

LITERARY GEOGRAPHIES

Map and Text: World-Architecture and the Case of Miéville's *Perdido Street Station*

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Abstract:

In this essay, the author argues that analysing a fantasy novel that comes with a map without taking into account the dynamic between map and text would be to omit a vital part of the fictional world. By drawing on the Vitruvian triad of architectural theory, the construction of the world in China Miéville's *Perdido Street Station* (2001) is analysed through some building-blocks of that world that emerge prominently on the novel's map. After a brief discussion of world-building and fantasy maps, the map is taken as a starting point in order to demonstrate how the transport network in general and railways and skyrail in particular are given distinctive form. One function that these building-blocks have in the novel is to provide locations which the reader can use to link dynamically between text and map, thus relating locations to each other spatially and adding layers of meaning to them, turning them from spaces into places. Passages in the text are used to show how it is possible to move between map and text, and how such movement not only augments the spatiality of the world but that it also provides a way to discuss the city's social and economic issues by juxtaposing different characters' perspectives.

Keywords: China Miéville; fantasy literature; fantasy maps; *Perdido Street Station*; world-architecture; world-building.

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All works of fiction are set in worlds that to some extent, however minutely, differ from the actual world of their creators and audiences, and these worlds are all built to house one or more stories. In those fictional worlds that present themselves as explicitly different from the actual world – the secondary worlds of fantasy and the distant planets of science fiction, for instance – world-building is of vital concern whether we create the worlds, enjoy the narratives set in them, or interpret them as literary scholars. A widely used but under-explored tool of world-building is the fictional map. Like all maps, such maps are biased in their portrayal of their respective worlds, providing a wealth of information to a critical reader. Through fictional maps, various aspects of a world can be added, emphasised, or undermined; alternative perspectives can be provided, or narrative positions called into question; the importance of places can be brought out or downplayed. A critic who reads the map and text alongside each other can gain a deeper understanding of the world and find new ways to ground their interpretations. Ignoring the map when analysing the world is not an option – at least not a particularly good one.

In this essay, I will build on the idea of ‘critical world-building’, in particular by developing the concept of ‘world-architecture’ (Ekman and Taylor 2016; Taylor 2017). Through the case of China Miéville’s novel *Perdido Street Station* (2001), I will demonstrate how a world-architectural approach can be used to identify and analyse the dynamic relation between the map and the text of the novel, a relation that is central to critical world-building. The concepts of critical world-building will be outlined, followed by a brief discussion of what role maps have in the building of fictional worlds. Miéville’s book comes with a map of its setting, New Crobuzon, and this world-architectural analysis of the novel will take the map as its point of departure, showing how the map foregrounds railways and skyrail (Figure 1). Examples from the text will then be used to illustrate how text and map work dynamically together to build meaning into the world.

World-Building and World-Architecture

Fictional worlds are artistic creations, expressed through various media, but they are, in a sense, treated as having an existence beyond the medium or media through which they are created. Marie-Laure Ryan (2001) observes that

the text is apprehended as a window on something that exists outside of language and extends in time and space well beyond the window frame. To speak of a textual world means to draw a distinction between a realm of language, made of names, definite descriptions, sentences, and propositions, and an extralinguistic realm of characters, objects, facts, and states of affairs serving as referents to the linguistic expressions. (91)

Ryan’s observation can easily be extended to worlds expressed through media other than text (also noted by Wolf 2012: 19-20) and her basic point would still remain valid: fictional worlds are treated as if they are described (referentially) in a medium rather than created by the use of this medium. Even worlds that are very different from the actual

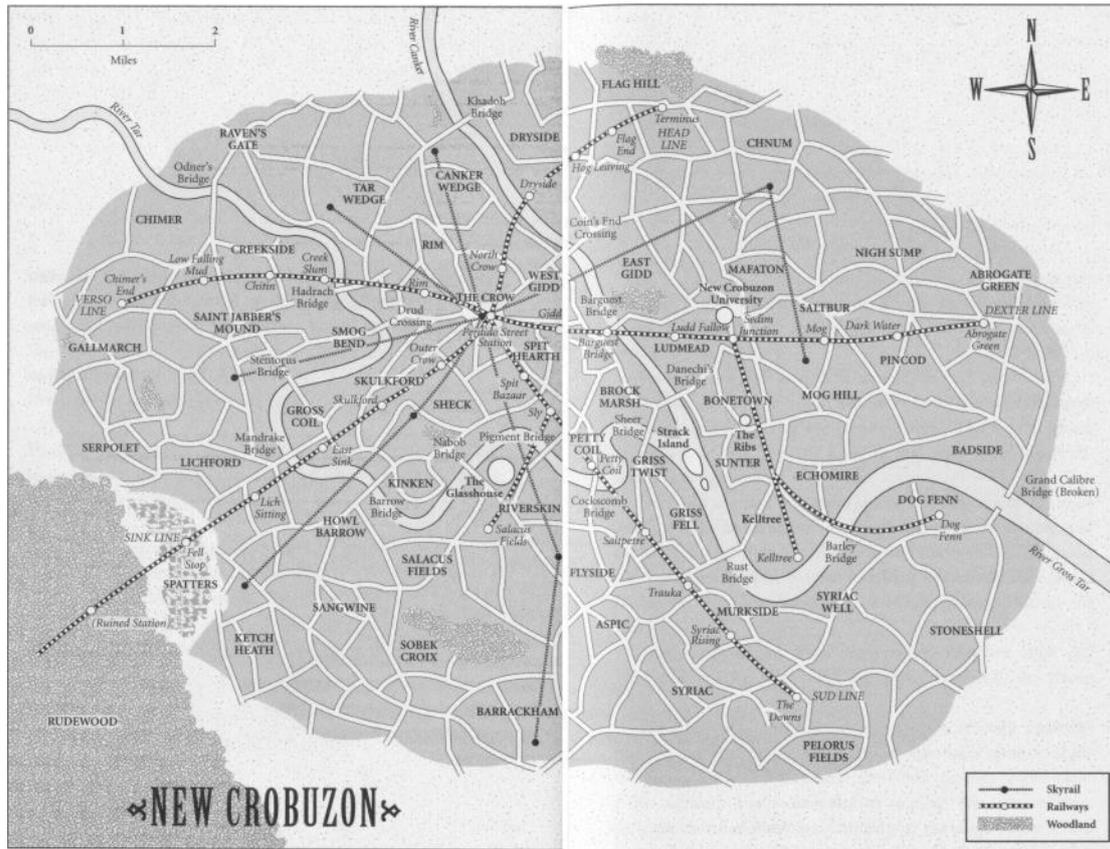


Figure 1. A map of New Crobuzon from China Miéville's novel *Perdido Street Station* (2001). Reproduced by kind permission of the author China Miéville.

world of their creators and audiences, to the extent that geography, natural laws, and the entire universe are alien, 'serve as referents' to the expressions that bring them into being. Mark J. P. Wolf (2012) observes how fictional worlds exist in a spectrum of 'secondariness' that spans from worlds that are close copies of the actual one to fully secondary worlds (26-7) and Barbara Piatti (2008) offers a broader discussion on how textual spaces relate to the actual world, or 'Georaum' (geospace). She includes models of how textual spaces can diverge to a greater or lesser extent from the geospace (141), or exist in a field between the 'Pol des Realen' (pole of the real) and the 'Sphäre des Imaginären' (sphere of the imaginary) (137). Although the relationship between the actual world and its fictional versions is not uninteresting, it is not the only possible critical approach to fictional worlds. Indeed, this article is intended to demonstrate how even a fully realised secondary world, or, in Piatti's terms, a 'Raum der Fiktion' (space of fiction), can be analysed from a world perspective.

It is worth emphasising that 'world' in this sense refers not only to a (fictional) physical space. In keeping with other scholars (e.g. Ryan 2001: 91; Taylor 2017: 7-8; Wolf 2012: 25), I consider a fictional world to consist of its physical space along with all that this space contains, such as flora and fauna, weather and history, peoples and their cultures. And while a narrative is possibly the most common structure used to communicate a fictional world, as Wolf claims (2012: 154), world-building is by no means limited to narration. Extra-narrative forms of communication, such as illustrations,

sounds, and non-narrated text (J. R. R. Tolkien's [2004] appendices to *The Lord of the Rings* offer several varieties of the latter) all contribute to building the world.

World-building can be approached from several directions or discussed as different, if overlapping, types of processes. It is possible to look at the creative endeavours of an author, the cognitive processes of a reader, or the compilation of information performed by a fan. My main interest is the critical methods that a scholar uses in constructing a world out of a work of fiction in order to analyse and interpret it. Such 'critical world-building' is distinguished by keeping the text in focus, rather than the strategies and methods of the author or the reader's designs of imagination (Ekman and Taylor 2016). Critical world-building constructs the fictional world as a composite, combining the mainly sequential presentation of the world in text and images with a more holistic view of it, and places the world in its larger critical context of genre conventions and theoretical discourses (11-2). The various building-blocks of such a composite, critical world relate to each other dynamically rather than statically. Combining one detail with another in the analysis, (re-)interpreting something in light of a new genre trope, or adopting a different theoretical perspective could cause a chain of new realisations of how the world functions in relation to its narrative(s).

If fictional worlds can be seen as buildings, they can likewise be considered to have an architecture. The term 'world-building' can be used to refer to the process of building a world but is occasionally used to refer to the fictional world constructed by this process as well. Critics often slip from one to the other, allowing the term to refer to both, just as many slip between the various approaches to world-building mentioned above. In this essay, world-building is understood as 'critical world-building', the process of building a fictional world by a holistic approach that involves examining, analysing, and interpreting the world as a construct made up of numerous building-blocks – 'elements' – and situated in particular theoretical and generic contexts. As a term, world-building is also a metaphor. This metaphor implies that the (imaginary) world has traits in common with a building. One of those traits, Audrey Isabel Taylor and I argue, is that a world's construction can be examined from 'a structural, functional, and aesthetic point of view,' allowing the critic to analyse its 'world-architecture' (2016: 12).

In the context of critical world-building, there are distinct advantages to think in terms of world-architecture. *The Oxford English Dictionary* (2017) offers several definitions of architecture. These cover the skill and knowledge required to build, the process of constructing, the actual result, and particular (aesthetic) styles. The fact that the word can be used in a general or figurative sense is also acknowledged. Through such breadth of meaning, 'architecture' is a useful concept for analysing and interpreting how a fictional world is planned and put together but also how it works and is described. As a concept, architecture spans all structural and aesthetic aspects of a building, from its conception and planning to its execution and final result. It also looks to more than the work itself, taking into account how a building relates to its surroundings as well as how it fits its various purposes. As such, 'architecture' as metaphor is a handy conceptual tool for dealing with the building of a fictional world, and with the fictional world as a building.

A world-architectural approach to world-building makes it possible to draw on architectural theory for the analysis. In this essay, my starting point is the Vitruvian triad,

a traditional way of looking at architecture. The Roman architect Vitruvius, in his *Ten Books on Architecture* (*De architectura libri decem*), explains how a building must have the qualities of solidity (*firmitas*), utility (*utilitas*), and beauty (*venustas*): it must be able to remain structurally sound even after extended use and exposure to the elements, meet the requirements of its intended use and inhabitants, and be aesthetically pleasing (in its cultural context). Thinking of world-building in these terms means using them as metaphors, and depending on how a scholar views a world, their meanings may shift slightly. *Solidity*, in a fantasy context, could be taken to refer to the consistency with which the world is constructed, or how stable its societies are, or how susceptible the world-order itself is to change, depending on one's critical perspective. Prompted by David Smith Capon's extensive discussion of Vitruvius' triad, Taylor and I propose that in analysing world-architecture, the related triad of *form*, *function*, and *meaning* is more useful (Ekman and Taylor 2016: 13-4; cf. Capon 1999). Close to Vitruvian *solidity*, *form* would capture the structure and design of the world, both in direct descriptions and in how the structure itself stresses or de-emphasises elements in text, image, or other kinds of portrayal. Discussing only formal qualities of world elements is a descriptive exercise, even if it may require close-reading, an eye for how an image is constructed, and detailed examination of how structures work. Understanding the *functions* of elements means adopting a more analytical approach. All elements in the fictional world have one or more functions, depending on their form as well as on how they interrelate with each other and the narrative(s) set in the world. Through interpretation of forms and functions, the elements' *meanings* can be uncovered. The critical progression may seem one-directional, but in actuality, the forms, functions, and meanings uncovered will affect each other, requiring the holistic perspective of critical world-building. Any of the abundance of elements that make up a world can be analysed through this triad, whether they belong to the natural or cultural part of that world.

Below, the fictive world will be examined in terms of how its spaces can acquire meaning, can become places, through map, text, and the relation between them. The distinction between spaces and places is a cultural one: places have a history and meaning, incarnating the experiences and aspirations of a people (Tuan 1974: 213). In a world of fiction, and in the context of world-architecture, a place means something in relation to the cultures and people of the world, but also in relation to the stories that are set there. Places have a 'personality [which is] a composite of natural endowment [...] and the modifications wrought by successive generations of human beings' (234). Fictional places have their personality made up by relations to their inhabitants, cultures, and narratives, and by their spatial relations to each other. The most explicit presentation of these relations, not least the spatial ones, is the map.

Fictional Maps

Maps offer valuable means in which to analyse literary worlds in general and the secondary worlds of fantasy literature in particular. Andrew Thacker (2005/6) suggests two possible lines of approaching literature through maps. One is the cartographical creation of maps in order to visualise spatial relations in the fictive space or relate spatial

aspects of literature to actual-world geography – Franco Moretti (1998) refers to ‘the study of *space in literature* [and] *of literature in space*’ (3). Thacker’s other line of investigation is ‘to analyse the occurrence of maps and mapping in specific texts, analysing how cartography functions as an instance of visual culture in such texts’ (64). The analysis of ‘authorial mappings’ (Cooper 2012: 31), actual cartographic objects that are included as part of the book, provides the basis for this essay. More precisely, I will analyse how a fictional map relates to the text it accompanies. A fictional map is defined ‘as a graphic representation of spatial relations among places or objects (real or imagined) that is presented alongside the literary work at the time of first publication and is authorial or authorially approved’ (Bushell 2012: 149). In no kind of literature are fictional maps as common – and as useful to writers, readers, and critics – as in secondary-world fantasy.

Fictional maps can be used for building believable fantasy worlds. The spaces found on most of these maps are imaginary, and I have suggested elsewhere (Ekman 2013: 20) that fantasy maps therefore *portray* fictive spaces rather than *represent* actual ones, making them useful world-building tools. Denis Wood suggests that fictive maps can be used ‘to lend credence to imaginary places’ (2010: 36), and, according to Piatti, such maps have a ‘*Realisierungseffekt*’ (realisation effect): they reinforce the impression that the fictive space exists and thus enhance the credibility of the text. She even goes as far as to claim that maps of fictional spaces contain more information than the texts that they accompany (2008: 34). Wolf refers to fictional maps as ‘one of the most basic devices used to provide structure to a fictional world’ (2012: 156). He explains how ‘[m]aps relate a series of locations to each other, visually unifying them into a world. They provide a concrete image of a world, and fill in many of the gaps not covered in the story; gaps between locations, at the world’s edges, and places not otherwise mentioned or visited by the characters’ (156). Maps, in other words, allow the reader to experience the world as a geographical wholeness by bringing separate settings together into an entire world. (A broader discussions of fantasy maps and how they can be analysed can be found in Ekman 2013; Ekman forthcoming.)

Maps do more than help create the sense of a geographical world. They imbue that world with meaning. Wood (2010) argues that a map asserts ‘that *this* is *there*’ (53), that each location on a map is connected to some quality. This goes beyond the spatial structures pointed out by Wolf; not only does the map suggest that all settings are part of a greater geographical whole, each place in that whole has certain qualities, regardless of whether it is ‘mentioned or visited by the characters’. Maps (in general) have what J. B. Harley (2001) refers to as the ability to ‘redescribe the world [...] in terms of relations of power and of cultural practices, preferences, and priorities’ (35). They structure the world’s space, but they do it in a non-neutral fashion. The world cannot be described neutrally by a map (Dorling and Fairbairn 1997: 76): the selection of centre and periphery, of how its three-dimensional shapes are projected onto the two-dimensional surface, of what details are included and what details are left out, and of what map features are added and how they are designed – all these selections and many more are part of a message encoded in the map, redescribing its world. As opposed to the actual world and its maps, the fictional world of a fantasy map is not *redescribed* as much as *described* but the map still captures the relations, preferences, and priorities that Harley

points out. These traits are part of the map's rhetoric, results of the simple fact that no map can capture everything in the area it covers. Selections have been made in the cartographic process, whether in representing the actual or portraying the imaginary. Through selection, a map 'is designed to show certain points and relationships, and, in doing so, creates space and spaces in the perception of the map-user and thus illustrates themes of power' (Black 1997: 12). And not only themes of power. Maps express, in the sign plane of the map, fundamental spatial/meaning propositions (Wood 2010: 53). The points (locations) and relationships, and their concomitant creation of mental spaces, enable the dynamic linking of those geographical locations and relationships on the map to descriptions in the text, making the meaning of the imagined spaces visible – through the architecture of the world.

Fantasy maps can increase the reader's spatial understanding of the fictional world but they can be used for other purposes as well. There are a number of ways to refer to someone who employs a map depending on their purpose. Although the map is said to have a *reader* in this essay for the reason that this is also the *reader* of the text, the role intended is closer to what Arthur H. Robinson and Barbara Bartz Petchenik (1976) calls a 'map percipient', that is, someone who augments their spatial knowledge through the map, as opposed to the 'map reader' who looks up information on a map, and the 'map user' who uses the map for a task (20). The careful reader (of the novel) and the critic engaged in critical world-building are map percipients in this sense. They analyse the map to learn about the fantasy world portrayed – in the map as well as in the text. For them, as 'map recipients', the New Crobuzon map can be used as an indicator to what elements of the world could benefit from closer attention. Through their form, certain world-building elements stand out on the map and their function can then be analysed.

How Map and Text Construct New Crobuzon

Perdido Street Station is Miéville's second novel, and the first of his excursions into the secondary world of Bas-Lag. It is a novel that combines features from several popular genres, making it possible to read it as, for instance, fantasy, science fiction, or horror. (That this essay treats it as fantasy should not be taken as reductive; rather, it is done in the spirit of Brian Attebery's [2014] point that the 'interesting question about any given story is not whether or not it is fantasy or science fiction or realistic novel, but rather what happens when we read it as one of those things' [38].) As fantasy novel, *Perdido Street Station* is uncommon in that its map portrays a city – something only between 2 and 12 per cent of fantasy maps do (Ekman 2013: 25) – but it is also a novel that 'presents itself as a meditation on maps' (Zähringer 2015: 61). I will begin by discussing what elements the New Crobuzon map gives prominence to, that is, what elements are given a distinctive form, and then analyse the functions of those elements in the novel's world. Although my assumption, that something with a distinctive form also has one or more distinctive functions, may not be universal to all critical world-building, the approach yielded critically useful results in the case of the *Perdido Street Station* map and text.

In an analysis of the *Perdido Street Station* map, it can be seen how it clearly distinguishes between the city of New Crobuzon and its surroundings. It is very much a

map of the city: even without the prominent title at the bottom of the map ('New Crobuzon'), the dark grey urban area, covered by a plethora of features and verbal signs, draws attention to itself. A quick examination of the legend and some knowledge of map conventions reveal the features to be for instance rivers, bridges, railways, streets, and skyrail. The dark grey mass has an uneven shape and with the web of white streets and three highly visible rivers it vaguely recalls the shape of a brain. The area surrounding the city is light and almost featureless, an 'outside' into which the three rivers snake. A large forest covers the lower left (south-west) corner and a trainline reaches into it (foreshadowing the plot-driving railway that leads away from the city in the third Bas-Lag novel, *Iron Council* [2004]), but the surroundings are mainly blank. Blank map areas can mean any number of things, from the unexplored to the uninteresting (cf. Ekman 2013: 52, 64). On the New Crobuzon map, the outside gives the impression of representing areas of no interest rather than any particular type of landscape. They are the parts of the page which have been left empty to make sure that title, scale, compass rose, and legend can be included without covering something important.

The map, in other words, stresses the importance of the city as location. New Crobuzon is 'not simply the "background" for the plot but [...] the operational terrain out of which the narrative arises' (Burling 2009: 333), a setting that will have an active part in the story. The city is not the world, the map makes clear, but it is the *important* part of the world. Regardless of whether we adopt an analytical perspective from outside or inside the fictional world, the dominance and centrality of New Crobuzon remains obvious.

The white streets stand out clearly against the grey background, and in their visibility they recall another, more famous, fantasy map but send very different signals to the reader. On the map of 'A Part of the Shire' in *The Lord of the Rings*, particularly in the editions in which the Middle-earth maps are printed in black and red, the network of roads stands out vividly. This network dominates the Shire map and illustrates how simple travelling is there: each place can be easily reached from any other place. This ease of travelling extends beyond the map. Whenever the Shire's red roads leave the mapped area, there are little arrows and labels telling the reader where they lead, stressing that not only are the places on the map all connected through the network, they are connected to locations *off* the map, locating the places on the map in a wider world beyond the Shire and beyond the map (Ekman 2013: 46-7). In this way, Tolkien's roads are distinctly different from the streets of New Crobuzon, which appear to be intended for city-use only. As soon as they pass beyond the city boundaries into the featureless surroundings, the streets end abruptly – to leave the city is to leave the map and, in a sense, depart from the world. While the Shire map promises a narrative that will involve the world beyond the map, the New Crobuzon map turns inward, signalling a narrative contained by the city. Indeed, the story ends by the protagonists following the trainlines south to the river and out of the city (701).

I call the white lines that crisscross New Crobuzon 'streets', referring to map conventions, but it does not say anywhere on the map that I am correct. There is a legend in the bottom right (south-east) corner, but this legend does not include any 'streets'. The absence of streets from the legend is worth taking note of, because what a

legend includes and leaves out is of great importance in reading the map. According to Wood (1993), 'the role of the legend is less to elucidate the "meaning" of this or that map element but to function as a sign in its own right' (101). The New Crobuzon legend points out what is important even more effectively than the vivid streets: despite the modest number of map elements included in the legend, it singles out, orders, and draws attention to particular elements. Only three elements are given explicit meaning in the legend: skyrail, railways, and woodlands. A further two elements are implied to mean 'skyrail station' and 'railway station' – round dots in the middle of the respective lines in the legend conventionally mean 'station'. In total, the legend contains only five of the twelve symbols that are used to make up the map. Apart from 'street' (and 'bridge'), it leaves out 'city land', 'surrounding land', 'shantytown' 'river', 'island', and 'location of interest' (such as the Glasshouse and New Crobuzon University).

Inclusions and exclusions are the result of selection and choices by the mapmaker, and as such, signify something in and of themselves. In his analysis of a North Carolina highway map, Wood (1993) invalidates the notion that a legend is added to a map to explain the meaning of various map symbols. He points out that the legend does not contain *all* the symbols of a map, only a selection; nor does it contain (and explain) the symbols *most in need of explanation* in order to be comprehensible. Instead, according to Wood, a legend is a sign in its own right, and the selection of symbols as well as their arrangement become part of the map's overall message (97-101). The legend of the New Crobuzon map contains only five of twelve symbols, and these five symbols are not those that most require explanation. The inclusion of the 'woodland' symbol demonstrates this. Comparing the large area of Rudewood, at the map's bottom left corner, with the adjacent, smaller Spatters area, most readers would probably be able to infer that the symbol used for Rudewood means 'forest' or 'trees' or 'woodland.' For the same readers to figure out that the symbol used for Spatters means 'shantytown' is not as simple; the location at the edge of the city and the meaning hidden in the name of the area could provide clues, but they would lead to an uncertain guess at best and would require support from the textual narrative. If the legend were meant to explain symbols that conventions and obvious visual and/or linguistic clues fail to provide with meaning, 'shantytown' would be a better candidate for the legend than 'woodland'. Nor is *inferring* the meaning of a map symbol the same as *knowing* its meaning. I mentioned that the legend implied that the black dots on the skyrail lines mean 'skyrail station'. In my initial inference of the symbol's meaning, I was wrong: from reading the text, it becomes clear that the symbol actually signifies militia towers. It is obvious that the job of the map legend is not to provide explanations of all map symbol or even to provide necessary explanations. So what is its purpose?

Wood suggests that rather than thinking of the legend as an explanation of what map elements mean, it should be considered as a sign in its own right. I would like to add that by thinking about the legend as a sign to be interpreted, it is possible to learn some interesting things about the fictional world. A fantasy world in which there are skyrail and railways – arranged hierarchically above the woodlands – is not a typical epic-fantasy world. It is a world far more modern than its many pseudo-medieval genre-siblings. It is also a world in which mass-transport of people, and goods, is important: there is not just

one but two systems for moving quickly from one place to another, as well as a distinctive network of streets and bridges. These transport networks all emphasise the movement of people *within* the city. The single railway line that reaches out from the city ends with a '(Ruined Station)', giving more rather than less emphasis on movement being restricted to within New Crobuzon. This is a map that focuses on modern travel. Together with the scale bar, which indicates that New Crobuzon is roughly 75 square miles or just about the size of the city of Helsinki, the impression is that of a large city in which a great deal of travelling is required.

Dynamic Links and the Interplay between Text and Map

Critical world-building takes into account the interplay between the many elements used to make up the world as well as its generic, intertextual, and theoretical context (Ekman and Taylor 2016). The world is built by analysing the links between the elements both sequentially in the work, and in their relation to the world as a whole. Elements are also related to genre conventions and tropes, to the various intertexts that they resonate with, and to their role in a given theoretical or critical context. Such a critical perspective is not itself linear but needs to be composite, maintaining these different types of links simultaneously. A change in analysis or interpretation of an element may shift the analysis of another element or part of the world, which in turn may cause other changes elsewhere. The system of links is dynamic rather than static; any new information can set in motion a series of changes in how the critic builds the world. Thus, a critical reading of a fictive map can bring to attention elements that, when analysed in the text, contribute to the analysis of certain places; and the description or occurrence of particular elements can send the critic back to the map to take their relative spatial locations into account. Other textual devices that underscore the importance of maps more generally, such as the common use or production of various kinds of maps by characters in the story (as observed by Zähringer 2015: 73), can occasion the critic to turn to the map. Taking a readerly perspective on this, Raphael Zähringer (2015) sees this 'flicking back and forth' between story and map as interruptive to the reading process (82); the dynamic approach of a critical reading usually entails such movement between various passages in a work as well as between the work and other texts, not only in terms of world-building but in literary scholarship in general.

There is a dynamic link between map and text created by the way in which the transport networks draw attention to the eponymous Perdido Street Station. I have argued elsewhere that a literary map's centre is a point of interest worth analysing in relation to the world as well as the narrative (Ekman 2013; Ekman forthcoming). On the New Crobuzon map, the centre is as much a spatial location as a construction by the transport networks. Both railway and skyrail lines converge upon a point slightly to the north-west of the geographical centre of the city, creating a visual hub that draws the map reader's attention. This hub is Perdido Street Station, the place after which the novel is named, and its visual prominence is paralleled by a similar prominence in descriptions in the text, for example being described as:

the centre of New Crobuzon, the knot of architectural tissue where the fibres of the city congealed, where the skyrails of the militia radiated out from the Spike like a web and the five great trainlines of the city met, converging on the great variegated fortress of dark brick and scrubbed concrete and wood and steel and stone, the edifice that yawned hungrily at the city's vulgar heart. (Miéville 2001: 22)

Disregarding the slight off-centre geographical position the map ascribes it, the text describes the station in terms that leave no doubt that this is *the* centre. It is the focal point of the narrative – the novel is named after the station, after all – as well as of the world. Everything of import is centred on Perdido Street Station, the text says, because it is the heart, hub, and centre of New Crobuzon. Joan Gordon (2003), who explores the station as a heterotopian site, discusses its centrality spatially as well as in terms of narrative, and draws attention to its 'aptness as a metaphor for certain of the novels [central] characters' (467), including the protagonist, Isaac. She cites Isaac's description of himself as 'the main station for all the schools of thought. Like Perdido Street Station. [...] All the trainlines meet there [...]; everything has to pass through it. That's like me' (Miéville 2001: 50; cf. Gordon 2003: 461, 467). The skyrails, which radiate from the station, and the trainlines, which converge on it and pass through it, are imbued with significance by association. By moving between map and text, the critic can observe the interplay between the skyrail and railways, on the one hand, and Perdido Street Station, on the other: and the skyrail and railway thus elevate their own importance by drawing attention to that most central of stations.

Streets, although a prominent part the city's various means of transport, are not given the same strong role in linking between map and text. The symbol for 'street' is not included in the legend, but there is an even more noteworthy difference between streets on the one hand and railways and skyrail on the other. This is a map that names things. There are 118 linguistic signs of eight different typographical types, and the vast majority of these signs designate either city districts or parts of the transport network. But, significantly, not the streets: on the map, they are nameless. The network of streets may give the impression of a city where people go places, but the streets themselves are not important enough to be given their own identity. Instead, skyrail towers, railway lines, and stations are among the foremost of the named elements. They have the most distinctive form on the New Crobuzon map: accentuated by being included at the top of the legend, by being named, by converging on the hub of Perdido Street Station. World elements that are brought out in this fashion on the map are worth examining further in the text.

Like the map, the text almost immediately establishes the transport system, in particular railways, as geographical points of reference, and thus as a link between map and text. The novel opens with a short episode that describes how the garuda (eagle-man) Yagharek enters New Crobuzon in a barge on the River Tar. Narrated in Yagharek's voice, the episode portrays his nocturnal entry into the city as a Stygian descent into a dark, industrial, urban Hades. It also begins to construct the city as a geographical place by setting up numerous relations between the textual descriptions and the spatial relations provided by the map. The rivers of New Crobuzon are prominent

features of the map. Zähringer (2015: 67) observes that already the description of how the ‘river twists and turns to face the city’ (Miéville 2001: 1) can be used to identify on which river Yagharek approaches: the map shows the Tar to be serpentine while the river Canker curves gently as it enters the city, and Yagharek passes through the districts Raven’s Gate and Smog Bend, clearly marked on the map. When he describes how a ‘train whistles as it crosses the river’ before him (2), the map makes it possible to pinpoint Yagharek’s exact location, because there is only one railway bridge crossing the Tar near Raven’s Gate. Thus, a dynamic relation between map and text is created by the named locations. They literally map events and places described in the text, providing them with spatial relationships much more complex than a text could manage on its own. Given formal prominence on the map, the railway lines also frequently occur in the text, from Yagharek’s initial arrival to the final departure of the protagonists, who make ‘their way south, shadowing the trains, [...] bearing south, the trains beside them’ (701). The railway lines are conspicuous links between the map and the text. Their form is accentuated by the map, and one of their functions in the text is to provide identifiable locations that encourage a flipping back and forth between map and text. Through the railways, events can be placed in the imaginary space structured by the map, bringing greater spatial cohesion to the world.

Not only the map but the text highlights the railway and skyrail systems. When Yagharek finally leaves the barge and the river to set off deeper into the city on foot, his plan is to ‘follow the trainlines [and] stalk in their shadow as they pass by over the houses and towers and barracks and offices and prisons of the city’ (4). The map legend arranges skyrail and railways hierarchically above other map elements. In the text, this superiority is literal: the fact that they run above the buildings of New Crobuzon is pointed out repeatedly. They provide a vantage point from which the traveller can look down on the houses and roofscapes and out over the city. Just as the map draws attention to an urban environment of mass transport and masses in transit, the text draws attention to skyrail and railways as means of orienting oneself, of seeing above the crowd, as places where the city itself is, in a manner of speaking, turned into a map. It is no coincidence that the most comprehensive description of New Crobuzon geography is provided through a train window, with the society, economy, and history of the city all coded into the cityscape (128-30). Moreover, it is a description which constantly refers to the map. As the train moves along the Dexter Line, names of districts and location are mentioned, all identifiable on the map. Brock Marsh and Echomire, the Ribs and Strack Island, Gross Tar and Gross Coil. Again, map and text dynamically enrich each other, relating descriptions spatially, creating places out of map locations.

In a discussion of dynamic links between text and map, the spatial function of elements are as important as their thematic function. The spatial function of railways is emphasised by both map and text, but in general, the point-of-view characters do not travel *on* the trains but in the streets below. The network of skyrail and railways are routes to follow below or points to pass underneath. As such, they provide locations easy to identify on the map. They are spatial references that can be used in order to establish where events take place, what locations are like, and which route someone takes. As characters move through the city, their movements can easily be *mapped*:

David Serachin walked through the northern reaches of Spit Hearth. He might have been walking home to Skulkford, due west under the Sud Line and the skyrails, through Sheck, past the massive militia tower to Skulkford Green. [...] But when David passed under the arches of Spit Bazaar Station, he took advantage of the darkness to turn and gaze back the way he had come. [...] He hesitated a moment, then emerged from beneath the railway lines, [and] turned north, following the path of the railway line. (339)

The spatiality of the city is foregrounded. Not only are there geographic references to which particular way the character goes, but also references to which path he *might have taken*. The function of the references is as much to describe the city as to encourage the readers to turn to the map, to find the geographical relationships between the locations, and to create the mental spaces that turn into New Crobuzon through readerly world-building. Together with the city districts, the main reference points are provided by the skyrail and railways, by militia towers and railway stations.

In this way, railways and skyrail differ significantly from the city streets. Streets have no names on the map and are difficult to identify, even when the text names them, describes them, and locates them in relation to other entities. A very clear example of this difference can be found in the movement of one of the main characters, Derkhan. Like Yagharek, Derkhan paces along in the shadow of the railway, in her case along the Sud Line. Her route is easy to find on the map as the Sud Line passes ‘further and further from the city’s heart’ to Syriac Rising Station (586). Once there, she leaves the railway tracks and heads ‘into the snarl of streets south of the undulating Gross Tar’ (586). The simple route along a line becomes an imprecise journey through a ‘snarl of streets.’ The geographic reference to the river and the station quickly become meaningless on the map. Even the meticulous description of Tincture Prom does not provide clear references to the map. ‘Tincture Prom [was] the wide and dirty street that linked Syriac, Pelorus Fields and Syriac Well. It followed the course of Gross Tar like an imprecise echo, changing its name as it went, becoming Wynion Way, then Silverback Street,’ which eventually ‘kinked and bore north at a sharper angle’ (586). With such a description, it ought to be a simple matter to identify Tincture Prom on the map; all these names appear to refer to it. Yet, they do not allow any precise identification, only a fair guess. Nor does it help that Derkhan does not follow Tincture Prom: she ‘[skirts] its raucous argument [...] bearing north-east’ (586). The streets and their descriptions may make it possible to figure out *approximately* where she is, but her last *exact* position is the Syriac Rising Station.

World-architecture suggests that the critic describes the *form* of world elements, analyse their *functions*, and interpret their *meanings* – in the world at large as well as in specific narratives set in that world. While map and text use different forms to accentuate the railways and skyrail, one spatial function of the modern mass-transit system is to provide dynamic links between map and text. The ‘map and novel complement one another’ (Zähringer 2015: 70), but there is more to it than that. Through the dynamic links, the world is augmented, its locations provided with meaning. As references in the

text link to the map, locations are related to each other spatially, and those spatial interrelations also connect the perspectives of different characters or combine information about various places. A complete analysis of the novel's text in relation to the map is of course beyond the scope of this essay, but by reading the opening passage where Yagharek enters the city against two other passages, it can be demonstrated how map and text work together to build the world of New Crobuzon by connecting places through the spatial relationships provided by the map.

The episode in which Yagharek enters New Crobuzon describes the city through the eyes of an outsider, allowing reader and narrator to see it from the same perspective. As the garuda travels down the dark river Tar, the reader is initially given three geographical points of reference to relate to: the fact that Yagharek enters on a river, the name of the district (Raven's Gate), and finally a railway bridge. This is enough to find out, from the map, what route the garuda takes. By following that route both in the text and on the map, it is then possible to establish the geographical locations for other of his observations. Without mentioning the district's name, it is nevertheless obvious that it is in Creekside that he sees 'houses which dribble pale mucus, an organic daubing that smears base façades and oozes from top windows. Extra storeys are rendered in the cold white muck [...]. Some other intelligence has made these human streets their own' (Miéville 2001: 2). This mucoid alienness is not further explained, nor is the nature of the *something* that 'scuttles overhead' revealed (2). Through the three points of reference, the information – a description of Creekside from a particular character's perspective – is provided with a geographical location on the map, turning that location into a place. The perspective is an outsider's, the description stressing the Otherness of the place.

In another chapter, a passage in the text connects and contrasts Creekside to the khepri ghetto Kinken, offering another perspective and giving another meaning to the place. The scarab-headed khepri Lin, one of the central characters of the novel, travels from Aspic via Sobek Croix and Flyside to Kinken (15-21). With Lin as focaliser, the reader gets a different description of the locales of New Crobuzon than through the garuda's outsider perspective. From Lin's point of view, the houses in Kinken are covered by the 'organic cement' and 'hardened gel' that is khepri spit (19). This recalls the 'organic daubing' and 'cold white muck' previously encountered in Creekside (2), not least through the parallel between 'beetle mucus' in Kinken and the 'pale mucus' in Creekside. When Lin thinks of the small beetle-like khepri males as 'mindless scuttler[s]' under her cab (19), this parallels the scuttling *something* that moves above Yagharek's head (2).

The feat of memory required by a reader or critic to recall such details and connect them is made easier by using the map to turn locations into places. If references to the map are used to build Creekside as a place of organic daubing, pale mucus, and scuttling *someblings*, the mentioning of Creekside in relation to the khepri can connect Lin's familiar recognition to the garuda's experience of Otherness. Doing so requires the use of the map. Lin's visit to Kinken provides an understanding of what khepri districts are like. Her angry reflection on the social relations within the khepri community also informs the reader about another khepri district: '*You sanctimonious bitches, I remember it all! On and on about community and the great khepri hive while the "sisters" over in Creekside scrabble about for potatoes*' (21). If, at this point, the map has not been referred to, Creekside has not been

mentioned before. Only by following the directions to the map, by relating locations on the map to Yagharek's description, can Otherness and familiarity be juxtaposed. If his impression of Creekside is connected with Lin's reactions to Kinken – through the spatial relations of the map – the social conflict within the khepri community is provided with a deeper meaning. Social conflict between centre (Kinken) and periphery (Creekside) becomes a broader, more complex story of how khepri orthodoxy and hypocrisy marginalise parts of their own community. By using the references to the map, Creekside becomes a more meaningful place.

Another example of a passage that can be fruitfully juxtaposed with Yagharek's first journey down the River Tar similarly demonstrates the conflict between centre and periphery, wealth and poverty. Sitting in the barge, the garuda contemplates the impure, stinking river only to discover that emerging from it are roofs belonging to a 'line of sunken houses [that are] pressed up against the bank in the water, their bituminous black bricks dripping' (3). Again, reference points to the map are provided: the railway bridge has just been passed, and shortly after spotting the houses in the river, they land in the Smog Bend district, just north of the Drud Crossing bridge. These submerged houses are referred to again six hundred pages later (607-08; these pages for all references to this passage, below). Swimming up the river Canker, an amphibian vodyanoi reflects on the dwellings of the 'vodyanoi rich' situated there, a 'mile or so upstream from the rivers' convergence.' The geographical reference makes it possible to use the map's scale bar to locate these dwellings in Ludmead, far away from the sunken houses in Smog Bend. The description of the buildings is also distinctly different:

some carefully crafted passage below the surface [would lead] into a riverside house all done in white marble. Its façade would be tastefully designed to fit in with the human homes on either side, but inside it would be a vodyanoi home: empty doorways connecting huge rooms above and below the water; canal passageways; sluices refreshing the water every day.

This image of wealth contrasts a preceding reference to the 'absurd hovels of the Tar, of Lichford and Gross Coil: there, sticky, pitch-coated buildings of palpably human design had simply been built in the river itself, decades ago, to crumble in unsanitary fashion into the water.' Recalling Yagharek's experience of the 'vodyanoi slums' adds to the contrast: the Tar's impure, stinking water against the Canker's 'more clear and pure' one; bituminous black bricks against white marble; vodyanoi design against palpably human design; spacious homes against houses pressed up against a bank. The vodyanoi have class differences similar to those of the khepri: there is a social hierarchy within both communities even though neither community is fully accepted by the humans. The white-marbled houses are not a ghetto like Kinken, but like the khepri, the vodyanoi are not fully accepted by their neighbours; instead, they hide the true nature of their dwellings, making them 'tastefully designed to fit in' with the human houses. By complementing Yagharek's sense of Otherness with other characters' familiar perspectives, the vodyanoi and khepri communities are provided with a cultural, social, and economic depth, an addition of meaning to the locations through which the

characters move. The map-text dynamic becomes part of the political dimension of Miéville's Bas-Lag novels, a dimension remarked upon by several scholars (e.g. Burling 2009; Gordon 2003; Kendrick 2009; Newell 2013; Palmer 2009) from a variety of perspectives. New Crobuzon is a place imbued with political meaning, its locations emphasised, and in critical world-building, the map is the only way to fully access that meaning. In the words of Sébastien Caquard (2011), '[n]either cartography nor narrative on their own can capture the essence of place: both are required to get a better sense of it' (224). Cartography and narrative are interdependent components in the portrayal of fictive places. By using particular geographic references, specific locations can be pinpointed on the map and spatial relations can thus contribute to a more meaningful sense of place.

Conclusion

The map is not the only starting point for a world-architectural exploration of a fantasy world, nor is the transport network in *Perdido Street Station* the only link between map and text. The text itself contains a variety of details that describe elements and put them together into a world, a construct for a critic to analyse holistically (Taylor 2017: 164). Even though a casual reader, to use Taylor's expression (21), may not recall the details of Yagharek's first observations after six hundred pages or be able to relate them to the description from Ludmead, the relationship between those passages are a part of the entirety of the world and should therefore be taken into account when building the world for critical analysis. In this essay, such world-building has been approached through a Vitruvian-inspired world-architecture: the form, function, and meaning of some of the elements that make up New Crobuzon have been placed at the centre of critically building and interpreting the world. By paying attention to the prominent form given to skyrail and railways, as well as to other parts of the transport system on the New Crobuzon map, it is possible to see how they function as links between the map and the text, constructing the world as places related in a fictive space, structured by the map and provided with meaning from the text.

Critical world-building can be dynamic in many ways, encouraging the critic to move back and forth between works, layers of meaning, or a text's parts and its entirety. Similarly, the architecture of any world-building can be approached from a number of perspectives. What approach, layers, and collection of elements a critic selects as interpretative route into the work depends on what aspect of the fictive world is at the heart of the critical examination. In this essay, I have focused on how it can be critically fruitful to analyse the links that are established between map and text, in order to demonstrate how places can be imbued with a deeper meaning by combining different perspectives on them, a combination made possible by the movement between the descriptions of the text and the spatial relations of the map. There are many other avenues of critical world-building left to investigate, in *Perdido Street Station's* Bas-Lag as well as in other fictive worlds. Hopefully, I have managed to inspire future exploration of some of those avenues.

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