location of its main businesses and monuments were well known. Collective reading of the identified spaces, which took place right after the creation of the maps, has also enabled the understanding of some variations, which initially suggested some significant differences in students' interpretations (Figure 5).

municipalities within the Autonomous Province of Trento, twenty-nine from the Autonomous Province of Bozen/Bolzano, three from that of Brescia, one from Treviso and one from the state of San Marino.

[19] Municipalities of up to 250.000 inhabitants were considered "medium-size" towns; municipalities of up to 50.000 inhabitants were considered "small-size" towns (*Forme*, 2017).

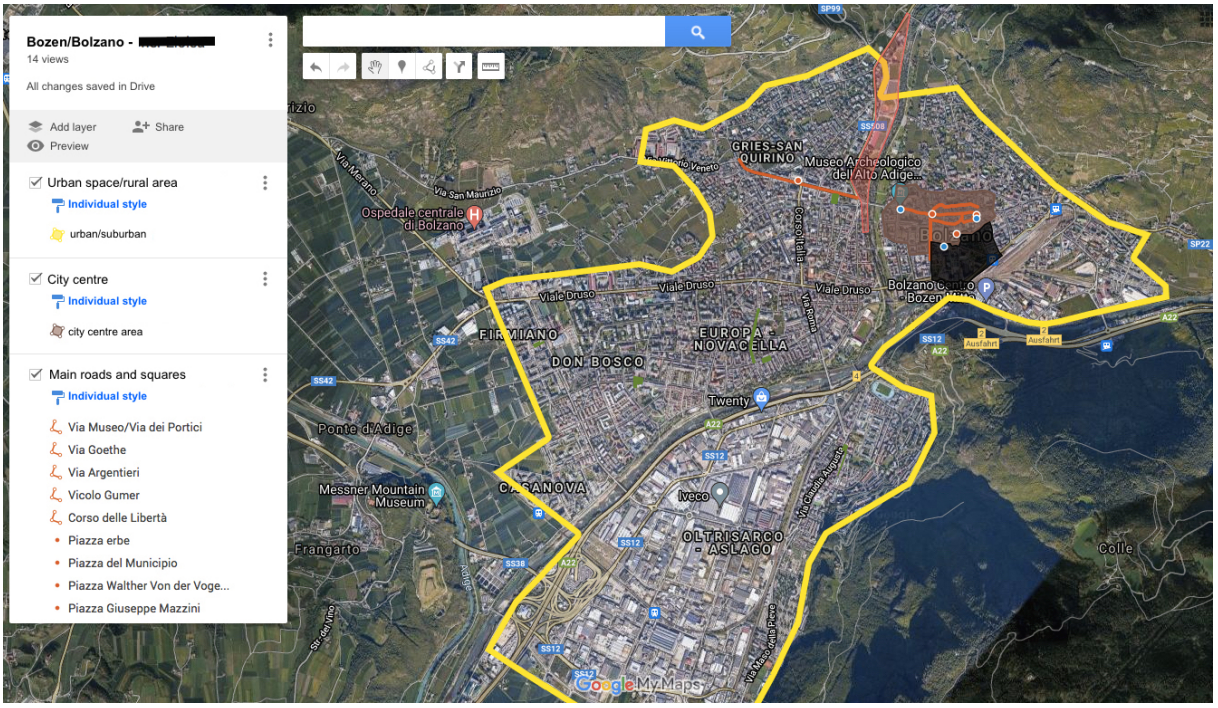

Figure 5. Bozen/Bolzano. Yellow line: division between urban and rural areas; brown area: historical centre; orange lines and points: main roads and squares; green areas: urban market areas; blue points: important or identity-related monuments; red area: public park; black area: spaces of fear and danger. Source: G. Scaglione.

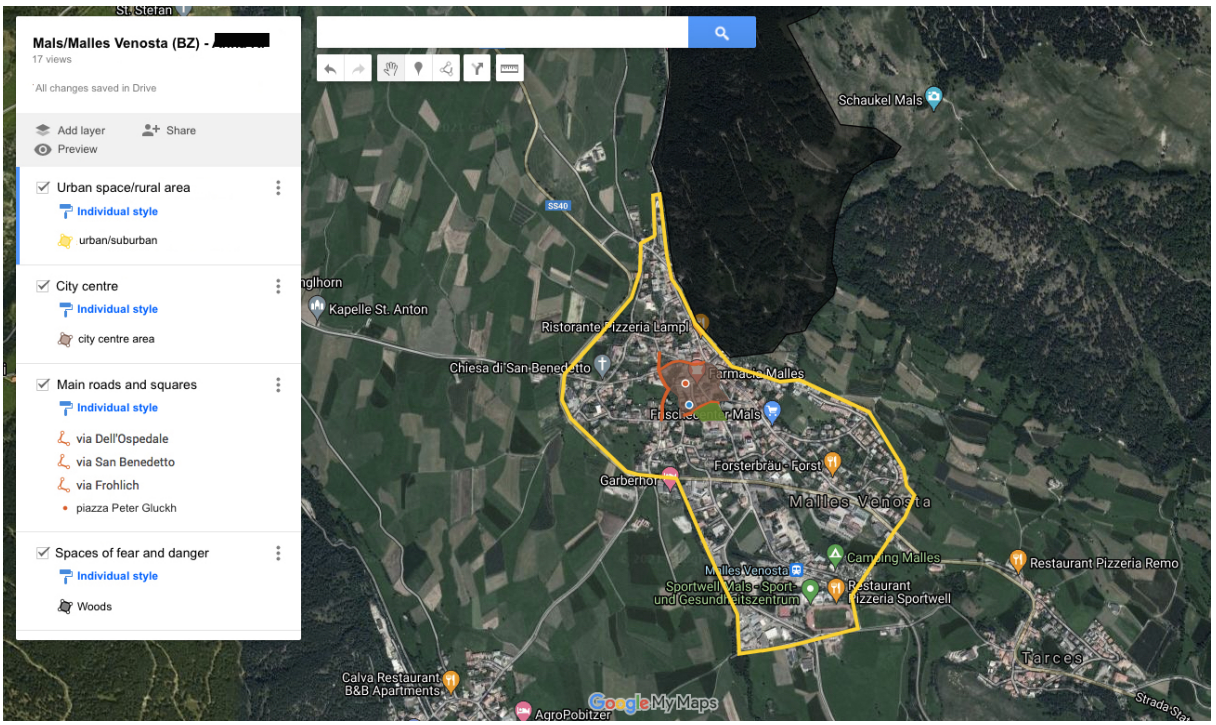

Figure 6. Mals/Malles Venosta (BZ). Yellow line: division between urban and rural areas; brown area: historical centre; orange lines and points: main roads and squares; green areas: urban market areas; blue points: important or identity-related monuments; black area: spaces of fear and danger. Source: G. Scaglione.

In the case of Bozen/Bolzano[20], for instance, the use of such approach resulted in the representation of a particular urban geography, in which the area in front of the central train station, also identified as one of the main squares, was collectively described as an area of fear and danger. Through different graphical layers, to which different variables corresponded, the software has been able to show quite easily and effectively how the space being analysed could fit broader interpretations. Indeed, the square belongs to the area being defined as historical centre and borders with multiple other frequented areas (main roads and important monuments).

The area is extremely central and, like other similar ones in other cities, it has become a reference point for migrants, for whom it is a gathering and exchange space (Miani Uluhogian, 1998). Within such new type of socio-spatial context, degradation and illegality are also present, which give the area a negative connotation and exclude it from broader forms of frequentation. It is not merely a negative connotation: the perception of such spaces unfortunately also depends on local news, which stress the presence of danger and problems related to drug dealing. According to several students, many train travellers supposedly use other intermediate train stations to reach the city centre in the evening, to avoid crossing the square in front of the central station. These choices highlight the close connection between subjective perception of space, in which emotions are particularly relevant, and collective practices.

On the contrary, such same variable of danger and fear, takes different forms in very small centres. In such contexts, the issue of public safety, which in the city derived from migrants' socio-spatial practices, seemed to be related to the natural environment. In the vast majority of cases, the space of danger was located outside urban areas, close to or entirely included in rural ones. An exemplary case is that of the small municipality of Mals/Malles Venosta in the Autonomous Province of Bozen/Bolzano. Both students coming from that village identified the area of fear with its bordering woods, in which several aggressions by bears had taken place. Similarly, in the municipality of Dimaro Folgarida, in the province of Trento, main concerns were linked to the hydrogeological instability of its surrounding territory, as heavy rains have already caused – even quite recently – some catastrophic landslides (Figure 6).

Such considerations prove students' high capability of recognising their individual and collective spatial dimension in depth. In this sense, the workshop experience has represented a valuable opportunity for growth, for both students and professors, as well as a moment of methodological reasoning.

5. Conclusions

In both didactic experiences, maps were created with the aim of identifying individual projections of a territory, town or neighbourhood – which had previously been identified as "lived spaces" – through the analysis of students' everyday life places. Within such "lived space", individual and collective landmarks were highlighted, including meeting places, monuments, main roads, historical centres, main squares, spaces of fear and danger, and all other places considered socially relevant. Large- and very large-scale representations have facilitated the analysis of students' lived space, even though everyday life places are still not fully recognised as relational and emotional heritage (Cirio et al., 2015).

Urban maps enable different individuals to get in touch with their own experiences, emotions and, finally, through collective discussion, to discover others' viewpoints. Representing such elements helps them gain awareness of such aspects, on both individual and collective levels and with respect to different possible facets. It offers new tools for reading geographical phenomena related to places of origin: the same landscape, the same object, the same space can acquire different meanings, "personality" and "homogeneity",

[20] Over the past few years, significant territorial studies have also focused on the case study of the nearby town of Trento, which is the only other middle-size town of the Trentino-Südtirol/Alto Adige region. For further information, see Ietri, 2018.

according to individuals' or society's ability of noticing certain aspects over others. Landscape originates from the subjective perception people have of it. Its knowledge appears somehow filtered and interpreted, even by memory, as well as inseparably linked to its historical and environmental dimension. Accordingly, experiences, even sensorial ones, were at the core of the cartographic renderings carried out by students. The definition of one's own comfort zone, of beauty, ugliness, danger, is based on both direct and mediated experience and memory. When an experience has been so intense – both in a positive and in a negative way – that the place in which it occurred turns into a landmark, its related perceptions are hard to disrupt. Similarly, collective narratives can strongly affect the definition of a place, even if such definition is individual. They influence personal perception of it, as well as of a given phenomenon or dynamic.

Once more, the use of cartography as a tool for teaching Geography proves to be useful for a less notional and more perceptive/sensorial, but still in-depth approach to the study of a territory. However, an analysis that uses large- and very large-scale representations risks to make us lose sight of the broader context in which individuals move and to which personal lived space belongs. A transcalar reading, as the one introduced and applied in the two workshops, solves such issue. At the same time, it enables individuals and collective actors to position themselves better within the world-system, by being globally oriented (Bonavero, 2005; Di Méo and Buléon, 2005). Such approach focuses on territorialisation processes that relate to everyday-life dynamics, with the aim of understanding, at least partially, the meaning of long-existing re-territorialisation and re-semantization processes (Amato, 2009).

Finally, the twofold analysis presented in the paper highlights an extremely accentuated polarisation phenomenon. Universities are strong pull-factors for student mobility. The latter partially coincides with daily movements between places, but it also presents some peculiar dynamics. Indeed, educational poles also attract students from far away. Such attraction, which has differing radii of influence – municipal, provincial, regional, extra-regional –, has been affected by remote learning, but is still persistent, as it already existed before the pandemic [21]. Universities can contribute to incrementing a town's or city's activity, attracting, on a daily basis, people who would not otherwise be visiting it to make use of other services.

In conclusion, we can affirm, once more, the polysemic value of cartography. Maps enable us to gain in-depth knowledge of our own lived space and to be aware of the territories we inhabit, as well as get to know other ones. Beside such individual dimensions, maps work as pivots between people who live in the same urban space or territory and a comparison between representations enables each individual to understand their subtleties and different perceptions. From a didactic point of view, maps are effective tools for the analysis of a territory and, vice versa, the understanding of a territory enables its accurate representation, always based on the author's (or authors') different objectives and subjectivity. The didactic aspect, which has been exemplified through the analysis of the two heterogenous contexts of Bozen/Bolzano and Rome, can be applied to different scales and with different semantic nuances. It is, however, possible – or necessary – to take into consideration both technical persistences – linked to the heuristic characteristics of a map – and qualitative ones – related to the author's subjective perception/narration of a given territory.

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[21] See the statistics provided by universities and by AlmaLaurea (*Dati e fatti*, 2020; Almalaurea, 2019; *Piano strategico…*, 2020).

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