From Spatial Turn to GIS-Mapping of Literary Cultures

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Genealogy and the Coming of Spatial Turn

In his 1967 lecture "Of Other Spaces," Michel Foucault claims that "the great obsession of the nineteenth century was, as we know, history… The present epoch will perhaps be above all the epoch of space. We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed."[1] Foucault's intimations of the shift from the temporal to the spatial organization of knowledge were encouraged by structuralism, which, with its orientation towards systematicity, synchrony, relationality, and the hard sciences, was conquering the humanities: "Structuralism, or at least that which is grouped under this slightly too general name, is the effort to establish, between elements that could have been connected on a temporal axis, an ensemble of relations that makes them appear as juxtaposed, set off against one another, implicated by each other – that makes them appear, in short, as a sort of configuration."[1] After its delayed publication in 1984, Foucault's text inspired the first explicit claims about the paradigm shift; since then, the idea of the spatial paradigm has been propagated among several human sciences.[2] Drawing on Foucault's notion of heterotopia and Henri Lefebvre's 1974 *The Production of Space*, the geographer Edward Soja (in his *Postmodern Geographies* of 1989) and the literary theorist Fredric Jameson (in his 1991 *Postmodernism*) launched the term "spatial turn" in the context of their respective diagnoses of the postmodern condition, late capitalism, and what David Harvey called "time-space compression."[3-5] Thus it was globalization and postmodern critique that produced the concept of space as a complex network of flows and multilayered temporalities.[6]

Granted, Foucault admits that "it is necessary to notice that the space which today appears to form the horizon of our concerns, our theory, our systems, is not an innovation; space itself has a history in Western experience and it is not possible to disregard the fatal intersection of time with space." (1, 22) In the humanities and social sciences, space had

actually been considered a shaping force well before the expression "spatial turn" was coined. For example, Hippolyte Taine and other nineteenth- and early twentieth-century positivist scholars saw the milieu as a nexus of physical- and socio-geographical factors that causally influence the creativity of writers, determine which ideas prevail and spread, and decide about the survival of collective mentalities. However, as exemplified by the notion of milieu, the role of geographical influences on biographical and socio-cultural developments had been interpreted within the dominant historical narrative. Positivist environmental determinism had been taking firm root for decades and, after WWII, inspired the historian Fernand Braudel, who was also impressed by geography, to coin the notions *géohistoire* and the *longue durée*, with which he aimed to explain how the climate and the natural environment exert a deep and long-lasting influence on the socio-economic and cultural history of a given area.[7, 8] It was Georg Simmel who, as early as 1903, pointed out that, rather than as a natural and pre-given container of society, space should be understood as socially produced, constructed, segmented, and given meaning.[9] Simmel's reversal of the space-society dependency predates the postmodern spatial turn.

Elaborating his relational conception of space, Foucault drew attention to the reinterpreted notion of utopia and its newly-coined counterpart "heterotopia" (e.g., mirror, theater, mental hospital), both of which are designations of sites that are "in relation with all the other sites, but in such a way as to suspect, neutralize, or invert the set of relations that they happen to designate, mirror, or reflect" (1, 24). In discussing the spatial turn, aside from Foucault's heterotopia, references to Henri Lefebvre's seminal *La production de l'éspace* of 1974 are almost unavoidable. Contrary to Foucault, Lefebvre thought of space in a much more dynamic and dialectical way. The book was given title by his idea that space is a social phenomenon, being incessantly produced, grasped, and transformed through complex interactions of human activities, experiences, representations, and cognitive ideations.[10] Lefebvre attempts to comprehend the heterogeneity of the social space by his dialectical triad of "spatial practice" (e.g., traffic and settlement), "representations of space" (e.g., urban planning), and "representational spaces" (e.g., art, literature) (10, 38-39). In the wake of his proclamations of the paradigm shift, Edward Soja adopted Lefebvre's dialectical triad of spaces "perceived," "conceived, or "lived," transforming them into his postmodern spatial "trialectics of Spatiality, Historicality, and Sociality,"[11] in which the eclectic notion of "Thirdspace" plays the most prominent role. He describes the latter as "a creative recombination and extension, one that builds on a Firstspace perspective that is focused on the 'real' material world and Secondspace perspective that interprets this reality through

'imagined' representations of spatiality" (11, 6). Many theorists of the spatial turn share Soja's emphasis on "combining the real and the imagined, things and thought on equal terms," (11, 68) as well as the idea that the space we live in is being constantly (re)produced, changed, or imagined through the interplay of social practices, technologies, and ideologies.

In Soja's view, the spatial paradigm shift represents a "master turn,"[12] that is, a major transformation of scholarship in which spatial imagination and the geographical approach are replacing the framework of historicism (cf. 2, 11-13). Admitting that the spatial turn, at the surface level of discourse, has flooded scholarly texts with spatial metaphors and imagery (12, 23-26), Soja insists that it represents a deep epistemic change that, having introduced the postmodern concept of space, superdetermines the methods of individual human and social sciences in an unprecedented mode.[13] However, according to Jörg Döring and Tristan Thielmann, the host of postmodern disciplines that proudly announce their individual spatial turns lack a common grounding in a "transdisciplinary spatial paradigm" (2, 10). Indeed, the cross-disciplinary proliferation of the catchphrase "the spatial turn" may be critically interpreted as a strategy of the postmodern survival rhetoric[14] embraced by social and human sciences as their response to the late capitalist mercantilization of knowledge. The humanities attempt to meet the demand for ever new products on the intellectual market by branding their discourse with successive "turns," from the linguistic to the historical and aesthetic. Moreover, scholars strive to legitimize humanist knowledge with apparently more reliable, applicable, and objective scientific platforms. Geography, offering its "spatial fix"[15] to humanists, has the lure of a science useful to the economy, demographic policies, urban planning, and the like. With an orientation towards quantification of the natural and physical environment, geography appears to be an ideal provider of firmer knowledge. As pointed out by Barney Warf and Santa Arias, postmodern geography rose from the ranks of an eclectic importer of ideas to become a central discipline exporting concepts.[16] To the current humanities, notions imported from geography seem to supply scientific realism and represent ultimate referents through which the conditions of a particular cultural practice may be explained with scholarly rigor (cf. 14, 305-06). Further, geography bridges the epistemological gap between studying nature and culture. It also serves as an established discipline entitled to frame popular digital technologies of mapping, spatial representation, and global positioning (cf. 11, 74-77). Finally, the science of space appeals to trendy postmodern theorists because it corresponds to the liberal sense that the globalized world has become a shrunken surface.[17] Observing self-legitimizing interdiscursive recourse to geography in the present-day humanities, one may be struck to notice that this development

curiously echoes Kant's proposal (discussed by David Harvey) that anthropology and geography should establish scientific grounds for the entire system of knowledge, including philosophical metaphysics (17, 17-36). In the final analysis, Soja's spatial turn, with its "reassertion of space in critical social theory,"[5] discloses itself to be but a postmodern variation of the Kantian project of modernity.

All that being said, the spatial turn should not be simply dismissed as contingent on the present social condition. After all, it has developed an innovative concept of spatiality that dispenses with concepts grounded in Euclidean geometry, Cartesian subjectivism, and the Newtonian idea of a three-dimensional, absolute container of the material world; it rather draws on Leibniz's relational concept of space, Spinoza's monadology, Kant's understanding of space as a category, and Einstein's theory of the space-time continuum (cf. 8, 27-30, 135-40). In the mindset ensuing from the postmodern collapse of master narratives, space redefined in this way supplants temporal concepts that used to be contained in the narrative epistemology of old historicism. In contrast to the teleological closure of the narrative model, the renovated notion of space is open, inconclusive, relational, heterarchical, multi-temporal, ontologically heterogeneous (physical, mental, virtual, actual, etc.), and above all in permanent autopoiesis, through which the geometries of physical givens interact with social practices, mental mappings, and multi-directional flows of information, resources, goods, people, and capital (cf. 6; 8, 37-42; 17, 133-65).[18-20]

The Impact of Spatial Turn on Literary Studies

In literary studies, the spatial turn has not, in itself, entailed a paradigm shift of its own. In its wake, some critics merely rehearse semiotic ideas about the textual modeling of cultural spaces, for example by evoking the Bakhtinian notion of chronotope or Lotman's concept of semiosphere. Others revisit practices known in "literary geography" since the late nineteenth century, such as exploring the role of milieu in biographies of important writers or mapping fictional worlds. As summarized in great detail by Barbara Piatti, literary geography – which was often in the service of patriotism, education, or cultural tourism – used to be regarded as an auxiliary branch of literary criticism, one that modestly limited itself to the mapping and interpreting of places where famous writers lived, or of geospaces represented in their texts.[21] Some literary geographers, especially in Germany, studied regional differences and shifts of creative centers in the course of national literary history, correlations between different types of climate, landscape, or settlements and creative affinities for certain literary

genres or styles, while other representatives of this inter-discipline focused on how literature, with its textual worlds, contributed to a particular *genius loci* and regional identities of readers. Piatti's 2008 *Die Geographie der Literatur* is itself a good example of recent efforts to rejuvenate this old-fashioned inter-discipline and bring it back to stage in the light of the spatial turn. Studying a corpus of 150 Swiss and foreign literary representations of places in the Lake Lucerne district from the eighteenth century to the present, Piatti avoids naïve mimetism of traditional literary geography by relying on postmodern concepts of space. She introduces semiotic terms that pedantically categorize relations between intra-textual spatial representations and their extra-textual references in geospaces, which results in the scaling of the "action space" (*Handlungsraum*; further subdivided in "geographical horizon" and "spaces of characters") according to its referential inclination either to the "imaginary" or to the "real pole": in view of this, "action zones and scenes" may be purely "fictitious," "transformed" from the factual model, or "imported" from the real world (21, 123-47). However, in spite of her meticulous classification and sophisticated technologies of mapping, which take into account the zonal and fictionally transformed georeferences of literary texts, Piatti still fails to demonstrate why her otherwise interesting findings are relevant to studying literature in the first place. She does not provide an answer to the simple question: Why on earth should literary scholars (with the possible exception of imagologists or thematologists) bother about how and why, in the course of time, literary texts changed their spatial foci by favoring one or another part of the Lake Lucerne district?

Bertrand Westphal's *Geocriticism*, boldly proclaiming a new, "geocentric" paradigm of literary scholarship, faces much the same problem, notwithstanding its greater theoretical sophistication, eloquence, and erudition. The geocritical research carried out by Westphal and his collaborators is highly self-reflexive, comparative, transnational, and almost planetary in its scope. Westphal approaches his favorite places of study – the Mediterranean, Central Europe, metropolises, and multicultural or border cities – with a conceptual apparatus derived mainly from post-structuralism (e.g., Deleuzian notions of *spatium*, territorialization, nomadism, and smooth and striated spaces) and representatives of the spatial turn, such as Foucault, Lefebvre, Jameson, and Soja. No less productive, though, are Westphal's appropriations of concepts that had been used, long before Soja, to theorize how factual geospaces interface with the virtual worlds of literature. These are, to name but the most important, the Bakhtinian notion of chronotope, understood as the "intrinsic connectedness of temporal and spatial relationships that are artistically expressed in literature" (chronotope inscribes the social into the textual configuration via genre patterns),[22] Bachelard's

phenomenology of spatial archetypes,[23] or Lotman's semiosphere, by analogy with Vernadsky's term "biosphere," defined as the "semiotic space, outside of which semiosis itself cannot exist."[24] However, the "geocentric" turn Westphal proclaims in comparative literature actually signals turning away from literary studies proper and setting up instead an emerging transdisciplinary scholarship about geospaces. In contrast with traditional literary geographers or literary historians, Westphal does not seem interested either in the role of a place for a particular writer or in a particular environment as a causal factor in literary developments. Instead, he conceives of geocriticism as the study of how the multifaceted experiences of a singular place/region are, in the course of history, represented through layers of various textual perspectives. Not only literary texts are relevant to efforts to reconstruct a "polysensorial" cognitive and bodily experience of a given place and unveiling its multilayered sediments of history, but also photos, paintings, maps, travelogues, urban plans, films, and other non-fictional documentation (cf. 20, 111-47). All in all, geocritical explorations of variegated experiences of places constitute a trans-discipline of its own, which uses comparative literature, to be sure, but apparently still has not contributed much to its proper field.

With regard to current literary studies, the spatial turn, in my view, represents merely a change of the epistemic dominant in the structure of argument. As such, the spatial angle has enticed literary studies to reconsider its methods. Environmental determinism, forgotten since the demise of positivism and surprisingly reemerging in part of today's cultural studies (e.g., Jared Diamond's geographical explanation of the unequal development of civilizations; cf. 17, 202-10),[25] has been supplanted by a complex relational causality implying a dialectic between natural and social forces, physical and mental realms, the body and the mind: spaces of literature, too, prove to be dependent on recursive loops between actuality and virtuality, being permanently (re)structured through the interplay of the naturally given and the socially produced, cultural stasis and economic flows (cf. 6; 17, 133-65). Geospaces influence literature by facilitating or hindering its developmental possibilities; for example, a land divided by rivers and high mountain chains impedes greater socio-political, lingual, and literary-cultural integration of local population, whereas advanced transportation technologies encourage cultural transfer; the depopulation of an area endangers the existence of its literary media, while concentration of population and capital in urban centers makes possible the formation of influential institutions of literary mediation, such as theaters, literary journals, or publishing houses. Moreover, as shown by the Bakhtinian concept of chronotope, geospaces are not only represented in textual worlds but also help to structure their narrative, meaning,

and genre. Conversely, literature is involved in the social formation, production, and conceptualization of geospaces. Without literature, there would be no theaters, public libraries, cultural societies, and other buildings that shape the image of settlements, attracting immigrants with their symbolic capital. It is Gogol, Pushkin, and Bely who have created in their narratives what Vladimir Toporov aptly calls "the Petersburg text."[26] Through recurring thematic oppositions between artificial order and chaos, the literary tradition of the Petersburg text also modifies perceptions and collective memories of the actual city.

Seen from this perspective, geospace reveals itself to be part of the context to which literary practices adapt and respond. Consequently, the spatial turn in literary studies does not deny historicity *tout court* but in fact only further elaborates methods of contextualization that have been known since the "historical turn." The spatial mode of contextualization derived from geographical imagining and Braudelian geohistory is represented by recent area-based approaches to comparative literary history. Instead of taking national literatures as its units of study, postnational comparative literature favors broader multiethnic and multicultural territories, border zones, urban nodes, or diasporas. Collective works, such as *Literary Cultures of Latin America*,[27] *History of the Literary Cultures of East - Central Europe*,[28] and *A Comparative History of Literatures in the Iberian Peninsula*,[29] map cultural transfers, contacts, and inter-literary communities taking place in areas whose "entangled history"[30] largely depends on some shared factors, such as geography, language, culture, religion, economy, or empire. As suggested by César Domínguez (referring to Wallerstein), these works address "geoliterature as a category which integrates and is the expression of the dialectic interrelation of territory, cultural spaces, and multiculturalisms."[31] Taking space as its organizing principle, historical discourse avoids aprioristic exclusions, nationalist ideologemes, and narrative schemes of unilinear causality. Having critically overcome methodological nationalism, literary history is thus able to explore extensive text material and other data testifying to complex, plurilingual, and multicultural literary developments on a particular territory. Domínguez advises comparative literature to make use of literary geography and map histories of literatures with regard to linguistic maps and sociolinguistic findings (31, 3-4).

Mapping Literatures on Paper and with GIS

Produced by the more or less conventionalized structuring of various cartographic symbols, maps are to be read predominantly as iconic cultural texts having indexical

functions; for millennia, maps documented the development of human endeavors to cognitively grasp, control, and actively appropriate known and unknown geospaces.[32] They were useful to European rulers, merchants, sailors, soldiers, and missionaries, enabling ancient imperia and modern colonizers to exert power over vast territories, or codifying the demarcation of political boundaries during the formation of kingdoms, nation states, and the inter-state system. In the modern age, maps thus saw progress both in terms of quantity and quality, especially thanks to increasingly elaborated geometric principles of scale, projection, latitude and longitude coordinates, and so on. Since the late nineteenth century, literary maps had been employed in literary geography, schools, and tourism to illustrate living places of famous authors, spaces represented in literary texts, the diffusion of literary currents, regional differences in productivity within a national literature, and the like (cf. 8, 20-26; 20, 57-63; 21, 32-52, 65-121; 32, 11-49).

Leaving aside maps in literature, that is, visual peritexts that iconize geographies of fictional worlds (e.g., Jonathan Swift's *Gulliver's Travels*, Thomas More's *Utopia*, William Faulkner's sketches of Jefferson and Yoknapatawpha County; cf. 21, 32-50; 32, 62-70),[33] pioneering maps of literature have appeared since the nineteenth century in connection with literary tourism, pilgrimages to writers' houses, and visiting the "original" scenes described in poetry and fiction (e.g., excursions to the Lake District, tours in the steps of Byron's *Don Juan,* or J. A. Erskine Stuart's guides *The Brontë Country: Its Topography, Antiquities, and History* of 1888 and *The Literary Shrines of Yorkshire* of 1892; cf. 21, 267-72). Thematic cartography of authors' biographies and geographic counterparts of scenes represented in their literature had been constitutive of the emerging literary geography since the late nineteenth century, for example in Phelps's *A Literary Map of England* of 1899, Bartholomew's 1910 *A Literary and Historical Atlas of Europe,* William Sharp's 1904 *Literary Geography*, or Norah Stevenson's *Paris dans La Comédie humaine de Balzac* of 1938 (cf. 21, 89-94, 107). As early as the first decade of the twentieth century, thematic maps for studying literature expressed a tendency to transcend a merely illustrative role and serve analytical purposes, although often based on outlived positivist assumptions or even questionable nationalist ideology. Explicitly advocating the "science of literary geography," Siegfried Robert Nagel's *Deutscher Literaturatlas* of 1907 attempted, with its 45 schematic thematic maps, to explain how the geographical features of the German lands conditioned the lives, productivity, or mobility of writers, and which regions and cities played the role of intellectual centers in different epochs (cf. 21, 70).[34] Even more analytically oriented is Josef Nadler's 1912 *Literaturgeschichte der deutschen Stämme und Landschaften*, explaining the historical development of regional

differences in German literature by the interplay of the tribal origins of writers and their habitat (*Lebensraum*). Nadler's atlas remained controversial because of its *Blut-und-Boden* underpinnings, which come close to Nazism, but it could also be reinterpreted more favorably in light of modern concepts, such as cultural tradition, collective memory, and socialization history (cf. 21, 74-80).[35] According to Jörg Döring, it is only with Franco Moretti in 1998 that literary maps were conceptually taken as seriously as in Nadler's almost forgotten work (34, 257).

Having been discarded by serious scholarship for years, thematic maps regain the attention of literary history at the turn of the third millennium, mainly thanks to Franco Moretti's *Atlas of the European Novel* – a monograph that, now in the wake of the spatial turn, pleads for "a geography of literature."[36] In this 1998 book, and in his *Graphs, Maps, Trees*, Moretti begins to programmatically utilize maps as an analytic device for bringing literary studies closer to the scientific ideal.[37] Both Moretti and Piatti insist that maps that merely illustrate literature and visualize literary history are redundant; to become instrumental as "intellectual tools," they have to show more than is already known without them (21, 50-52, 102, 120; 36, 18; 37, 53-54). Moretti's literary geography includes both the study of "space in literature" and "literature in space," demonstrating how literary forms are linked to socio-culturally produced geospaces; in his opinion, "geography shapes the narrative structure of the European novel" (36, 3-6, 8). Intentionally abstract and diagrammatic, his maps present topographies of the narrative settings of large textual corpuses in order to draw conclusions about particular ideologies underlying the different genres of the novel: for example, marriages of heroines outside their region of birth helped readers of romances experience the breadth of the nation state; historical novels tend to be located on borders, where protagonists face external enemies and conflicts between regional and national loyalty; in contrast to the exoticism of the adventure novel in antiquity, modern picaresque novels are characterized by shorter, everyday, and trivial routes, which contributes to the notion of nation as a space of "familiarity"; and, last but not least, the urban space presented in Balzac's realist novels led to more complex interpersonal relations between characters (36, 15-18, 37, 51, 106-09).

Moretti's maps of "literature in space," too, prove to be of analytical value with regard to cultural geography because they connect the history of books with the history of novelistic forms, exposing geographical differences in the range of novel production, reading, and translation. Moretti thus establishes that holdings of small British and French provincial libraries included considerably larger shares of novels and canonical works than large city libraries; this demonstrates that cultural parochialism and the undifferentiated reading

repertoire are proportional to the local power of the national canon, and that, in the nineteenth century, the novel was actually the most widely read genre of "nation-building" (36, 146-49). According to Moretti, the majority of European countries, with the exception of France, imported over half of their novelistic repertoire, whereas, from the viewpoint of cultural import, nineteenth-century English literature remained a self-sufficient island. Although, alongside France, England produced the majority of novels to be exported, and despite the fact that English genre patterns were copied throughout Europe, its own parochialism led to a blindness towards the innovative themes and forms available in French and Russian realist fiction (36, 151-58).

It is through thematic cartography that Moretti ultimately establishes the evolutionary laws of European post-Enlightenment novel writing, as shown in the light of the dynamics of centers and peripheries of the global cultural market system. Throughout Europe, innovations generally spread from western centers to the peripheries, where the imitated models retain the structure of the plot but supplement it with local characters, settings, issues, and perspectives. Moretti claims that, on the other hand, the socio-cultural otherness of the periphery can effectively shake the tacit ideologies of the imported or imitated matrixes, placing them into a dialogic tension with another milieu; it is this that enables the possibility of innovations with a global impact to arise on the peripheries as well, as is proven by the Russian novel of ideas and Latin-American magical realism (36, 164-97).

Granted, Robert Stockhammer is right when, in his textualist critique of Moretti's seemingly naïve mimetic materialism, he claims that fictional spaces of literature, even though they might mimetically refer to factual topography, are in principle "unmappable" (32, 84-88).[38] The cartographic representation of fictional settings by spatial points, lines, or polygons placed on the base map of a real geospace is misleading to the extent that textual/fictional places pertaining to a possible world are wrongly ascribed a position within the ontology of the actual world. As a result, the proportions of mimetic settings and their semantic interrelations with the narrative structures of a literary text become distorted, along with their links to other imaginary or mental spaces evoked in the fictional world. However, I agree with Jörg Döring, who points out that mapping of literary spaces should not be a priori discarded as suffering from a "non-theoretical" mimetic naiveté (33, 140-48). Serving as thematic maps, depictions of fictional places on the base map representing an actual territory are functionally and ontologically determined by the context of their use and the cognitive interest implied: contrary to the touristic use of literary maps in the guides to literary tracks, the function of Moretti's and Piatti's maps is not indexical, that is, to orient the user in the

actual geospace, but purely conceptual and analytical – for example, to discern, in mimetic references of possible worlds of fiction, a certain meaningful variance in the representation of particular real places. Especially through what may be called (*pace* Moretti) the "distant cartographic reading" of extensive text corpuses, thematic maps of spaces in literature visualize patterns that may tell the reader something important about the social content and impacts of literary forms; without these presumably "non-theoretical" maps, such patterns would remain unnoticed and could not yield new theories.

The map is becoming a more potent analytic tool thanks to the recent development of Geographic Information Systems (GIS) and satellite navigation technologies. Originally introduced in the early 1960s as software intended for digital mapping and cartographic analysis, GIS evolved in the 1980s into a mainstream device for various computer applications; recently, GIS has outgrown its merely technological role by grounding an emerging trans-discipline of "Geographic Information Science."[39] GIS "lies at the heart of… spatial turn" and makes possible multilayered and interactive representations of various data as well as the spatial integration of their different formats, yielding analyses of an enormous information input; in the opinion of the editors of *The Spatial Humanities*, "within a GIS, users can discover relationships that make a complex world more immediately understandable by visually detecting spatial patterns that remain hidden in texts and tables."[40] However, compared to traditional literary maps, GIS is even more alien to the ideographic principle, textualism, and hermeutics of close reading that characterize the tradition of the humanities up to the present. Although advocates of GIS, David J. Bodenhamer, John Corrigan, and Trevor M. Harris remind us that "GIS was not developed for the humanities" and, resting on "different epistemological footings," it requires "that humanists fit their questions, data, and methods to the rigid parameters of the software, which are implicitly based on positivist assumptions about the world" (40, viii-ix). To this warning, I would reply that literary studies that set out to digitally map and quantitatively analyze extensive and heterogeneous data about literary texts and actors, institutions, and media of the literary field necessarily approach the domain of social and natural sciences, but this does not itself entail that literary studies renounce their position within the humanities. In the final analysis, GIS maps, graphs, and statistical tables that bring together primary data are themselves nothing but (meta)texts. As such, they need interpretation, which in turn inevitably affects the ideological-mental structure of the subject (researcher). Moreover and in the first place, it is humanist prior-knowledge and all kinds of prejudices (also evident in Gadamer's understanding of the notion) that establish

the very condition for making hypotheses that motivate methods and technologies of data collecting.

Towards the GIS Analysis of Literary Geospaces: The Slovenian Case

Grounded in the above considerations regarding the spatial turn in literary scholarship, the ongoing project *The Space of Slovenian Literary Culture: Literary History and GIS-Based Spatial Analysis*, carried out since 2011 by a ZRC SAZU Ljubljana research group under my direction, does not limit its focus to relationships between geospaces and the biographies or works of individual writers, as is often the case with similar projects across Europe and the U.S. Using GIS, we attempt to map and historically analyze data allowing us to reconstruct the emergence and evolution of a particular literary field/system, including its actors, institutions, and media, which brings our project close to the "geography of media."[41] In view of recent contextual approaches, we understand literature as discourse and a system of social interaction. In it, texts are inseparable from the practices and mental activities of their producers, mediators, and consumers, whereas meanings, functions, visibility, and impacts of literary works represent variables that depend on the dissemination of literature through print media and cultural institutions. All of this develops within a social field, which appears to be relatively autonomous and self-steering because of its specific cultural functions mediated by aesthetic ideology, even though its goods are in fact distributed among the population unequally, its conventions being socially stratified, and its meanings refracted through contradictory political perspectives.[42] As a designation of this field, we have adopted the term "literary culture."

Our project team has collected, systematized, and geo-referenced hundreds of pieces of data that position elements of literary culture in geospace, marking their function, social profile, and spatial reach. As presented in our volumes *Space in Literature and Literature in Space* of 2012 and *The Spatial Turn in Literary Studies* of 2013,[43, 44] we have analyzed and mapped the trajectories and networking of literary actors (writers, critics, translators, editors, etc.); the spatial distribution and range of literary media and institutions (literary-cultural journals, theaters, printing and publishing houses, reading societies, etc.); the configurations of *lieux de mémoire* and literary memorials in Slovenia and abroad; and last but not least, the geographical imagination and non-fictional topographical references of historical novels (as a genre shaping cultural memory and national identity).[45] By analyzing this data, we seek to provide answers to the question as to how, in the Slovenian ethnic territory, multifaceted

geospaces and literature in the Slovenian language influenced each other from the late eighteenth century to the 1940s.

We study the complex interdependencies between the geospatial, social, and textual factors that articulate the historical dynamics of a particular literary field. On the one hand, literary culture evolves in its quality of spatial practice, whose character and developmental options are – in conjunction with more decisive factors, such as autochthonous traditions, dominant ideologies, cultural transfer from abroad, and dependencies on foreign political and economic centers – co-determined by the physical and social properties of geospaces. With their characteristic relief, natural and administrative boundaries, settlement network, traffic routes, natural resources, demography, and economy, geospaces to a certain extent influence the quality, power, and allocation of the media-institutional infrastructure of literature. For example, the disproportional spatial constellation of Slovenian reading societies in the nineteenth century was in correlation with the boundaries of administrative territorial units (districts, communities), the network of secondary schools, and anxieties concerning the ethnic boundary between the Slovene-speaking and Italian populations.[46] Moreover, geospatial factors play an important role in shaping the life trajectories of writers. Due to long-term demographic trends, such as the concentration of populace in a few larger cities and several smaller towns, Slovenian writers who were born in “provincial” villages frequently ended their lives in national or regional urban centers (cf. 35).[47] In the traditional Slovenian lands of Carniola, Gorizia, Carinthia, Lower Styria, and Pannonia, the relatively meager number of inhabitants (1,101,854 in 1857, 1,267,888 in 1900), the bi- or multilingualism of the populace (Slovene, German, Italian, Croatian, and Hungarian languages or dialects), and the high percentage of illiterate people (above 90% at the end of the eighteenth century, 60% in 1870, and 15% around 1900; cf. 47, 277-79, 292-93)[48] for obvious reasons allowed neither for more extensive literary production in the Slovene language nor for commercially sufficient consumption. These demographical givens, along with the predominance of peasantry and the lack of great urban metropolises, prevented the Slovenian literary repertoire from greater aesthetic and more radical ideological diversification, while forcing the educated elites, including literati, to take on a number of socially important positions at a time, and, consequently, to refrain from their professionalization as writers.

On the other hand, literature is itself a factor that imaginatively represents and memorizes the multifarious experiences of geospaces, reflecting and at the same time constructing the socio-cultural meanings of places and lands. Literary works that discursively articulate the existential experience of places have thus recently become a legitimate subject

of geographic inquiry. Within our research project, a qualitative analysis of literary texts representing the geospaces of Slovenian Istria demonstrates how *topophilia*, the self/other cultural difference, the sense of place, and the trauma of placelessness are reflected, given meaning, and memorized. This enables geography to analyze the semantization of living environments, which – through literary discourse – has a reciprocal effect on the construction of local and regional identities.[49] Such complex recursive loops can also be identified in the way literary culture, with its practices, institutions, media, and memorials, shapes geospaces and imbues them with social functions. For example, the foundation of the Slovenian National Theater in Ljubljana in 1919, marking the bourgeois high-cultural distinction and national consciousness of the local intelligentsia, symbolically displayed the prestige of the city that became the "national capital."[50] The spatial spread of the literary print over the Slovenian territory in the second half of the nineteenth century promoted and cultivated standard Slovenian and, dealing with topics tagged as "national" or "Slovenian," fostered social cohesion based on ethnic/national self-identification. Last but not least, the present network of memorials or memorial landmarks of Slovenian literature, which began forming in the mid-nineteenth century, can be understood as the semiotic appropriation of (national) space connected with the canonization of a handful of prominent "cultural saints" and numerous men of letters of lesser stature.[51, 52]

Slovenian-language literary culture emerged in the context of the enlightenment European cultural nationalism, and developed into a fully established autonomous system by the 1940s. As in the rest of Europe, the processes of the nationalization and aesthetic autonomisation of literature were of key importance. Consequently, that which in the eighteenth-century Slovenian lands had existed as multilingual and functionally heterogeneous letters, was in the following century restructured and conceptualized as nationally Slovenian art that could only be expressed in standard Slovene. This operation became instrumental in the imagining of the Slovenian nation (cf. 42, 28-32).[53]Although the Slovenian ethnic territory belonged to the multinational Habsburg Monarchy until the end of World War I, Slovenian literature gradually prevailed in the public sphere. In the period between the poetic almanac *Pisanice* (1779–81) and the beginning of World War II in Slovenia (1941), Slovenian literary culture and ethnic territory underwent successive geopolitical changes. This influenced the dynamic of the internal territorial configuration of Slovenian literary culture, the rearrangements of its cultural centers, and its external ties to other national literary fields and to the world literary system.

To conclude, our research group will have to analyze even more GIS-data to understand the complex interplay of geospaces with literary culture. We hope to be able to prove that literary discourse in Slovenian was able to become dominant in the public sphere in two ways, with spatial factors being crucial to both: first, by the formation and extension of a socio-spatial network of literary actors, media, and institutions in the ethnically Slovenian territory (these networks were organized around increasingly important urban centers whose cultural capital gradually grew), and second, by Slovenian-language literary works referring to places that, due to their geographical names and features, could be recognized by the audience as the Slovenian *nationscape*. In this way, media created the idea of a unified national territory. With regard to the perspectives of the sciences for the next twenty years, I would finally add what I think should be a desideratum. One of the most urgent future tasks of literary scholars using GIS is comparative and transnational research of the following issues: cultural transfer and literary translation; the diffusion and interaction of literary forms, genres, styles, and themes; their interdiscursive circulation over different linguistic territories; and the international social networking of writers. No doubt, this research will essentially contribute to spatially oriented comparative literary history.

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Abstract

Keywords: human sciences / literary studies / literary geography / comparative literature / literary system / literary space / spatial turn / Slovenian literature

Despite its postmodern articulation, the spatial turn is productive for literary studies because, paradoxically revisiting Kant's modern attempt to base the structure of knowledge on the presumably scientific character of geography and anthropology, it has improved methods of historical contextualization of literature through the dialectics of ontologically heterogeneous spaces. The author discusses three recent appropriations of the spatial thought in literary studies: the modernization of traditional literary geography in the research of the relations between geospaces and fictional worlds (Piatti, Westphal), the systematic analysis of the genre development and diffusion with the help of analytical cartography (Moretti), and the transnational history of literary cultures (Valdés, Neubauer, Domínguez, etc.). In conclusion, the author presents the tentative results of the research project "The Space of Slovenian Literary Culture: Literary History and the GIS-Based Spatial Analysis," which might represent a matrix for further developments of the spatially-oriented literary science. Using GIS technologies, the project maps and analyzes data about the media, institutions, and actors of Slovenian literature in order to explain how the interaction between "spaces in literature" and "literature in spaces" has historically established a nationalized and esthetically differentiated literary field.