

Rolling Synopsis

What are the unique challenges in trying to wargame modern operations in an increasingly urbanised world and (how) can they be better addressed?

1. Introduction (~5000)

The introduction will set the scene for the importance and challenges of urban warfare as in the work of [King, Hills Glenn](#) etc and in the increasing focus being applied by (allied) Militaries. It will also summarise my personal motivations and what I hope to achieve from the PhD for the wider body of knowledge, for professional wargame professionals, for the military and for myself. The focus of the PhD will be presented, in particular a consideration of FIBUA vs urban warfare vs urban conflict vs conflict in an urbanised world, and the level of interest (operational cs tactical or strategic). It will then provide a capsule introduction (including some of the key terms) on Cities, Urban Warfare, Wargaming, and Urban Wargames,. It will highlight some of the immediate challenges and potential gaps and issues to be explored. The introduction will finish with a chapter by chapter guide to what the Thesis will present and the overall methodology and approach to the work.

2. A History and Historiography of Urban Warfare (~6000)

A key tension in this and the following chapter is not wanting to spend too much of the thesis looking at the history and characteristics of urban warfare (which already fill multiple books), but at the same time provide enough research and evidence to inform the rest of the research. As a result these chapters may lean heavily on secondary research (for instance not spending too much time on reading personal accounts and official war diaries), although some primary resources (especially doctrine manuals) will be used. It will be necessary to provide an initial introduction to urban development theory as this will particularly inform the discussion in Chapter 4, but again this is not a PhD on urban planning. It is probably useful to introduce the concept of Urban Terrain Zones, some of the common models and my own model here as they will be useful in structuring some of the descriptions of urban battles (and any maps). Some of the current theories around why we fight in cities will be presented - and potentially expanded and possibly challenged in Chapter 4. The bulk of the chapter will then consist of a summary of urban warfare and a historiography of urban warfare. The former is likely to look at the main historic periods as they relate to urban warfare (Ancient/Biblical/early Medieval, pre 1900 (i.e. pre-mechanised), WW1, Inter-War, WW2, 1950-1989 (Cold War), 1990 - 2010 (War on Terror), 2010 - present). The chapter will become too huge if much time is spent on any battle and so it is proposed that 1-2 dozen battles are examined in an annex with 2 pages each to highlight the main lessons from each. Battles will be chosen to ensure that each of the key characteristics discussed in Chapter 3 is evidenced. The historiography will look more at how writers have talked about the urban fight, using roughly the same time periods, from Sun Tzu to present. The historiography will also include how military urban doctrine has evolved over the same period.

3. Key Characteristics of Urban Warfare (~8000, ~20 @ 500?)

Based on the evidence presented in Chapter 2 and the work of secondary sources this chapter will look at what the key characteristics which differentiate urban conflict/warfare combat from more rural forms. Again there is a tension between covering a large list of factors and having enough space for the rest of the PhD. Characteristics will be keyed back to the battles covered in Chapter 2 and to secondary research. A provisional list of the main areas for consideration is: Physical structure, infrastructure, manoeuvre (incl subsurface), direct fire (inc HE and anti-tank), indirect fire, close air support, combat engineering, command and control, communications and Electronic Warfare, Intelligence Surveillance and Reconnaissance (ISR, incl Space), Uncrewed Vehicles (air and ground), "exotic" weapons (including CS Gas, flame, non-lethal weapons), the civilian population, influence and information operations, cyber, littoral and riverine considerations, service support and futures. For ready references each section will probably have a summary table of pro/cons resulting from the use in urban of each aspect.

4. Current and Future Urban Conflict (~6000)

This is the first chance for me to put my stamp on the work. The chapter will present a critical examination of the current trends and theories on urban warfare and of cities themselves, in particular concepts such as cities as systems, cities as organisms and megacities. It will then examine the different type of operation that a military might be required to undertake in an urban environments (such as humanitarian, protected evacuation, peace making/keeping, counter-insurgency operations - COIN, and Large Scale Combat Operations - LSCO) . The current urban warfare doctrine of notable global

players will then be critically examined including NATO (with separate consideration of at least the UK and USA), China, Russia and Israel. Much of the current discussion about urban warfare planning is that it should be situated (literally in concrete), so potential future conflict zones will be examined and their urban patterns and main urban areas identified and considered in the light of their potential impact on any conflict operations. Such areas are likely to include the Baltic States, Ukraine, possibly Poland & Belorussia, the Mediterranean, the Middle East, the the 'Stans', India/Pakistan, Taiwan, Korea, South East Asia and developing nations. The intention is to paint the picture of the sort of operations, doctrine and locations that any modern urban wargame should seek to represent.

5. Wargaming Rationale (~6000)

This Chapter will present why wargames are not only used by the military but why they are also a valid, useful and appropriate means of investigation for this PhD. A short history of wargaming will be presented (drawing on secondary sources) followed by a more focussed history and historiography of urban wargaming. A typology and examination of the main elements of wargames will be presented. The pros and cons of manual vs computer games will also be discussed, along with a rationale for the focus on manual games for this PhD. Key approaches to wargames (and game) design theory will be considered, along with an evidenced discussion of the benefits of wargaming.

6. Existing Urban Wargames (~8000)

This chapter will exploit the Urban Wargames database that I have been building since the beginning of the PhD and currently with over 130 urban wargames on it. The full list will be included as an annex, possibly with ~ 1 para on each. I will also use contacts to further identify professional and military urban wargames and to get as much information about them into the public domain so that they can be analysed here as well. A number of different typologies will be used to analyse the games as a whole and a representative selection (or major typologies) described. If time and resources allowed it would be useful to conduct some observed play of key games, in which case the criteria for selection, the evaluation methodology, recruitment model and results will all need to be covered. Again based on time it might be useful to present an analysis of where one battle is covered by multiple games (e.g. Stalingrad, Hue) in order to show how different games can cover the same battles but in quite different ways, and probably with different degrees of success.

7. Urban Wargames – Summative Analysis & Challenges (~8000)

This chapter is probably the summation of all of the previous chapters. Based on the evolution of urban warfare, the particular instances of urban battles, the derived characteristics of urban warfare, and the current expectations of how future urban conflicts should be conducted this chapter will at how well existing urban wargames meet future capabilities, doctrine and expectations, and past performance; how well the unique characteristics of urban conflict are addressed by these games, and what, as a result, are the unique challenges and gaps in trying to wargame modern operations in the urban environment - which of course represent the opportunity for the PhD.

8. Experimentation and Evaluation Planning (~6000)

This chapter will consider the planning for the experimentation and evaluation phase of the PhD. It will consider what needs to be evaluated (and why), a critique of the researcher/myself to consider any bias and expectations, what methods of experimentation and evaluation could be used, and which were selected and rejected and why. It is probably the right place to consider the models of validity that could apply to wargames (perhaps better here than in Chapter 5) as this should also drive the what/why of evaluation. The data capture and management plan will be presented. [Peter Perla](#) provides a useful framework for wargame data capture which may be adapted. The chapter will also consider the ethical framework and implications of the experimentation.

9. Experimentation (~10000)

This chapter will present the core of the experimentation that was conducted for the PhD. Based on the issues and opportunities identified in Chapter 7 it will first select the specific aims of the experiments - which then lead to the aims of the wargame(s), type or wargame(s) and the audience(s) (research participants). As is evident from the last sentence I suspect that I will need to do design and experiment with more than one wargame in order to stand any chance of covering some of the important issues identified in Chapters 3 and 4. It may be that [Philip Sabin's](#) concept of "nested wargames" may be appropriate here, looking at different levels of command. Another approach may be common rules but looking at scenarios which explore different environments, types or doctrines of urban conflict as detailed in Chapter 4. It is considered at the moment that 3 wargames is probably a practical limit, but this may be revised up or down as research and

planning progresses. A rationale for selection will be presented, with possibly a summary of rejected wargames. A generic approach to wargame development, informed by the work of [GrahamLB](#), will be presented and will be followed for each wargame developed. For each selected game the chapter will present the objectives, the design, the method of player recruitment, a description of how the game is staged (the experiment) and what data is captured (and how), and a description of any iterations in design based on feedback from each play.

10. Evaluation & Discussion (~8000)

This chapter will initially present the results, evaluation and discussion from each of the wargames. It is anticipated that each wargame will be played multiple times but whether this is 1-10, or 10-50, or 50-100 will depend on the nature of the game (in particular its time to play, need for an umpire and complexity to set-up and play) and recruitment of players. The evaluation for each game will focus on the evaluation criteria established in Chapter 8 - looking in particular at the measures of validity and player experience. A summative evaluation and discussion will then follow, looking at the degree to which the experimentation and research has answered the fundamental research question of the PhD "What are the unique challenges in trying to wargame modern operations in an increasingly urbanised world and (how) can they be better addressed?".

Note: It may be that Chapters 9 and 10 are better done as 5 chapters, the overall introduction to the experimentation, a chapter for each wargame (from design to evaluation and discussion) and a final summative discussion.

11. Conclusions (~2000)

The final short chapter will provide a conclusion to the work. This will recapitulate the main observations on urbanisation, urban warfare and existing urban wargaming. It will summarise the key challenges and novel approaches identified (which may include a Guide to Wargaming Urban Conflict as an annex), and the results of the experimentation. It will conclude with identifying what has been learnt, how this has furthered the knowledge in this area (for the academic, professional wargaming and military community), to what extent it has changed the researcher, and ultimately how successful the research has been as answering the research question.