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## Teaching geography with literary mapping: A didactic experiment

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### Abstract

The relationship between maps and literature has long been debated from both narrative and geographical perspectives. At the core of this contribution are so-called reader generated mappings, mapping practices performed after the reading of a literary text. The aim of this article is to suggest possible didactic directions for teaching geography through geo-visualisations based on the reading of literary texts. In particular, this research draws from the results of a literary mapping workshop attended by students during an introductory human geography course at the University of Padua (Italy). Focusing on one of the literary mappings performed by the students, namely the mapping of a short story written by the Italian writer Mario Rigoni Stern, a deductive process is used to understand the possible future potentialities of literary mapping in didactics. Analysing the students' literary maps, this article aims to direct attention to literary mapping practices as constellations of learning moments to exploit. The reading of the text, the envisioning and creation of the map are here explored as the steps of a complex practice capable of visually developing geographical knowledge.

**Keywords:** Literary Mapping, Literary Cartography, Post-Representational Cartography, Literary Geography, Reader-Generated Mappings, Visual Narratology

### 1. Introduction

In 2003 (a), narrative theorist Marie-Laure Ryan published an interesting essay presenting a teaching experiment that investigated the formation of mental models of space based on the reading of literary texts. Ryan's aim was to explore how readers seized narrative space, focusing on how they understood and re-constructed it through mental and graphic models. To achieve this goal, she asked her

students to map a novel they had read few months earlier, and then, she analysed the maps from a narratological and cognitive perspective.

Although if Ryan is a narrative theorist who approaches the literary text as an independent world open to exploration, this geographic research draws from her suggestion to connect literature to mental – and then graphic – maps in a learning environment. The aim of this article is to suggest possible didactic directions for

teaching geography through geo-visualisations based on the reading of literary texts.

So-called reader-generated mappings (Cooper and Priestnall, 2011) are mapping practices performed after reading a literary text: cognitive models of textual comprehension but, above all, geovisual speculations based on narrative spaces, geovisual appreciations of literature (Rossetto, 2016). This research suggests the potentialities of graphically structuring narrative settings, reflecting on the role of space in narration, and focusing on the possible relationships between narrative space and real world.

The relationship between maps and literature has long been debated (Rossetto, 2014) from both narrative (Moretti, 1997; Ljungberg, 2003; Tally, 2011; Guglielmi and Iacoli, 2012) and geographical perspectives (Caquard, 2011; Papotti, 2012; Caquard and Cartwright, 2014; Varotto and Luchetta, 2014; Rossetto and Peterle, *forthcoming*). In addition to theorising the role of maps in revealing the internal logic of narratives (Moretti, 1997), this article points to how literary mapping practices can be used to teach geography. In the learning environment, a map not only is a final product which prompts thinking spatially (Moretti, 1997) but, moreover, should be seen as a complex set of processes, of interrelated learning moments which can be taken advantage of.

To theorise literary mapping in didactics, this research draws from the results of a literary mapping workshop in late spring 2016 attended by ninety students in the beginning of their university studies during the first year of the literature course of study at the University of Padua (Italy). The workshop, which was part of an introductory human geography course<sup>1</sup>, was intended to show how to engage geography through literature. Due to the students' literary disciplinary background, the course's primary aim was to build bridges between different disciplinary approaches, engaging with geography as creative, interdisciplinary knowledge. The workshop consisted of six hours of lectures, two hours of classwork and parti-

<sup>1</sup> The introductory human geography course was taught by Professor Mauro Varotto.

cipation and homework to be completed upon students' schedule. The lectures started with an interpretive reading of a useful paper by geographer Davide Papotti (2012), then introduced the theory of the potentialities of the dialogue between geography and literature and finally presented developments in the literary mapping approach before and after the spread of digital mapping services and systems (so-called digital shift). In the last two hours, examples of literary mappings examples were shown, with a specific focus on digital, online literary mapping practices.

After the lectures, the ninety students were requested to divide themselves into groups of four to five. The majority of the nineteen resulting groups were mixed sex groups, and five groups were composed of only women (sixty-nine of the ninety students were women). The groups were provided with a short story and asked to read and map it. Following an initial session when the separate groups worked in the classroom, students were instructed to work with their groups and to deliver the cartographic output one month later, along with a brief paper explaining the mapping practices they performed. All the assigned short stories came from contemporary Italian literature and shared the same spatial setting: the Alps.

This article focuses on the mapping of one of the assigned short stories: "Osteria di confine" ("Border inn") by Italian writer Mario Rigoni Stern (1998). The narratological features of this short story can illustrate the potentials of the literary mapping approach. To theorise the potentialities of literary mapping, this research draws from the workshop outputs and the representational practices (Hanna and Del Casino, 2006) resulting from the reading and mapping of the texts. A deductive process is used to understand from the literary maps the possible future directions of literary mapping in didactics.

As a contemporary mapping practice, literary mapping performed collectively by groups of students has aspects in common with participatory mapping (see Crampton, 2009). In both practices, participants are invited to collaborate to achieve various goals: to understand spatial relations, construct a

collective sense of place, diversify the forms of spatial knowledge (Elwood, 2006) and even re-tell literary narrations. Participants actively engage with maps as producers, constructing meanings. Literary mapping nonetheless differs from participatory mapping; literary cartographers' raw material is not information, but narration: independent textual accounts. Thus, as a complex transductional (Kitchin and Dodge, 2007) process, literary mapping can be analysed with an interpretive gaze informed by its peculiarities and potentialities.

## **2. Maps as mappings: a processual approach in didactics**

The recent shift in conceiving of cartography as a processual rather than a representational science provides a useful theoretical framework for educational approaches. A post-representational approach is employed in this research as the potentialities of mapping literary texts emerge from conceiving of a map as an ongoing set of processes. Building on the recent shift from representation to practice in map studies, maps are here conceived as mappings (Kitchin and Dodge, 2007) always in the state of becoming. The epistemological shift in conceiving of maps as objects not static but ontogenetic in nature gives rise to the need to conceive of mapping practices as a constellation of meaningful moments and processes that can be explored. Viewing maps as lacking ontological security and continually emerging through practices can help theorising literary mapping as a set of learning moments to exploit.

Literary mapping practices start before the map is a material map. Conceiving of literary maps as mappings that emerge through different processes brings attention to the roots of the practice. First, mapping a literary text means reading it with interest focused on its spatial features and elements. This unique generative reading process arises in the here-and-now of a particular engagement with the text (Hones, 2011). Reading a short story with a "mapping stance" is to perform the map before it is a map. Indeed, like a map, the act of reading is selective and relational, centred on unveiling the relationships among the various elements of the story.

The reading process is the first meaningful learning moment and entails complex relational thinking aimed at understanding the textual space as the product of many interrelated forces. To take advantage of this learning moment, it is necessary to bring students to a stance attentive to the importance of narrative features in building the space of the story. Indeed, literary mapping should not be conceived as the mere selection of mappable features, such as place names, which would be reductive and not take into account the geography of the text (Brosseau, 1994), the uniqueness of the literary composition and its narrative peculiarities.

After the reading comes the second important learning moment: the cartographic envisioning, or the process through which students start thinking about the map as a material device intended to convey information. The key concept in this moment is processual intertextuality (Cooper and Priestnall, 2011) as students must search for a feasible way to visualise and re-narrate the short story, building bridges between different cartographic solutions and languages. During this moment, students are also invited to think about possible connections between the textual space and the real world (Cavanaugh and Burg, 2011), envisioning the literary map as a means to think about how to re-narrate the text and make it readable from a geovisual perspective.

The third learning moment during the literary mapping practice is the creative process. After envisioning the connection between narrativity and visibility, students are called to perform the map as a set of material signs. Creating a map requires visually developing geographic knowledge (Knowles, 2000), creatively engaging with the spatial relations among elements. Through the creative process, students generate and re-narrate the short story, endowing it with a new geovisual dimension, a new visual narra-tology (Ryan, 2003b). The boundaries of these moments continually blur, producing a literary mapping practice that is more than the sum of its different processes.

### 3. “Osteria di confine”: a spatio-temporal story

Before turning to the core of the literary mapping practice, it is worth spending some words upon the literary work used in this didactic experience, Rigoni Stern's short story. This article takes the mapping of “Osteria di confine” as a possible encounter of literature and geography and as an example from which to theorise geography teaching and literary mapping. The story presents narrative features that can prompt discussion on the role of narrative representation in making space readable and in teaching spatial thinking. Additionally, it is mappable: it has numerous topographical elements that refer to real space and can be translated onto a map.

“Osteria di confine” belongs to the collection *Sentieri sotto la neve (Trails under the snow, 1998)*. This 11-page story is among the many short stories that Rigoni Stern dedicated to his homeland, the Asiago Plateau. He devoted most of his work to narratively reconstructing, preserving and communicating the identity of this land and planned to write a sort of saga where these places and their inhabitants could coexist in time on the page (Rigoni Stern, 1997). The protagonist of the short story studied here is an ancient inn, Osteria del Termine, in the north-western plateau. The aim of the story is to reconstruct the identity of this place through narrating the times that have passed over it, starting with the construction of the inn in the 17<sup>th</sup> century and proceeding through the main events that have occurred over the years into the present. As a protagonist endowed with personality, the inn changes over time on the page according to the spatial-political changes in its surrounding. On the page, it starts as a shelter for travellers and then becomes a military facility during the First World War and finally a tourist destination in the present.

Among the narrative features that have to be taken into account in a geographical approach, the first important narrative peculiarity is the use of time. In this story, time is spatialised: the narrative passage of time results in changes to the inn and its surrounding, and the author composes the story as a montage of times that illustrates the changing identity of the place.

This presentation of time can be the starting point for the development of spatial awareness. Narratively reading a space as the product of the continuing interrelations of different times requires thinking about spatial-temporal relationships, resulting in geographical complexity. In this short story, different times not only overlap as static layers building to the present time (using an archaeo-logical figure) but continue to affect each other with a kind of geomorphological processuality.

Demonstrating this feature, the end of the short story is highly meaningful. After the first narrative section devoted to historically and realistically narrating the place, the story takes a fantastic turn. Using the future tense, the narrator imagines and tells about a possible encounter of the spirits of people from different times as they stand together at the inn's fireplace and talk. These spirits include historical characters from the old Kingdom of Italy and the Austro-Hungarian Empire but also ordinary people from the Plateau, such as the shepherd Carlo. Bringing together characters representing different times, societies and cultures involved with the inn spurs thinking of space as the product of synchronic and diachronic relations: a space that results from coexistence (Massey, 2005). Concerning stylistic features, the author uses all the verbal tenses in the short story: past, present and future. The inn is always in the state of becoming (Massey, 2005), constantly produced by spatio-temporal interrelations. The narrative peculiarities of this short story connect the emerging reflection on space-time relations to recent debates in history. Indeed, long after Braudel's lesson, historians recently restarted speculating about the possibilities of thinking about history and its places as a whole (Schlögel, 2009). How space can contribute to the becoming of history, and how can time be read in space? (Schlögel, 2009). From a different perspective (and with different goals), literary narration can spark fresh discussion on the role of time in relation to space.

One more narrative feature relates to Rigoni Stern's conception of the nature of place. For the author, places are (and have to be narrated as) the complex, ongoing products of the interrelation between macro-level historical events and micro-level personal events, such as

everyday life and movements. This view applies especially well to the Asiago Plateau, where the secular anthropisation of the inhabitants has always encountered the effect of macro historical events. The author's page presents an assemblage of heterogeneous elements brought together and called to make complexity readable and understandable.

#### 4. Literary maps and mappings

Mapping a literary text requires searching for new languages and processes to visually re-narrate a story. The practice can be performed with different aims: the map can be called to become an orienting tool for textual comprehension (see Moretti's approach, 1997) or the bridge that integrates fictional space and real space, launching reflections on the immaterial and material nature of places. The literary cartography workshop discussed here was aimed at prompting students to think about the relationship between literary studies and geography and between the literary text and the world, building interpretive bridges through spatial representations. To materialise these reflections, the students were requested to geovisualise what they thought could be profitably visualised. Then, they were instructed to explain their mapping process, writing about the hows and whys of the practices they performed. They delivered the resulting explanatory papers with the literary maps.

In this section of this paper, the literary maps resulting from the workshop are analysed. Here, they are conceived as representational practices (Hanna and Del Casino, 2006) that embed cultural, social and individual students' inputs and as the mobile results of a set of processes undertaken. With combinations of different approaches ranging from textual analysis to ethnographic practice (Boria and Rossetto, *forthcoming*), the literary maps are analysed taking into account three elements and moments. First is the moment of participant observation during the workshop, which correspond to what I described in the introduction as the moment of the envisioning of the literary map. During the participant observation, I could capture some of the groups' peculiarities. First, all the groups already knew of the writer but not the short

story. Almost all the groups speculated that the inn was on the Asiago Plateau, but one group could not figure out where to locate the inn as the short story provides many coordinates but does not explicitly state the location. I encouraged these students to carefully search for the inn on the Plateau, providing them with some help and more coordinates. From the start, the groups paid attention to the use of time as a fundamental narrative category. Moreover, they all showed willingness to engage creatively with the mapping practice, applying different skills, interpretative and creative.

The second element analysed is the cartographic evidence. Particular attention is given to the literary map as a speaking item capable of communicating beyond its representational surface. Finally, as the third element, the explanatory papers are taken into account as valuable sources for understanding the nature of the different mapping steps.

Before discussing the literary mapping practice, some general remarks are necessary. First, in mapping Rigoni Stern's short story, each group focused on the mentioned spatio-temporal peculiarities. Time emerged as a foundational category to grasp readers' attention and spatial interest. All the literary maps were designed to highlight the role of time in relation to spatial identity, and each group tried to visualise time and embed it in the map, which was one of the most challenging process of the practice. The common trends among the groups reveal the importance of narrative features beyond the mere search for topographical elements; indeed, Rigoni Stern's story guides readers' gaze to the same goal: to conceive of the inn as the result of space-time relationships. From a geographic perspective, each literary text has its own peculiarities capable of inspiring different reflections and conveying different spatial knowledge.

As a further remark upon the nature of the analysed literary maps, it can be noted that all the groups produced creative paper maps and felt the need to visualise the narration through the performance of manual and creative practices. This shared practice should be a starting point for further reflections on the dialectic between digital and paper maps in the

digital age. As well, each group gave their literary map a title, a very interesting practice that indicates the importance of the geovisualisation of the short story as a sort of re-narrating practice. This re-narration is moulded on the original but is endowed with new narrative and cognitive potentials.

*Tavoli con vista sulla storia (Tables overlooking history)* is the first literary map and presents a graphic dialogue between standard cartographic language and non-cartographic artistic language (Figure 1a and 1b).

A conventional map is inserted at the top of a creative drawing representing the interior of the inn. Despite the small dimensions of the map, it has a key position. As explained in the group's paper, the map is on the vanishing point of the drawing. This is a metaphorical graphic strategy capable of directing attention and creating graphic hierarchies among the elements. The students refer to the whole representation as "the map", linking this concept to a dialogue between a standard cartographic output and a more creative, subjective representation. From the beginning of the reading of the short story, the authors of this literary map focused on the narrative dialectic between inside and outside.

Consequently, they envisioned the map as a tool capable of communicating the close relationship between the identity of the inn as a place and the geopolitical changes outside it. As stated in the paper, the inn is "the mirror and symbol of the changes of what is outside". Thus, this step of the practice had great potential in the students' reflections and invited them to think about the place as the movable product of ongoing relations.

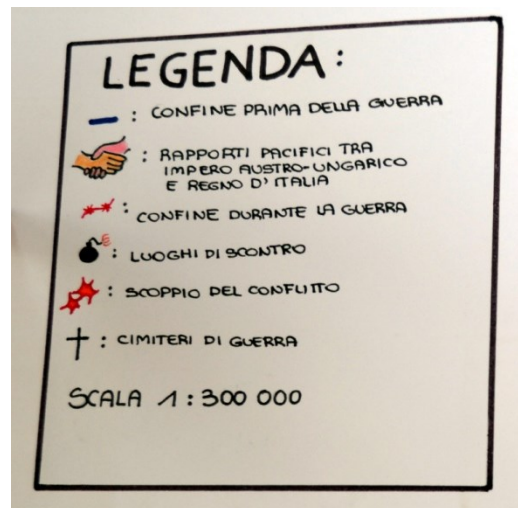
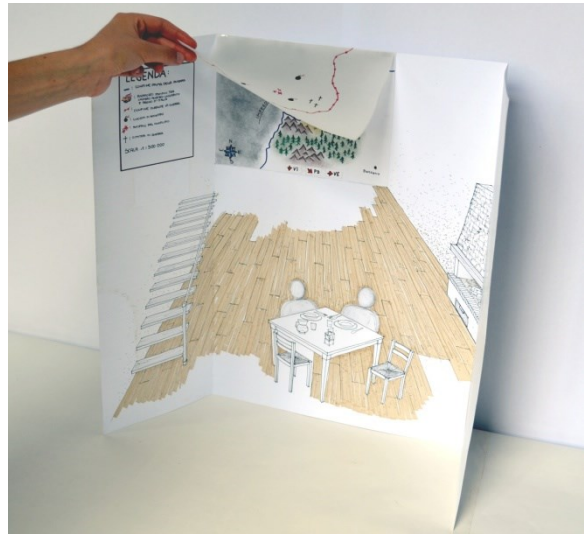


Figure 1a and 1b. The literary map and its legend.

Trying to think about how to geovisualise the dialectic between inside and outside helped the students think about what this dialectic means. When paying attention to the temporal category, the authors decided to focus on one of the narrated times: the First World War. Time is represented by the small map, drawn from two overlapping layers that represent the Plateau before and during the war. At the intersection of these two layers, it is possible to visualise the border changes and the military and political re-signification of places. The passage of time is embedded in the graphic relation between the coloured base map and the transparent paper layer.

Concerning the processes after the reading of the literary text and the envisioning of the map, the authors' explanatory paper includes an important statement. Indeed, in the paper, they talk about the processes leading to the envisioning and creation of the map, referring to the textual accounts that affected their practice. First is an atlas edited by the Italian publishing house Zanichelli, which served as the students' first orienting tool, helping them understand where the inn and the Asiago Plateau were. Then, the students consulted another atlas published by De Agostini, which helped them understand the distribution of forests, pastures and mountains. Afterwards, the students consulted an historical map representing the so-called Plateaus battles to draw the war layer that forms the final map. Finally, they drew inspiration from a book that I mentioned during the workshop lectures, *Plotted. A literary atlas*, by Andrew DeGraff. This book helped them conceive of the map as a mixed map where artistic and cartographic language interrelate. The envisioning of the literary map was a highly important moment due to the processual intertextuality performed by the students. Accessing many different cartographic accounts helped them not only think about the textual spatiality in relation to the spatiality of the world but also become familiar with different mapping strategies and languages.

*Luogo di confine tra incontro e conflitto (Borderland between encounter and conflict)* is the title of the second literary mapping project. From the beginning, students' attention was focused on the inn as a place in the state of becoming, a movable place where relations change and contribute to building its identity. In this literary map (Figure 2a and 2b), time is at the centre of the representational practice and of the whole set of processes undertaken to achieve it.



Figure 2a and 2b. The layered paper literary map and a zoom of its legend. For a translation of the legend, from top to bottom: gendarmerie; barracks; visitors; front (new border); First World War battle.

Analysing the cartographic evidence reveals two different graphic strategies pursued to represent narrativity and time. The first graphic strategy is layering, and it is pursued to communicate time; the second strategy is the particular use of scale, and it deals with the plot of the story. In this pencil-and-paper map, the narrated place is mapped as part of a larger section that stands as the spatial context added by the authors of this literary map. The inn and its surroundings, as the protagonists of the story, are framed and layered and have a larger scale. Concerning the scale, the students used it as a graphic, metaphorical strategy to bring readers' attention to the spatial protagonist. In this literary map, the scale is a visual narrative feature aimed at making the inn and its surroundings emerge from their spatial context. Geovisualising space using different scales makes narrative evidence either emerge or be overshadowed; scale can be used as a visual



metaphorical tool related to narrative focalisation and narrative density. Rigoni Stern's short story is narratively multi-scalar in nature: it integrates the inn within a wider spatial and historical context and then centres on the inn as the core of the story and narrates it through people's mobility and lives. Even if we have no in-depth psychological analysis of the characters, the story ranges from a supranational spatial scale to a larger human scale. The students worked on multiple narrative scales, becoming familiar with scale from metaphorical and material perspectives (for the use of multi-scalar approaches in digital literary maps, see Reuschel et al., 2014).

Layering is used to conceive of the passing of time as graphically translatable. Indeed, time is conceived here as the overlapping of different frames representing the changes in the mapped space. In a common geological metaphor, space is seen as the overlapping of times, as a palimpsest. However, time is spatialised here on normal paper frames that do not relate to each other: they merely overlap without connecting.

*Una, nessuna, centomila osterie* (*One, no one, one hundred thousand inns*) is the title of the third literary mapping based on the title of Luigi Pirandello's famous novel (*One, no one, one hundred thousand*). This literary echo reveals two important aspects of this literary mapping project. The first is the emphasis given to the importance of the mapping practice as a generative narrative act, a re-narration. The second is the connection of the concepts of multiplicity and decomposition to the understanding of the inn as the protagonist of the short story.

Indeed, the first manifestation of this literary map and mapping practice is the conceptualisation of time as multiplication. In the map (Figure 3a), the inn appears in many different shapes.

First, reflection on this literary mapping is necessary. Indeed, this literary map has no cartographic traits; nothing seems to be mapped on it. Nevertheless, the students call it a "map" and provide it with a legend, too (Figure 3b).



Figure 3a. In this literary "map" time is represented through multiplication.

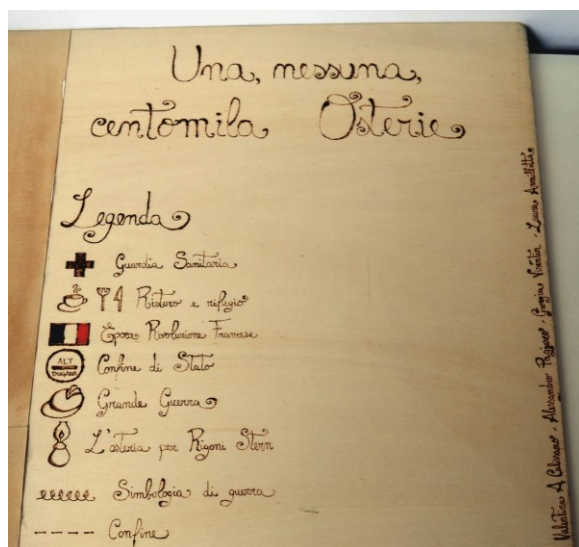


Figure 3b. The legend is the only element that resembles a map. From top to bottom: sanitary guard; refreshment and shelter; French Revolution epoch; national border; First World War; Rigoni Stern's inn; war symbology; border.

In all of the literary mappings undertaken, the students' ideas of a map are extremely mobilised (see also the first literary mapping analysed). The literary map in this case is not a tool that orients in space but a tool that orients (authors

and readers) to the conceptualisation of space as the product of continual interchanges among multiple forces and times. The literary map, above all during its creation, orients its authors to conceive of the role of the short story in making the construction of places readable and understandable.

Concerning the graphic output, the different shapes through which the inn appears embed the passage of time in their changes on the cartographic plan. Moreover, time is visualised in the changing of the street as a spatial element that "beat the most meaningful periods of the history of the building" (as written in the students' paper). In this case, the map represents coexistence: all the possible and the narrated inns coexist on the "map", continually relate to each other and, from the reader's point of view, seem to be part of the same crystallised time. In the paper, the authors make a useful comparison between the map and the short story: both overcome time and are able to show otherwise impossible coexistences. The different inns coexist on the plan, along with the textual accounts that make them narratively readable and understandable (Figure 4).

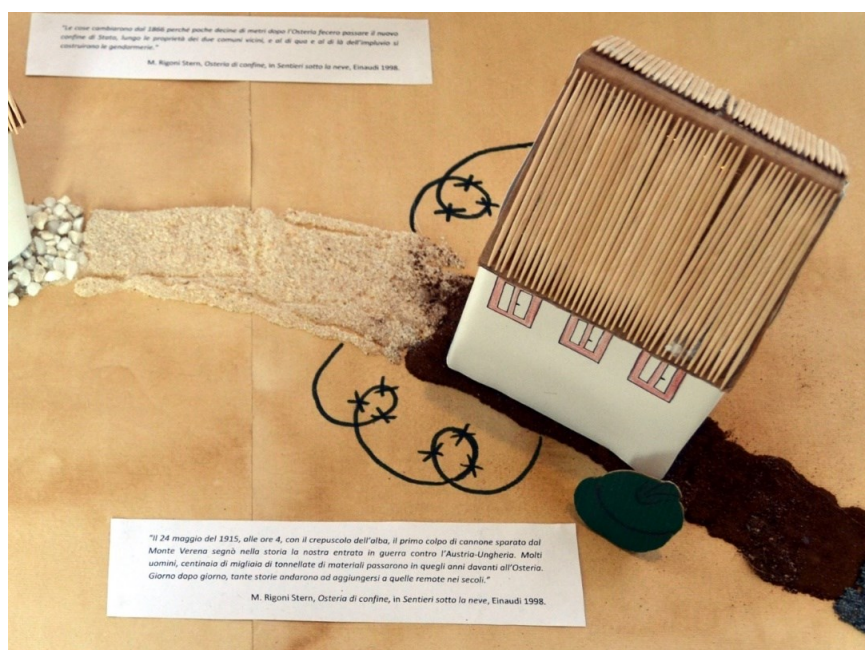


Figure 4. The literary words relate to the material inn on the plan.

*Anime di passaggio (Passing souls)* is the fourth literary mapping and prompts a very interesting reflection on the contemporaneity of cartographic devices. Indeed, this literary map is the product of a dialogue between manual and digital cartography (Figure 5a, 5b and 5c).

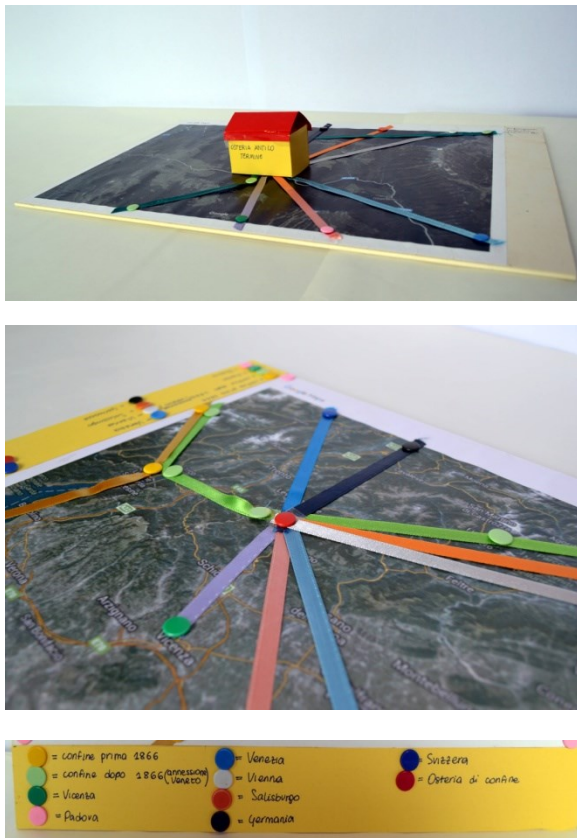


Figure 5a, 5b and 5c. Creating dialogues between the digital and the manual. For a translation of the legend: border before 1866; border after 1866; Vicenza, Padua; Venice; Wien; Salzburg; Germany; Switzerland; border inn.

The digital enters the mapping as a tool of the practice. Nevertheless, the digital map, here drawn from Google Maps on two different scales, enters the project as a static map and completely loses the essential features of digital mapping: interactivity and dynamism. This digital map was chosen for its accessibility. Easy to find and collect, it was transformed into a static paper map. After printing the map, the students manually layered it with details intended to visualise the narrative details of the story.

The students focused on the borders and the routes (both represented with coloured ribbons). The inn is inserted into one of the two plans as a three-dimensional object breaking the scale of the map. Explaining this choice, the students state that the inn is the protagonist, has a peculiar narrative role in relation to its surroundings and, furthermore, is not precisely located, so inserting it outside the scale was intended to preserve its narratively unspecified location. In addition to forming the spatial background of the story, the cartographic layer from the digital environment has narrative features. Indeed, the students selected the satellite Google Map to indicate the author's accuracy in describing the physical elements of the landscape. Thus, this literary map is the product of an interesting exchange between standard cartographic elements and a more subjective idea of maps. The students conceptualised the literary map not only as a representation of the story but also as an expression of their reading. They state that they used "free cartography in order to add personality to the project and to the personal interpretation of the story".

In this literary map, time is embedded in the representation of the changes in the borders, although representing people's routes and borders with the same graphic strategy makes the map a bit messy and difficult to read. Through the process of envisioning and creating, the students could reflect on the potentialities and perils of digital mapping services in relation to different expressive needs. This literary map was one of the few (from the whole workshop) that took advantage of the digital environment not only as an accessible orienting tool but also as a possible means to condense the literary interpretation and visual re-narration.

*Osteria al Termine: un labile confine spazio-temporale (Osteria al Termine: a transient spatio-temporal border)* is the title of the last literary mapping project, which focuses above all on time and successfully represents it as the generative category of the space of the story. Once again, time is conceived of as representable and readable through the technique of layering. This literary map is composed of different layers that overlap to build a complex geovisualisation of place (Figure 6a and 6b).

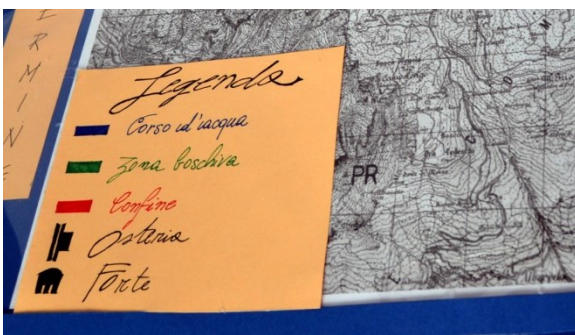


Figure 6a and 6b. The layered literary map and its legend. The layers overlap and continue to relate during the map reading. For a translation of the legend: rivers; forests; border; inn; fort.

Moreover, the layers not only overlap but also keep interrelating due to their transparency. Beyond materiality, the layers have a metaphorical value that affects the construction and possible reception of the map. The temporal layers (each layer corresponds with a specific time) continually interrelate and make the map more than the sum of its parts.

At the time of delivery, these students combined their literary map and explanatory paper with a video documenting how to perform the reception of the literary map. Indeed, the map looks like a book that has to be read from the last page, browsing its “cartographic pages” in reverse order. The students had to actively show the map to be performable as they conceived of it not as a static object but as a matter to vitalise with use.

## 5. Conclusions

The aim of this section of the article is to provide some conclusive remarks with a deductive and an inductive approach. In the first part, the possible learning processes within literary mapping are recapitulated; then, some suggestions for the future of a literary cartographic approach in learning environments are disclosed.

Without analysing the narrative peculiarity of Rigoni Stern's short story, some general remarks on the processes undertaken by the students can provide a starting point for literary mapping didactic theorization. As introduced early in this paper, an ontogenetic approach to “maps as always mappings” seems to be the most profitable way to approach the relationship between maps and literature. Literary mappings, with their complex interrelation of moments, processes and elements, are unique generative practices. Every mapping is without peer and offers learning possibilities. Reading, envisioning and creating are the macro-moments through which geographical thinking can be conveyed.

Emerging from the reading of the text, narrative peculiarities meet individual (or collective) readings capable of re-shaping narration. Readers' stances emphasise different parts of the story, embodying readings that are already maps, the results of informed selection. The text happens (Hones, 2008) in many different ways and as the product of different gazes. The students are invited to read the text as the embodiment of a spatial category that becomes narratively readable and understandable. The text animates different reflections concerning the narration of space and invites the students to conceive of space not as a static background or as an inert container but as an active force affecting the other elements of the story (e.g. time, characters, plot). This step puts the students into first contact with Doreen Massey's (2005) propositions concerning space; indeed, the students are invited to think about space as the product of interrelations, as the sphere of the possibility of the existence of multiplicity and as always under construction (Massey, 2005).

The moment of the envisioning of the literary

map, monitored during the workshop through participant observation and the students' explanatory papers, provides other learning possibilities. Intertextuality and intersubjectivity are the key learning concepts. In groups, the students started to think about the relationship between the text and real space and about the visually (un)representable nature of the textual elements. To build bridges between the text and real space, the students turned to different cartographic tools – historical maps, topographical military maps, digital mapping services and artistic maps – and performed processual intertextuality (Cooper and Priestnall, 2011). Every cartographic language was a cultural system that guided the students in approaching the complexity of geovisualisation and helped familiarise them with the cartographic critical engagement with reality. Drawing from different textual and visual accounts, the students built their reasoning aimed at geovisualising narrativity. At the moment of the envisioning, the students were called to think about space in relation to other categories, such as time. As we see in the case of Righi Stern's short story, time and its spatial representation are at the core of reasoning upon the complexity of space.

Concerning the creative practices leading to the cartographic output, the results of the literary mapping suggest a strong need to imagine and perform creative alternative cartographic practices capable of expressing narration. Standard maps and contemporary mapping systems (above all digital ones, including GIS Spatial Analyst) do not erase the need to visualise subjective and narrative spatial relationships. It seems that there is a need to broaden the range of geographical methods for visualising different kinds of experiential spatialities (Knowles, 2016), including literary spatiality. The students' literary mapping practices show that the need to search for alternative modes of visualisation is even increasing today. Furthermore, the role of creativity within learning process is highly important: to draw is to discover; to draw is to come to know (Hawkins, 2015). The analysed literary mapping practices had very important creative vocations. The students were free to choose the way to geovisualise literature and selected mostly creative practices. Moreover, they often related creative expressive practices

with standard cartographic languages. The act of materially relating languages provides another learning moment that can guide students beyond dichotomous thinking that casts places as either static and fixed or as open, progressive and associated with flows, networks and relations (Hawkins, 2014).

Concerning the suggestions for the future of literary cartography in teaching geography, the search for alternative and dialogical modes to geovisualise literature should be at the core of the educational reasoning. In an age when digital mapping practices are becoming pervasive in everyday life, the re-appropriation of more expressive mapping tools seems desirable (Machado de Oliveira, 2012). In the digital age, the creative imagination is crucial (Sui, 2004) and can draw attention to the complexity of space. Another direction to follow to encourage geographical thinking through literature is to invite students to consider literary stylistic and narrative peculiarities. An attentive gaze to the value of literary composition is the first step in the development of complex thinking about real spatial categories. Moreover, this approach can enhance literary analysis, drawing attention to space as a generative category capable of connecting the text to the world and creating new research interests in literary studies, too.

A final remark upon a shortcoming of the analysed literary mapping workshop is due here. At the end of the work and the analysis of the results, one important element seemed missing: discussion with the students. Indeed, after delivering the cartographic outputs, the students had completed their work. They were not called to discuss their results. In future proposals of literary cartography and in accordance with the idea of the mapping practice as a set of learning moments, a discussion of the results related to receptive practices could provide a useful moment. Students could listen to readers' opinions and discuss the reception of an open product capable of creating dialogues.

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