

**An exploration into the relationship between
spirituality and urban design with specific
reference to the city of Phnom Penh in Cambodia**

Thesis submitted in accordance with the requirements of the
University of Liverpool for the degree of Doctor in Philosophy

By Paul David Cliff Robinson

December 2019

ProQuest Number:28209003

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent on the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 28209003

Published by ProQuest LLC (2020). Copyright of the Dissertation is held by the Author.

All Rights Reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

PREVIEW

Abstract

The relationship between spirituality and urban design is complex. Since the twentieth century, spirituality has often been neglected in western European architecture and urban design education, theory, and practice. My lived experience of the city of Phnom Penh and its dynamic spatial spirituality further highlighted this condition and prompted this research. This thesis explores the relationship between spirituality and urban design with specific reference to the city of Phnom Penh in Cambodia. Based on a combined ethnographic and phenomenological approach, the spatial impacts of spirituality in the urban layout of the city of Phnom Penh were researched through five years of participant observation, twenty semi-structured interviews, photographs, drawings, conversations and relevant literature review. Analysis of the data revealed the prevalent hybrid spirituality of Khmer culture, that includes Animism, Hinduism, and Buddhism, was, and still is, spatially manifest in the urban layout of the city of Phnom Penh in three leading ways. Firstly, through the topographical elements of tree, mountain, and water in their natural, artificial and abstracted presence. Secondly, through both domestic and urban wide scale, where it is evidenced in common housing typologies and significant urban focal points. Thirdly, through a variety of rituals, that include the major national festivals and their associated rituals as well as traditional construction rituals for both settlements and housing. These many and varied spatial impacts of spirituality have dramatically influenced the evolution of the urban layout over time as well as transforming each other. When the layered results were mapped onto a series of plans, elevations and sections, the presence and character of a powerful and dynamic relationship between spirituality and urban design in the city of Phnom Penh in the twenty-first century was clearly demonstrated. Now that a plausible relationship has been rigorously identified and spirituality has been validated as a core design parameter, research can go further into its multivalent character and spatial spiritual impact that could, by extension, inform neighbouring urban layouts within East Asia and beyond.

Acknowledgements

Jesus Christ, thank you for being my Creator, Saviour, and King.

Dr Soumyen Bandyopadhyay, thank you for journeying with me across nations and universities.
Dr Christina Malathouni, thank you for your incisive comments.

Dean Kong Kosal, thank you for the opportunity to work at RUFA and stay connected.
Lok Kru Chhay Karno, thank you for your insight into Khmer culture and friendship.
Lok Kru Phal Piseth, thank you for translating so well and hospitality.
Lok Kru Trek Penghy, thank you for adventurous academic road trips on dusty motorcycles.
Miss Clarissa Cheung, thank you for helping to transcribe all the interviews.

Mrs Grace Robinson, thank you for ongoing patience, kindness, help and support.
Miss Isobel Robinson, thank you for reminders to keep my eye on the prize!
Miss Sally Robinson, thank you for the many hugs of encouragement.

Mr David and Mary Robinson, thank you for the prayers and care.
Hannah, Noah and Esther, thank you for cheering me on along the way!

PREVIEW

Table of Contents

Abstract	i
Acknowledgements	ii
Table of Figures	vi
Glossary of terms	xiii
Chapter 1: Introduction	1
1.1 Personal story	1
1.2 Thesis topic	2
1.21 Spirituality	3
1.22 Urban Design	4
1.23 The city of Phnom Penh	5
1.3 Theoretical framework	12
1.31 The postcolonial filter	14
1.4 Research methodology	15
1.5 Conclusion	18
Chapter 2: Literature Review	21
2.1 Introduction	21
2.2 Phenomenology	21
2.3 Ethnography	24
2.4 Khmer spirituality	25
2.5 Spirituality and urban design	27
2.6 Spirituality and topography	28
2.7 Spirituality and dwelling	30
2.8 The city of Phnom Penh	31
2.9 Conclusion	33
Chapter 3: Topography	35
3.1 Introduction	35
3.2 The origins of hybrid spirituality	36
3.3 Topography and Khmer spirituality	40
3.4 The topographical element of the tree	41
3.41 The natural tree	42
3.42 The abstracted tree	44
3.5 The topographical element of the mountain	45
3.51 The Animist natural mountain	46
3.52 The hybrid natural mountain	47
3.53 The artificial urban mountain	49
3.54 The abstracted mountain	53
3.6 The topographical element of water	55
3.61 The natural presence of water	57
3.62 The abstracted presence of water	62
3.7 Spatial impact of spirituality maps	64

3.8 Conclusion	68
Chapter 4: Dwelling	69
4.1 Introduction	69
4.2 Two traditional Khmer construction rituals	70
4.21 The typical traditional Khmer settlement evolution ritual	70
4.22 The traditional settlement, spirituality and the senses	72
4.23 The typical traditional Khmer house construction ritual	74
4.24 The traditional house, spirituality and the senses	75
4.3 The traditional house and Vann Molyvann	79
4.4 Typology one: the shophouse	82
4.5 Twenty-first century domestic vernacular architecture	88
4.6 Typology two: the detached/semi-detached villa	89
4.7 Typology three: the high rise apartment block	92
4.8 Spatial impact of spirituality elevations and sections.....	93
4.9 Conclusion	96
Chapter 5: Urban Layout	99
5.1 Introduction	99
5.2 Urban layout origins	100
5.3 Urban layouts during the French protectorate era	103
5.31 Wat Phnom	107
5.32 The Royal Palace	109
5.33 Ben Decho lake	111
5.4 The urban layout during the first era of independence	113
5.41 The Independence Monument	114
5.42 The National Sports Complex	116
5.5 Rupture in the era of war	119
5.6 The urban layout since 1993	121
5.7 Twenty-first century focal points	123
5.8 The Water Festival	125
5.81 The King	131
5.82 Hybrid spirituality during the Water Festival.....	135
5.9 Conclusion	136
Chapter 6: Conclusions	139
6.1 Introduction	139
6.2 Thesis topic conclusions	139
6.3 Contributions to knowledge	140
6.4 Research methodology review	142
6.5 Future possibilities	143
6.6 Personal end note	144

Bibliography	145
Books	145
Journal articles	149
Electronic journal articles	151
Appendices	153
Appendix 1: Sketch Timeline	153
Appendix 2: Chronology of Kings	155
Appendix 3: Flags of Cambodia	157
Appendix 4: Research Questionnaire	158
Appendix 5: Questionnaire results, coding and categorisation	159
Appendix 6: Sand Mountain Folktales	161
Appendix 7: Interview Transcripts	163

PREVIEW

Table of Figures

Chapter 1: Introduction

- Figure 1.01: *Thai birth certificate*. (Photo by author 2019)
- Figure 1.02: *Teaching at RUFA* (Photo by author 2016)
- Figure 1.03: Behr, H., (2007), *Map of Angkor Wat*, digital image, Public Domain, viewed 17 December 2018, <https://commons.wikimedia.org/wiki/File:Karta_AngkorWat.PNG>
- Figure 1.04: *Angkor Wat* (Photo by author 2012)
- Figure 1.05: Author unknown, *Map to show capital city locations in the dark ages*, digital image, viewed 2016, (Drawing by author 2016)
- Figure 1.06: Unknown Dutch Participant (1644), *Battle of Phnom Penh 1644*, digital image, The Hague, viewed 17 December 2018, <http://camwatchblogs.blogspot.com/2011/05/vietnam-champa-relations-in-17th-19th_27.html#!/2011/05/vietnam-champa-relations-in-17th-19th_27.html>
- Figure 1.07: Author unknown (1864), *Norodom 1863 Coronation*, digital image, KI Media, viewed 17 December 2018, <<http://ki-media.blogspot.com/2012/05/king-norodoms-court-candid-account-by.html>> and Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 17 December 2018, page 42
- Figure 1.08: *The Royal Palace* (Photo by author 2017)
- Figure 1.09: Juvenal, C., (1975), *Day One, Year Zero*, digital image, Time, viewed 17 December 2018, <<https://www.pinterest.co.uk/pin/504473595731384220/?lp=true>>
- Figure 1.10: Author unknown (1979), *Phnom Penh 1979*, digital image, Pinterest, viewed 17 December 2018, <<https://www.pinterest.co.uk/pin/661184789016513030/?lp=true>>
- Figure 1.11: *Diagram study of hybrid spirituality* (Drawing by author 2014)
- Figure 1.12: *Sketch study of abstract mountain* (Drawing by author 2015)
- Figure 1.13: *Self-published book containing transcripts of 20 interviews (2017)* (Drawing by Clarissa Cheung)

Chapter 3: Topography

- Figure 3.01: *Animistic shrine in Kampot* (Photo by author 2014)
- Figure 3.02: *Khmer script today (left) similar to Angkor Sanskrit (right)* (Photos by author 2010)
- Figure 3.03: Lessman, 2011, *The Changing map of India*, digital image, Ias Abhiyan, viewed 26 November 2018, <<https://www.iasabhiyan.com/changing-map-india-1-ad-20th-century/>>
- Figure 3.04: *Origins of Cambodia's hybrid spirituality and its perpetuity* (Drawing by author 2016)
- Figure 3.05: Naren, K., (2015), *New Phnom Penh Land Master Plan Passed*, digital image, Cambodia Daily, viewed 26 November 2018, <<https://urbanvoicecambodia.net/new-phnom-penh-land-master-plan-passed/?lang=en>>
- Figure 3.06: *Kampuchea Krum Boulevard* (Photo by author 2014)
- Figure 3.07: *View west of Neak Banh Teuk Park (see figure 05 location A) red detail highlighted* (Photo by author 2018)
- Figure 3.08: *Area of red detail (see figure 3.27) to show location of Bodhi tree* (Photo by author 2018)
- Figure 3.09: *Section to show Bodhi tree, boundary wall and yellow detail* (Photo by author 2018)

- Figure 3.10: *Area of yellow detail (see figure 3.29) and location of shrine to tree dwelling spirit* (Photo by author 2018)
- Figure 3.11: *Spirit House* (Photo by author 2018)
- Figure 3.12: *Spirit House* (Photo by author 2016)
- Figure 3.13: *Adhoc worship* (Photo by author 2018)
- Figure 3.14: Pineros, E., (2018), *Visit Phnom Kulen*, digital image, A&D Foundation, viewed 26 November 2018, <<http://www.adfkulen.org/visit-phnom-kulen.html>>
- Figure 3.15: *Height Scale Materiality* (Drawings by author 2015)
- Figure 3.16: *Temple on the mountain summit Phnom Da* (Photo by author 2015)
- Figure 3.17: *Wat Ashram Maha Rosei Phnom Da* (Photo by author 2015)
- Figure 3.18: *Cave in mountainside of Phnom Da* (Photo by author 2015)
- Figure 3.19: *Site of Linga and Yoni* (Photo by author 2015)
- Figure 3.20: *Height Scale Materiality* (Drawings by author 2015)
- Figure 3.21: *Roulos (Artificial Mountain Funan era 600AD)* (Photo by author 2015)
- Figure 3.22: Beglar, J., (1875), *Front view of the temple at Bhitargaon, Kanpur District*, digital image, British Library British Library, viewed 26 November 2018, <<http://www.bl.uk/onlinegallery/onlineex/apac/photocoll/f/019pho000001003u00676000.htm>>
- Figure 3.23: *Height Scale Materiality* (Drawings by author 2015)
- Figure 3.24: *The artificial mountain of Koh Ker* (Photo by author 2010)
- Figure 3.25: Kanako, (2018), *Aerial view of Angkor Wat*, digital image, Best Places, viewed 19 October 2018, <<http://www.bestplacesphoto.com/Angkor-Wat-Siem-Reap-Cambodia/Aerial-View-Of-Angkor-Wat>>
- Figure 3.26: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 26 November 2018, page 31
- Figure 3.27: *View of Wat Phnom from top of Canadia Tower* (Photo by author 2010)
- Figure 3.28: *Wat Phnom during new year festival and Wat Phnom approach stair* (Photos by author 2014)
- Figure 3.29: *Wat Neak Kawan* (Photo by author 2014)
- Figure 3.30: *The range of five sand mountains* (Photo by author 2015)
- Figure 3.31: *Sprinkling sand and gaining merit* (Photo by author 2015)
- Figure 3.32: *Height Scale Materiality* (Drawings by author 2015)
- Figure 3.33: Mappery (2011), *Siem Reap/Angkor Wat Overview Map*, digital image, Mappery, viewed 26 November 2018, <<http://www.mappery.com/Siem-Reap-Angkor-Wat-Overview-Map>>
- Figure 3.34: Artisans Angkor, (2013), *Churning of the Ocean of Milk*, digital image, Magazine Artisans Angkor, viewed 26 November 2018, <<http://mag.artisansdangkor.com/churning-of-the-ocean-of-milk.html>>
- Figure 3.35: Nette, A., (2008), *RIGHTS-CAMBODIA: Mass Evictions May Follow Lake Grab*, digital image, IPS, viewed 26 November 2018, <<http://www.ipsnews.net/2008/08/rights-cambodia-mass-evictions-may-follow-lake-grab/>>
- Figure 3.36: Nette, A., (2008), *RIGHTS-CAMBODIA: Mass Evictions May Follow Lake Grab*, digital image, IPS, viewed 26 November 2018, <<http://www.ipsnews.net/2008/08/rights-cambodia-mass-evictions-may-follow-lake-grab/>>
- Figure 3.37: Portail, (1920), *Phnom Penh Map*, digital image, viewed 26 November 2018, <<http://www.bigmapblog.com/2012/portails-plan-de-phnom-penh-1920s/>> and Phnom Penh tourist map (2010), *Phnom Penh*, digital image, Phnom Penh Tourism, viewed 26 November 2018, <<http://do-you-know-about.blogspot.com/2010/04/phnom-penh-airport-map.html>>

- Figure 3.38: *Railway Station entrance* (Photo by author 2016)
- Figure 3.39: *Railway Station aerial view* (Photo by author 2013)
- Figure 3.40: Grant Ross, H. and Collins, D., (2005), *Building Cambodia: 'New Khmer Architecture' 1953-1970*, Scanned Image, The Key Publisher, viewed 26 November 2018, page 16
- Figure 3.41: Google Earth, (2003), Boeung Kak Lake, digital image, Pinterest, viewed 26 November 2018, <<https://www.pinterest.ca/pin/570549846516365163/>>
- Figure 3.42: Google Earth, (2013), Boeung Kak Lake, digital image, Pinterest, viewed 26 November 2018, <<https://www.pinterest.ca/pin/570549846516365163/>>
- Figure 3.43: *Proposed Plan A* (Photo by author 2016)
- Figure 3.44: Skyscraper city, (2010), *Boeung Kak Lake Development*, digital image, SkyscraperCity.com, viewed 26 November 2018, <<https://www.skyscrapercity.com/showthread.php?t=1116217>>
- Figure 3.45: Phnom Penh Post, (2016), *Shukaku opens new Boeung Kak Lake chapter*, digital image, Phnom Penh Post, viewed 26 November 2018, <<https://www.phnompenhpost.com/post-property/shukaku-opens-new-boeung-kak-lake-chapter>>
- Figure 3.46: *Aerial view of the infilled Boueng Kak lake* (Photo by Yew On Choo 2019)
- Figure 3.47: *Khmer lotus flower* (Photo by Nick Radcliffe 2014)
- Figure 3.48: Dina, C., (2016) *Independence Monument 2016*, digital image, E-Pao, viewed 22 January 2019, <[http://www.e-pao.net/epSubPageExtractor.asp?src=travel.ManipurTravel Log.A Guide to Phnom Penh Journey Cambodia By Chingakham Dina](http://www.e-pao.net/epSubPageExtractor.asp?src=travel.ManipurTravelLog.A%20Guide%20to%20Phnom%20Penh%20Journey%20Cambodia%20By%20Chingakham%20Dina)>
- Figure 3.49: *Washing the Buddha idol* (Photo by author 2016)
- Figure 3.50: *Washing with perfumed water* (Photo by author 2016)
- Figure 3.51: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 26 November 2018, page 34,84
- Figure 3.52: *Post 14th century pre-urban map (speculative)* (Drawing by author 2019)
- Figure 3.53: Naren, K., (2015), *New Phnom Penh Land Master Plan Passed*, digital image, Cambodia Daily, viewed 19 October 2018, <<https://urbanvoicecambodia.net/new-phnom-penh-land-master-plan-passed/?lang=en>>
- Figure 3.54: *2020 Topographic map (speculative)* (Drawing by author 2019)
- Figure 3.55: *Topographic map including domestic spirit houses to approx. 95% of city (speculative)* (Drawing by author 2019)
- Figure 3.56: *Topographic map to show spatial spiritual impact of significant trees (speculative)* (Drawing by author 2019)
- Figure 3.57: *Washing ritual (speculative)* (Drawing by author 2019)
- Figure 3.58: *Sand mountain ritual (speculative)* (Drawing by author 2019)
- Figure 3.59: *Topographical map of the city of Phnom Penh (speculative)* (Drawing by author 2019)

Chapter 4: Dwelling

- Figure 4.01: *The forest* (Drawing by author 2014)
- Figure 4.02: *Land clearance* (Drawing by author 2014)
- Figure 4.03: *Site zoning* (Drawing by author 2014)
- Figure 4.04: *Site accommodation* (Drawing by author 2014)
- Figure 4.05: *Settlement birth* (Drawing by author 2014)
- Figure 4.06: *Settlement expansion* (Drawing by author 2014)
- Figure 4.07: *Typical traditional timber Khmer house (phteah kantaing)* (Drawing by author 2014)

- Figure 4.08: SVA., (2008), *The Khmer House*, Scanned Image, SVA, viewed 19 October 2018, page 6 and Tainturier, F., Ed., (2006), *Wooden Architecture of Cambodia A Disappearing Heritage*, Scanned Image, Center for Khmer Studies, viewed 19 October '18, page 80
- Figure 4.09: *12th century housing bas relief from Angkor Wat* (Photo by author 2014)
- Figure 4.10: *Decorative roof finials on 2007 phteah kantaing* (Photo by author 2014)
- Figure 4.11: *Phteah kantaing built with cheap materials* (Photo by author 2014)
- Figure 4.12: *Phteah kantaing built with expensive materials* (Photo by author 2014)
- Figure 4.13: Grant Ross, H. and Collins, D., (2005), *Building Cambodia: 'New Khmer Architecture' 1953-1970*, Scanned Image, The Key Publisher, viewed 19 October 2018, page 142
- Figure 4.14: *Typical '100' house* (Photo by author 2014)
- Figure 4.15: Naren, K., (2015), *New Phnom Penh Land Master Plan Passed*, digital image, Cambodia Daily, viewed 19 October 2018, <<https://urbanvoicecambodia.net/new-phnom-penh-land-master-plan-passed/?lang=en>>
- Figure 4.16: *Typical 1930-50's shophouses in the Chinese quarter* (Photo by author 2008)
- Figure 4.17: *Typical twenty-first century 'apartment type shophouses'* (Photo by author 2008)
- Figure 4.18: Naren, K., (2015), *New Phnom Penh Land Master Plan Passed*, digital image, Cambodia Daily, viewed 19 October 2018, <<https://urbanvoicecambodia.net/new-phnom-penh-land-master-plan-passed/?lang=en>>
- Figure 4.19: *Detail from figure 4.18 to show 14 shophouses* (Drawing by author 2014)
- Figure 4.20: *Typical shophouse ground plan to show multi-function space* (Drawing by author 2014)
- Figure 4.21: *Typical shophouses* (Photo by author 2014)
- Figure 4.22: Halim, H., (2017), *Oversupplied boreys can ride out bumps better than condos*, digital image, Phnom Penh Post, viewed 19 October 2018, <<https://www.phnompenhpost.com/post-property/oversupplied-boreys-can-ride-out-bumps-better-condos>>
- Figure 4.23: Manet, S., (2015), *Affordable Flats Still Selling Swiftly*, digital image, Khmer Times, viewed 19 October 2018, <<https://www.khmertimeskh.com/6525/affordable-flats-still-selling-swiftly/>>
- Figure 4.24: *Ritual for construction project* (Photo by author 2014)
- Figure 4.25: *Long Section AA through a typical shophouse* (Drawing by author 2014)
- Figure 4.26: *Yantra* (Photo by author 2014)
- Figure 4.27: *Doorway offering and spirit house* (Photo by author 2014)
- Figure 4.28: *Internal shrine* (Photo by author 2015)
- Figure 4.29: *Multiple occupancy shophouse* (Photo by author 2016)
- Figure 4.30: *Yellow detail from figure 4.29 to show balcony spirit house* (Photo by author 2016)
- Figure 4.31: Realestate news, (2017), *CamKo city is now Heart of North-Phnom Penh*, digital image, CVEA, viewed 07 August 2019, <<https://www.realestate.com.kh/news/camko-city-is-now-heart-of-north-phnom-penh>>
- Figure 4.32: Realestate news, (2017), *CamKo city is now Heart of North-Phnom Penh*, digital image, CVEA, viewed 19 October 2019, <<https://www.realestate.com.kh/news/camko-city-is-now-heart-of-north-phnom-penh>>
- Figure 4.33: Borey Vimean, (2016), *Villa Floorplans*, digital image, Borey Vimean publicity, viewed 19 October 2018, <https://www.facebook.com/BoreyVimeanPhnomPenh/photos/d41d8cd9/1057392_504331108>
- Figure 4.34: *Front forecourt defensible space to semi-detached villa* (Photo by author 2017)
- Figure 4.35: *Spirit house* (Photo by author 2017)
- Figure 4.36: *Detail* (Photo by author 2017)

- Figure 4.37: *Shrines* (Photo by author 2017)
- Figure 4.38: *Detail* (Photo by author 2017)
- Figure 4.39: *Ancestor shelf* (Photo by author 2017)
- Figure 4.40: *Eaves shrine* (Photo by author 2017)
- Figure 4.41: *Front elevation* (Photo by author 2017)
- Figure 4.42: *Mango Tree with offering highlighted in red* (Photo by author 2016)
- Figure 4.43: *Red detail of offering to Neak Tha* (Photo by author 2016)
- Figure 4.44: *Naga World* (Photo by author 2017)
- Figure 4.45: *The Bridge* (Photo by author 2017)
- Figure 4.46: *Canadia tower* (Photo by author 2017)
- Figure 4.47: *Typical 12m section in forest* (Drawing by author 2019)
- Figure 4.48: *Typical 12m section in forest* (Drawing by author 2019)
- Figure 4.49: *Typical Khmer wooden house based on phteah kantaing* (Drawing by author 2019)
- Figure 4.50: *mid-twentieth century interpretation based on Vann Molyvann's 100 house project* (Drawing by author 2019)
- Figure 4.51: *Shophouse* (Drawing by author 2019)
- Figure 4.52: *Semi-detached villa* (Drawing by author '19)
- Figure 4.53: *High rise apartment block* (Drawing by author 2019)

Chapter 5: Urban Layout

- Figure 5.01: Fussan, S., (2008), *Map of the Angkor Archaeological Park*, digital image, Open Source, viewed 22 January 2019, <https://commons.wikimedia.org/wiki/File:Map_of_Angkor_Archaeological_Park.svg>
- Figure 5.02: Stuart-Fox, M. and Reeve, P., (2011), *Symbolism in City Planning from Angkor to Phnom Penh*, scanned image, Journal of the Siam Society, viewed 22 January 2019, page 132
- Figure 5.03: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 30
- Figure 5.04: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 33
- Figure 5.05: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 34
- Figure 5.06: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 31
- Figure 5.07: Montague, G. J., (2010), *Picture Postcards of Cambodia: 1900-1950*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 126
- Figure 5.08: Aruna Technology Ltd., (2012) *Phnom Penh 1903*, digital image, Aruna technology Ltd., viewed 22 January 2019, <<http://arunatechnology.com/2012/06/historical-maps-of-phnom-penh/>>
- Figure 5.09: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 82
- Figure 5.10: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 36
- Figure 5.11: Montague, G. J., (2010), *Picture Postcards of Cambodia: 1900-1950*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 295
- Figure 5.12: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 82

- Figure 5.13: Montague, G. J., (2010), *Picture Postcards of Cambodia: 1900-1950*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 96
- Figure 5.14: Author unknown, (2012), *Naga Bridge circa 1910*, digital image, Khmer 440.com, viewed 22 January 2019, <http://www.khmer440.com/chat_forum/viewtopic.php?t=23918>
- Figure 5.15: Author unknown (2009), *Naga Bridge circa 2009*, digital image, Phnompenhplaces, viewed 22 January 2019, <<http://phnompenhplaces.blogspot.com/2009/10/le-pont-des-najas-or-naga-bridge.html>>
- Figure 5.16: Montague, G. J., (2010), *Picture Postcards of Cambodia: 1900-1950*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 77
- Figure 5.17: *Royal palace (Photo by author 2014)*
- Figure 5.18: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 37
- Figure 5.19: Aitken, P., (1993), *Cambodia (UNTAC) Headquarters 1992-93*, digital image, Australian War Memorial, viewed 22 January 2019, <<https://www.awm.gov.au/collection/C264229> (Peter Aitken 1993)>
- Figure 5.20: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 85
- Figure 5.21: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 83
- Figure 5.22: Callebaut, C., and Prigent, S., (2011), *Central Market*, scanned image, Melon Rouge, viewed 22 January 2019, page 29
- Figure 5.23: Aruna Technology Ltd., (2012) *Phnom Penh 1943*, digital image, Aruna technology ltd., viewed 22 January 2019, <<http://arunatechnology.com/2012/06/historical-maps-of-phnom-penh/>>
- Figure 5.24: *Central market (Photo by Nick Radcliffe 2018)*
- Figure 5.25: Author unknown, (2012), *Map of Phnom Penh 1971*, digital image, The displaced city, viewed 22 January 2019, <<https://thedisplacedcity.files.wordpress.com/2012/07/1971.jpg>>
- Figure 5.26: Author unknown (2009), *Norodom boulevard and Wat Phnom 1960's*, digital image, Phnompenhplaces, viewed 22 January 2019, <<http://phnompenhplaces.blogspot.com/2009/10/le-pont-des-najas-or-naga-bridge.html>>
- Figure 5.27: Author unknown, (2019), *Norodom boulevard and Independence monument*, digital image, Pinterest.co.uk, viewed 22 January 2019, <<https://i.pinimg.com/originals/7e/9f/3f/7e9f3f34631f08898f3bb8bbfed8bb23.jpg>>
- Figure 5.28: Daravuth, L. and Muan, I., (2001), *Cultures of Independence*, scanned image, Reyum, viewed 22 January 2019, page 7
- Figure 5.29: Dina, C., (2016) *Independence Monument 2016*, digital image, E-Pao, viewed 22 January 2019, <[http://www.e-pao.net/epSubPageExtractor.asp?src=travel.Manipur Travel Log.A Guide to Phnom Penh Journey Cambodia By Chingakham Dina](http://www.e-pao.net/epSubPageExtractor.asp?src=travel.Manipur%20Travel%20Log.A%20Guide%20to%20Phnom%20Penh%20Journey%20Cambodia%20By%20Chingakham%20Dina)>
- Figure 5.30: Coggan, P., (2014) *Hun Sen Phnom Penh Residence*, digital image, Philip J Coggan, viewed on 22 January 2019, <<https://pjcoggan.wordpress.com/2014/06/18/power-and-political-culture-in-cambodia/>>
- Figure 5.31: Stiop, A., (2010), *Aerial view of Angkor Wat*, digital image, dreamstime, viewed 22 January 2019, <<https://www.dreamstime.com/stock-images-aerial-view-angkor-wat-image26865514>>
- Figure 5.32: *Sports Complex (Photo by author 2015)*

- Figure 5.33: Grant Ross, H. and Collins, D., (2005), *Building Cambodia: 'New Khmer Architecture' 1953-1970*, scanned image, The Key Publisher, viewed 22 January 2019, page 216
- Figure 5.34: Grant Ross, H. and Collins, D., (2005), *Building Cambodia: 'New Khmer Architecture' 1953-1970*, scanned image, The Key Publisher, viewed 22 January 2019, page 54
- Figure 5.35: *View south inside the National Sports Complex (Photo by author 2016)*
- Figure 5.36: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 118
- Figure 5.37: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 119
- Figure 5.38: *Killing fields (Photo by author 2017)*
- Figure 5.39: *S-21 (Photo by author 2017)*
- Figure 5.40: NCSD., (2016), *Phnom Penh Green City Strategic Plan 2016-2025*, scanned image, Global Green Growth Institute, viewed 22 January 2019, page 33
- Figure 5.41: JICA, (2014), *Phnom Penh proposed infrastructure*, digital image, JICA, viewed 10 August 2019, <http://open_jicareport.jica.go.jp/pdf/12245833.pdf>
- Figure 5.42: Molyvann, V., (2003), *Modern Khmer Cities*, scanned image, Reyum, viewed 22 January 2019, page 124
- Figure 5.43: Author unknown, (2018), *Camko City*, digital image, World City CO., Ltd., viewed 22 January 2019, <<http://worldcitycambodia.com/popup2.htm>>
- Figure 5.44: Author unknown, (2017), *Chroy Changvar satellite city*, digital image, Khmer Times, viewed 22 January 2019, <<https://www.khmertimeskh.com/94174/chroy-changvar-infrastructure-buoy-residential-development/>>
- Figure 5.45: Author unknown, (2018), *View of Phnom Penh from Sokha Hotel*, digital image, prestigia.com, viewed 22 January 2019, <<https://www.prestigia.com/en/sokha-phnom-penh-hotel.html>>
- Figure 5.46: Igout, M., (1993), *Phnom Penh Then and Now*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 85
- Figure 5.47: Molyvann, V., (2003), *Modern Khmer Cities*, scanned image, Reyum, viewed 22 January 2019, page 116
- Figure 5.48: Author unknown, (2012), *Map of Phnom Penh 1971*, digital image, The displaced city, viewed 22 January 2019, <<https://thedisplacedcity.files.wordpress.com/2012/07/1971.jpg>>
- Figure 5.49: Author unknown (2010), *Phnom Penh Map*, digital image, Tourism of Cambodia, viewed 22 January 2019, <<https://www.tourismcambodia.com/download/>>
- Figure 5.50: Montague, G. J., (2010), *Picture Postcards of Cambodia: 1900-1950*, scanned image, White Lotus Co. Ltd., viewed 22 January 2019, page 245
- Figure 5.51: *Water Festival 2017 (Photo by author)*
- Figure 5.52: *Typical view of Sisowath Quay parallel to the Tonle Sap river (Photo by Author 2017)*
- Figure 5.53: Channa, S., (2014), *Crowds attend the Water Festival...*, digital image, The Cambodia Daily, viewed 22 January 2017, <<https://www.cambodiadaily.com/news/streets-will-cleared-vagrants-water-festival-120367/>>
- Figure 5.54: Geoatlas, 2012, *Phnom Penh*, digital image, Geoatlas, viewed 22 January 2019), <https://www.geoatlas.com/medias/maps/city%20maps/Phnom_Penh/Ph3n5o9m55Pe8nh/>
- Figure 5.55: *Race Course Detail G from figure 5.54 Red arrows show race, blue arrows show return against the current (Drawing by author 2018)*
- Figure 5.56: *Spirit offering in bow (Photo by author 2017)*
- Figure 5.57: *Koki tree, indigenous to Cambodia (Photo by author 2017)*

- Figure 5.58: Grant Ross, H. and Collins, D., (2005), *Building Cambodia: 'New Khmer Architecture' 1953-1970*, scanned image, The Key Publisher, viewed 22 January 2019, page 16
- Figure 5.59: *Boat racing at full speed on the Tonle Sap river (Photo by author 2017)*
- Figure 5.60: *Light Barge (Photo by Author 2017)*
- Figure 5.61: Sokunthea, C., (2017), *King Sihamoni at the Water festival*, digital image, Khmer Times, viewed 22 January 2019, <<https://www.khmertimeskh.com/89200/the-water-festival/>>
- Figure 5.62: *Sisowath Quay (Photo by Nick Radcliffe 2017)*
- Figure 5.63: *Section through Sisowath Quay (Drawing by author 2018)*
- Figure 5.64: *River side public place (Photo by Nick Radcliffe 2017)*
- Figure 5.65: *The royal pavilion (Photo by Author 2017)*
- Figure 5.66: *The Royal Axis: horizontally present from the throne room to the finish line. Red detail from figure 5.55 (Drawing by author 2018)*
- Figure 5.67: *Annotated view A (see figure 5.66) of the royal axis (Photos by author 2017)*
- Figure 5.68: *Royal pavilion section along royal axis (Drawing by author 2018)*
- Figure 5.69: *Only Light and Darkness Remain (Photo by author 2018)*
- Figure 5.70: *Detail A from Figure 3.04 to show hybrid spirituality during the 2017 Water Festival (Drawing by author 2020)*

Glossary of Terms

Currently and '...rather inexplicably, no official, standardised rules exist for transcribing Khmer into the Latin alphabet' (Boswell 2016:168).

<i>Achar</i>	A holy layman
<i>Baray</i>	A large water repository or reservoir
<i>Brah ling</i>	Spiritual parts of a person (thought to be nineteen in total).
<i>Chaktomouk</i>	This Khmer word literally means 'four faces' referring to the junction of four rivers. It was the pre-colonial name of the settlement that became the city of Phnom Penh during the French Protectorate.
<i>Hora</i>	Fortune teller
<i>Jumneang Phteah</i>	Household guardian spirit
<i>Kmauit</i>	Ghosts
<i>Koki</i>	A species of auspicious tree
<i>Kuti</i>	Monastic residence within the temple complex
<i>Linga</i>	Hindu representation of male reproductive system
<i>Neak Tha</i>	Local territorial guardian spirit.
<i>Naga</i>	Snake or serpentine deity
<i>Phnom</i>	Mountain
<i>Pisnoker</i>	The Hindu god of construction
<i>Prasat</i>	Central sanctuary of ancient temple
<i>Prek</i>	Stream or tributary
<i>Pchum Bun</i>	The festival of the dead
<i>Stupa</i>	Relic repository usually located within the temple complex.
<i>Tevoda</i>	Angel
<i>Vihara</i>	Pagoda usually located within the temple complex
<i>Yantra</i>	Piece of cloth with spiritual text that protects against evil in eight directions
<i>Yoni</i>	Hindu representation of female reproductive system

PREVIEW

Chapter 1: Introduction

God had a pre-eminent claim to the city ahead of kings and merchants. (Kostof 1992:82)

And he carried me away in the Spirit to a mountain great and high, and showed me the Holy City, Jerusalem, coming down out of heaven from God. It shone with the glory of God, and its brilliance was like that of a very precious jewel, like jasper, clear as crystal. (Revelation 21:10 and 11)

The Phnom Penh of yesteryear with its tatty terraces of tumbledown shacks and dull Soviet monoliths is dying. Like a supersized serpent slowly shedding its skin, the city once referred to as the 'Paris of the East' is being resurrected one brick at a time. (Campbell 2008:27)

1.1 Personal story

In the late 1990s, I was seated on the first floor of the Foreign Correspondents' Club café on Sisowath Quay in the city of Phnom Penh. Looking out over the Tonle Sap river through the tall trees at the riverside edge, I experienced an indefinable spiritual connection with the city. This only strengthened over the next decade and in 2008 my family and I relocated to Phnom Penh where we spent the next nine years living and working with a Christian NGO called OMF International¹. My work involved lecturing and teaching design studio workshops at the Royal University of Fine Arts (RUFA). Over a period of eight years I wrote, lectured and refined a 4th/5th year course² in the architectural faculty entitled 'An introduction to Urban Design'. This was successfully handed over to local Khmer lecturers whom I mentored and learned from throughout my teaching practice there. The experience of teaching urban design in the city of Phnom Penh as a practising Christian inspired me to commence this PhD study. I was curious to explore more fully the relationship between spirituality, space and the Khmer person, and be able to share this with my Christian colleagues to facilitate a deeper, more contextualised, understanding of the Cambodian condition.

Further events in my life have also contributed to undertaking this research. I was born in Thailand where the current Thai princess Maha Chakri Sirindhorn signed my birth certificate (see Figure 1.01). I was educated at boarding schools in Malaysia and the UK, but Thailand was my home until the age of eighteen. I studied architecture at the University of Liverpool and have been a fully qualified RIBA accredited architect since 2001. In addition, I hold a master's degree in Urban Design from Manchester Metropolitan University and a certificate in Christian Mission Studies from the University of Gloucester. I first visited Cambodia in my mid-twenties then, after working approximately ten years in architectural practice in northern England, I departed for Cambodia at the age of 32. These life experiences help contextualise this thesis. Since birth, I have enjoyed a physical relationship with East Asia where much of my life has been lived. From the age of seven, I have considered myself a practising Christian, who values the Bible highly in the protestant tradition. Spirituality has always been important to me and has been integrated into every part of my life. Architecture, urban design and the art of space/place creation has been my vocation for over twenty years and something I have continued to develop in theory, practice and education (see Figure 1.02).

¹ OMF International (formerly the China Inland Mission and Overseas Missionary Fellowship), was founded by James Hudson Taylor in 1865. The organisation aims to serve the church and bring the good news of Jesus Christ to the peoples and places of East Asia.

² During this period, I taught over 600 students. The course became one of the leading urban design qualifications in Cambodia and still continues today under local Khmer leadership.

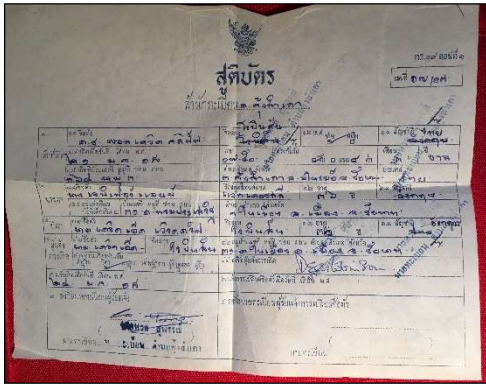


Figure 1.01: Thai birth certificate
(Photo by author 2019)

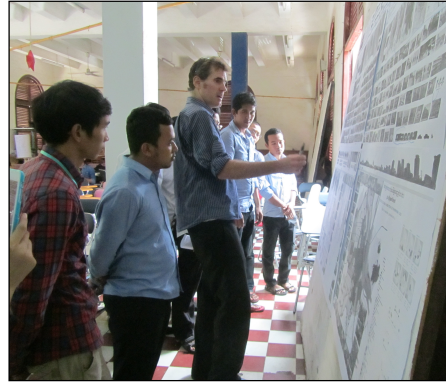


Figure 1.02: Teaching at RUFA
(Photo by author 2016)

Three ‘things’ struck me as I was teaching the ‘Introduction to Urban Design’ course at RUFA. Firstly, alleged international texts on urban design were predominantly European and American in flavour with token East Asian examples sparingly used. Secondly, spirituality was usually limited in academic texts to reference historic pre-industrial examples rather than current twenty-first century urban layouts. Thirdly there were very few local Khmer texts about the city of Phnom Penh or Khmer urban design. Once I had taught at RUFA for three years and reflected on the experience, I was compelled to think seriously about commencing a PhD. A piece of research that would combine: personal interests; an addition to knowledge in the academic fields of urban design and spirituality; and model the value of further education to my Khmer students³. Upon completion, my long-term desire would be to work with Khmer colleagues to help set up a Master’s programme at RUFA.

1.2 Thesis topic

There is no sacred secular divide in the city of Phnom Penh. The urban layout accommodates a vital and palpable spirituality that is an essential part of everyday life. The relationship between spirituality and urban design has not been clarified in South East Asia. This is in contrast to twentieth century European tradition where spirituality is frequently compartmentalised, limiting its opportunity to impact the urban layout. Alberto Perez Gomez discusses the future potential of this relationship in his influential book, *Attunement*, where he recognises the twenty-first century difficulties ‘...facing the place of spirituality in a nondualistic reality, and highlighting its importance for the well-being and sustainability of human cultures, one in which architecture should play its inveterate crucial role’ (2016:11). The whole human condition, both physical and spiritual, is engaged within the city of Phnom Penh’s urban design. How this relationship between spirituality and urban design expresses itself is understood in this thesis to be the spatial impacts of spirituality that were revealed through the leading themes of topography, scale and ritual.

An exploration into the relationship between spirituality and urban design with specific reference to the city of Phnom Penh.

³ To date there is no established opportunity for a Khmer student to undertake a Master’s degree in the field of architecture in Cambodia. They must travel abroad to develop their education, an opportunity available only to the rich or privileged and not necessarily the most talented.

The above title emerged that would direct the subsequent six years of research. The research methodology that enabled this exploration included both ethnography and phenomenology; a dual, integrated approach that utilised personal experience to facilitate spatial spiritual study in the city of Phnom Penh. Ethnography enabled a detailed understanding of the city. Phenomenology allowed an informed scrutiny of the connections between the phenomena of spirituality and the built environment within this context. The power of topography is common in many leading spiritualities which imbue topographical elements with meaning within their scriptures⁴. The natural topography of the region was researched and explored through the filter of Khmer culture. The agency of three leading topographical elements of tree, mountain, and water were also explored within the manmade built environment of the city. Urban design was understood to include both the large 'urban scale' of the city as well as the smaller 'domestic scale' of an individual housing unit. Khmer rituals were observed and experienced at both these scales and also in relationship to topography, to help describe the characteristics of the revealed spatial impacts of spirituality in the city of Phnom Penh. These leading research themes helped articulate the character of this relationship between spirituality and urban design, how and why it occurred and evolved over time, and what it could be like in the future.

1.21 Spirituality

The study (and place) of spirituality is relevant and necessary when researching architecture and the built environment. It should not be confined to theology or random aspirational sound bites. This thesis topic is an opportunity to rigorously engage with the primary theme of spirituality and start to restore its value to architecture's design agenda; an intent resonating through recent architectural texts (Temple 2007:23, Pallasmaa 2012:13, Borch 2014:7). Therefore, a key term that needs to be explored is spirituality. The following quote highlights the slippery nature of the term and associated understandings of it as it struggles to be captured in a single comprehensive definition.

How we define 'spirituality' and also distinguish and describe different traditions of spirituality is not a simple matter of objective observation. All definitions and descriptions are a matter of interpretation which, in turn, involves preferences, assumptions and choices. ...Sometimes our historical narratives also reflect the interests of dominant groups - whether in a religious institutional, theological or socio-cultural sense. This process may sometimes be conscious but is more often unconscious and uncritical. (Sheldrake 2016:15)

It is not the remit of this research to explore all the variables related to defining spirituality but it is important to address the term briefly to help establish what is to be understood by it within this thesis. Primarily, spirituality is concerned with the human spirit or soul as opposed to material or physical things. Sheldrake (2016:21) contends that the term originated from Christianity where followers were encouraged from the bible to live their lives according to the spirit of God not the spirit of the world. This has been extended to be understood within prevailing organised religions'

⁴ For example: in Buddhism trees are venerated '...with the hundred roots there, the great Bodhi-tree set itself in the fragrant earth, pleasing the people...At the moment the great Bodhi-tree set itself in the bowl, the earth quaked and there were various miracles (Mahavamsa, Chapter Eighteen: 591-594). Mountains are sacred in Hinduism where the belief is held '...that Mount Meru, a golden mountain, is the centre of the universe. Mount Meru is the most sacred object in the universe because it supports the heavens and the gods' (Hinduwebsite.com: 2019). In Christianity water becomes a powerful symbol when Jesus says to his followers that, '...whoever drinks the water I give them will never thirst. Indeed, the water I give them will become in them a spring of water welling up to eternal life' (John 4:14 NIV:1979).

terminology (Christianity, Buddhism, Islam, Hinduism, Animism etc...) and would have dealt with the whole human condition both seen and unseen. George E. Saint-Laurent (2000:6) elaborates it further, describing spirituality as the inner meaning of human experience under the impact of a world view. (The assumption being that each world religion has its own defined world view.) From the enlightenment era, the term started to be used in contexts separate from any organised religious belief (Perez Gomez 2016:Chapter 3) and became personalised and relativized (Steensland et al 2018:450); defining a connection to the unseen world that is unique to every individual and not necessarily related to traditional organised religion (Elkins 1988:5). In the widespread use of the term today the following common characteristics are associated with it.

[Spirituality] refers to the deepest values and meanings by which people seek to live...it implies a holistic, integrated approach to life. It also involves a quest for 'the sacred' understood in broad terms as the depth dimension of life...it relates to a sense of goal and purpose...it involves the development of the non-material element of life. It is also associated with human thriving. It involves a quest for virtue as against pure self-interest...and...evoked the sense of a self-reflective life as opposed to an unexamined life. (Sheldrake 2016:20)

The characteristics identified above have been helpful in establishing the following parameters for the term within this thesis. Spirituality will be considered to be present in the world and experienced by human beings. It will be considered to be unseen and non-physical although the physical realm can influence it. It is not just sensual or of the human spirit but it is something more than the five senses, though these do point towards it (Pallasmaa 2012:108). Spirituality will also be considered as a felt connection with an 'other' spirit world (traditionally articulated by organised religion such as Hinduism, Buddhism, Christianity or Animism etc...). Spirituality will also be observed as an action expressed in ritual (private and public) that can change over time and be developed or enhanced (Bell 1997:137). This is how the character of spirituality will be understood when discussed within this thesis.

1.22 Urban Design

The City is the ultimate memorial of our struggles and glories: it is where the pride of the past is set on display. (Kostof 1991:9)

Like the term spirituality the key term 'urban design' is difficult to define due to its multi-disciplinary character. This term has been preferred to the term 'urbanism' as it emphasises specific design approaches and practices. Urbanism is an exceedingly broad field, highly theoretical, which contains the discipline of urban design as well as the disciplines of urban planning, urban sociology and urban geography. Rowley identifies the first use of the term, in the mid-twentieth century, to cover a spectrum of scale from '...the regional/national scale to the design of street furniture' (1994:174). This understanding is still present today, so it is helpful to focus on essential characteristics when using the term that are not exclusively focused on continuity and enclosure (Oktay 2016:8). For the purposes of this thesis the term urban design will refer to the space and place making that constitutes the urban environment and layout of the city (Buchanan 1988). It will be considered as the design of cities, streets and spaces that takes into account built form and topography. It also accommodates human behaviour and the influence of power within the city. It is three-dimensional, spatial design that deals with both the visual and non-visual aspects of the environment. It is concerned with architecture at both urban and domestic scales which will include the experience of

dwelling within the city and how this has been transformed over time (Bahrainy and Bakhtiar 2016:5,6).

1.23 The city of Phnom Penh

The following overview of the final key term, the city of Phnom Penh, helps to frame the proceeding research methodology. Today the twenty-first century city of Phnom Penh is the capital city of Cambodia. Over the past 2000 years⁵ it has been influenced by a number of dominant urban design factors in space and time, such as power, spirituality, topography, and built form (Kostof 1991:37-40). This history can loosely be split into seven eras of evolution. The following paragraphs briefly summarise each era and the extent and type of impact each of these dominant factors has had in fashioning and shaping the city of Phnom Penh to date. This historical journey is also accompanied by a sketch timeline; a chronology of kings; and a chronology of flags⁶.

During era one (0-800) Cambodia came into being geographically, spiritually and politically. The massive impact of Indianisation⁷ on the pre-existing Animist culture of what was then known as Funan created the context for the Angkor empire to develop. Hinduism and Buddhism easily conflated⁸ with Animism to produce a hybrid spirituality⁹ that still pervades the nation's spirituality. Throughout this era, Hinduism was in the ascendancy and a new social structure with similarities to the caste system¹⁰ of India soon developed. Settlement chiefs and religious leaders saw in these new spiritual influences¹¹ opportunities to develop indigenous spirituality, sovereignty and urban layouts.



Figure 1.03: Angkor area urban layout (Behr 2008)

⁵ All dates within this research thesis are from the common era (CE) unless otherwise referenced.

⁶ See Appendices 1, 2 and 3 accordingly.

⁷ 'India gave her mythology to her neighbours, who went to teach it to the whole world...she gave to three-quarters of Asia a god, a religion, a doctrine, an art' (Sylvain Levi quoted in Coedes 1968:xvii).

⁸ There is both a Chinese and Indian legend regarding this relationship (Coedes 1968:37,66). Both agree on a mystical union between an Indian foreigner and a local indigenous woman.

⁹ The origin of this term will be expanded in greater detail in Chapter 3.

¹⁰ 'Blood was still important for the ruling classes, thus creating the ideal context for a hybrid spirituality to develop; crudely speaking: Hinduism for the elite and Buddhism for the peasants' (Coedes 1968:33).

¹¹ 'Indian religious practice was associated with the introduction of writing, this meant social bonds could be more easily be concretised where there was not immediate physical contact between people; this may have facilitated the extension of rule over wider areas' (Marston and Guthrie 2004:8).



Figure 1.04: *Angkor Wat* (Photo by author 2012)

Era two (800-1431) was dominated by the Angkor empire where power, spirituality and built form became integrated on a massive scale to create the urban layout of the city of Angkor (see Figure 1.03): 'Around the conspicuous, massive stone monuments lay a vast ephemeral city of timber houses, mud and sand embankments and long channels of water extending more than 1000sq km between the lake and the hills to the North' (Choulean 2003:107). Architecture served both ritualistic and political purposes through the predominant cult of Devaraja (god-king) and its worship of Shiva¹² (Marston and Guthrie 2004:8). The famous construction of Angkor Wat¹³ (see Figure 1.04), was dedicated to Vishnu (evidence of a changing spiritual emphasis driven by Indianisation). By the end of the era, Buddhism was in the ascendancy within the nation's hybrid spiritual condition which in part contributed to the empire's downfall¹⁴ and defeat by the forces of neighbouring Siam¹⁵. Most historical records relate only to royalty as there is a distinct lack of information relating to the everyday condition of the Khmer people. Due to the ongoing Siamese threat, the decision was made during the reign of King Ponhea Yat¹⁶, in 1431 to abandon Angkor and construct a new capital city further south at Chaktamouk (Groslier 2006:5); the location later known as Phnom Penh in the nineteenth century. The implications of this abandonment were extraordinary. The mountains of north west Cambodia were left, physically, spiritually and symbolically, for the water rich plains of the south.

Era three (1431-1863) has the least historical, architectural or archaeological data to inform it and is commonly known as the dark ages. The nation's capital city changed location five times through four locations (see Figure 1.05). No significant urban design projects were constructed; indicative in part to the growing influence of Theravada Buddhism throughout the nation. The Khmer king was no longer considered a god-king and ceased to wield the absolute power necessary to construct the large scale urban design projects of the previous era. The Portuguese Roman Catholic missionary, Gaspar da Cruz became the first known European to visit Cambodia in 1555. His writings recognise the widespread presence of hybrid spirituality¹⁷.

¹² This cultic strand of Hinduism is expanded in greater detail in Chapter 3.

¹³ Angkor Wat, built in the twelfth century, is still used today on the flag of Cambodia (see Appendix 3).

¹⁴ See Chapter 3 'The origins of hybrid spirituality' for expanded detail.

¹⁵ When the Siamese invaded in 1430 they carried off '...the last remnant of the intelligentsia at a time when it could not be replaced' (Palmer Briggs 1954:259).

¹⁶ For a chronological list of subsequent Khmer kings post era two see Appendix 2.

¹⁷ He speculated that during the reign of King Ang Chan monks represented one-third of the male population.

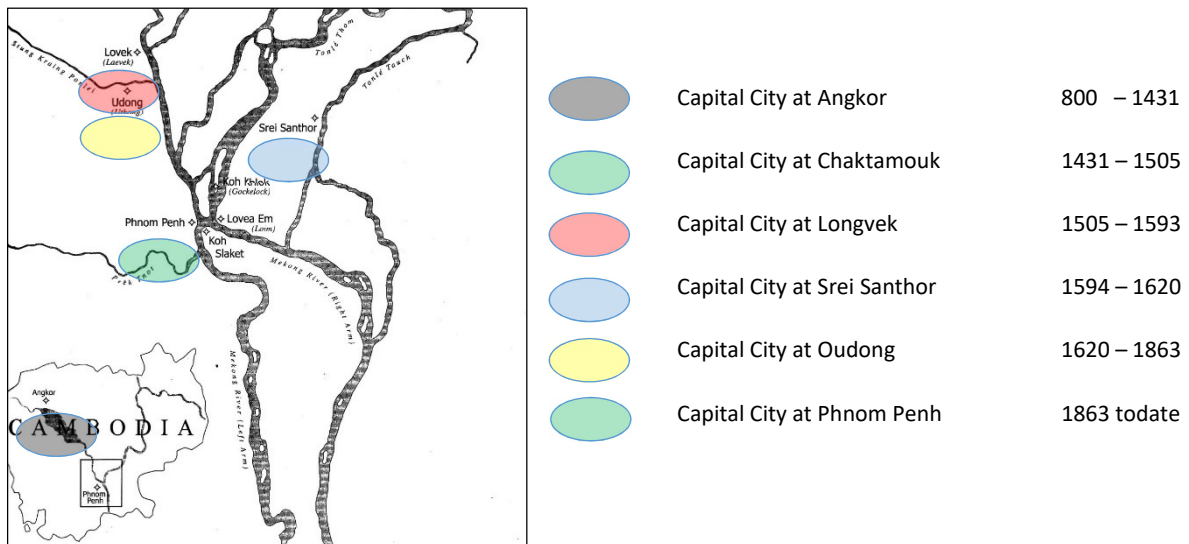


Figure 1.05: Map to show capital city locations during era three (Drawing by author 2016)

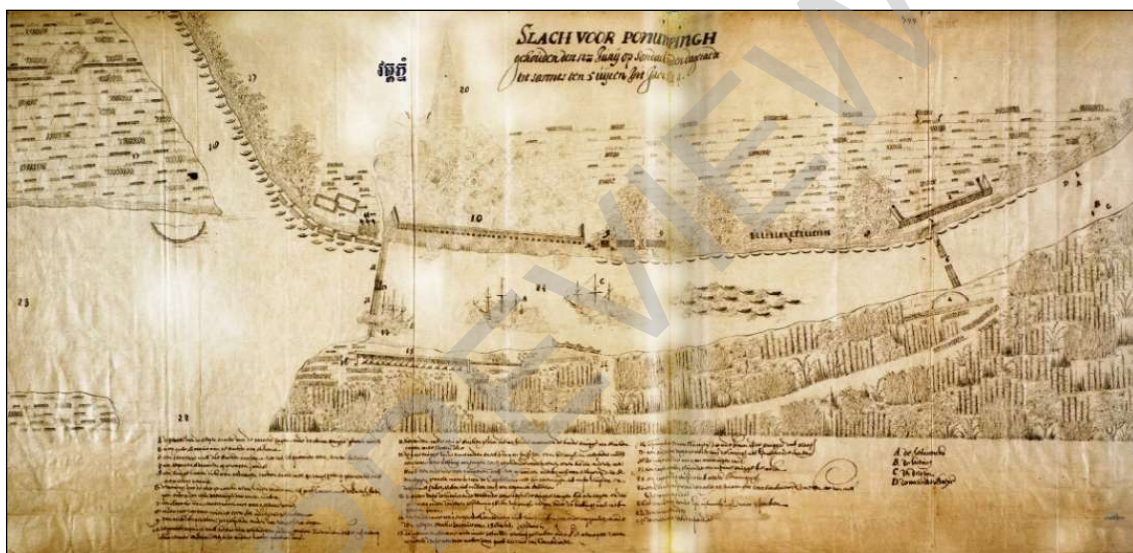


Figure 1.06: Dutch Map to show the 1644 Battle of Phnom Penh (CambodiaWatch 2018)

From the seventeenth century a growing foreign influence impacted the fortunes of the nation while the capital city was based at Oudong. East Asian merchants, European mercenaries¹⁸ and Dutch traders were all involved in violent royal intrigues (see Figure 1.06)¹⁹. A steady decline in maritime trade resulted as Cambodia's access to the sea became increasingly closed off by the Vietnamese to the east²⁰ and Chinese merchants to the south. 'Phnom Penh became a backwater, and by the eighteenth century Cambodia was a largely blank area on European maps' (Chandler 2008:105).

¹⁸ Most notably the escapades of Portuguese mercenary Diogo Veloso and his Spanish companion Blas Ruiz which can be read in the Portuguese American Historical and Research Foundation, Inc. (2013).

¹⁹ In 1643 the Dutch residents of the capital were massacred. This led to an unsuccessful avenging raid by the Dutch admiral Harouze in 1644 whose fleet was driven off barely intact (see Figure 1.06). See Van Der Kraan (2009) and Kersten (2003) for detailed and dramatic accounts of these events.

²⁰ Chandler details three long term effects of the Vietnamese intervention in 1658. 'First the takeover of Saigon (known to Cambodians even today as Prey Nokor), meant that Cambodia was now cut off to a large extent