





Architecture as Mitigating Mediator in Dissonance an architectural dissertation by Johannes J. Hattingh

The accomodation of inovative justice mechanisms through adaptive reuse of the Pretoria Magistrates Court.





Architecture as Mitigating Mediator in Dissonance

by Johannes J. Hattingh

Submitted as part of the requierments for a Masters Degree in Architecture (Professional)

Department of Architecture
Faculty of Engineering, Built-Environment and
Information Technology.
University of Pretoria

COURSE COORDINATOR:

Prof. Arthur Barker

STUDY LEADER:

Nico Botes

Pretoria 2016



Project Summery

PROGRAM:

Civil Magistrates court

SITE DESCRIPTION:

Pretoria Magistrates court on the corner of Pretorius- and Sophie De Bruyn street.

SITE LOCATION:

Pretoria Dorp 351-JR, erf R/449

ADDRESS:

101 Pretorius Str, Pretoria, 0002

GPS COORDINATES:

25°44'55.6"S; 28°11'02.1"E

RESEARCH FIELD:

Heritage studies

THEORETICAL DEPARTURE POINT:

The application of Dissonant Heritage theory to mitigate the inherent conflict in heretage and judicial spaces.

ARCHITECTURAL APPROACH:

The careful application of adaptive reuse in heritage buildings, to redefine inappropriate spaces with contemporary value and use.



Acknowledgements

All glory to God my father and Jesus Christ my saviour, in whose undeserved mercy I received the ability, energy and opportunity to complete this year. (Eccl. 9:11)

Thanks to Nico Botes, an ever positive and motivating force. He saw potential in me from te beginning of my studies and its an honour to finish with him. Your enthusiasm sustained me this year.

Thanks to Prof. Arthur Barker who never allowed me to be satisfied with an average project. Your leadership throughout this year inspired me.

Thanks to Carin Geerdts-Wiid for the language editing of this document.

Thanks to my family and faith community that supported me through the pressure and stress with patience and love.

Thanks to every friend for their input, comments or just interest thoughout this year.

Finally I want to thank GWA Studio, Gary White and Justin Mellis whose mentorship and support has enabled me to complete my postgraduate studies.



Thesis declaration

In accordance with Regulation 4[e] of the General Regulations [G.57] for dissertations and theses, I declare that this thesis, which is hereby submitted for the degree Master of Architecture [Professional] at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

I further state that no part of my thesis has already been, or is currently being, submitted for any such degree, diploma or any other qualification.

I further declare that this thesis is substantially my own work. Where reference is made to the work of others, the extent to which that work has been used is indicated and fully acknowledged in the text and list of references.

Johannes J. Hattingh





DISSONANCE

dis(ə)nəns noun - music

lack of harmony among musical notes. lack of agreement or harmony between people or things.

late Middle English: from Old French, from late Latin dissonantia, from Latin dissonant- 'disagreeing in sound', from the verb dissonare.



Abstract

Recent social and political movements beginning with #RhodesMustFall and the following numerous #MustFall campaigns have shone the light on deeplying sentiments. It is believed that these sentiments have been covered by the multi-coloured paint of the rainbow-nation discourse and yet old tensions seem to flare up. The tensions range from historic privilege to disinheritance from current discourse, to racial discrimination and a perceived threat to identity.

So it is clear that the reconciliation and the nation-building process that started in 1994 is far from finished and thus a renewed look at our approach to heritage is warranted.

The vehicle of this study will be the Pretoria Magistrate's Court, which was constructed in 1941 and in 2010 suffered heavy damage during a fire. This dissertation investigation is specifically focused on the inherent dissonance in the heritage of the court, which is identified firstly in the classical nature of the building, but also the creation and functioning of judicial spaces. These heritage elements are identified and engaged with according to dissonant heritage principles (Tunbridge & Ashworth 1997).

Furthermore, this study investigated current heritage engagement strategies and how those engagements can be redefined. This was not only done in order to mitigate the negative effects of dissonant heritage

elements, but also to instil contemporary significance.

Finally, this study applies the heritage and adaptive reuse principles identified and formulated, to engage the existing building in removing built fabric, redefining spaces and adding new spaces. This will be done in order to re-establish the existing function of a civil magistrate's court. Through this engagement, dissonant heritage elements are extracted or mitigated, while new contemporary value and meaning is instilled in order to re-establish significance for future generations.



Ekserp

Onlangse sosiale en politiese bewegings, wat begin het met #RhodesMustFall, en die opvolgende verskeie #MustFall veldtogte, het onderliggende gevoelens na tevore gebring. Dit was geglo dat hierdie suksesvol onderliggende sentimente gedek is met die veelkleurige verf van die reënboognasie en tog bly ou spanning opvlam. Die spanning strek van historiese bevoorregting en onterfenis van die huidige diskoers tot rassediskriminasie en die gevoel van bedreiging van identiteite. Dit is duidelik dat versoening en die nasiebouproses wat in 1994 begin is, vêr van klaar is, en dus hersiening op ons erfenisbenaderinge vereis.

Die middel vir hierdie studie is die Pretoria Landroshof wat gebou is en 1941 en sleg beskadig is deur 'n brand in 2010. Die ondersoek van hierdie verhandeling fokus op die inherente dissonante in die erfenis van die hof, wat eerstens geïdentifiseer is in die klassieke aard van die gebou, maar ook in die skepping en werking van regsruimtes. Hierdie erfeniselemente word geïdentifiseer en benader volgens die Dissonante Erfenis beginsels (Tunbridge & Ashworth 1997).

Verder ondersoek hierdie studie die huidige erfenisbenaderingsstrategieë en hoe daardie benaderinge herdefinieer kan word. Dit word nie net gedoen om dissonansie in erfenis te versag nie, maar ook om eietydse betekenis by te voeg.

Laastens pas hierdie studie erfenis en aanpassende hergebruik beginsels, wat geïdentifiseer en geformuleer is, toe om boumateriaal van die bestaande gebou te verwyder, ruimtes te herdefinieer en nuwe ruimtes by te voeg. Dit word gedoen met die doel om die bestaande funksie van die siviele landdroshof weer te vestig. Met hierdie benadering word dissonante erfeniselemente ontgin of versag, terwyl nuwe eietydse waardes en betekenis bygevoeg word. Sodoende word nuwe waardes vir toekomstige generasies geskep.



List of figures

			-
IT A	D	CED	

Figure 1_1 #RhodesMustFall [image online] available at: http://static. seattletimes.com/wp-content/ uploads/2015/12/5a921d74-ab67-11e5-ab38-b885439e01fd-1560x1025.jpg access on: 2016-10-10

Figure 1_2 Pretoria Magistrates Court on fire

[image online] available at: http://cdn.24.

co.za/files/Cms/General/d/932/811dcb33

930343dabfafdae01f2c11c1.jpg

access on: 2016-10-22

Figure 1_3 Old court and new addition. Figure 1_4 Research methodology

CHAPTER 2

Figure 2_5 Group vision

Figure 2 6 Combined group vision map

Figure 2_7 Top left: Bank offices

Figure 2_8 Bottom left: Government departments

Figure 2_9 Bottom: General development patterns

Figure 2 10 Topographical structure of Pretoria

Figure 2_11 Gateways and ridges

Figure 2_12 Open green spaces

Figure 2_13 Public transport

Figure 2 14 Development pattern of Pretoria

Figure 2 15 General income

Figure 2 16 Economic routes

Figure 2 17 Cultural groups

Figure 2 18 Historical development

Figure 2 19 Historical fabric

Figure 2 20 Status quo

Figure 2 21 Potential

Figure 2 22 Focus on site

Figure 2 23 Status Quo 2

Figure 2_24 Remove fences

Figure 2 25 Externalisation

Figure 2_23 Externalisation

Figure 2 26 Movement

CHAPTER 3

Figure 3_1 Statue of Cecil John Rhodes at the University of Cape Town, adapted [image online] available at: https://upload.wikimedia.org/wikipedia/commons/7/7f/UCT_Cape_Town_-_Statue_of_Rhodes.jpg access on: 2016-10-22

Figure 3_1 1652 in the Cape, adapted
[image online] https://usercontent1.
hubstatic.com/535668_f1024.jpg
access on: 2016-10-22

Figure 3_2 Riebeeck bill, adapted
[image online] http://www.
andrewcusack.com/net/wp-content/
uploads/nwrand1.jpg
access on: 2016-10-22

Figure 3_3 Riebeeck statue, adapted [image online] http://www.rdm.co.za/ incoming/2015/04/01/jan-van-riebeeck.jpg/ALTERNATES/ crop_607x325/Jan+van+Riebeeck.jpg access on: 2016-10-22

Figure 3_4 Statue of Nelson Mandel at Union Buildings, adapted [image online] https://lillyloompa.files. wordpress.com/2015/02/mandela-scale. ipg access on: 2016-10-22

Figure 3 5 Pretoria Magistrates Court

CHAPTER 4

Figure 4_1 Corner of Pretorius & Sophia De Bruyn street

Figure 4 1 Western facade

Figure 4_2 North-western corner

Figure 4 3 Aerial photo analysis of first floor

Figure 4_4 Roofplan and courtyards

Figure 4 6 Structural grid

Figure 4 5 First floor plan

Figure 4 7 Areas of intervention

Figure 4 8 Facade analysis sketch

Figure 4 9 Facade analysis

Figure 4 10 Column Detail, South African National

Archives, D.P.W 5/448, Part 4

Figure 4 11 Portico on the northern facade

Figure 4 12 Marble detail on the eastern facade

CHAPTER 5

Figure 5_1 Justice underneath a tree.

Figure 5 2 Middle ages market.

Figure 5_3 Development of the court through the ages. Left: Court in seventeenth century (Mulcahy 2011:4)
Right: Conteporary Royal
Court (Mulcahy 2011:47)

Figure 5_4 The Parnel inquiry,

[image online] available at: http://

www.old-print.com/mas_assets/full3/

J3421841/J3421841119.jpg

access on: 2016-10-20

Figure 5_5 Media outside Palace of Justice
[image online] available at:
http://cdn.mg.co.za/crop/content/
images/2014/09/11/mediaoscartrial_
landscape.jpg/1280x720/
access on: 2016-10-17



Figure 5 6 Neo-classical court

Figure 5_7 Protesting women at Marikana [image online] available at: http://natoassociation.ca/wp-content/uploads/2013/06/2012_southafrica_miners.jpg access on: 2016-10-17

CHAPTER 6

Figure 6_1 Restorative justice manual [image online] available at: http://www.justice.gov.za/rj/2011rj-booklet-a5-eng.pdf access on: 2016-10-13

Figure 6_2 Conventional legal system in relation to restorative justice.

Figure 6_3 Community networks

Figure 6 4 Constitutional court room

Figure 6_5 Police counter in Elysium (2013)
[image online] available at: http://
s1.dmcdn.net/CJxOU/1280x720-T0_.jpg
Access on: 2016-10-13

CHAPTER 7

Figure 7_1 Bordeaux Court
[image online] available at: http://
www.dpalighting.com/wp-content/
uploads/2014/08/Bordeaux-Law-Courts.
ipg access on: 2016-10-04

Figure 7_2 Bordeaux courtrooms [image online] available at: https://www.mimoa.eu/ images/9649 1.jpg access on: 2016-10-04

Figure 7_3 Bordeaux courtrooms interior [image online] available at: https://lostonsite.files.wordpress. com/2010/03/14-tribunal-de-burdeos-04. jpg access on: 2016-10-04

Figure 7_4 Spatial relationship

Figure 7_5 Bordeaux court in relationship to administration wing. [image online] available at: http://larryspeck.com/wp-content/uploads/2010/05/2009-0115.jpg access on: 2016-10-04

Figure 7_6 Entrance to centre [image online] available at: http://mak.at/jart/prj3/mak/images/img-db/1342454604094.jpg access on: 2016-10-04

Figure 7_7 Courtyard [image online] available at: https://aumuangudom.files.wordpress. com/2011/12/nuernberg03.jpg access on: 2016-10-04

Figure 7_8 Approach to the Constitutional Court

Figure 7 9 Entrance to Constitutional Court

Figure 7 10 Entrance foyer

Figure 7_11 Courtroom

Figure 7_12 Great African steps

Figure 7_13 Roof addition [image online] available at: http://www.noeroarchitects.com/ devilliers-hulme-office/ access on: 2016-10-04

Figure 7_14 Original building [image online] available at: http://www.noeroarchitects. com/devilliers-hulme-office/ access on: 2016-10-04

Figure 7_15 Building after addition [image online] available on: http://www.noeroarchitects.com/devilliers-hulme-office/access on: 2016-10-04

Figure 7_16 Reichstag [image online] available at: https://upload.wikimedia.org/ wikipedia/commons/thumb/0/0d/ Berlin_reichstag_west_panorama_2.jpg access on: 2016-10-04

Figure 7_17 Added dome [image online]
available at: http://images.
adsttc.com/media/images/5624/7602/
e58e/ce6d/4400/034b/large_jpg/
Reichstag_Dome_at_night.
jpg?1445230067 access on: 2016-10-04

Figure 7_18 Dome interior [image online] available at: http://img13.deviantart.net/ ba28/i/2014/080/8/4/inside_ reichstag_dome_by_roman_gp-d792lum. jpg access on: 2016-10-04

Figure 7_19 Parliamentary hall
[image online] available at: http://www.
fosterandpartners.com/media/
Projects/9013/img0.jpg
access on: 2016-10-04

Figure 7_20 Soviet graffiti [image online] available at: http://www.fosterandpartners.com/design-services/interiors/reichstag-new-german-parliament-interiors/access on: 2016-10-04

CHAPTER 8

Figure 8_1 Old and new court

Figure 8_2 Program division diagram

Figure 8_3 Existing area schedule, South African National Archives, D.P.W 4/448, Part 1

Figure 8_4 Court organisational diagram, 'The functional relationship diagram for a Courthouse' In: (Adler 1999:12-3)

Figure 8_5 Typical program diagram of legal spaces Figure 8_6 Suggested program diagram for the Pretoria Magistrates Court.

CHAPTER 9

Figure 9 1 North-west corner

Figure 9_2 New Pretoria Magistrates Court, Google Earth, 2016

Figure 9_3 Old Pretoria Magistrates Court, image based on: (Allen 2007:62)



Figure 9_4 Judicial and legal networks of the Pretoria inner-city

Figure 9_5 North-east corner

CHAPTER 10

Figuur 10_1 Heritage concept

Figuur 10 2 Design concept

Figuur 10 3 Program concept

Figuur 10 4 Concept diagram

CHAPTER 11

Figure 11_1 Concept model #1 (February 2016)

Figure 11 2 Concept model #2 (February 2016)

Figure 11 3 Concept model #3 (February 2016)

Figure 11_4 Area development

Figure 11_5 Surrounding buildings

Figure 11_6 Urban courtyards

Figure 11_7 Public courts

Figure 11 8 Building cut

Figure 11_9 Facade cut

Figure 11_10 classical axis

Figure 11_11 Iteration #1 (March 2016)

Figure 11 12 Iteration #2 (April 2016)

Figure 11_13 Development of cutting geometry (May 2016)

Figure 11 14 movement patterns around the site

Figure 11 15 Design development #1

Figure 11 16 Design development #2

Figure 11 17 Removal of built fabric

Figure 11_18 Trapezium form court

Figure 11_19 Design development model A_1 (June 2016)

Figure 11_20 Iteration #3 (May 2016)

Figure 11_21 Design development model A_2 (June 2016)

Figure 11_22 Design development model A_3 (June 2016)

Figure 11 23 Iteration #4 (June 2016)

Figure 11 24 Iteration #5 (August 2016)

Figure 11_25 Design development model B_1 (June 2016)

Figure 11_26 Design development model B_2 (June 2016)

Figure 11 27 Iteration #6 (September 2016)

Figure 11 28 Iteration #7 (September 2016)

Figure 11_29 Iteration #8 (September 2016)

Figure 11_30 Court development (September 2016)

Figure 11_31 Iteration #9 (September 2016)

Figure 11_32 Design form (September 2016)

Figure 11 33 Iteration #10 (September 2016)

Figure 11 34 Public and judicial circulation.

Figure 11 35 Court circulation

Figure 11_36 Court interior

Figure 11_37 perspective 1

Figure 11 38 perspective 2

Figure 11 39 Building circulation

Figure 11 40 Ground floor plan

Figure 11 41 First floor plan

Figure 11 42 Second floor plan

Figure 11 43 Third floor plan

Figure 11_44 Court plan

Figure 11 45 perspective 3

Figure 11 46 perspective 4

CHAPTER 12

Figure 12 1 Structural strategy

Figure 12 2 Structure concept diagram

Figure 12 3 Existing and supporting steel structure

Figure 12_4 Newly created circulation space

Figure 12 5 Original facade analysis

Figure 12 6 Mediating steel structure

Figure 12 7 Courtroom construction

Figure 12 8 Courtroom structure

Figure 12 9 Courtroom circulation

Figure 12 10 1:20 Detail section A-A Iteration 1

Figure 12 11 1:20 Detail section A-A Iteration 2

Figure 12 12 Structure iteration impact

Figure 12 13 resistance calculations

Figure 12 14 Structure detail and materiality

Figure 12 15 1:50 Section B-B

Figure 12 16 North elevation

Figure 12 17 Solar panel areas

Figure 12 18 Rain harvesting surfaces

Figure 12_19 Air conditioning systems

Figure 12 20 West elevation

CHAPTER 13

Figure 13 21 Perspective 5 & 6



		Index
Chapter		
	Project Summery	
	Acknowledgements	
	Declaration	
	Abstract	
	List of figures	
1	Introduction	Р.1
	General issue	
	Urban issue	
	Architectural issue	
	Research question	
	Limitations	
	Assumptions	
	Demarcations	
	Research Methodology	
	Urban Vision	Р.9
3 4 5	DISSONANCE	P.25
	Dissonance Messages	
	Dissonance in the court	
1	Context	Р.35
4	Classicist architecture	
	Analysis	
	THE DEVELOPMENT OF JUDICIAL SPACES	Р.49
	The early court	
	The court in the middle ages	
	Separation and segregation	
	Assumption of innocence	
	Public and the media	
	The height of court design	
	A FUTURE OF THE LEGAL SYSTEM	P.59
	The legal system	
O	A future	
	Influence on the legal system	
	Spatial reaction	
	Accessibility	



Chapter		
	Transparency	
	Technology	
	Precedent Studies	Р.73
/	Bordeaux Court	
/	Centre of Documentation	
	Constitutional Court	
	24 Alfred Street	
	Reichstag	
	Program	Р.91
X	Existing area schedule	
O	New are schedule	
	Charters	Р.101
9		
10	Concept	Р.111
10		
1 1	DESIGN	P.117
- 1 1		
12	TECHNICAL DEVELOPMENT	Р.163
	Existing building	
	Existing facade	
	Mediating structure	
	The new court	
	Resistance Calculations	
	SBAT	
	Rainwater harvesting	
	Systems	40=
	Conclusion	Р.197
	Bibliography	Р.201