

MLA DISSERTATION 2015

LUCIANA ACQUISTO

RESEARCH AND DESIGN DOCUMENT

THE PEOPLE'S BATHS

AND

SWEET WATERS PARK



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CONTENTS

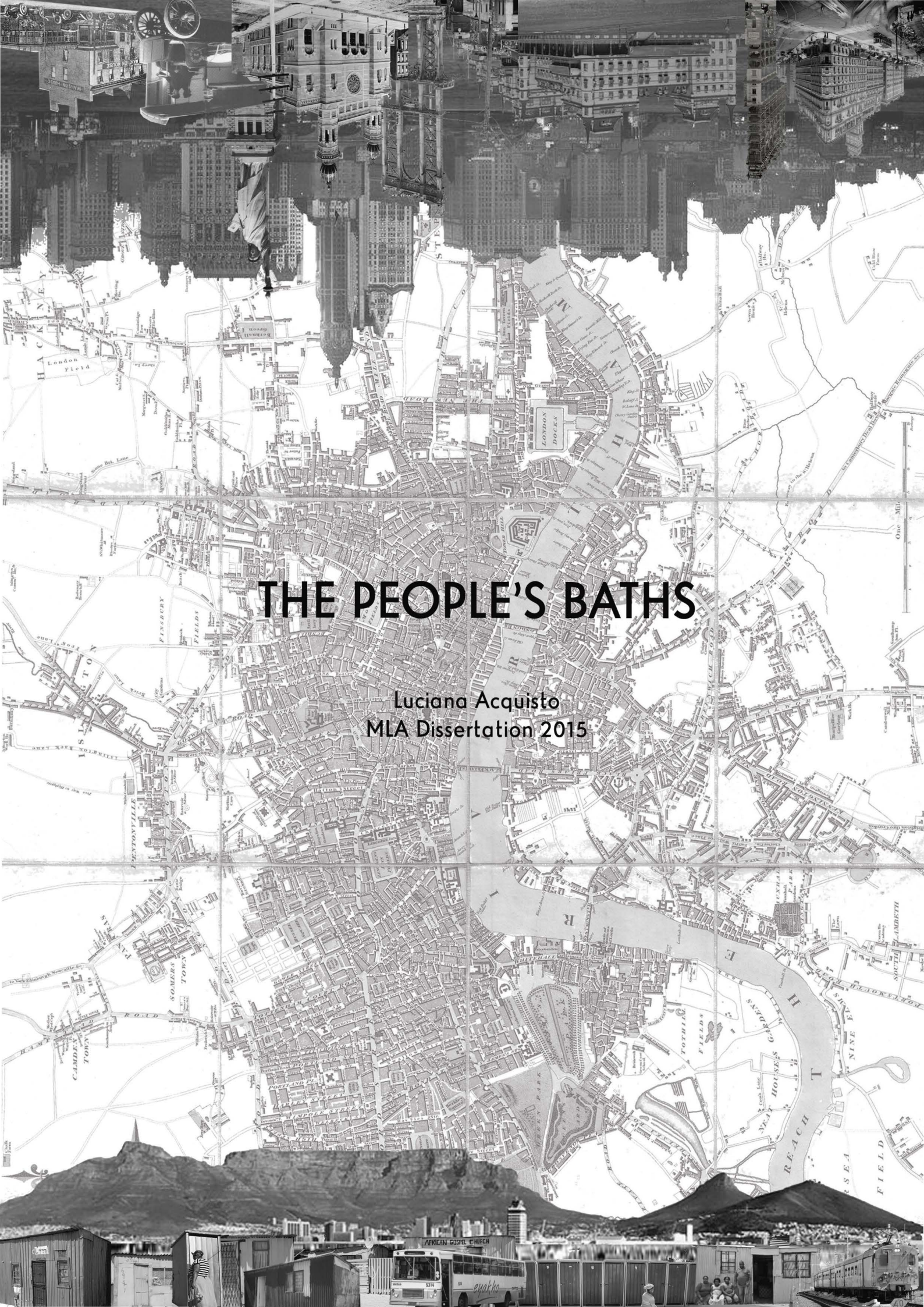
Research document: The people's Baths	1 - 16
Dissertation design: Sweet Waters Park	17 - 32

DISSERTATION SUMMATION

The research document component of this dissertation concludes that Cape Town's sanitation crisis can in part be relieved by the implementation of consolidated sanitation infrastructure in wealthy areas, visited daily by thousands affected by the crisis. These wealthy areas are capable of maintaining and implementing these types of facilities due to rates ring-fencing.

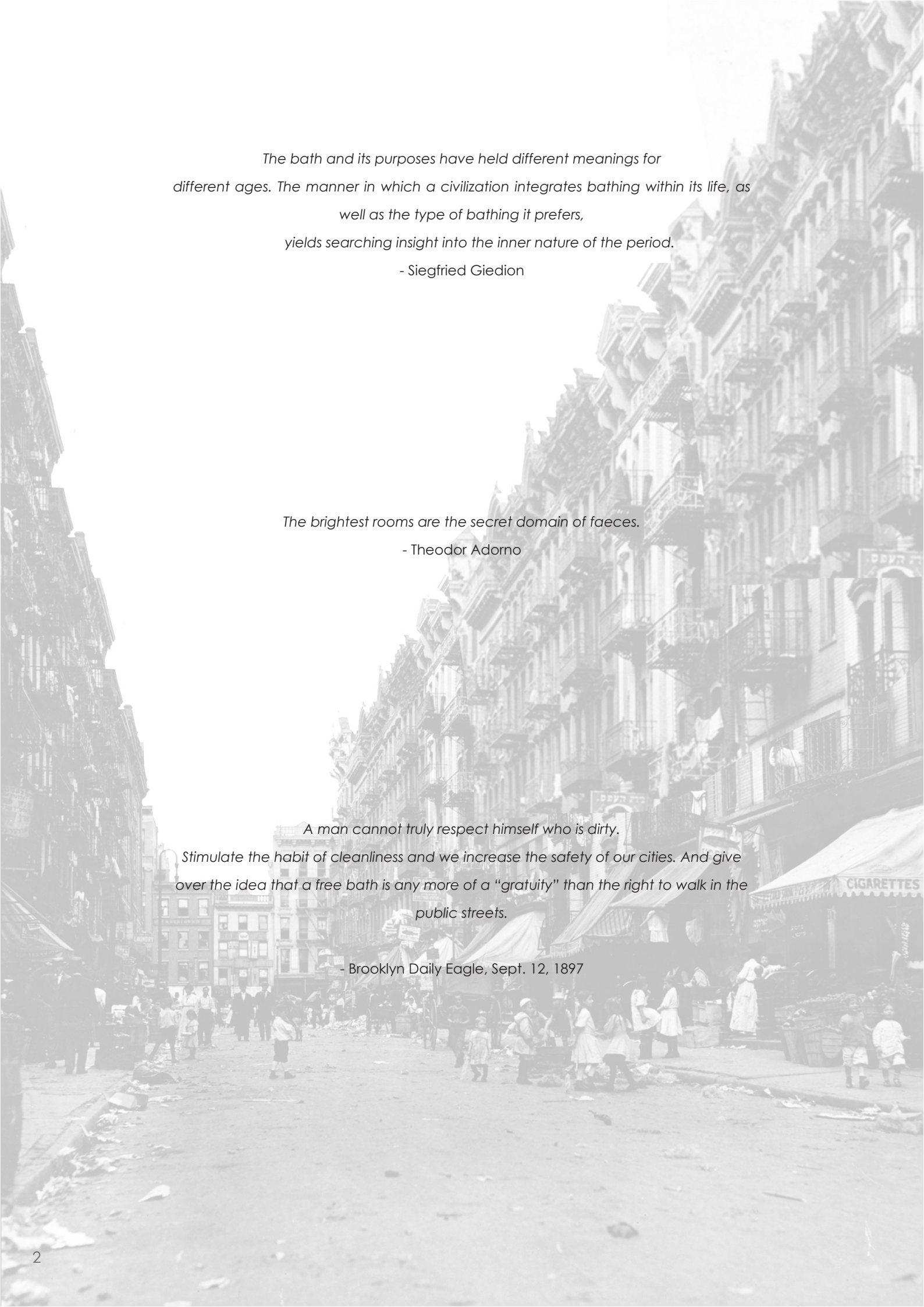
Furthermore, the document looked at historic precedent to demonstrate that this strategy has grounds and has acted as a sanitation crisis alleviation mechanism many times in history.

The dissertation design focuses on both the sanitation and water crisis in Cape Town, and proposes to in part alleviate pressure locally from within the City Bowl by making use of the abundant quantity of water produced daily by the Camissa spring network coming of Table Mountain. The design uses this water to cater to the needs of people seeking ablution, swimming, and recreational outdoor facilities, from the rich to the poor, attempting to bring together folk from all walks of life in one mutually inclusive, water sensitive design.



THE PEOPLE'S BATHS

Luciana Acquisto
MLA Dissertation 2015



The bath and its purposes have held different meanings for different ages. The manner in which a civilization integrates bathing within its life, as well as the type of bathing it prefers, yields searching insight into the inner nature of the period.

- Siegfried Giedion

The brightest rooms are the secret domain of faeces.

- Theodor Adorno

*A man cannot truly respect himself who is dirty.
Stimulate the habit of cleanliness and we increase the safety of our cities. And give over the idea that a free bath is any more of a "gratuity" than the right to walk in the public streets.*

- Brooklyn Daily Eagle, Sept. 12, 1897

INTRODUCTION

During the relentlessly hot summer of 1858, London was brought to a standstill when Londoners refused to leave their homes unless the government addressed the stench emanating from the Thames. The Thames had functioned for centuries as a dumping zone for all sorts of waste.¹ The heat wave sped up the festering of waste floating in the river, leading to what would be known by future generations as London's "Great Stink" (figure 1).² When MPs housed on the banks of the Thames in the British parliament were overwhelmed by the stench, legislators agreed to a systematic overhaul of the city's sewerage and public sanitation infrastructure.³ The incident brought a renewed understanding to British society regarding hygiene and waste management.⁴ By 1915, bath and wash houses and the subterranean infrastructure which accompanies them could be found in nearly every city and town in Britain.⁵ Changing working class attitudes and the shifting priorities of public health authorities lead to a societal re-conception of the way cities would operate in the future, and it established a bench mark amongst people regarding hygiene, health and sanitation.⁶ This type of radical re-conception of sanitation provision for the poorest in society is needed in Cape Town today in order to address the sanitation crisis at hand.



Figure 1. A cartoon from 1858 drawn in protest of the Great Stink. Shows Father Thames (right) introducing his children (Diphtheria, Scrofula and Cholera) to the fair city of London (left). This drawing illustrates the level of toxicity and pollution of the Thames during the time of the Great Stink.

(<https://scheong.wordpress.com/2011/06/20/plumbing-the-depths-joseph-bazalgette-and-the-great-stink-of-london/>)

¹Steven Robins , 2013.

²Ibid.

³Ibid.

⁴Ibid.

⁵Sheard, S. 2000, p66.

⁶Ibid.

Sanitation crises occur in rapidly urbanizing cities. New York and various cities in Europe experienced sanitation crises in the 19th and 20th centuries and dealt with them by implementing strategic centralized public infrastructure. Despite the technological advances the world has seen during the 20th and 21st centuries, Cape Town, like other third world mega cities, currently faces its own version of the "Great Stink". During the 19th and 20th centuries, Europe and America's solutions to this type of sanitation crisis took the form of bath houses in urban centres, and the structures possess the potential to ameliorate the sanitation crises in Cape Town today as well. Cape Town's housing backlog and the vast amount of informal dwelling which already exist make providing individual shack type dwellings on the Cape Flats with individual toilets financially prohibitive and logistically un-feasible. Many people without access to sanitation living on the Cape Flats travel to the Cape Town CBD every day. Therefore, consolidating infrastructure in a highly accessible strategic interstitial point which most of these people move through daily would make this proposal feasible logistically and financially.

This study will investigate these claims and in so doing endeavours to establish an implementable, context specific sanitation crisis alleviation strategy for the city of Cape Town. Part A will consider the prevailing global urbanization trends, and then look at Cape Town in relation to these trends, as well as the city's current sanitation crisis. Part B will interrogate 19th and 20th century New York and London and delve into the origins of their sanitation crises as well as the solutions they developed to overcome these problematic situations. And lastly, part C will postulate a possible amelioration strategy to Cape Town's sanitation dilemma by drawing on the historical case studies discussed in Part B and in so doing establish an argument in favour of centralized ablution facilities near to transport interchanges in the CBD.

PART A: STATUS QUO IN CAPE TOWN

Psychologist Abraham Maslow's "Hierarchy of Needs" proposed a classification of human needs into five different categories: physiological, safety, security, belongingness and love, and most importantly self-actualization.⁷ These needs form a hierarchy, in which the earlier needs, if not satisfied, surpass the later needs in the hierarchy.⁸ Maslow hypothesized that psychological health was possible only when one's most basic needs were satisfied.⁹ The more these basic needs are not satisfied, the more psychologically disturbed an individual will be.¹⁰ A society like Cape Town's is largely comprised of people who cannot satisfy even these most basic needs, needs such as shelter, sustenance, safety and sanitation, and is therefore a society characterized by dysfunctionality.

The United Nations estimates that 54% of the world's population currently lives in urban areas, a proportion expected to increase globally to 66% by 2050, and by 40% in South Africa.¹¹ This, combined with the high rate of unemployment, growing number of informal settlements, and the severe shortage of housing and services which *already* exists will further exacerbate Cape Town's complex sanitation crisis.

Sanitation crises have occurred in rapidly urbanizing cities for millennia.¹² The universal and ceaseless need to survive by eating, and then defecating, is one of the things which binds humans together on a very fundamental level. But it is also from this survival mechanism that sanitation crises arise if population growth and infrastructure do not increase proportionally. Societies in which these types of crises occurred were riddled with poverty and disease, forcing authorities to take action. Urban reformers in cities like New York City (NYC) at the turn of the 20th and London at the turn of the 19th century were concerned by the impact of rapid urbanization, class tensions, and swelling labour migration on their cities and the environmental

and social impacts that accompanied it. The reason for these comparative choices is that on an urban level, Cape Town finds itself on a similar infrastructural trajectory as London was during the mid-1800s and New York at the turn of the 20th century.

New York and various cities in Europe experienced sanitation crises and dealt with them by implementing strategic centralized public infrastructure in the form of bath houses. Reformers endorsed the construction of public bath houses in slums, first through charity organizations and then through municipal intervention, as both a public health measure and an...effort to introduce middle-class hygiene norms.¹³

Currently, Cape Town faces a similar sanitation crisis. Cape Town, much like other South African cities, explicitly embodies the enduring effects of the Group Areas Act of 1950, and Apartheid style city planning, in terms of the social, economic, racial, environmental, political and criminal activity which still takes place there.¹⁴ Reducing the deep spatial and socio-economic divisions in the city is possible, starting by satisfying the poor majority's most basic needs, and in so doing, allow these individuals a chance at escaping the poverty cycle many are indefinitely stuck in.¹⁵ Many people living on the Cape Flats live in poverty a mere 10km from the affluent CBD (figure 2).¹⁶ The City of Cape Town is characterized by growing income inequalities, social exclusion and wide differentials in consumption patterns.¹⁷ Free basic services have in essence benefited the working class and the lower middle class while the poorest "miss out on benefits designed to protect them".¹⁸ The richer portions of society benefit from *ring fencing* of the rates and taxes they pay for property ownership in areas where they live, the poor living informally in low and no income areas find themselves indefinitely at the bottom of the resource re-distribution list.¹⁹

⁷ Lester, 1983, p83.

⁸ Ibid

⁹ Ibid

¹⁰ Ibid

¹¹ United Nations, 2015.

¹² Renner, 2008, p.504.

¹³ Renner, 2008, p.504.

¹⁴ Turok, 2001, p.2350.

¹⁵ Turok, 2001, p.2350.

¹⁶ Smith, 2003.

¹⁷ Jaglin, 2008, p.1905.

¹⁸ Ibid

¹⁹ Didier, 2013, p.129.

Providing individual dwellings on the Cape Flats with individual toilets is financially prohibitive and logistically un-feasible for local and nation government. According to Census 2011 there are 129 918 informal structures in Cape Town, and 22% of the city's population have no other option but to use informal toilets (figure 3): 168 301 people use bucket toilets, 44 880 people use chemical toilets and 14 960 use pit toilets.²⁰ If one considers this in relation to Maslow's pyramid, nearly a million people living in Cape Town cannot satisfy their most basic needs. Cape Town's housing backlog is expected to reach 460 000 by 2020²¹, a concerning number if one considers that people living informally not only have no access to proper shelter, but more importantly, have no access to basic sanitation either.²² The reasons for the continuation of pre-apartheid service delivery discrepancies cannot be blamed on insufficient funding.²³ South Africa is a middle-income country with progressive legislation and the financial resources to address its poverty dilemma.²⁴ "South African local authorities do, however, lack the ability to translate existing legislation into practice and the mechanisms to transform skewed distribution systems. These limitations have created bottlenecks in implementation and subsequently unrest amongst communities effected, manifesting in often violent service delivery protests (figure 4). Untangling the crisis in service delivery requires understanding what is affordable and appropriate for low-income service users."²⁵

Not only do people living informally not have current access to the most basic resources necessary to live properly, they also have little prospect of escaping poverty. This becomes increasingly apparent if one considers the future urbanization projections, the growing national housing backlog, the inequitable redistribution of capital as well as the fact that people living informally live on land unsuitable for upgrading and will therefore never see their current houses provided with in-house services and sanitation.²⁶

²⁰City of Cape Town municipal statistics, 2015.

²¹ South African Housing Backlog, 2015.

²² Ibid.

²³Smith 2003, p.1544

²⁴ Ibid.

²⁵ Ibid, p.1543.

²⁶ Bank, 2007, p.206.



Figure 2. Khayelitsha is one of the poorest and fastest growing townships in South Africa. People usually come from the rural areas in Eastern Cape province to find work. The majority of those who do work, work in the wealthy CBD. (<http://www.gettyimages.com>)

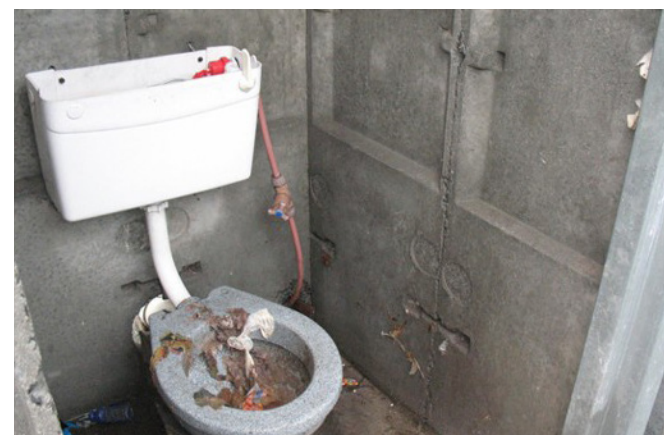


Figure 3. Governments supplied toilets in informal settlements cost the city millions every year but remain unmaintained, un-serviced, rendering them undignified places for any person to use and cesspits.

(http://groundup.org.za/article/city-fix-filthy-khayelitsha-toilets_1835)



Figure 4. ANC councillor and youth league member Loyiso Nkhola, right, and a protester, empty porta-loos full of raw sewage outside the main entrance to the provincial legislature in Cape Town in protest of poor sanitation on the Cape Flats.

(<http://www.iol.co.za/capeargus/anc-s-toilet-tactic-tip-of-the-iceberg-1.1529080>)

PART B: BATH HOUSES FOR THE "GREAT UNWASHED"

Europe and America's solutions to their sanitation crisis took the form of bath and wash houses in urban centres. Discoveries in the developing field of public health focused urban reformers on the lack of working-class bathing options. With the germ Theory in the 1880s came the understanding that disease was preventable and "urban filth was dangerous," and thus the focus later also turned to bodily hygiene, to reduce contagiousness.²⁷ However, urban authorities of the day realized that the dream of eventually putting a bath-tub in every tenement would be economically unviable in communities comprised of poor immigrants living in unserviced tenements.²⁸ Cities instead dealt with working-class hygiene through the introduction of bath houses.²⁹ American reformers believed this model offered the best solution in immigrant slums, even though the United States lacked a bath house culture. European bath houses emulated those the Romans were famed for, and viewed these civic facilities as institutions and as important as museums and libraries.³⁰ The British and then the Americans mimicked Roman architectural style in their bath designs in order to establish the facilities as institutional monuments to "civilizing society", and thereby portrayed them as important and aspirational civic facilities in the eyes of the poor.³¹ The heyday of public ablutions ended due to the rapid advancement of technology and the dissemination of infrastructure, as the middle class grew and bathrooms entered tenements, and as immigration waned due to the First World War.³²

Cape Town is characterized by all the circumstances which led up to the need and subsequent development of public bath houses in 19th and 20th century London and New York. Public bath houses still possess the potential to serve a purpose in contemporary Cape Town since urban overcrowding, slums and poverty still exist in the city. Bath houses provided citizens with the minimum infrastructure needed to wash, affording users with an invaluable resource and officials with public satisfaction. Bath houses were not just merely ablution facilities: they became symbols of dignity, aspiration and equality.³³

²⁷ Renner, 2008, p.506

²⁸ Ibid, p.508.

²⁹ Williams, 1991, p.1.

³⁰ Renner, 2008, p.507.

³¹ Ibid

³² Ibid, p.526.

³³ Renner, 2008, p.513.

The slums and tenements of London and NYC were over crowded, filthy places, barely providing sufficient room for living, let alone bathing,³⁴ circumstances not dissimilar to those experienced by most on the Cape Flats. These types of structures could improve the lives of people living informally if implemented in a city like Cape Town today. When people's most basic needs are fulfilled, they can begin to focus on the more existential matters and overcome the basic need to survive.³⁵ While bath houses certainly won't cure all the city's numerous problems or the sanitation crisis in its entirety, they undeniably will make the lives of many people easier, more pleasurable and afford them the dignity modern cities should offer their inhabitants.

Many people without access to sanitation living on the Cape Flats travel to the Cape Town CBD every day. Arguably the most fundamental informative factor to take cognoscence of in Cape Town is the movement patterns of these impoverished communities. Ivor Turok writes that the three most important structural elements of cities are employment, housing and the transport connections between them.³⁶ "They determine to a significant extent how efficiently and equitably cities function. They are also critical resources for people, so access to them has a big effect on their living standards and is competitively sought after".³⁷ Countless people in Cape Town live in informal settlements or in backyard dwellings on the Cape Flats but work or look for jobs in wealthier, better serviced areas elsewhere (figure 5). These areas have more capital at their disposal (due to the ring-fencing of rates) to establish new and maintain existing infrastructure. The amount of people moving from areas experiencing severe sanitation crises to areas capable of supporting more sanitation on an infrastructural and financial level is considerable. Approximately 128 005 people take trains into the Cape Town CBD daily from the Cape Flats and beyond (figure 6).³⁸ This mass migration doesn't include commuters travelling by bus (8%) and taxi (16%)³⁹, amounting to a substantial portion of the city's inhabitants. The number of people using informal toilets on the Cape Flats outnumbers the amount of train users into the CBD almost 2:1,

³⁴ Renner, 2008, p.505.

³⁵ Lester, 1983, p83.

³⁶ Turok, 2001, p.2370.

³⁷ Turok, 2001, p.2370.

³⁸ City of Cape Town, 2004, p.13.

³⁹ Ibid.

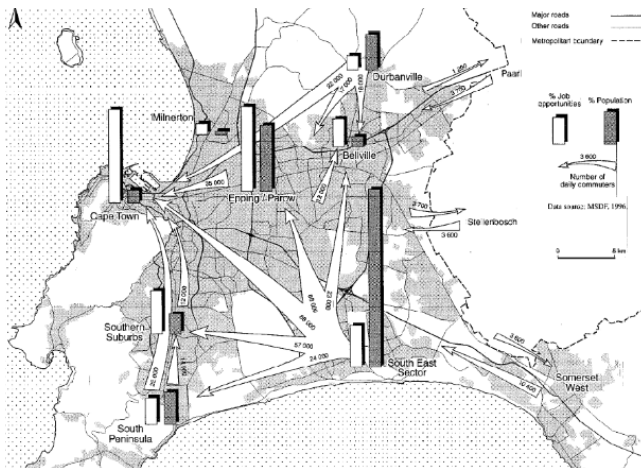


Figure 5. Mismatch between places of work and residence in Cape Town.

(Turok, p 2353.)

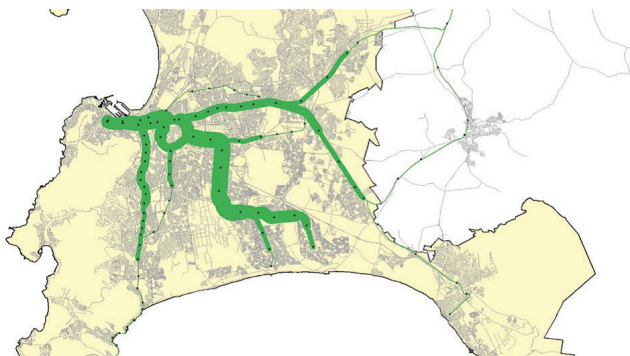


Figure 6. Rail routes in Cape Town: thickness indicates frequency of use

(City of Cape Town. Public Transport in Cape Town: Overview of Public Transport Services.)

meaning that at least half of those using informal toilets would be afforded dignified sanitation if this proposal was implemented.

Another community lacking access to housing and sanitation infrastructure is Cape Town's ever growing vagrant community. In a study undertaken by the city's department for Social Development and Early Childhood Development in 2015, more than 7 000 homeless people live in Cape Town, many of whom are classified as "chronic street people": people who have been living as vagrants for more than 5 years.⁴⁰ Locations where the research team had found more than 50 homeless people were deemed "problem areas" and included Cape Town's inner city, Foreshore, Bellville, Goodwood, Strand, Strandfontein, Parow, Wynberg, and Sea Point.⁴¹ Many interviewed

individuals named problems with adequate housing as their reason for being homeless.⁴² For some of these individuals there is little prospect of re-integrating back into society due to social and financial constraints.⁴³ Considering the fact that this too is a growing community and a community which possess little capacity to move up on an economic level, the argument in favour of public ablution facilities becomes even more viable. The Long Street Public Baths served a large portion of Cape Town's vagrants in the past, but a recent increase in entrance fees has rendered many of these users unable to afford access to the facility. Even if the city cannot afford all these individuals with housing and food, allowing them access to subsidized and subsequently affordable sanitation could become possibility if this type of bath house structure were implemented in the city.

Consolidating infrastructure in a highly accessible strategic interstitial point which most of these people move through daily would make bath houses feasible logistically and financially. When one considers the fact that all these people are travelling from numerous places all around the city and all converge in the City Bowl on a daily basis, it begs the question: if it's so expensive and difficult to supply individual homes with the necessary infrastructure needed to end the city's sanitation crisis, why are consolidated services not being made available to hundreds of thousands of users in the place where many of them meet daily? In the form of a civic facility which is easily managed and maintained in an area with the resources to support it? The City Bowl possesses the potential to act as a sanitation crisis solution in Cape Town on both a financial and infrastructural level. And it certainly has the clientele base to substantiate the argument in favour of creating these types of civic spaces for the public.

⁴⁰City of Cape Town, 2015.

⁴¹Ibid

⁴²City of Cape Town, 2015.

⁴³Ibid

DISCUSSION: CASE STUDY ANALYSIS



FRONT FACADE
(Image: Renner, 2008, p.509)

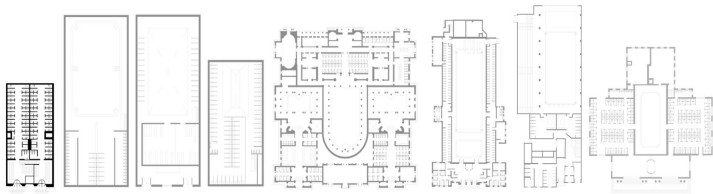
BATH HOUSE A
ELEVENTH STREET PEOPLE'S BATH HOUSE
NEW YORK CITY, 1906

The 11th Street People's Bath house was a small, compact structure, and served primarily as a wash house. It didn't include a swimming pool but provided ample shower and toilet facilities for users as well as slipper baths for those who could not walk. Elaborate entrance halls, grand staircases, and rooms for other types of baths or purposes—entities common to European bathhouses—were omitted to create a facility strictly devoted to cleansing (Renner, 2008, p.516)

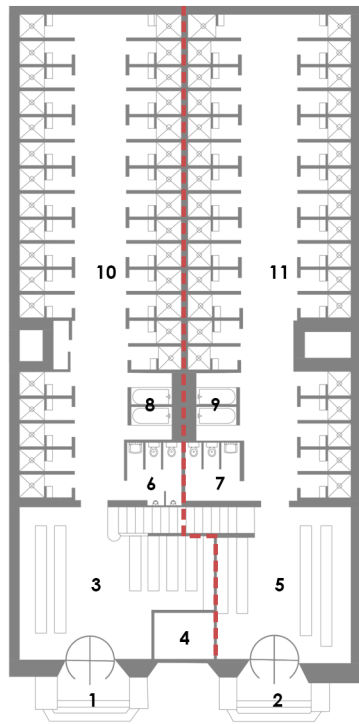
Although the People's Baths plan was occasionally deformed to fit irregular plots, its basic, rational rectangular layout comprised the standard public bath type. The People's Baths became an archetype, rendering it a national public bath type (Renner, 2008, p.516).

APPROPRIATENESS FOR CAPE TOWN

South African examples can learn from this case study in that this bath house is the least lavish and most practical of the six investigated. It provides users with the most basic facilities and in so doing keeps entrance costs low. The fact that it became an archetype is also interesting: it set a national benchmark of what dignified washing and ablution facilities throughout the United States should be like. This could happen not only in Cape Town, but in South Africa at large if an archetype for public ablution facilities. The issues Cape Town is experiencing in terms of sanitation is not specific to the city. This situation is ubiquitous throughout South Africa and therefore deserves to be addressed at a national level. And establishing a prototype structure (in terms of facilities, not layout) is a good place to start.



SIZE COMPARISON BETWEEN BATHS STUDIED



- 1 men's entrance
- 2 women's entrance
- 3 men's waiting room
- 4 ticket booth
- 5 women's waiting room
- 6 men's toilets
- 7 women's toilets
- 8 men's slipper baths
- 9 women's slipper baths
- 10 men's showers
- 11 women's showers

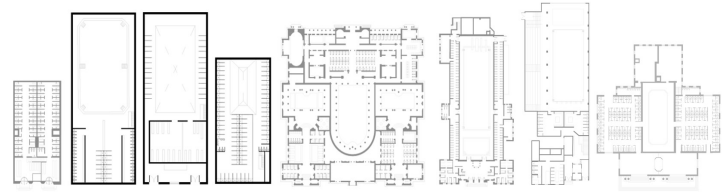
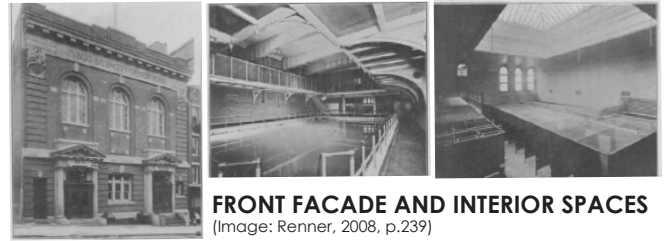
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BATH HOUSE B
WEST 60TH STREET MUNICIPAL BATH
NEW YORK CITY, 1904

The West 16th municipal baths catered to the needs of many people, serving as a large scale bathing and swimming/recreational facility.

APPROPRIATENESS FOR CAPE TOWN

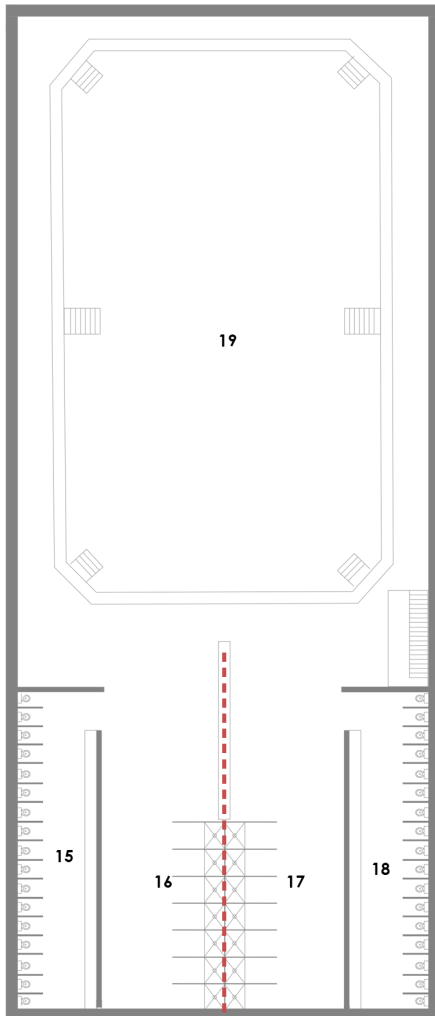
The structure was large in scale in order to accommodate all its users. The building comprised of 3 levels, the pool being on the lowest level, (basement), the entrance and waiting areas on the ground floor, and the main ablution facilities on the first floor. The basement supplied the building with a more space whilst still allowing it to sit comfortably and appropriately into its urban streetscape, a feature relevant in every urban environment, and especially in inner city Cape Town where space and the cost of land is an issue to be considered. The bath house is much larger in comparison to most other baths, but still maintains a relatively compact footprint. The structure's naturally lit by a skylight on the top floor which illuminated the levels below and the swimming pool on the basement floor. Passive design is useful anywhere, and especially in the South Africa where sunshine is ample and costs need to be kept at a minimum in order to afford users the best price possible. The one drawback of this building is its somewhat haphazard layout: the building is strangely divided amongst the three floors and possess no logical way of navigating through it. Whether in South Africa or abroad, clever well resolved layout is always valuable and appreciated by users, especially by those using the facility for the first time.



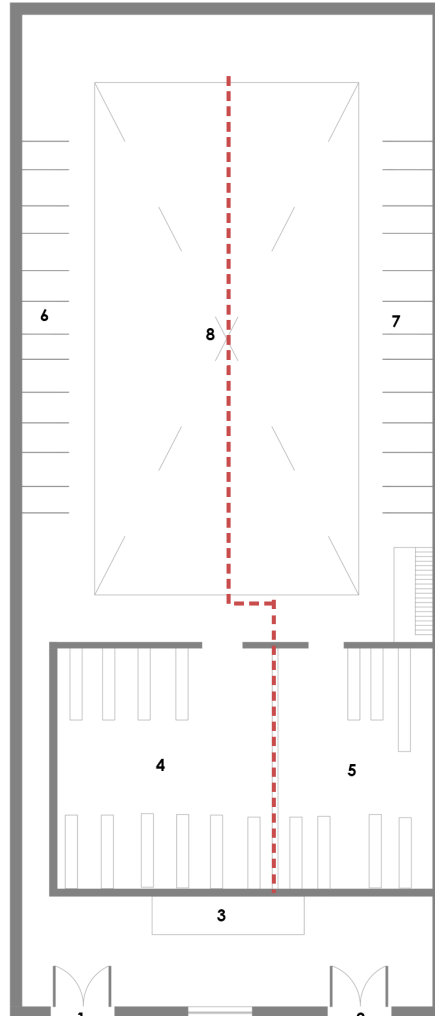
SIZE COMPARISON BETWEEN BATHS STUDIED

- Ground level:
 - 1 Entrance
 - 2 Entrance
 - 3 Ticket booth
 - 4 men's waiting room
 - 5 Women's waiting room
 - 6 men's changing rooms
 - 7 Women's changing rooms
 - 8 balcony/void
- Basement level:
 - 15 Men's toilets
 - 16 Men's open showers
 - 17 Women's open showers
 - 18 Women's toilets
 - 19 Swimming pool
- First floor:
 - 9 Women's toilets
 - 10 Women's showers
 - 11 Void and skylight above
 - 12 Men's showers
 - 13 men's toilets
 - 14 Men's showers

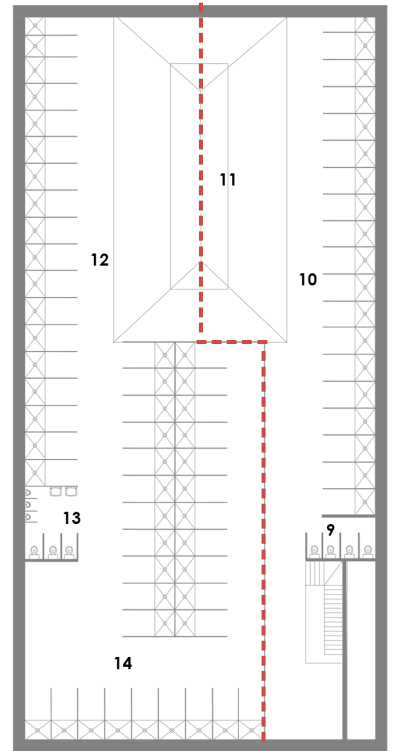
BASEMENT



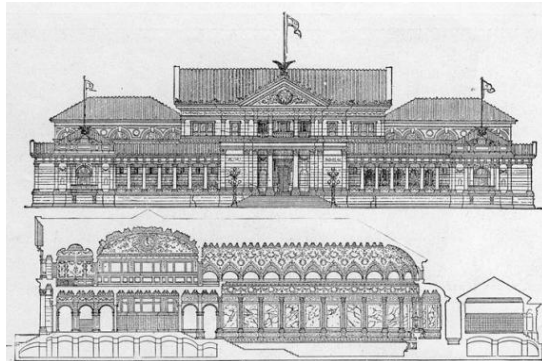
GROUND FLOOR



FIRST FLOOR



0 2 4 6 8 meters



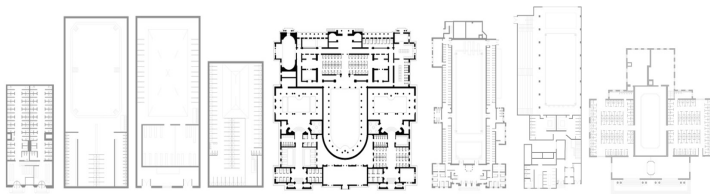
FRONT FACADE
(Image: Renner, 2008, p.509)

BATH HOUSE C
PUBLIC TURKISH BATH HOUSE
NEW YORK CITY, 1890

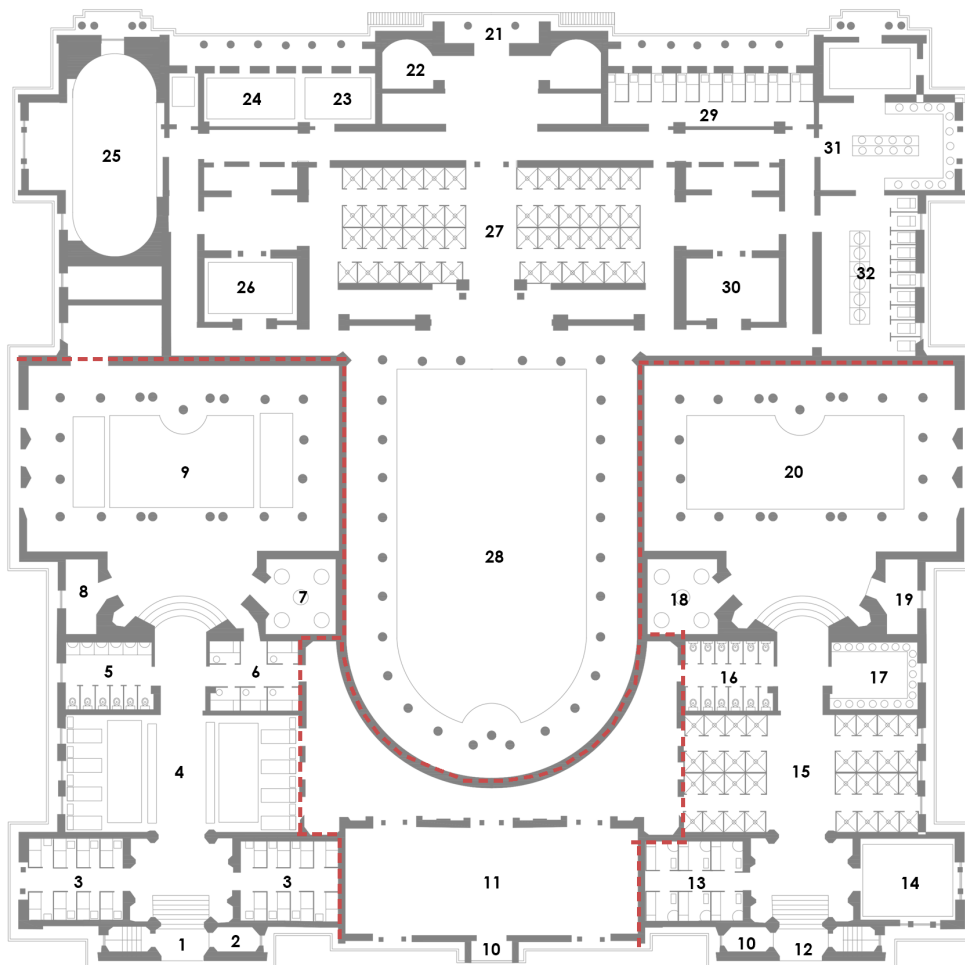
John Galen Howard's plan—an ornate, Beaux-Arts structure housing plunge pools, Turkish baths, and steam rooms—was an attempt to place the United States in competition with Europe (Renner, 2008, p.508). The building's design was far more opulent than any New York public bath user would have been used to, giving the typology a luxurious connotation rather than an air of poverty. Turkish baths were promoted not only as enjoyable recreational spaces, but also as 'temples of health', spaces which would facilitate the pursuit of health (Potvin, 2005, p.320).

APPROPRIATENESS FOR CAPE TOWN

This building's laundry is one of its greatest assets, a space which would be extensively used by the sectors of South African society who need public bathing and washing facilities. And while its opulent design would be inappropriate in the Cape Tonian context, its design does give it a dignified connotation rather than one which looks as if its designed for the poor: a building which has a higher probability of being loved by users as opposed to being resented. The building is divided into a bath for women, men and the Turkish baths. The building's symmetry makes it easy for users to navigate through. The structure has thick walls which in places are carved into to create intimate rooms and nooks for user and administrative use, giving the building a very solid character but also a human scale. Pillars are used throughout the plan to create thresholds and demarcate spaces as opposed to using walls which would obscure vision and change the character of these spaces. This could be particularly useful in the South African context considering that crime is always something to consider in public space design.



SIZE COMPARISON BETWEEN BATHS STUDIED



- 1 Turkish baths entrance
- 2 Turkish baths ticket booth
- 3 Turkish baths dressing rooms
- 4 Turkish baths laundry room
- 5 Turkish baths toilets
- 6 Turkish baths scarping room
- 7 Turkish baths steam
- 8 Turkish baths admin space
- 9 Turkish baths plunge pools
- 10 Entrance to public laundry
- 11 Laundry room
- 12 Women's baths entrance
- 13 Women's baths ticket booth
- 14 Women's baths admin space
- 15 Women's baths showers
- 16 Women's baths toilets
- 17 Women's baths basin room
- 18 Women's baths steam room
- 19 Women's baths admin space
- 20 Women's baths plunge pool
- 21 Men's baths entrance
- 22 Men's baths ticket booth
- 23 Sanitary board office
- 24 Sanitary board office
- 25 Sanitary board boardroom
- 26 Linen room
- 27 Men's baths showers
- 28 Men's baths plunge pool
- 29 Men's baths dressing rooms
- 30 Men's baths linen room
- 31 Men's baths washing basins

0 2 4 6 8 meters

BATH HOUSE D
EAST 23RD STREET BATHS.
NEW YORK CITY, 1908

This bath house accommodate eighteen thousand bathers daily. The building sat atop a large plot of land, allowing the baths to stretch horizontally and echo the European model of a single-story bathhouse. The original plans contained two pools so that men and women could swim everyday, but failed to offer separate cleansing showers. But cleanliness, not recreation was supposed to be central to the design. A rear entrance for spectators acknowledged the new role of recreation (Renner, 2008, p.525).

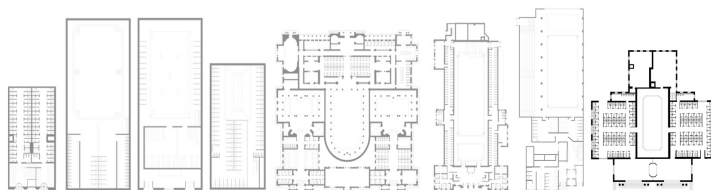


FRONT FACADE
 (Photo: Renner, 2008, p.524)

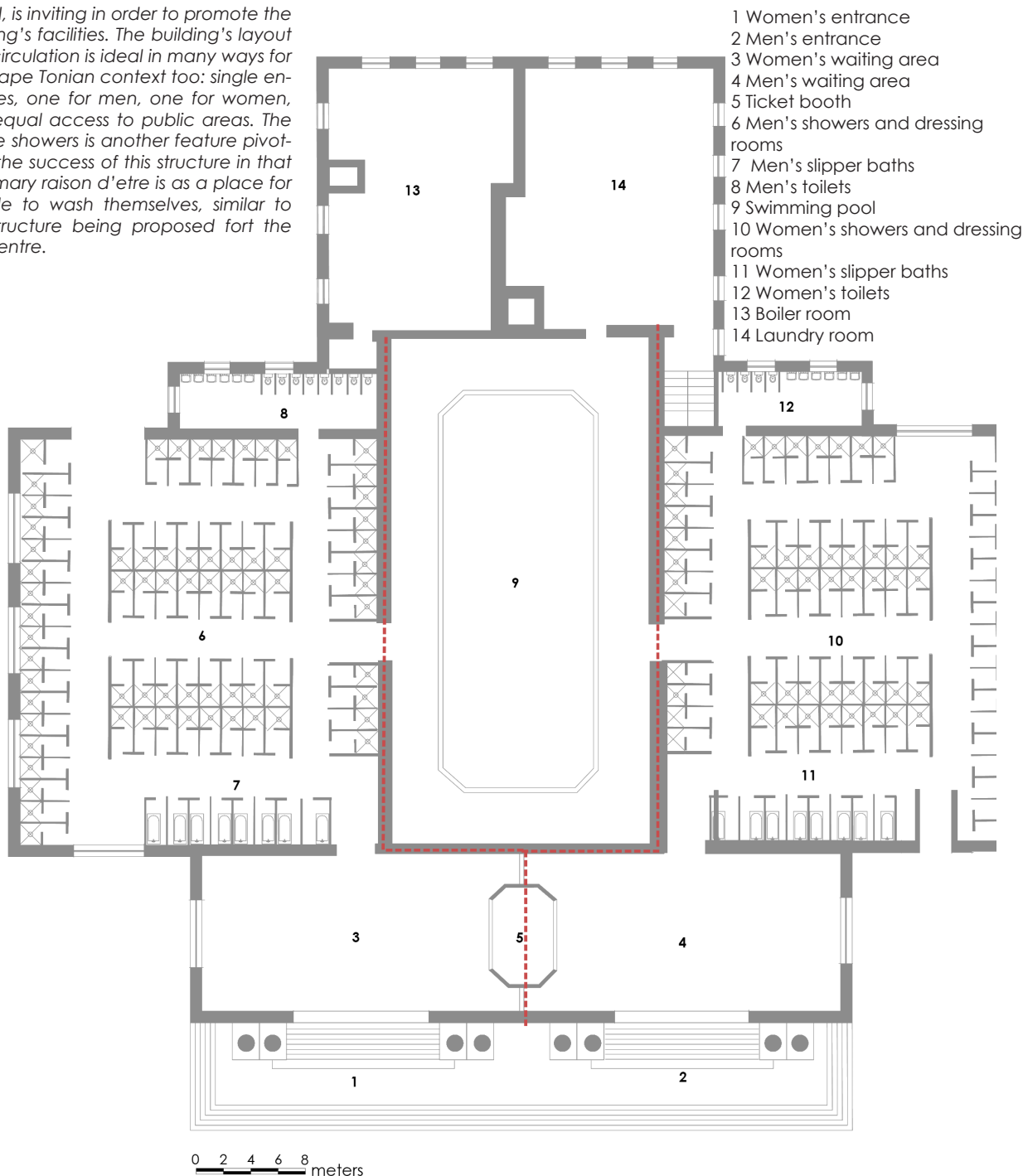
APPROPRIATENESS FOR CAPE TOWN

This bath house is free standing and would have appeared similar to a monument in many regards. The facade, although opulent, still embodies an approachable character and possesses a human scale some of the other bath houses don't.

This would be important in Cape Town as many of the potential users for this type of structure would be coming from informal settlements and would need to feel like the structure, no matter how grand, is inviting in order to promote the building's facilities. The building's layout and circulation is ideal in many ways for the Cape Tonian context too: single entrances, one for men, one for women, and equal access to public areas. The ample showers is another feature pivotal to the success of this structure in that its primary raison d'etre is as a place for people to wash themselves, similar to the structure being proposed for the city centre.



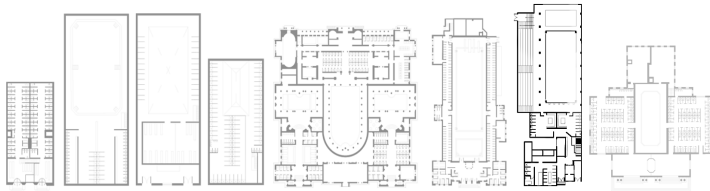
SIZE COMPARISON BETWEEN BATHS STUDIED



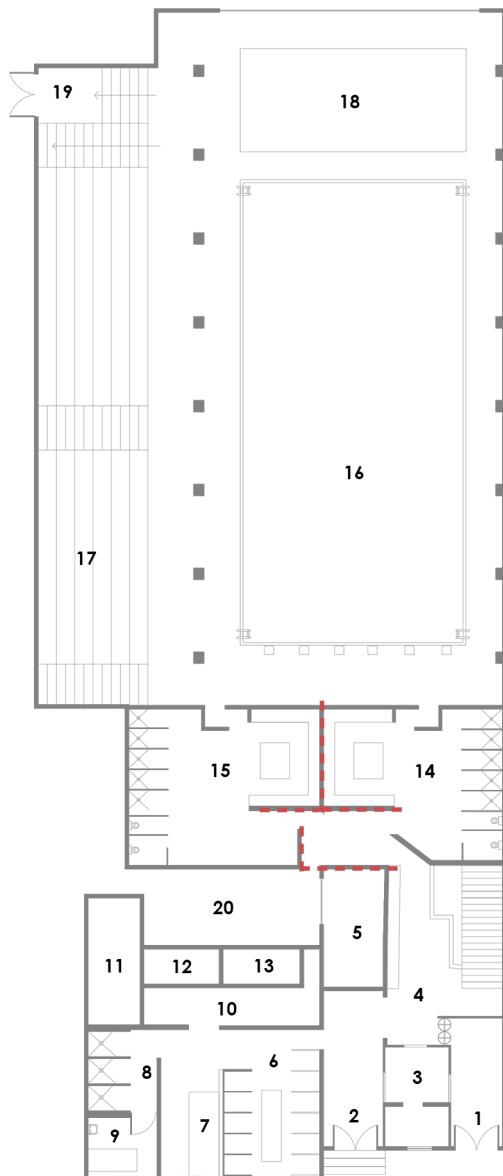


FRONT FACADE

(Photo: Kimon de Greef, <http://groundup.org.za/>)



SIZE COMPARISON BETWEEN BATHS STUDIED



BATH HOUSE E **LONG STREET PUBLIC SWIMMING POOL AND BATHS** **CAPE TOWN 1908**

The Long Street Baths were built to service the local community, most of whom didn't have in-house ablution facilities, much like residents in NYC and London at the time. The Turkish bath house was added in the 20s to keep the public interested and make the building more entertainment based as most homes were serviced with ablutions by then.

APPROPRIATENESS FOR CAPE TOWN

These baths provide the city with an important public entertainment/sporting facility which the public can enjoy. Though large, the building takes up little of the street front and maximizes on the space it has been provided with. The Turkish baths were once a cultural activity in a sense, but these days a sauna/steam room could simply be incorporated into a bathroom as opposed to being a stand-alone section of the building. The swimming pool's high portal frame structure gives the space a light and welcoming feel. The building's two draw backs are its lack of ventilation and the fact that the swimming pool can only be accessed through the bath-rooms. The layout should cater to the grandstand spectators too by providing an alternative entrance into the swimming hall. The swimming pool is used extensively by people from all walks of life. The ablution facilities are used by swimmers for dressing, showering and to store their belongings while swimming (in lockers) as well as Cape Town's large vagrant community, providing them with a dignified spaces in which to wash. The entrance fee increase has however increased to R21 and has become unaffordable to most of the homeless community using the baths. On an urban level, the Long Street baths were once at the city's centre, but after the construction of the Foreshore, the CBD's epicentre shifted down towards the train station. The baths are nowadays however an inconvenience for people to go to as it is out of the way of most train users' movement routes.

- 1 Main entrance to public bath house
- 2 Main entrance to Turkish baths
- 3 Ticket booth
- 4 Foyer
- 5 Staff room
- 6 Turkish baths dressing room
- 7 Turkish baths plunge pool
- 8 Turkish baths showers
- 9 Turkish baths masseur's room
- 10 Turkish baths dry heat room
- 11 Turkish baths sauna
- 12 Turkish baths steam room
- 13 Turkish baths steam room
- 14 Women's bathroom: toilets, showers and lockers
- 15 Men's bathroom: toilets, showers and lockers
- 16 Main swimming pool
- 17 Spectator's grand stand
- 18 Beginners swimming pool
- 19 Emergency exit
- 20 Outdoor maintenance courtyard

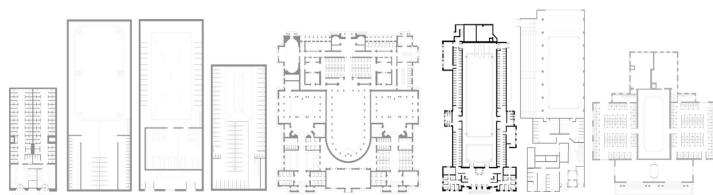
0 2 4 6 8 meters

BATH HOUSE F
WEST 60th STREET MUNICIPAL BATH
NEW YORK CITY

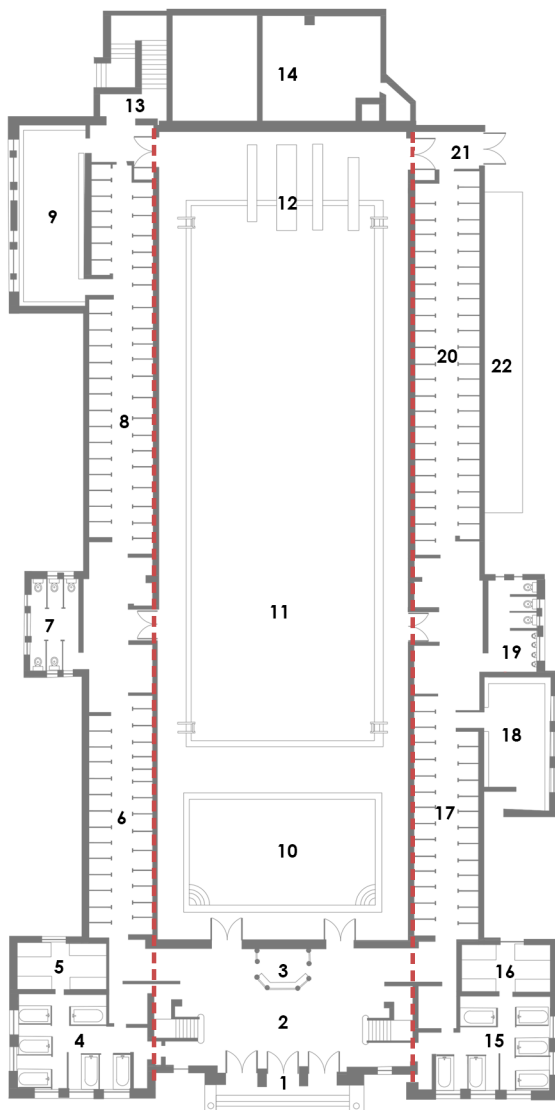
This bath house was built primarily as a recreational facility and secondarily as a washing space as it houses two swimming pools.

APPROPRIATENESS FOR CAPE TOWN

The three main entrances off the street give the building a very definitive main entrance and establish it in the streetscape as an important building. The stairs users walk up to enter the building create the impression that the building sits on a plinth, further establishing it as an important civic institution rather than just a place to swim and bath. The building is highly accessible from one of three front entrance doors (1) as well as from the back (21) next to the bicycle shed. While the building has multiple access points, if used in the South African context, this extensive permeability could become problematic in terms of access control. The building's comfortably sized entrance foyer creates a space which users can arrive in and then orientate themselves from, a space which the more basic elemental bath houses investigated lack. Another aspect to the building which works is the layout: people can access one of three facilities straight off the foyer: the slipper baths, the swimming pool and its changing rooms/showers respectively. It thus caters to three types of users: swimmers, spectators and people wanting to bath only, all of whom can navigate into and through the building without passing through any space unnecessarily. This is useful to consider in Cape Town as the proposed structure would serve thousands of people daily, all of who would have different needs, helping to streamline circulation patterns.



SIZE COMPARISON BETWEEN BATHS STUDIED



- 1 Main entrance
- 2 Foyer
- 3 Ticket booth
- 4 Women's slipper bath
- 5 Women's dressing room
- 6 Women's showers
- 7 Women's toilets
- 8 Women's changing rooms
- 9 Women's dressing rooms
- 10 Learner's pool
- 11 Main pool
- 12 Diving stage
- 13 Emergency exit
- 14 Boiler room
- 15 men's slipper baths
- 16 Men's dressing room
- 17 Men's showers
- 18 Men's dressing room
- 19 Men's toilets
- 20 Men's changing rooms
- 21 Emergency exit
- 22 Bicycle shed

0 2 4 6 8 meters

IN SUMMATION

The historical bath houses investigated all encompass positive and negative attributes, and discerning between them which characters should be kept in order to establish the salient features for a Cape Town-appropriate structure is has led to the following conclusions: a bath house like the one being proposed as a partial solution to Cape Town's sanitation crisis can and should draw heavily from historical bath house precedent in terms of layout, facility provision, access reticulation and aesthetic strategy in order to design an efficient, logical, practical and ultimately affordable facility.

The space should be divided along gender lines and should be easily navigable for people from all walks of life: the young, the old, the able and the disabled. This type of structure should keep facilities simple in order to keep operating costs low and use affordable for the users it is intended for. The structure should be built to evoke dignity, not pity, and should be designed primarily as an ablution facility rather than a recreational one. Men and women should be catered to equally and laundry facilities should also be included for people who do not have easy access to water points in areas where they live. Ventilation is of the utmost importance for health and hygiene purposes as is the use of natural lighting.

On an urban level, the structure should be located in close proximity to where the majority of these people move through on a daily basis, in other words, close to the Cape Town Central Train Station. Access to the structure should ideally be limited to one entrance per section, allowing for access to be controlled and in order to optimize security. A ticket booth near the entrance would allow for this type of admission management and enable the facility to general and income, even if a small one, and enable the bath house to become financially self-sustaining. Users should have access to ample shower and bath facilities, toilets and temporary storage facilities in the form of lockers for the safe-keeping of belongings during washing. This structure should be approachable in terms of its facade and simple in its layout, facilitating streamlined circulation and use.

Public baths are regarded by some critics as institutions of "social control" established by reformers to advance their own class interests.¹

[This document](#) in no way endorses the use

¹Renner, 2008, p.505.

of public facilities as covert means to control the disenfranchised masses. It endeavours to demonstrate how strategically placed public facilities such as these, if built with good intentions, have the potential to change, uplift and better the lives of many people living in the city. This document sees the sanitation crisis in Cape Town as partially resolvable. Bath houses are places where people can wash themselves, their laundry and have access toilet facilities. These strategically placed spaces possess the potential to overcome numerous urban, environmental, health, economic, social and safety obstacles in the following ways:

- They consolidate infrastructural investment into nodal units which can be built properly, serve countless people and be managed and maintained effectively by a public body
- They remove the onus on the municipality to try supply informal households with water and sanitation reticulation by providing public facilities and therefore possess the potential to reduce and even curb future service delivery protests.
- They can help alleviate pressure posed on formal homes by backyarders and thereby decrease potential maintenance expenses on exiting water and sewerage infrastructure in poorer areas
- They can be placed strategically at tactical interstitial points throughout the city and thereby become highly accessible to countless people
- They afford people from all walks of life equal access to basic facilities in dignified, clean and safe environments
- Informal settlements will always exist in developing countries and particularly in South Africa –so instead of admitting defeat and resigning ourselves to the idea that there is no solution to this sanitation crisis, we should start thinking about new, context specific and appropriated infrastructural typologies like this which works on a short term and long term basis

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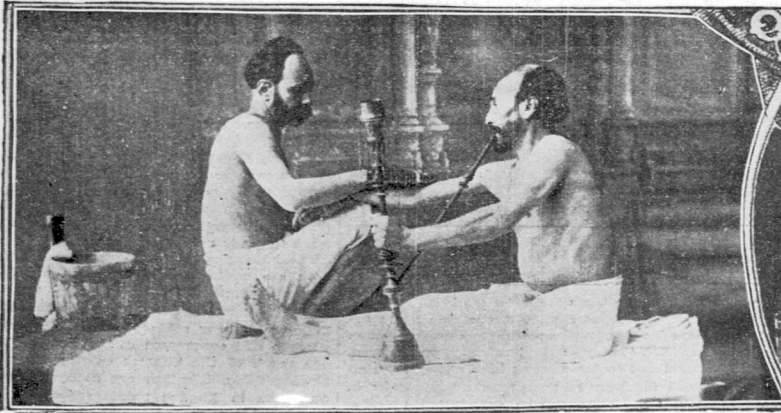
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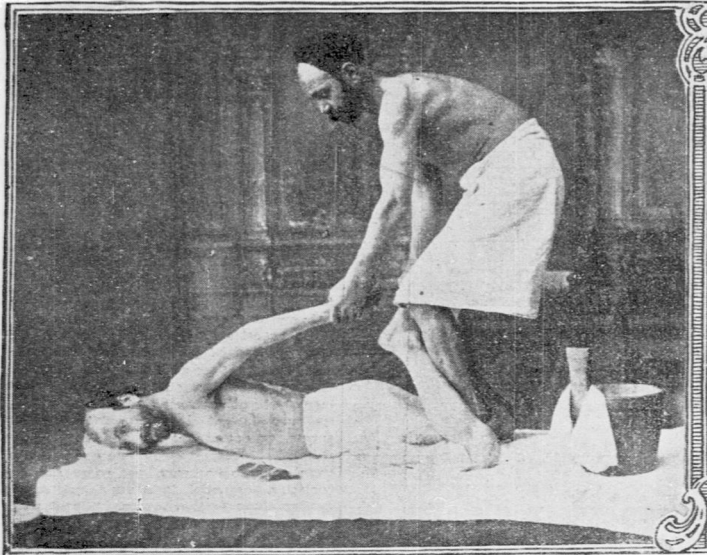
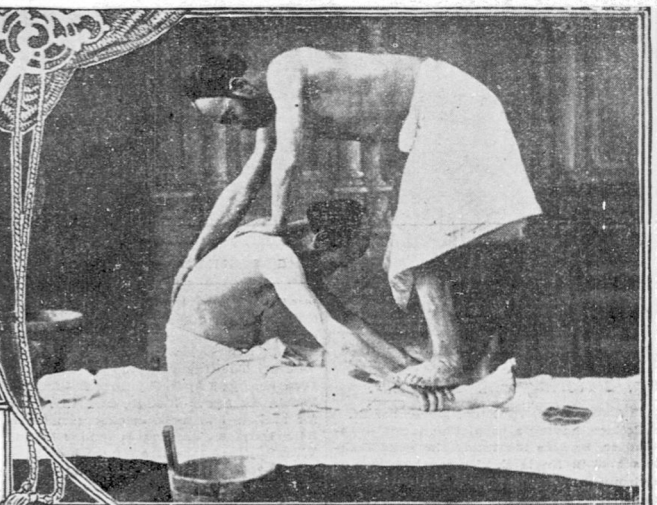
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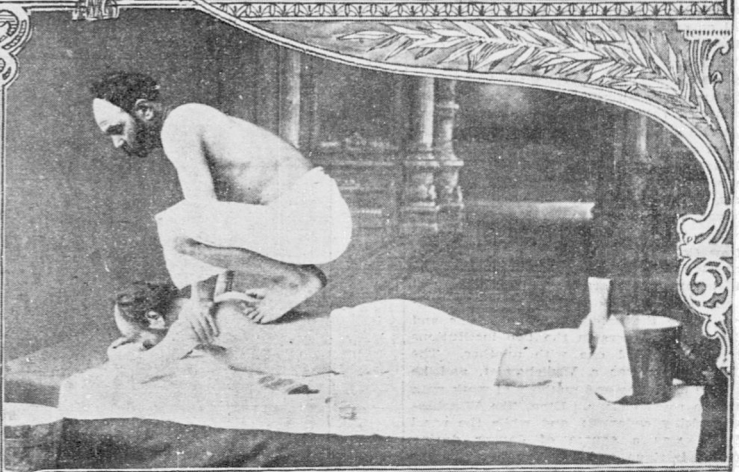
AT A PUBLIC BATH IN TIFLIS—WITH THE REAL THING IN MASSAGE—
NOTHING JUST LIKE IT IN THE WORLD.



STARTING WITH A GENTLE RUBBING.



MAKING KNEE AND ELBOW JOINTS CRACK.



GETTING MORE VIGOROUS.
MAKING THE SHOULDERBLADES CRACK.



MAKING THE COLLARBONES CRACK.



A FINAL SLIDE DOWN THE SPINE.

DISSERTATION DESIGN
COMPONENT B

SWEET WATERS PARK

THESIS DESIGN ABSTRACT

1,2 million people living in Cape Town do not have access to formal in-house sanitation. Furthermore, nationally we face a water crisis demonstrative of future projected weather patterns. The Sweet Waters Park takes lead first and foremost from both these factors and in so doing attempts to set a precedent for change when it comes to both sanitation and water wastage in South Africa and Cape Town specifically.

The site chosen was selected because it sits along the Camissa ('Sweet Waters' in Khoi), is in an area inundated with homeless individuals and, due to the ring-fencing of rates and taxes, is capable of supporting the type of scheme proposed when already underserved areas cannot. The designs aim to provide users and inhabitants of the City Bowl with a public, equitably accessible space in which they can gather socially, swim, ablute, or merely traverse en route elsewhere. The site connects with De Waal Park and by extension, a network of green spaces which sit in the Camissa catchment, servicing the greater CBD community and beyond.

The scheme uses the Camissa's water to create a renewed sense of place on the site, weaving it through a series of passive cleaning mechanisms before it is stored for municipal use or used on site in the wash house and swimming facility.

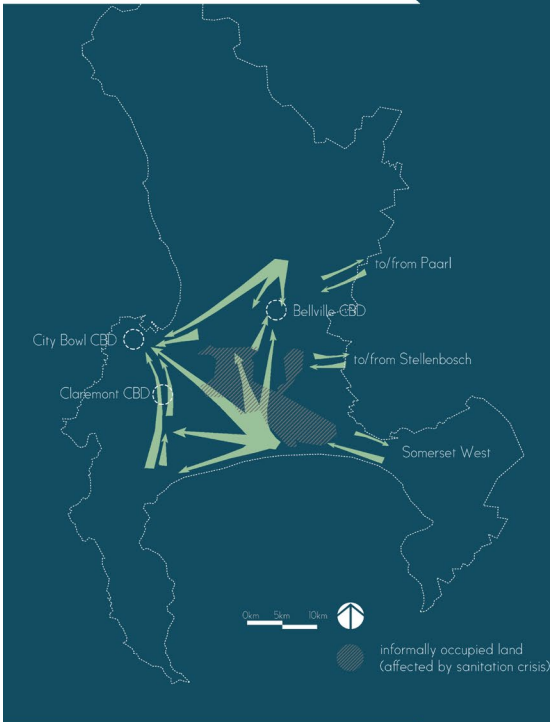
The scheme endeavours to demonstrate that high quality public space and facility sharing (the wash house, play areas and swimming facility) can compensate for high density living, providing people with outdoor living room, and incentivize city dwellers to start living in and demanding different urban environments.

SWEET WATERS PARK

WHY THE SCHEME WORKS WITH AND VALUES

WATER

DAILY URBAN MOVEMENT



Map shows movement patterns from poorer and especially informally occupied areas on Cape Flats in the grips of a sanitation crisis into various CBDs in Cape Town, the most prominent being the City Bowl. Areas such as the City Bowl can support consolidated sanitation infrastructure.

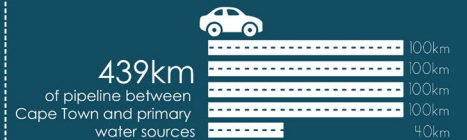
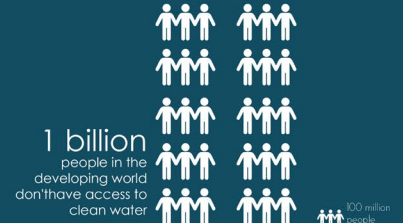
The map seeks to demonstrate that when one considers movement, population distribution and the distance of water sources from those places, utilizing water more efficiently in densely occupied/used areas in the city such as in the City Bowl makes perfect sense.



Ring fencing

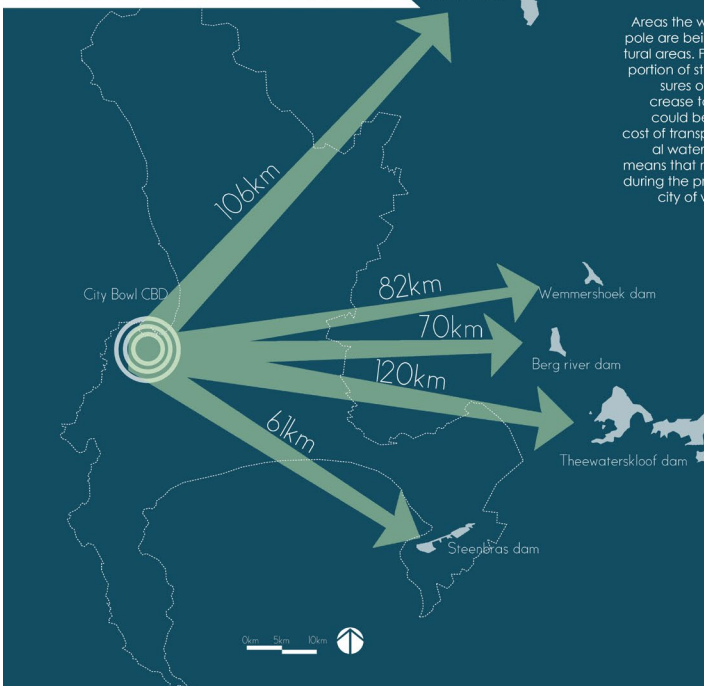
Ring fencing means rich areas retain large portion of rates paid in area. These areas able to afford and maintain public infrastructure

INFORMING FACTORS



SA=30th driest country in the world

WATER USE & SOURCING



Areas the water for the Cape Town metro-pole are being brought from are all agricultural areas. Farming uses and needs a large portion of stored water for irrigation. If pressures on these for off water sources increase to grow in the future, agriculture could be strained disproportionately. The cost of transporting water and the additional water losses which occur on the way means that much water is lost unnecessarily during the process, a pity consider the scarcity of water in the Western Cape and country.

Water is a precious resource both globally and locally. Considering that Cape Town is in the grips of a sanitation and water crisis, it makes little sense that millions of litres of clean water runs straight off the mountain and into the sea.

Site chosen because:

- The site sits along the length of a tributary of the Camissa and therefore has an abundance of water passing under it
- The site is in an area financially capable of implementing, supporting and maintaining a scheme has been proposed
- The site is currently unutilized and houses countless trees and 2 defunct reservoirs capable for storing millions of litres of potable water
- Forms part of a network of green public space which run down the length of the camissa
- The area lacks high quality public space and public recreational facilities such as swimming pools
- It is located in an area home to countless homeless people, all of whom do not have access to water or sanitation



point of departure

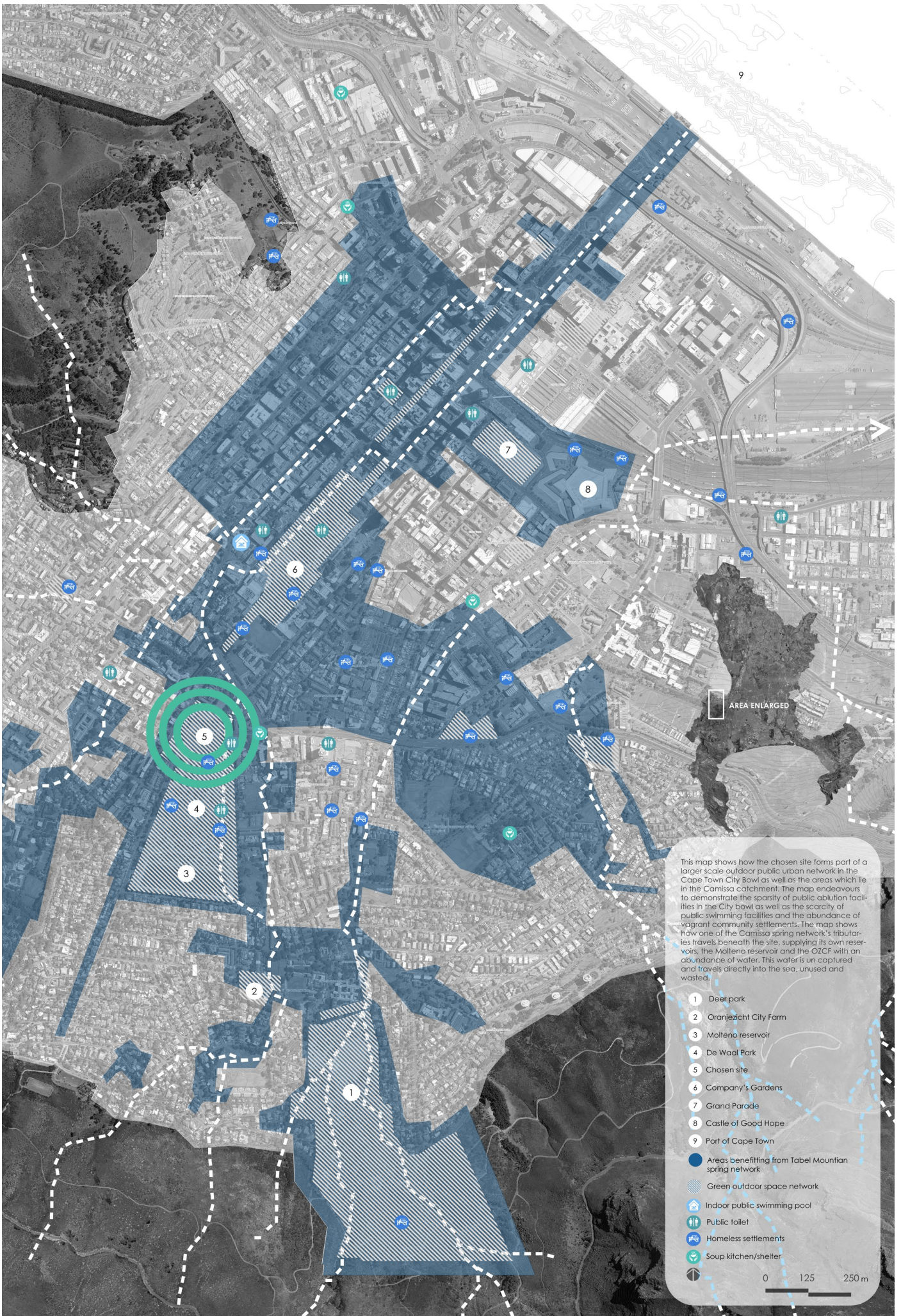
homelessness 	water wastage off Camissa
lack of public toilets in CBD 	need to link with other green spaces in CBD
need for high quality public space in CBD 	CT's impending water crisis

Scheme prioritizes

safe play space for children 	public swimming facility 	water cleaning wetland
mass water storage 	public ablution facility 	cafe in heritage building
passive irrigation 	space for ritual washing 	space for water sports

Response to issues

sanitation and hygiene 	recreation and exercise
ecology and conservation 	resource management
public space 	education
urban beautification 	

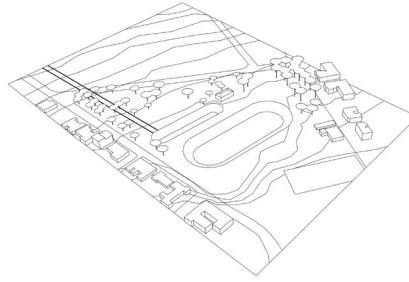


This map shows how the chosen site forms part of a larger scale outdoor public urban network in the Cape Town City Bowl as well as the areas which lie in the Camissa catchment. The map endeavours to demonstrate the sparsity of public ablation facilities in the City Bowl as well as the scarcity of public swimming facilities and the abundance of vagrant community settlements. The map shows how one of the Camissa spring network's tributaries travels beneath the site, supplying its own reservoirs, the Molteno reservoir and the OZCF with an abundance of water. This water is un captured and travels directly into the sea, unused and wasted.

- 1 Deer park
 - 2 Oranjezicht City Farm
 - 3 Molteno reservoir
 - 4 De Waal Park
 - 5 Chosen site
 - 6 Company's Gardens
 - 7 Grand Parade
 - 8 Castle of Good Hope
 - 9 Port of Cape Town
 - Areas benefitting from Tabel Mountain spring network
 - ▨ Green outdoor space network
 - 🏠 Indoor public swimming pool
 - 🚻 Public toilet
 - 🏠 Homeless settlements
 - 🍲 Soup kitchen/shelter
- 0 125 250 m

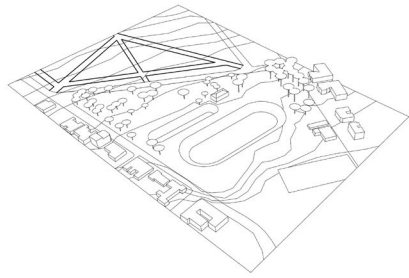
EXISTING SITE CONDITIONS

Molteno reservoir network



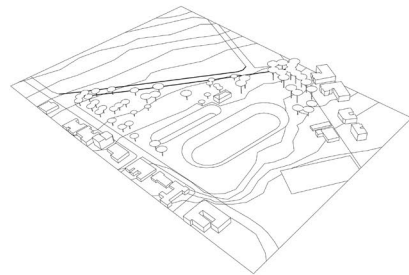
The chosen site's proximity to Molteno reservoir and its position on the length of the Camissa is its first and most important characteristic. It enables the use of constantly running water on the site in numerous ways. The abundance of water means that the site can become so much more than it would be able to without it.

Paths in De Waal Park



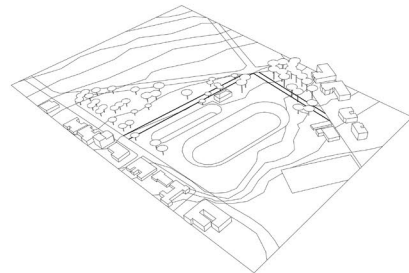
The existing trees on Camp Street create a semi arcade presently. The effect isn't as powerful as it could be if more trees were to be planted on the chosen site. The edge along De Waal Park could merely be supplemented to reinforce the effect.

Existing trees along Camp street on both sides



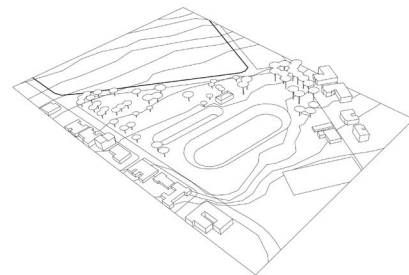
The existing trees on Camp Street create a semi arcade presently. The effect isn't as powerful as it could be if more trees were to be planted on the chosen site. The edge along De Waal Park could merely be supplemented to reinforce the effect.

Existing desire lines



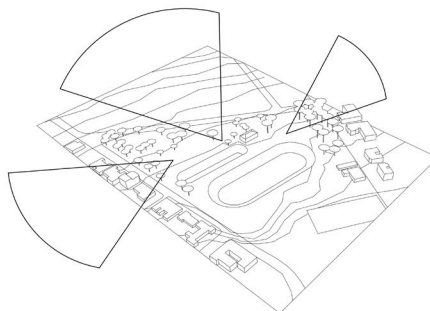
Existing desire line on the site indicate that there is an existing manner in which people feel comfortable to traverse the site. It entails cutting across and then walking along the upper reservoir because its open and one is less prone to be mugged due to that visibility.

De Waal Park



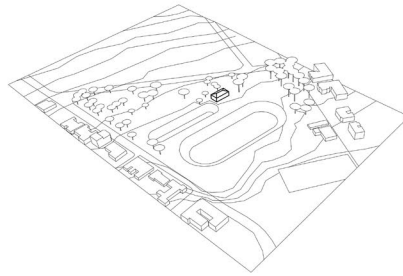
De Waal Park sits opposite the road to the site. The park has countless established trees and is loved by dog owners throughout the city bowl. The park sits between Molteno reservoir and the chosen site and possesses the potential to act as a link between the two. The fact that De Waal park sits adjacent to the site doesn't nullify the need for another park; in fact it confirms the need for a different type of outdoor public space in which people can engage with water, making it fundamentally different to De Waal park.

Views of Table Mountain devil's Peak, Lion's Head and Signal Hill



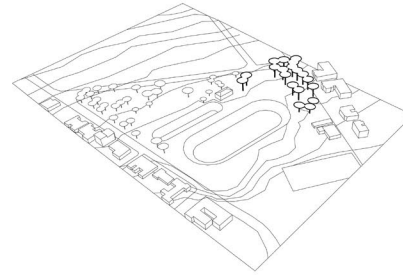
The mountains encircling the City Bowl and site create spectacular views. These views will be taken cognisance of and incorporated into the design by means of axial alignment, view framing etc.

Old Pump house



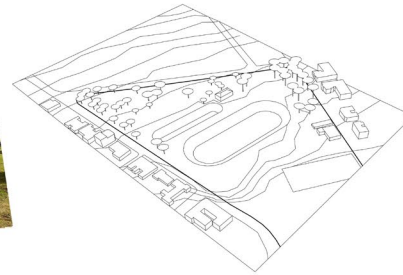
The old pump house is a historical building. The structure was built in the same year as the Molleno (1877). The structure is currently under celebrated, under loved and under-utilized. It presents an opportunity for sensitive and respectful adaptive re-use and redesign, which will make the building relevant once more.

Stone Pine clump



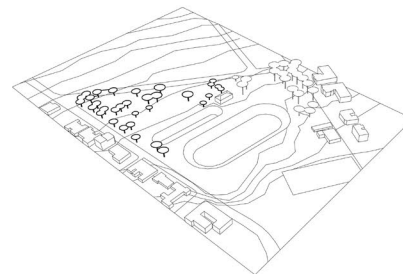
Stone Pines were brought to the Cape by the French Huguenots in the 1820s and were for many years a symbol of freedom and defiance of persecution. A clump of Pinus pinea now still stands in the SW corner of the site, and although not very old trees, they certainly contribute to the site historically, socially, ecologically and visually.

Sparse open relatively flat landscape



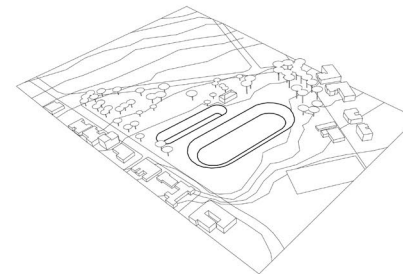
The site is flat for the most part, gently sloping diagonally from the SE corner to the NW. The reservoirs were built on this site because of its location along the Camissa, and because building reservoirs on flat ground was no doubt easier than doing so on a steep slope. The flatness of the site with its slight slope is perfect for slow water movement and long term water detention.

Variety of existing, established trees



The array of random but beautiful and established trees scattered on the SE side of the site contribute considerably to the character and feel of the space. Because it's such a flat site, the trees help create micro spaces and enclosures where they otherwise wouldn't exist.

Existing defunct historical reservoirs



The reservoirs on site are currently defunct. The both contain almost no water, and the water which they do contain is stagnant. They present countless opportunities for adaptive reuse on a recreational, ecological and infrastructural level.

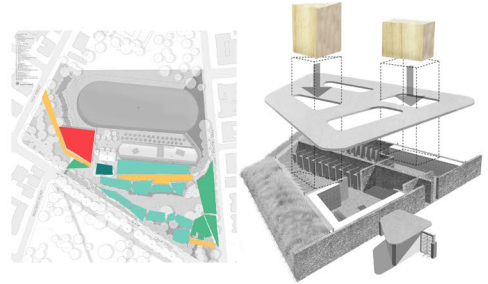
Preliminary clay and wooden models



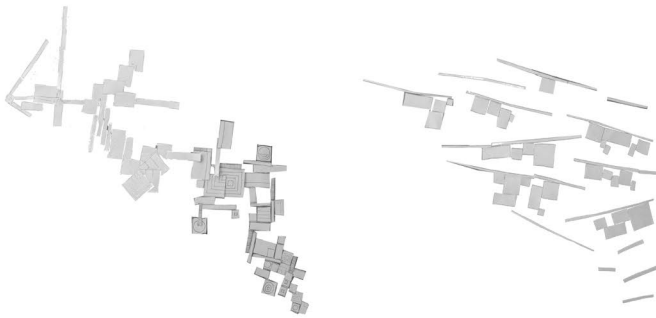
Process:

Impressing wooden blocks into clay

These models explored the effect created by impressing wooden blocks into different clay surfaces. Some were flat and others had topography. The models explored different ways one could treat a flat surface in order to allow water to be detained for certain periods of time as well as create form in the landscape using water. The models also attempt to blur the line between architecture and landscape architecture by using 'landmass' to create enclosure and spatial differentiation. This is especially true in the bath house which allows the landscape in but still encloses sufficiently.



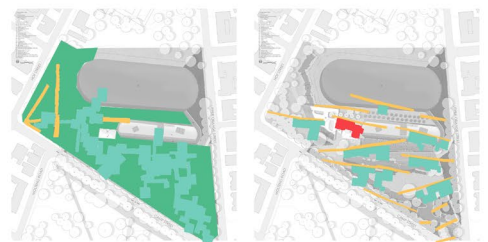
2nd stage: collages



Process:

Drawing, cutting and positioning of paper pieces on top of site photo

Collages explore formal qualities of wooden stamps and extrusions in clay models in 2 dimensional manner, superimposed on site. Collages started to reveal a way of integrating block angular language and existing site conditions such as trees, topography and reservoirs. They demonstrated a way of navigating around these pre-existing conditions and allowed for the rapid design, redesign and re design again of various variations on a theme. The final layout chosen was traced and then drafted.

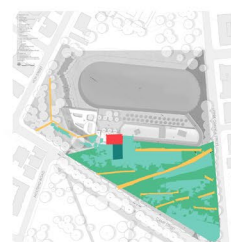
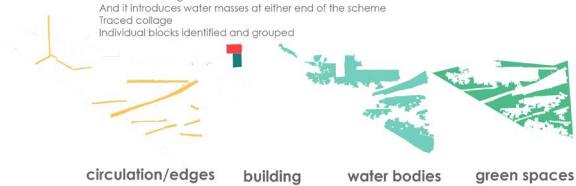


3rd stage: trace over collage



This design has:

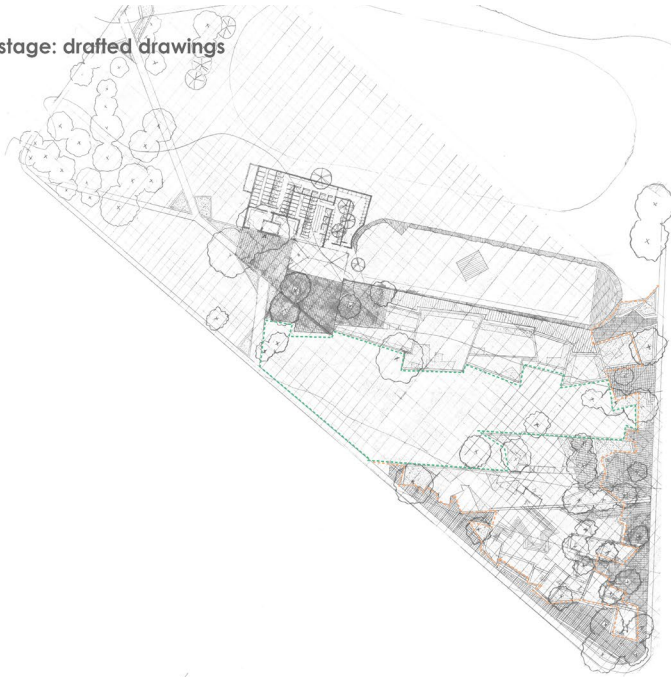
A collage which explores the contours on site and proposes the formalization of an element in the landscape along those contours
It introduces diagonal elements across the site
And it introduces water masses at either end of the scheme
Traced collage
Individual blocks identified and grouped



what was kept:

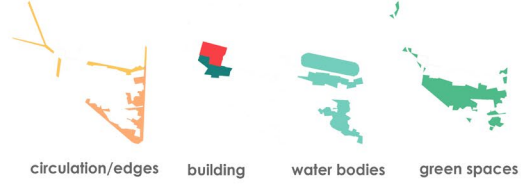
Paths around Stone pine clump
Strong diagonal movement across site
Fragmented nature of the pools
Water masses at top and bottom of scheme

4th stage: drafted drawings



This design has:

- An intricate water system which processes water differently at different stages
- A first slab at a wash house
- A formalized edge
- A plaza around the washhouse
- Paths near Hof Street



circulation/edges building water bodies green spaces



what was kept:

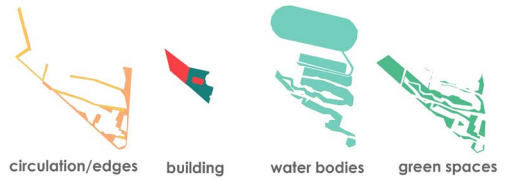
- Paths
- Water adjacent walkways
- Large lawned area
- Through middle
- Pump house
- Café plaza
- Stream origin
- Bottom most detention ponds
- Swimming pool

5th stage: ammended drafted drawing



This design has:

- 2 raised circulation routes to decrease grassed area
- An expanded water system to detain and process more water
- Less grass and more wetland
- A varied paved edge
- The beginnings of the final bath house which works with topography
- The beginnings of a bio-swale



circulation/edges building water bodies green spaces

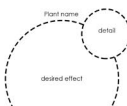


what was kept:

- Paths and bottom walkway
- Wash house footprint
- Washhouse forecourt
- Water way circulation
- Detention ponds and overflow
- Swimming pool



PLANT CHOICES



- Plants chosen because:
- Act as shading devices
- Act as security mechanisms
- Sequester nutrients
- Act as sculptural elements
- Act as ambience creators
- Soften the landscape

TREES



CREEPERS/ GROUND COVERS



PERENNIALS



SHRUBS



POOL >0.4m DEEP



EPHEMERAL MARSH 0 - 0.2m DEEP [4 MONTHS OF THE YEAR]



SHALLOW MARSH 0 - 0.2m DEEP [ALL YEAR]



DEEP MARSH 0.2 - 0.4m DEEP



27 FOUNTIAN PLAY AREA



30 ROAD CROSSING



16 SWIMMING POOL



HOW THE STREAM WORKS



HIGHLANDS

turbulent, shallow fast moving water



FOOTHILLS

medium speed, more planted water course



LOWLANDS

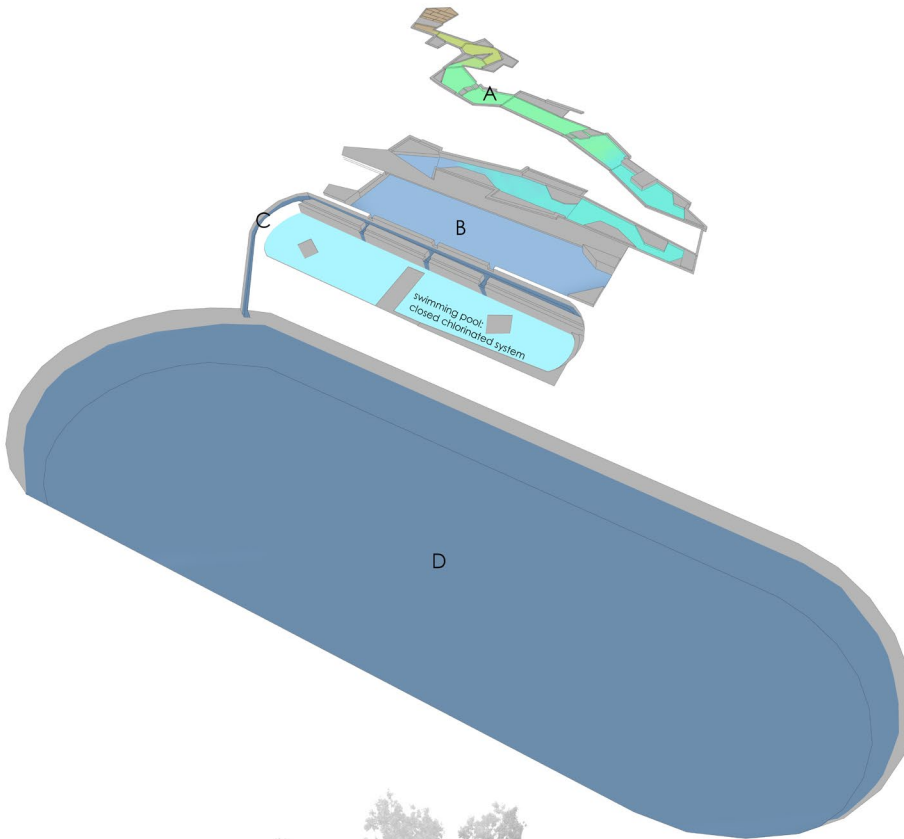
slow moving, heavily planted, deeper water



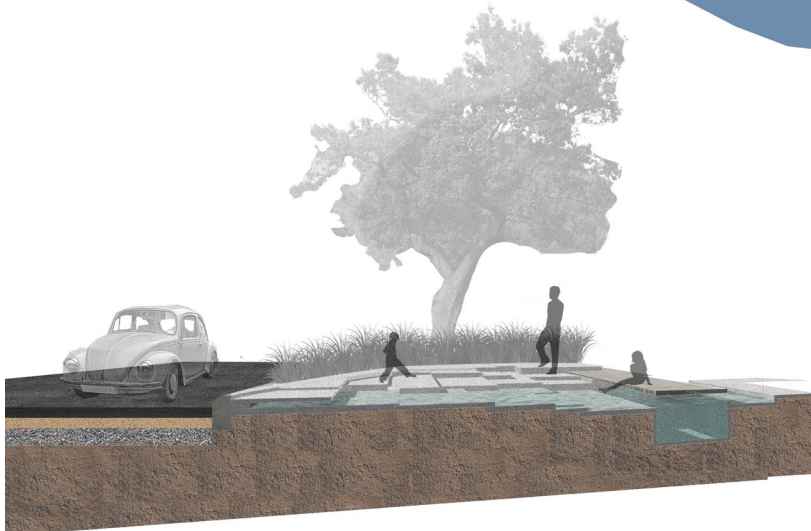
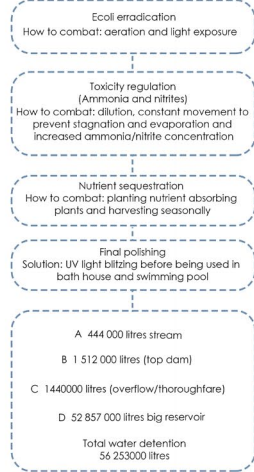
dirty water from storm water system



cleaned/processed water



HOW WATER CLEANING WORKS



1, 2. SEEP

Mimics geological process which occurs on Table Mountain in the sandstone

Water emerges from under rock and trickles down stone surface into forebay

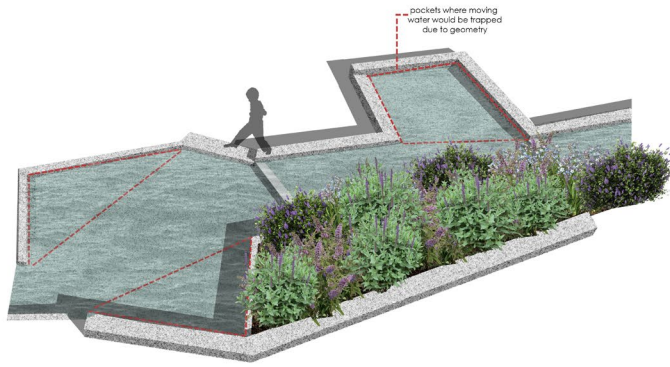
Sedimentation of large particles occurs in forebay

De-sedimented water then overflows into aeration and light exposure stream

Seep is built of locally sourced granite

Forebay is covered by wooden decking to prevent drowning and sill allow for maintenance access





3. WATER POCKETS

Water pockets occurred due to formal language of initial design process

Pockets created areas where water could potentially get trapped and stagnate, unideal in a stream trying to clean water

Pockets thus presented an opportunity for using stiller standing water

The built up barrier also deflects water flow back into stream



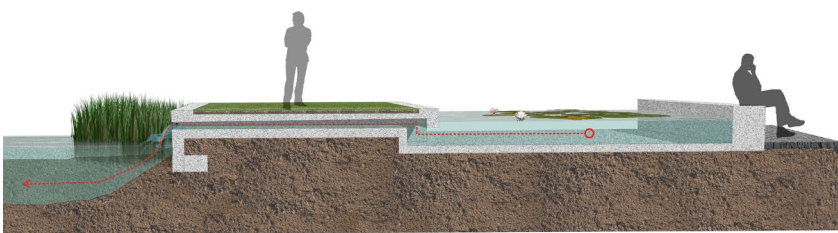
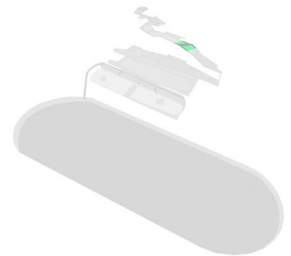
5. STEPPING STONES

Allow pedestrians to traverse stream

Play space for children

Functions as an overflow

Continue language of seep

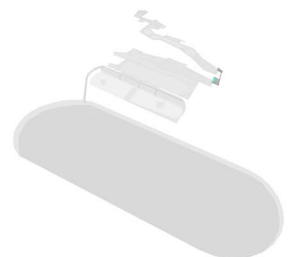


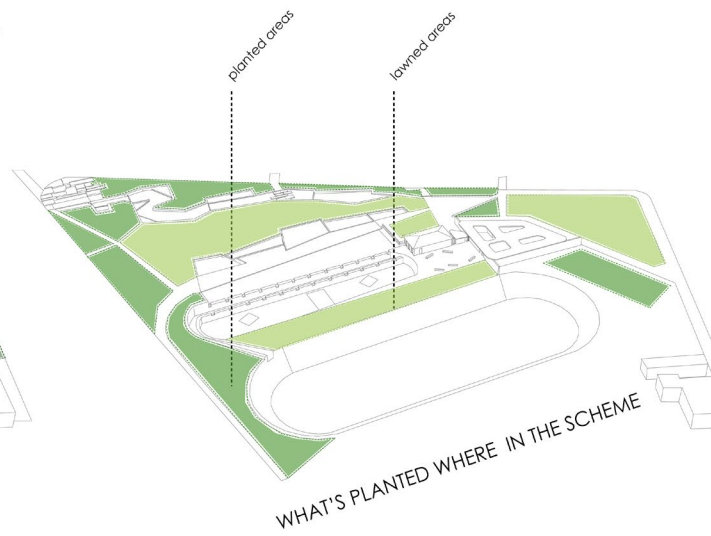
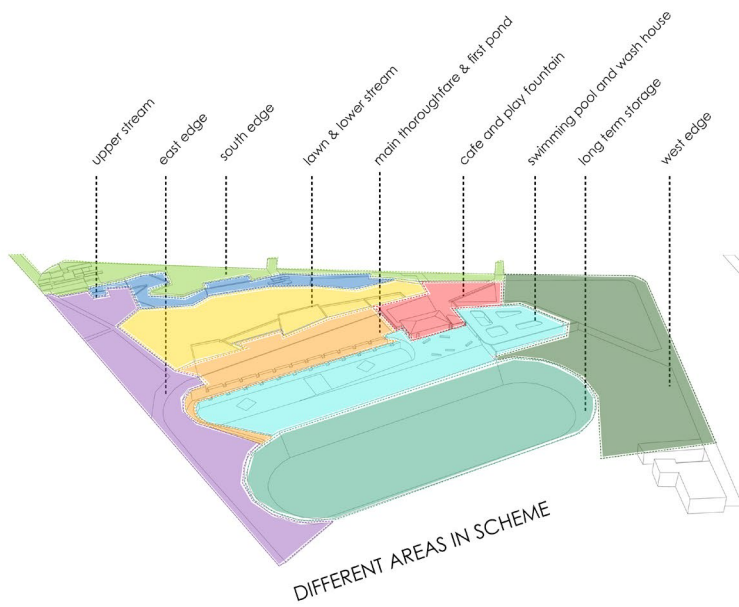
8. UNDER LAWN OVER-FLOW

Water needed to move beneath lawn area to next phase of stream

An overflow would allow for gradual water movement without depleting water level on upper stream

The overflow moves under lawn area into formalized channel and then cascades into next portion of the stream

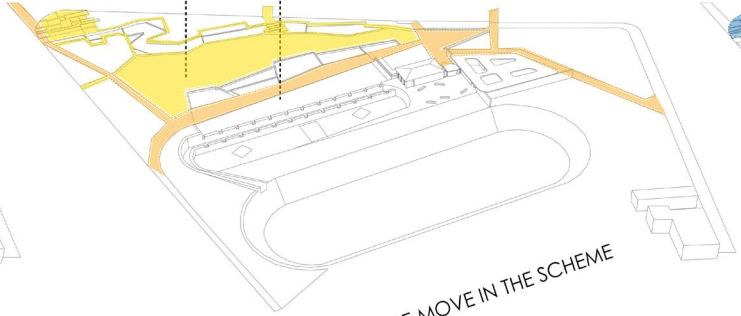




3D PERSPECTIVE OF SITE

1. Seep/stream origin
2. Forebay
3. Water pockets
4. Aeration/light exposure stream
5. Stepping stones
6. Stream paths
7. Lawn
8. Overflow under lawn
9. Planted swale
10. Decked walkway
11. Overflow under decking
12. Offset sidewalk
13. First detention pond
14. Overflow
15. Sluice
16. Swimming pool
17. Ramp into pool
18. Large scale water detention pond
19. Wash house entrance
20. Wash house
21. Café
22. Pump house
23. Forecourt
24. Grassed area for swimmers
25. Bio swale
26. Stone pine clump
27. Vertical fountain play area with seating
28. Sloped wall
29. Myciti bus stop
30. Planted road crossing
31. Proposed entrance to de Waal Park
32. Grey water filtration room (septic tank, sand filtration)

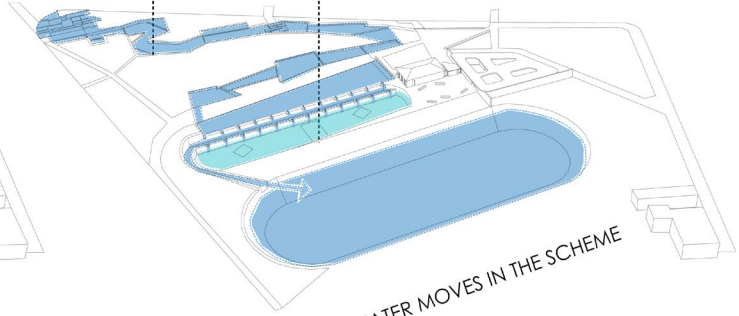
secondary circulation
primary circulation



HOW PEOPLE MOVE IN THE SCHEME

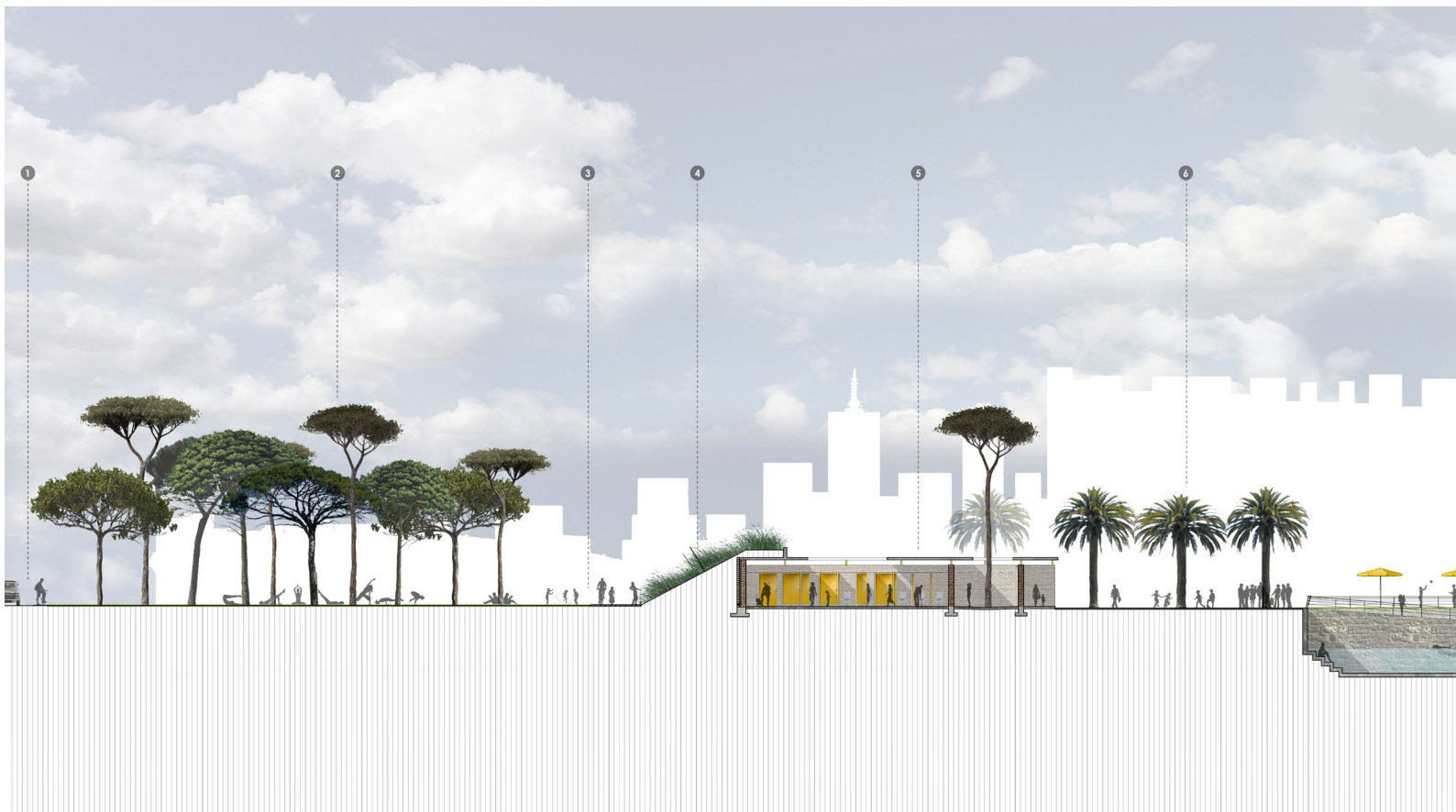
water route

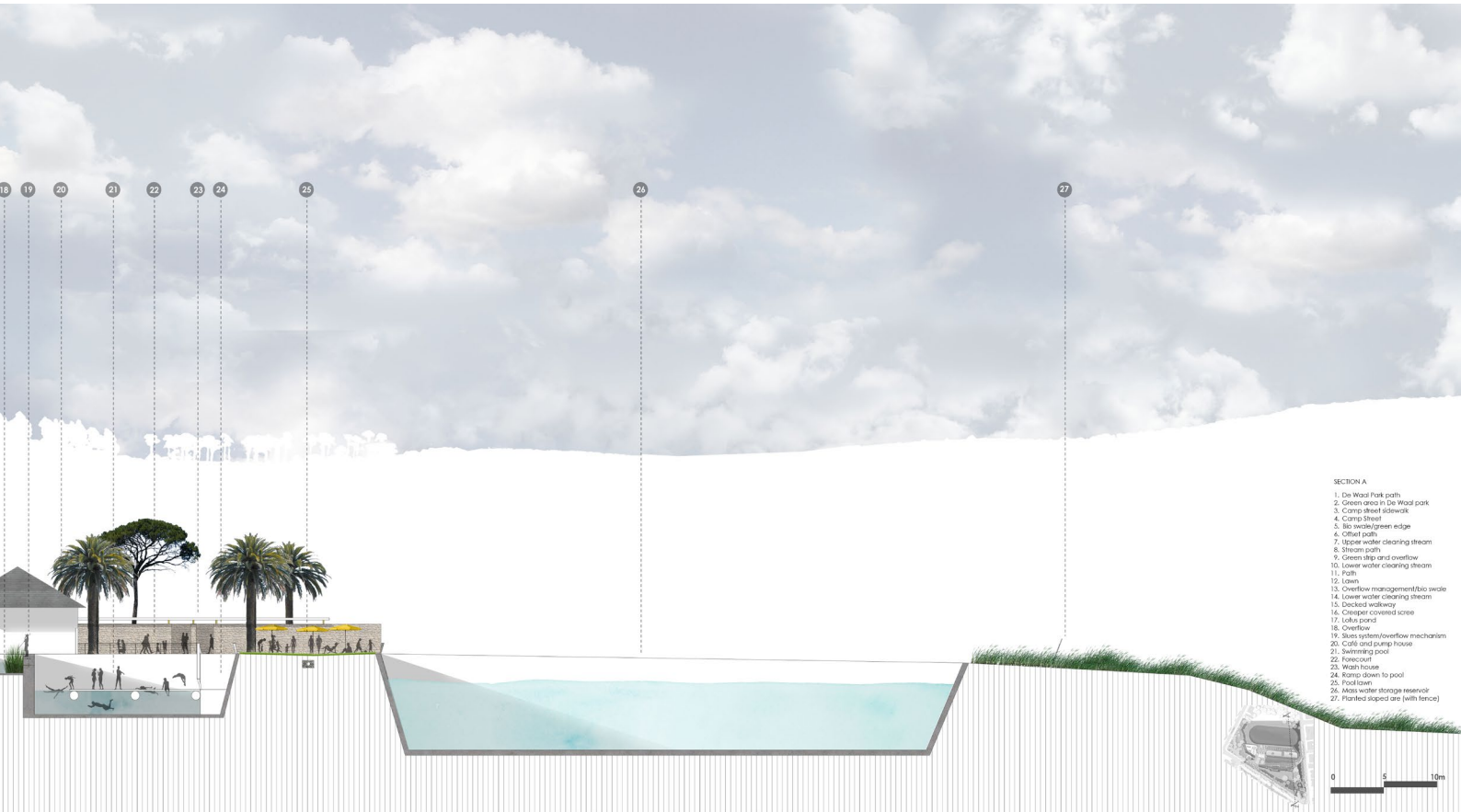
swimming pool (closed system)



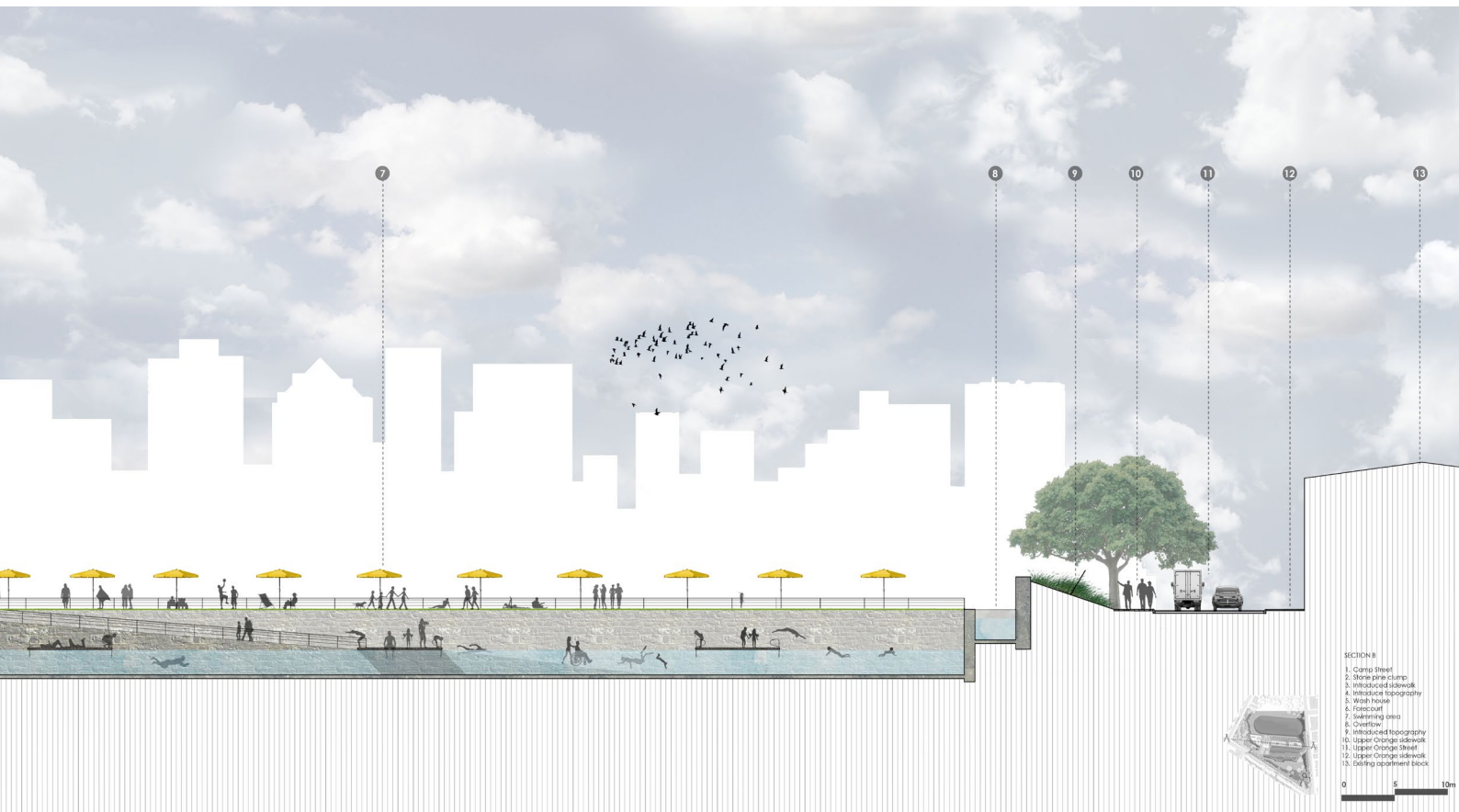
HOW WATER MOVES IN THE SCHEME



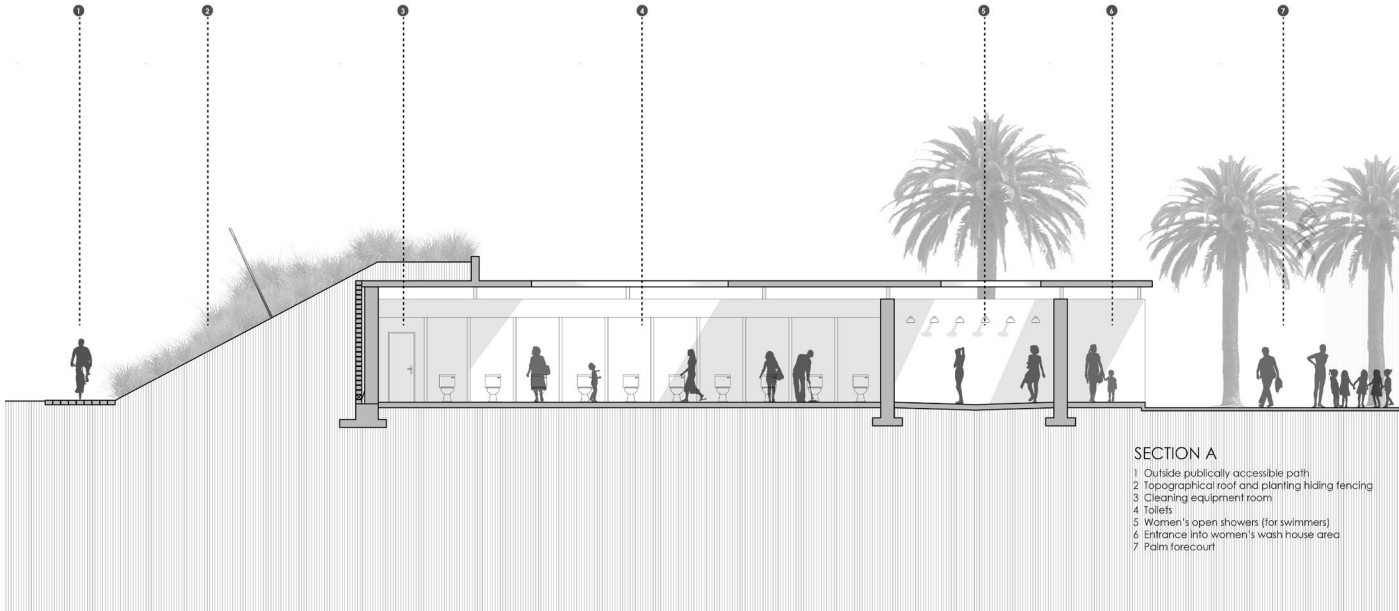
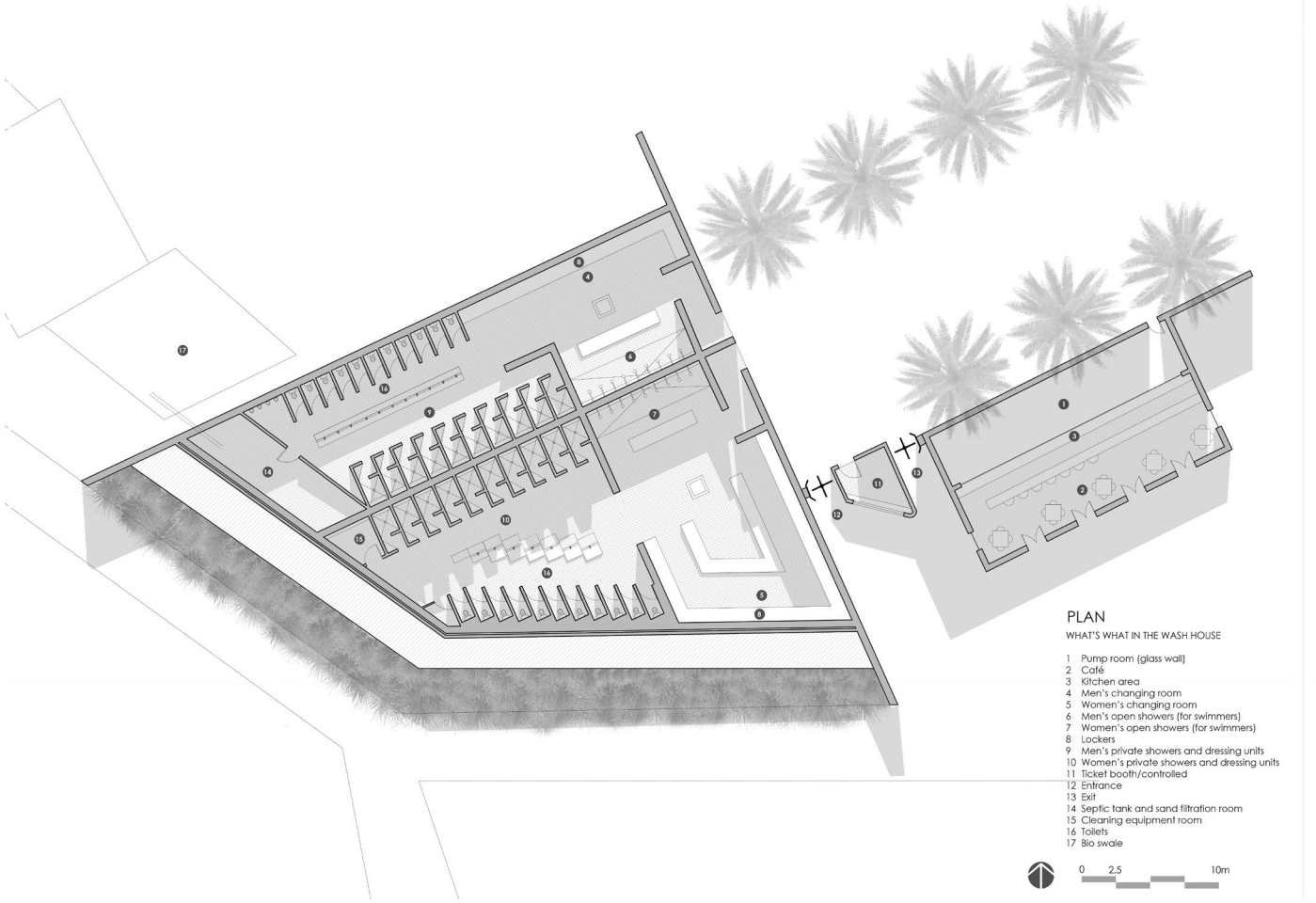




- SECTION A**
1. De Waal Park path
 2. Green area in De Waal park
 3. Camp street sidewalk
 4. Camp Street
 5. Slope/green ridge
 6. Offset path
 7. Slope water clearing stream
 8. Stream path
 9. Green slope and overflow
 10. Lower water clearing stream
 11. Path
 12. Lawn
 13. Overflow management (No swale)
 14. Lower water clearing stream
 15. Decked walkway
 16. Cheaper covered slope
 17. Subsoil pond
 18. Overflow
 19. Silt system/overflow mechanism
 20. Café and pump house
 21. Swimming pool
 22. Forecourt
 23. Wash house
 24. Ramp down to pool
 25. Pool lawn
 26. Area water storage reservoir
 27. Planted sloped area (with fence)



- SECTION B**
1. Camp Street
 2. Slope/pine clump
 3. Introduced topography
 4. Forecourt
 5. Wash house
 6. Forecourt
 7. Swimming area
 8. Overflow
 9. Introduced topography
 10. Upper Orange sidewalk
 11. Lower Orange sidewalk
 12. Upper Orange sidewalk
 13. Existing apartment block

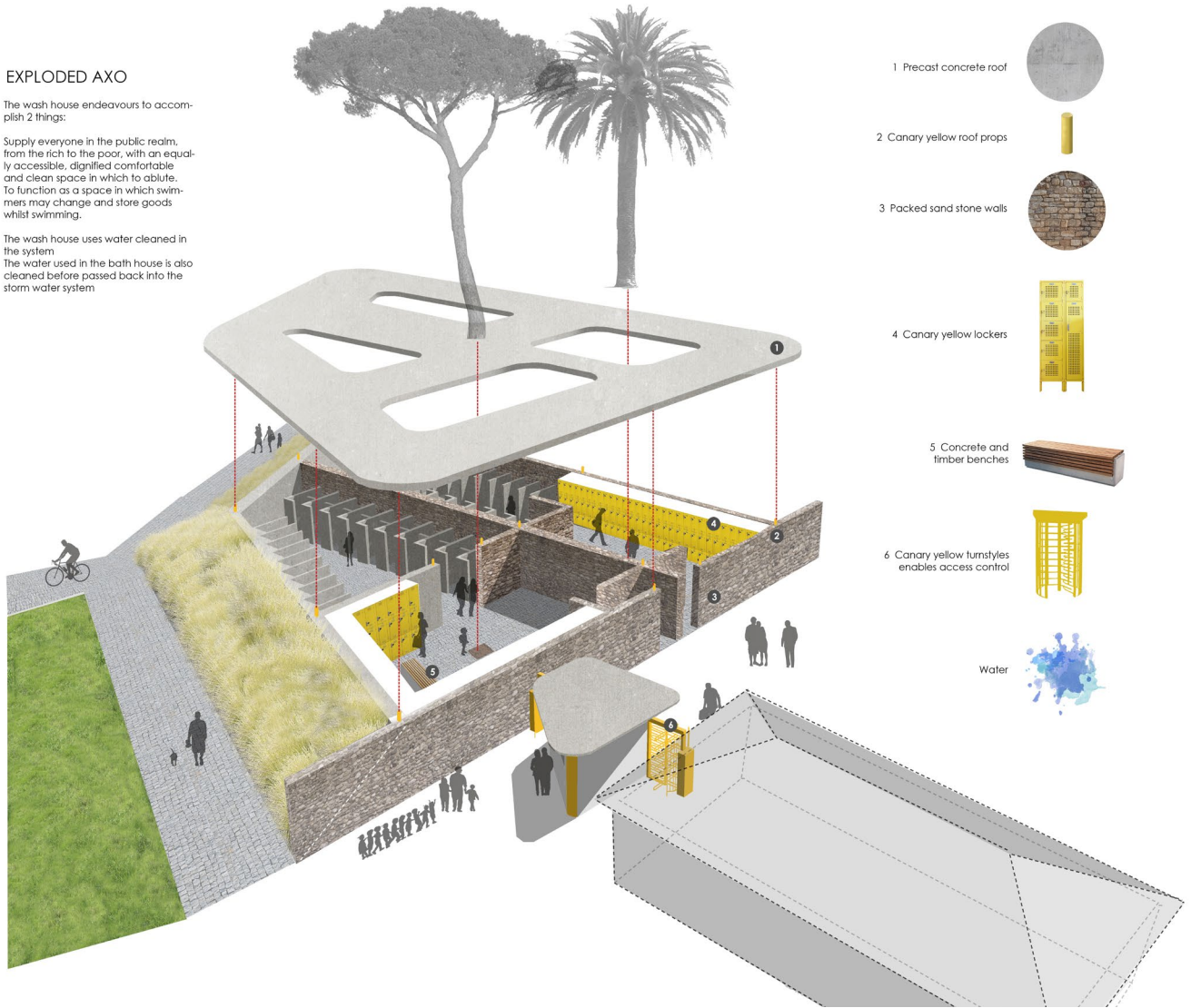


EXPLODED AXO

The wash house endeavours to accomplish 2 things:

Supply everyone in the public realm, from the rich to the poor, with an equally accessible, dignified comfortable and clean space in which to ablute. To function as a space in which swimmers may change and store goods whilst swimming.

The wash house uses water cleaned in the system
The water used in the bath house is also cleaned before passed back into the storm water system



1 Precast concrete roof



2 Canary yellow roof props



3 Packed sand stone walls



4 Canary yellow lockers



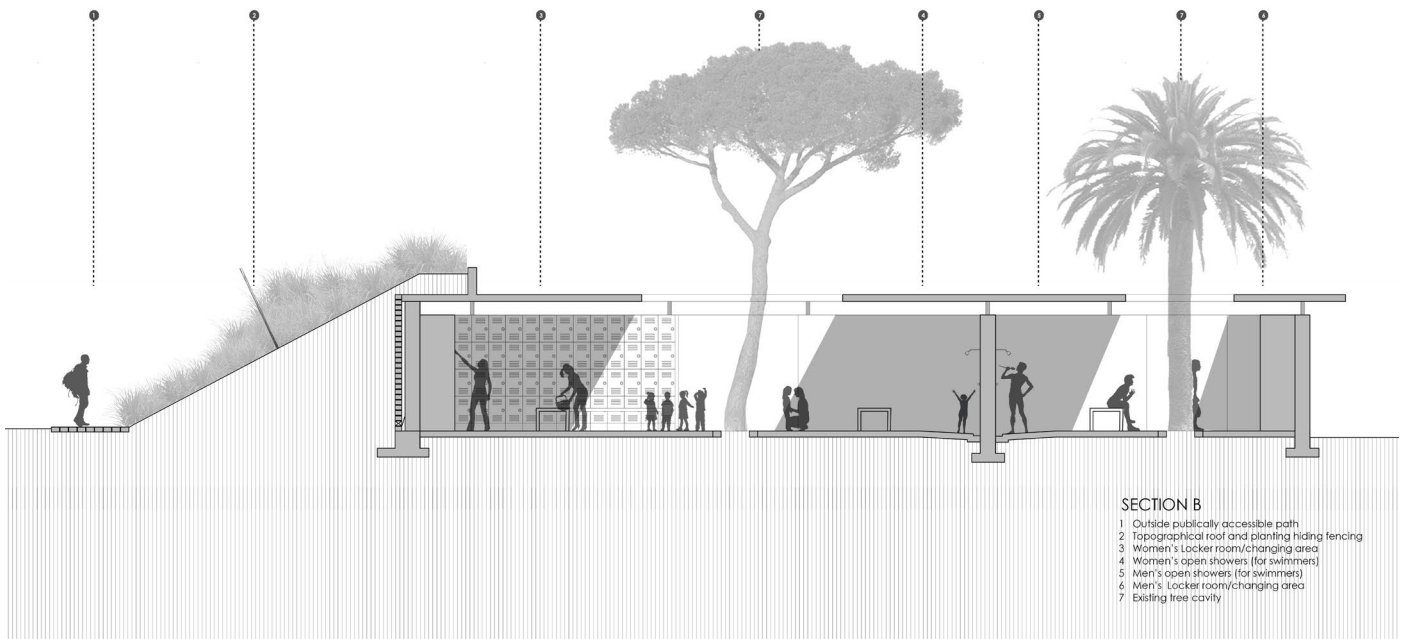
5 Concrete and timber benches



6 Canary yellow turnstiles enables access control



Water



SECTION B

- 1 Outside publically accessible path
- 2 Topographical roof and planting hiding fencing
- 3 Women's Locker room/changing area
- 4 Women's open showers (for swimmers)
- 5 Men's open showers (for swimmers)
- 6 Men's Locker room/changing area
- 7 Existing tree cavity

