

6. Reflections on a Cartographic Criminology: ethical considerations and practical consequences of crime mapping

Maps are everywhere. Maps are tools of power. Maps are stories. They expose a diversity of realities and perspectives. They communicate more than their intended message. They help disseminate knowledge. Maps represent, they illustrate, they communicate, they reveal, they ensure, and they expose. Maps permeate all aspects of society and *do* more than we tend to believe. Earlier in this thesis, I wrote that conventional crime mapping illustrates how we crave a simplistic view, over a more nuanced view, of reality. With all that maps *are*, we must question if maps really *do* provide a simplistic view.

In a bid to emerge a cartographic criminology, this thesis considered cartographic and geographic literatures that are not often present in criminological research. Cartographic criminology reconciles the relevant literatures in several vast disciplines (cartography, geography, criminology, and sociology) to address the growing use of crime and crime control maps. Focus was placed on dozens of different types of maps as case studies in this thesis to help develop a critical understanding of the many roles maps play and their consequences. By exploring these literatures and emphasising imagination in the mapping of deviance, crime, and control, cartographic criminology (re)imagines the ways maps can inform and shape our criminological knowledge. Cartographic criminology challenges conventional criminology's failure to critique its employment of crime maps and the consequences of their publications. Essentially, this thesis values the multitudes and significance of maps and assembles interdisciplinary knowledge to strengthen its mission.

Up to this point, this thesis has established a fundamental appreciation of cartography by offering a brief review of cartography and identifying the insights that this field offers as a framework for situating crime maps. Next, it offered an overview of criminology's engagement with maps and demonstrated the discipline's failure to engage with the maps that are so often used. Various branches of geography (social, political, and cultural) informed the remaining chapters which focused on maps depicting a variety of criminal and deviant activity, the acquisition of the maps, and the practical consequences of their use. With these chapters in place, it is now time to take a step back to reflect on the development of a cartographic criminology.

This chapter concludes my assessment and proposal for an integrated approach to crime mapping. It reflects on the key arguments and conclusions made in each preceding chapter to develop a unified approach to the structure of a cartographic criminology. By reflecting on the lessons learnt in the prior chapters on how to further develop a cartographic criminology, this chapter summarises and discusses what a critical cartographic criminology should look like and how it can be fruitfully explored and developed. Additionally, this chapter considers general ethical issues and consequences as modelled and instructed by Crampton (2001), questioning how mapping knowledge and practice becomes a widely accepted science. In the end, this is a study incorporating multiple literatures and examining a range of maps to best comprehend and define the steps towards a cartographic criminology. To conclude this chapter and this thesis, I reflect on the prospects of a cartographic criminology, present a general discussion on ethics and the consequences to the growing use of maps in criminology, and future directions.

6.1 Reflecting on prior chapters

This section reviews the key arguments made in preceding chapters. As stated in the introduction, the best approach is to begin with the research in cartography and geography and the critical questions raised about maps (as a product) and mapping (as a process). Though the questions were originally presented to the larger disciplinary audience within cartography and geography, they were adapted for the development of a cartographic criminology in this thesis. Hence, this study pursued several broad research questions raised by the geography literature and offered as a starting point in the critique of crime maps.

- What is the discourse of cartography? How do (crime) maps work to produce knowledge?
- How are (crime) maps constructed to convey intended messages?
- What are the social contexts and functions of (crime) maps?
- What are the inherent problems in (crime) maps?
- What are the ethical considerations and consequences of (crime) mapping?

These five basic questions, with the guidance from critical cartographic perspectives, approach larger issues of social and cultural representations and power. Unearthing the contexts embedded in the production of the map, the agendas and generalisations, and the emphasised and concealed traits of geographical knowledge all contribute to a larger story about society. With the increased use of maps in social science research and policy decision-making, the time is ripe for criminology to engage with maps and how they sustain many diverse interpretations and are shaped by shared beliefs and values, social constructions, and social situations.

Chapter 1

Cartography is finally given the space it deserves in criminology. Chapter one simply provided a brief review of the cartographic literature, highlighting an annotated history of world maps and engaged with contemporary critical arguments within the discipline. ‘Cartography’, de Blij (2005:21) writes, ‘has come a long way since ancient Mesopotamians 5,000 years ago scratched grooves in moist clay to represent rivers and fields and let the sun back it into clay tablets’. With such a long and rich history in the story of humankind, its absence in criminology is surprising. Although researching an unfamiliar discipline may not seem very challenging, it is nonetheless a daunting task to engage in one discipline to better understand another. On the other hand, it inspires imaginative perspectives that are fresh and innovative. Insights from cartography can offer guidance to criminologists who undertake crime mapping. Additionally, the course of this chapter revealed the problems that beset cartography and, in turn, beset the crime mapping literature.

Chapter one offered an account of mapping through history, beginning with the first recorded map on record and continuing to present day mapping fetishisms. While not offering a comprehensive history of cartography, it nonetheless provided and informed proceeding chapters with critical theories of cartographic discourse; specifically investigating maps as representations, the communication model of maps, and the map-making process. Critical cartography is necessary in examining and analysing the increasing use of maps within the social sciences (Perkins, 2008). Studying cartography critically is not just about learning from past map constructions and their consequences. Rather, it equips us with the necessary sensibilities to critically assess crime maps.

As highlighted throughout the chapter, there are four precepts considered in the cartographic literature:

1. Maps express social, political, and geographic pluralities; there are multiple texts expressed on one image.
2. There is no singular truth to any map. Every map is inherently subjective and partial. The subjectivity of any map is determined by its creator with intended messages and audiences in mind. Moreover, as Lowenthal (1975:116) contended, ‘all knowledge is necessarily subjective as well as objective; delineations of the world that are surely matter-of-fact ordinarily seem to arid and lifeless to assimilate’ that, more importantly, ‘require fresh first-hand experience, individual opinions and prejudices’.
3. Maps are communicators of power and ideology with an ability to greatly influence social, political and cultural factors. Because of the power relations embedded within maps, and their partiality, maps need to be assessed critically.
4. Maps are snapshots, suspended in a single time and place. Maps do not have the power to predict the future with any certainty.

These precepts in cartography surely mirror factors requiring consideration in criminology’s engagement with maps. Just as in cartography, criminology needs to develop a sensibility about the maps it uses. However, this chapter did not present a clear cut route to developing a cartographic criminology. In fact, introducing cartography and its critical theories problematised any fantasy of maps as a simplistic and one-dimensional tool. It muddled and made a mess of criminology’s engagement with maps. Applied in proceeding chapters are the lessons learnt from this review of cartography’s history and critical discourses. The problems that inundate cartography are considered in analysing criminology’s engagement with cartography, working towards a cartographic criminology.

Chapter 2

‘Towards a cartographic criminology’ contemplated the lessons learnt from the cartographic chapter to create the direction needed in developing a cartographic criminology. It questioned if criminology is aware of the differing ways social phenomena can be mapped; if criminology is aware of the problems beset to cartography; if criminology can easily incorporate mapping techniques without the skill and knowledge of cartography; and, finally, if criminology can sensibly apply cartographic knowledge while aware of possible downfalls. It argued that criminology has, on multiple occasions, engaged with maps while

never fully engaging with cartography in developing a mapping process or mapping theory. From chapter one, this thesis contends that criminology has not learnt from the lessons of critical cartography. Specifically, criminology must view their maps as useful, albeit problematic, entities. While geography has witnessed a decline in the use of maps, criminology continues to invest in the use of maps as visual communicators of information and tools for spatial analysis of crime and crime control (Dodge and Perkins, 2008:272). More than ever, criminology needs to take its investment in maps seriously and develop more sophisticated appreciation of their power and potential for misuse.

This chapter began by stating that crime maps are everywhere, articulating the mandate necessary to begin the process of critically reviewing the ‘moments’ in criminology’s past engagements with cartography. It introduced a history of cartography within criminology though ultimately contended that the discipline has yet to employ cartographic methods with any real understanding. Each moment in the literature highlighted a subtle change in the practice of mapping deviance since the technique first emerged in the nineteenth century. However, it is also true to state that, in many ways, very little has changed since the onset of crime mapping in the 1800s. Most importantly, engaging with critical cartographic theory continues to elude criminological research. Its scarcity in the field simply implies a discipline that sees discussion of maps demoted to a process; one that creates a simplistic tool to visually communicate limited information.

The sparse relationship with critical cartography demonstrates the necessity for a new ‘moment’ in criminology to emerge. A critical cartographic criminology must emerge to address the taken-for-granted use of maps in the discipline. It needs to invest in a cartographic approach that seeks to understand spatial distributions of crime beyond the visual patterns created on a map. However, before criminology can do this, it must first appreciate and learn from the problems fraught in cartography.

This chapter resulted in several key arguments:

1. The ‘power’ of crime maps can be used to convey certain aspects of ‘reality’. These aspects are determined by selecting limited factors and perspectives of some criminal context. The abstractions of social facts on a map can distort reality to a certain extent and may ‘lie’ or misrepresent the ‘truth’ as a result of element selection. As a result, mapmakers must consider their choices in the creation of the map to avoid potential fatal flaws and maintain ethical criteria for their mapmaking.

2. There are no such things as purely objective, scientific maps. Maps should be scrutinized in a bid to comprehend the sources of power and subjectivity that strengthen their commission and construction.
3. Maps are always abstractions of space. This abstraction does not go away just because technology has improved.
4. The greater the distance from the point of observation to the space being mapped, the greater the likelihood that one loses sight of cultural context and the nuances of human interaction. This is all too common with contemporary crime maps.
5. For whilst such technology at the moment is employed in purely objective forms, such devices could also open the door to a more pejorative reading of space. GISs are representations of geographic space modelled from data, and as such they are just as subjective as more traditional maps (Wood, 1992).

Although there are several canonised examples of criminology engaging with mapping practices that illustrate a respect for social and cultural representations in their maps (namely proto-ethnographies and Chicago school ethnographies), the majority of contemporary crime maps rely heavily on plotted statistical data. Criminology's awareness of the flaws accompanying all quantitative data collection and analysis spans decades of discussion and critique (Source). However, as this chapter demonstrated, the same critical approach has yet to extend to their use of maps. As a result, the discipline offers no guidance on how to go about creating a critical cartographic criminology. Therefore, I reasoned that the best way to begin is to first reach outside of criminology and explore the expertise provided by academic geography. Map analysis and creative map development is the method by which this thesis addressed the study of a geographically-informed criminology. The three sub-fields of geographical discourse chosen to contextualise views of spatial crime are i) social geography; ii) political geography; and iii) cultural geography. The subsequent three chapters presented basic literature for each of these geographical sub-fields before explaining how each field can aid criminology's understanding of spatial crime.

Chapter 3

Chapter 3 engaged in a social geography framework to construct a cartographic criminology; to give a taste of how cartography with the help of social geography can further expand criminology's awareness of the value and magnitude of maps. After reviewing the

social geography literature, conceptual parallels in social geography and some areas of criminology emerged. However, current social geography is ‘preoccupied with unequal structuring, lived experiences and the agency-structure intersections bound up in a much wider range of social phenomena’ that is much more aware of ‘the hidden world of ordinary people’ (Philo and Soderstrom, 2004: 124). Maps employed in the social sciences that represent social harm, deviance, and crime, are - like any other maps - constructed to exaggerate the important features of a story. However, it is possible for the same maps to assist in creating other - unintended - stories about social life. The static crime maps generated to illustrate a specific pattern of crime inadvertently communicate much more than intended. The visual rhetoric of crime maps requires critical interpretation to determine what is there and what is not.

This simple review of a social geography literature aids in criminology’s pursuit of mapping social phenomena. By no means is the merging of the social geography and criminology literatures novel or exceptional. Instead, this integration between the two disciplinary literatures supplements some of the most recognised spatial perspectives in crime mapping. The conventional crime mapping literature prefers a simplistic view of reality over a more nuanced view. Certainly, by integrating additional literature from social geography and critical cartographic theory, criminology can shape a fuller understanding of deviance and the ‘other’ as depicted in maps. This is achieved in this chapter through deeper analysis of the geographical and social boundaries segregating people. The map becomes a story in and of itself, heightening spatial understanding of the social world.

This chapter resulted in several key arguments:

1. A cartographic criminology needs to appreciate the multitude of interpretations a map offers. It needs to understand that the *creator* of the map plays a grand role in how life is viewed, and how the dominant perspective on a social *other* creates a border differentiating the two.
2. Maps fulfil objective and subjective roles regardless of whether the map communicates issues about deviance, economics, or race.
3. Maps have the ability to stigmatise and humanise. Mapping is one way to effectively cultivate a knowledge about who ‘others’ are, where they are located, and an interpretation of their daily realities. The maps embed themselves in the growing mental map of social problems and spatial segregation. Cognitive maps and moral proclivity influence the communication of the geographical ‘other’.

4. Whether created through statistical or experiential claims, the ethnographic maps of the 'other' express a segregated estrangement in society.
5. Without words, maps accessible to the general public reveal the locations of 'criminal others'. They fuel fears of potential endangerment on one hand and create false impressions of safe areas on another. A single map has the power to influence how a community views their safety more than any written document or statistical chart offering the same information.
6. Maps are windows that allow us to witness life outside the conventional white middle-classes. They assist in producing knowledge about a social 'other' and, in turn, inherently hold the power to reveal the realities of 'others'.

Chapter 4

Chapter 4 made the case that maps are tools of power that communicate knowledge of the political order and organisation. By investigating the ways maps communicate a political geography of State violence, this chapter considered the implicit ways maps are created from power and the explicit ways they are used to subvert political dominance. It demonstrated that maps do not always impose a pure monolithic view from 'above' but rather, are capable of communicating multiple narratives with visually-inscribed rhetoric. Surprisingly, through the course of this chapter, some narratives communicated through maps elicit emotional responses, especially when viewed under differing contexts that are embedded in collective memory.

Citizens can map the State's transgressions just as the State can map citizens' transgressions. Maps do not have to be complex to effectively communicate messages of power, dominance, and transgression. The availability of user friendly technology enables the masses to create cartographic counter-narratives that link varying experiences together on an interactive map. In the end, maps are tools of power but who uses them and to what ends is an open question. Anyone has the power to map.

This chapter resulted in several key arguments:

1. Maps cannot convey the true horrors of the aggressions and inhumanities suffered by society. A map can, however, expose the atrocities committed. Moreover, studying maps as sources of criminological knowledge to define, to inform, and to commemorate events of horrors, global or otherwise, can enlighten the conventional criminology as well as a cartographic criminology.

2. A totalitarian view of a map is a myth. Many maps can be created to represent the varying perspectives of a single event and a single map can relay multiple narratives. Political geography also acknowledges, on the other hand, that maps can represent spaces of resistance and the individual positionality within dislocated circuits (Crampton, 2001:236).
3. Maps are vehicles through which power and control can be maintained or enforced. Harvey (2001:112) noted that one abuse of cartography is that geographical information is presented 'in such a way as to prey upon fears and feed hostility'.
4. Rallying attention is the initial step in disseminating information about social problems. Stories and statistics normally follow, providing to the public evidence of police violence. Maps, however, are quickly becoming another facet of evidence presented.
5. Interactive cartographic representations of events from 'the street' present a dynamic view of collective experiences. The mapping initiatives by independent activists and news media demonstrate subversive resistance to state power, creating alternative political geographies of space. They provide a different picture of social violence than the conventional criminological maps. These maps are distinct because they are constructed from independent voices uniting in a collective effort, either through the sharing of personal or observed experiences. Even when facing repressive restrictions on the dispersion of knowledge and collective experience, maps offer a voice to the disenfranchised.
6. Multi-media maps with links to photographs, eye-witness statements, audio, and video provide a more comprehensive picture of events that transcends the ability of traditional map as snapshots static in time and space. However, like traditional maps, they are still created to reproduce a reality with hopes that they influence others in the promotion of political or social change. Maps representing the use of politicised space provide an opportunity to analyse spatial power structures in action.
7. Maps of crimes are not entirely without emotions. Though maps themselves cannot communicate appropriate emotions alone, the collective memory of the events that constituted its creation grants its feeling.
8. The expansions of maps to demonstrate violence, in turn, become spectacle to serve the tourist industry. The tourist maps, commemoration maps, or artistically embellished maps that highlight these offences provide an account of crime. What's

important to note is that the various maps presented here, like all maps, present multiple narratives.

Chapter 5

Maps are inherently cultural representations. To re-quote Harley (1990:10), 'every map is cultural because it manifests intellectual processes defined as artistic or scientific and they work to produce a distinctive type of knowledge.' The type of knowledge produced from maps may not yield a singular message. Therefore, maps have pluralities that generate various reads of space. In sum, maps are simultaneously visual artefacts that locate places as well as guides for engaging in space (Pinder, 2007: 459).

This chapter provided a sweeping review of cultural geography, symbolic interactionism, and cultural criminology which promotes a cultural view that are inherent in all maps. By wedding various literatures together to demonstrate common themes useful to a cartographic criminology, we began seeing new opportunities in the ways we can map crime and deviance. Perhaps more significantly, we could begin to appreciate how contexts of maps, especially the context of the creator and the context of the intended audience, play a vital role in how we read maps. The intention based on the context of the authors and the audience produces one sort of interpretative meaning although the message of the map may be lost when placed in the context of different audiences. Exploring maps of 'crime tourism', such as historical city walks of murder as well as grassroots efforts mapping community graffiti, exemplified how maps can construct narratives of crime and deviance that elicit thrills. However, it also exemplified how different audiences not privy to the map-makers' context may view maps differently.

In general, a cultural geography of crime tourism contributed to the development of a cartographic criminology by developing knowledge on the pluralities of maps and the importance of cultural context. Crime tourism maps of historical crimes and legendary social bandits, intend to guide tourists through modern-day streets for the purpose of recreating historical crime stories. It is *what* the visual narratives of these maps represent that creates excitement. These maps invoke a psychogeography in the visitors they guide through the cityscape. Context is significant when reading these maps to assure tourists are given the full experience of the attraction. Crime tourism maps of graffiti guide curious city guests to places of spectacle and delight. They also assist criminal justice enforcement by tracking patterns of offending. Regardless of their intention, the pluralities of maps are based

inherently on cultural representations and context. A single map illustrating the locations of a Banksy original simultaneously notifies an interested public where they can visually experience street art and alerts law enforcement agents of a criminal enterprise.

This chapter resulted in several key arguments:

1. Appreciating maps through a cultural geography lens allows the possibility for alternative realities to exist in a single place. However, maps as stories still portray specific phenomenological meanings, such as community, economy, and dangerousness. The visual communication of a map's story told during the process of its creation provides knowledge, assurance, and comfort to an occasionally unknown world.
2. Maps of social events and culture itself could be misunderstood if it is determined via patterns and statistics alone.
3. The contestation and social conflict in crime mapping lies in the differing representations and perceived realities of crime and its space. Individuals and groups from varying backgrounds discover and perceive social reality in sundry ways (Berger and Luckmann, 1966).
4. The criminal justice process as well as its mapping does not often consider how governance in society determines subjective social facts. Especially ignored is the disparity that exists in governance and the practices used to produce crime maps.
5. The greatest benefit offered to criminology are the new maps of spaces based on the walking experiences of others and their perceptions of the space. The practice of walking in space helps create new maps of precarious places, illustrating emotional reactions to space (especially fear as it relates to victimisation), weakens disciplinary authority, and produces knowledge and awareness of space (Kane, 2004). It also promotes research that investigates border crossing rituals and how crime relates to diverse agendas, cultures and histories.
6. Walking tour maps communicate the general layout of the city that is then imbued with a story-telling layer of past criminal transgressions. Maps too are mediated sources from which we can vicariously experience the 'edge' and social fringes (Young, 1996). They ultimately provide a transitional crossing from present-day safety to past-years dangers. They are safe methods of safely experiencing the thrill of the 'edge' without having to leave the realm of order.

7. Maps promote a cultural fascination with crime and transgression. Crime tourism is a growing industry profiting from society's fascination of historical crime scenes, allowing us to enter spaces of past danger and excitement without the flirtation of looking over the edge.
8. Maps locating the spaces of graffiti concurrently signify places of subversive disorder and sites of culturally embraced deviant movements. Mapping locations of graffiti may be intended for spectacle and delight or for tracking patterns of offending for punishment. These maps become exemplary for how they potentially offer more than one message. The separate messages of these maps are based inherently on cultural representations and context.

Upon reflecting on the summaries and conclusions of each chapter, this thesis addresses the mapping precepts as outlined in chapter one. Through our review of criminology's engagement with maps, in addition to investigating alternative readings of maps within criminology, we see the major precepts outlined in the first chapter emerge. To begin, each chapter has demonstrated how maps offer multiple interpretations that convey multiple subjective realities. Furthermore, when telling a story, it tends to communicate the power and ideologies that exist, focusing the lens accordingly. Finally, I illustrate how maps are snapshots with no predictive powers. After all, if maps are social constructions, that are always changing, and only tell partial truths, how can they truly reveal what the future holds for us? Some may contend that maps are predictive tools, where '[h]istorical maps predict how the situation must have been in the past at a specific location, and planning maps show us what the situation will be like there in the future' (Ormeling and Kraak, 2008:126). They end this sentence with, 'we have high expectations of our maps' (*ibid.*:126). This is not a high expectation of maps; this is an unrealistic expectation of maps. Since they are not objective tools, there are no certain terms that can foresee realistic futures.

Each chapter approaches and answers the research questions. Maps reviewed have offered a variety of responses to how they are consumed, read, and viewed to understand 'simple' or intricate views of social phenomena: intended and unintended, manifest and latent messages, the contexts, the functions, and so forth. Each chapter also discussed the various consequences of the maps used as case studies. Given the general importance of consequences and ethics to mapping, a supplementary review is offered now.

6.2 Ethics and consequences in mapping

Ethics and consequences of maps are presented in each chapter but never thoroughly explored. In the development of a cartographic criminology, this thesis regards maps as more than mere devices of applied knowledge or reality. Instead, maps and the mapping practice are to be analysed and critiqued, to problematise mapping by asking how maps work and how they affect social understanding and practice (Perkins, 2003:341-342). Criminology continues to be uncritical of the maps they employ, depriving the discipline of any real intellectual satisfaction. In agreement with Muehrcke's (1996:274) statement that 'maps...have far too much to offer...to be left to professional geographers', it is with profound hope that maps are used more responsibly and critically in criminology. However, critical disciplinary knowledge on maps requires additional research on the consequences and ethical considerations of maps and mapping.

The ethics and consequences of criminological mapping need to be addressed by criminologists. This thesis has argued, time and time again, that there are consequences to mapping crime and deviance. Some of these consequences are apparent while others are less apparent. Academic geography and cartography include consideration of ethics as a central concern (Claval and Entrikin, 2004:45) and criminology would be wise to follow suit.

Two paradoxes emerge when considering the recent trends in the use of maps. First, as academic geography has witnessed a decline in the use of maps, other disciplines are 'developing a profound interest in maps' (Cosgrove, 2007: 203; see also Perkins, 2003:41; Perkins, 2004:388). Second, with technological advances and user friendly mapping software available, mapping is easier to do, but geography is leaving mapping to 'the burgeoning field of GIS' (Perkins, 2003:341) and the 'GIS 'geeks'' (Dodge and Perkins, 2008:272). Even with the general abandonment of maps, geography developed an interest in 'an ethics of cartography' that questions 'how mapping knowledge-practice becomes a science' (Crampton, 2001:249). Conversely, criminology has seen an escalation of map use with no interest in an epistemology of their use.

The three most important ethical questions of cartographic criminology are: (1) why map so many social phenomena?; (2) should we map crime and crime control at all?; and (3) what are the consequences of creating crime maps? Rhind (1977) argues that there is a

danger of producing new maps simply because the facility is there to do so and not because the maps are necessary in and of themselves. Maps of crime are everywhere, in academic circles, law enforcement practices, news media, and amongst the mass populace. Some see this growing recognition of space as a positive sign for all social sciences. Gould and Strohmayr (2004:17), for example, believe that geography and space are ‘taking their rightful place alongside history and time after a century of neglect, as well as the realization of new opportunities and perspectives opening into the next century’. Geography, space, and the resurgence of maps amongst the social sciences are conceivably entering the next phase of study; ushering in a possible ‘spatial’ turn.

However, there may be more to this revival of maps, especially in criminology. Hacking (1990:1) discussed the role statistics played within the social sciences. He speaks of ‘the enumeration of people and their habits’ and the ‘connotations of normalcy and of deviations from the norm’. He goes on to discuss how statistics are ‘relentlessly tabulated’ (*ibid.*: 4) for the ‘purposes of social control’ (*ibid.*:6) or with the hopes that these ‘statistical facts’ could ‘one day be used to perfect legislation in civil and moral matters’ (Beirne, 1987:148). Maps in criminology, most of which rely almost solely on statistical data, reflect this impulse for social control. . They reveal patterns of offending for the purpose of social control. Statistical information plotted and mapped in mainstream, positivist criminology is not conjecture, but neither is it purely objective. However, all maps produce consequences.

As discussed in prior chapters, quite a few consequences emerge when mapping social phenomena indicative of crime and deviance. For example, in chapter three on social geographies of crimes and mapping the social ‘other’, we saw that maps have the ability to stigmatise; maps are a way to effectively cultivate a knowledge about who ‘others’ are, where they are located, and what their daily realities are like. The maps embed themselves in the growing mental map of social problems and spatial segregation. They are used as evidence by social problems claims-makers to make moral distinctions between ‘us’ and geographical ‘others’. . Maps can also be used to punish criminal others, such as registered sexual offenders, by virtually continuing a sentence of imprisonment by alerting others of their residential addresses and past crimes. Such maps create a false sense of safety when signifying areas with relatively low numbers of offenders. Here, maps tell a partial story and the consequences for trusting in a map could prove dire. Maps cannot be viewed as facts of nature nor accepted as neutral graphics, lest they be misunderstood and used to feed into

social fear and hostilities (Harvey, 2001:112). The consequences of maps need to be considered by all involved in their purpose, starting with the mapmaker.

Appreciating that maps have consequences, intended or not, is the first step in a larger discussion about the ethics of maps and mapmaking. Koch (2006: 13, see also pages 5-7) argues that ‘there is no ethics unique to mapmaking’, presenting the case that ‘mapmakers carry the weight of social responsibility in theory all members of society accept’. Mapmakers must consider their choices in the creation of the map to avoid potential grievous flaws and maintain ethical criteria for their mapmaking. Maps are subjective and the responsibility of what maps present (social constructions of space and phenomena) goes beyond the accuracy of geographic depiction. However, maps intentionally abstract and distort phenomena to convey their purpose. ‘Truth and fidelity is not the issue’, writes Muerhrcke (1996:277), ‘because all maps by nature are abstractions and, therefore, distortions’. Instead, ‘what we should be focusing on is mapping effects’, or how human groups use maps.

Mapmakers have virtually limitless possibilities when choosing variables to present, and what variables they choose to include and exclude are thus important questions. The abstractions of social facts on a map can distort reality to a certain extent and may ‘lie’ or misrepresent the ‘truth’ as a result of element selection. Maps that misrepresent ‘reality’ or misinform the audience are not necessarily intentional and are virtually unlimited. ‘Cartographic deception’, as de Blij (2005:35) refers to it, ‘is more common than you might think’. This deception may be unintended and, in part, due to the inexperience of mapmakers in the field. Inexperience, in this case, even expands to not only inexperience in regards to the mapmaking process but also inexperience and naivety in regards to the mapping effects. On the other hand, intentional misuses of maps are done as cartographic persuasions to endorse propaganda. In *How to Lie with Maps*, Monmonier (1991) demonstrates a long history of cartographic deception to promote advantageous agendas and strategies for dominance. Likewise, Harvey (2001:231-232) contends that ‘facts’ presented on maps, where representations and constructions are confused with objective truths, are used to manipulate and justify ascendancy and authority. However, cartography and the ability to create maps are not only left to the elite but are now available to the masses. There is power in resistance and counter-mapping practices are working to balance representations.

Maps can express fear and stigmatise, but they can also express hope and humanise. Regardless of the constructions and narratives told by a map, a critical eye is always

required. Vigilance is needed in detecting and appreciation for the epistemologies and experiences inherent in all maps. A map becomes a story conveying subjective imagining and should be viewed as such. Maps are imbued with the mapmakers' subjectivities, social constructions, and representations, which, in turn, impact the viewers. We must recognize these mapping effects, appreciate the ways they contribute to our understanding of the world, and are part of a story if we are to unlock the information encoded in maps.

6.3 Best practices for a Critical Cartographic Criminology

So what does a critical cartographic criminology look like and what are the best practices when employing this approach? The following principles describe what a critical cartographic criminology looks like and provides guidance for “best practices” in application. These principles are not ordered in any way nor are they mutually exclusive; each is as important as the next and shares some interrelated elements.

1. Maps express pluralities and there is never a single message embedded in a map.

A critical cartographic criminology appreciates the multitude of interpretations a map offers. Mapping can cultivate knowledge about spaces, places, and people. Although they have the ability to inform, the messages conveyed may not always be what was intended. Maps have the ability to stigmatise and humanise. They can tell us about social ‘others’ without ever having to interact with social ‘others’. Maps can be mediated sources from which the reader can vicariously experience spaces they otherwise would not experience. A single map can have many different reads on society and culture. However, these messages can be misunderstood or based on what the interpreter brings to the interpretation (i.e. experience, bias, and the life) from what was intended.

2. Maps are subjective and partial; never communicating pure objectivity and subject to critical critique.

A critical cartographic criminology understands that maps are inherently subjective. Maps can be filled with facts, but the truths of the map are not entire or

without prejudice. With this in mind, maps should be critically examined to understand the interloping between “facts” plotted on a map and the subject roles the representation is intended to play. Maps can evoke emotions through collective or individual memory, often informed by their background or perceived social reality. Although a map is limited in terms of what it can convey, they are a source of knowledge that can define, inform, and communicate events of crime, victimization, power and control.

3. Maps are communicators of power and ideology with the ability to influence social, political, and cultural factors.

A critical cartographic criminology explores the power dynamics of maps and the mapping process. Maps are vehicles through which power and control can be created, maintained, and enforced. They can be used as propaganda by spreading misrepresentations of truths. Maps can represent divisions between people but can also be used to represent spaces of resistance.

4. Maps are snapshots of spaces represented in time.

A critical cartographic criminology does not use maps as crystal balls to see into the future. It acknowledges that maps are representations of a particular time and space; informed by an agenda and a subjective perception. Regardless of how fanciful technology becomes or how dynamic of maps technology can produce, they will always remain a product of that time and space. However, it is a representation. The messages or interpretations of maps will change with time.

A critical cartographic criminology remains mindful of the ethical applications in the creation of maps and the consequences – unintended or not – they produce. Maps are not always necessary and can sometimes do more harm than good through their production. Maps have the ability to stigmatise and dehumanise if not treated with care and caution. They can also be used to punish or control others. Consequences of maps need to be considered by all involved in their purpose, starting with the mapmaker. Regardless of the

constructions and narratives told by a map, a critical eye is always required. Vigilance is needed in detecting and appreciation for the epistemologies and experiences inherent in all maps. A critical cartographic criminology recognises these mapping effects and appreciates how they contribute to social knowledge.

6.4 Future prospects for a Critical Cartographic Criminology

In many ways, this thesis serves as a map of its own - guiding and navigating future research in developing a cartographic criminology. Much work is left to be done. This thesis begins to carve the path but more is needed. I believe a thesis is never really complete. One thesis can only do so much. In another thesis, I would perhaps shift my attention to contemporary quantitative crime maps that are now so popular within the discipline. For the last twenty years or so, spatial studies of crime have adopted a 'hard science', objective approach. The geography of crime literature has become popular within law enforcement and social policy communities. Its inception further simplifies the dynamics of space, viewing it at its most abstract level possible. Spaces of crime are easily measured and easily manipulated for control. The geography of crime no longer strives for social changes but instead aims for spatial change. While this approach has surely lowered rates of certain crimes, it does not explain the cultural causes or contexts of crime. This seemingly objective, 'hard science' approach to space and crime shifts attention further away from culture, and from criminological understandings of crime. The fear in engaging with conventional crime maps, however, is that it would be a practice in futility; never providing the opportunity to look past the statistical accounts of society and its vices. It is as Williams (1984:92) argues, 'that subtle change has moved towards a tautological position where knowledge will be gained primarily from what we measure, which in turn will be based on what we already know'. Without regret, however, this thesis explored maps in the marginalised spaces of the discipline and turned to geography to inform theory.

Initiating a critical discussion of criminology's blind engagement with maps is only the very beginning of a long journey. It is with sincere hope and desire that a critical cartographic criminology can continue to make progress within the discipline. Engagement with maps and cartography will only strengthen the conceptual possibilities for criminology.