

https://dspace.org/

A study of the space creating prinsciples in self built urban black residential environments

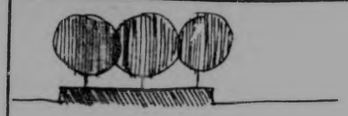
Janse, Van Rensburg

2015-06-29
http://hdl.handle.net/10539/18033

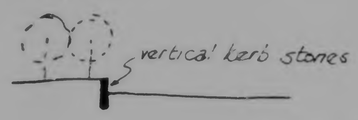
Downloaded from a DSpace repository. https://dspace.org/

ELEMENTS AND PRINCIPLES

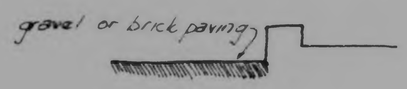
NODE 7



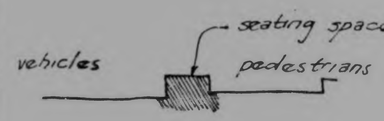
visual barrier to slow down traffic



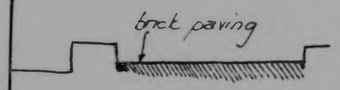
edge



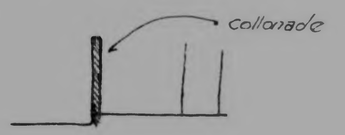
traffic movement space



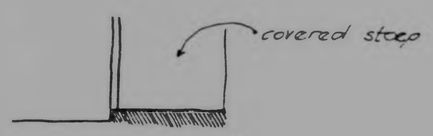
edge



pedestrian movement space



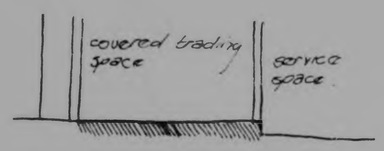
edge



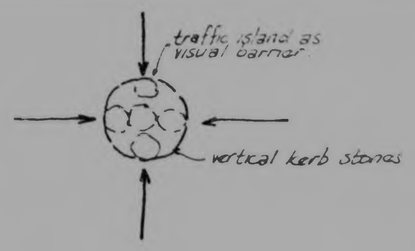
informal trading



edge

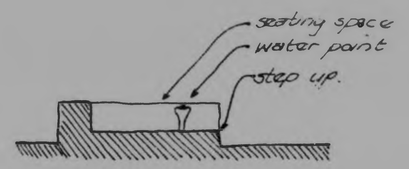


formal trading



slow down vehicular movement to facilitate greater safety at water collection points

protect trees from moving vehicles.



protect water points

provide appropriate street furniture for outdoor living activities

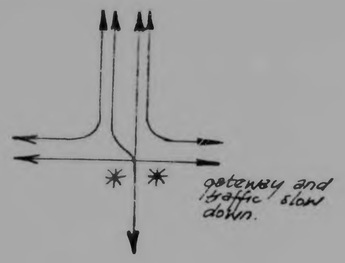


protect pedestrians from moving vehicles and natural elements

protect informal traders.

DESIGN PRINCIPLES

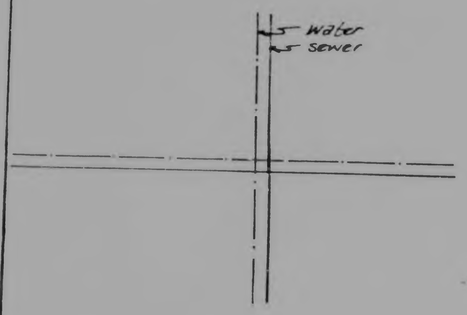
NODE 8



MOVEMENT

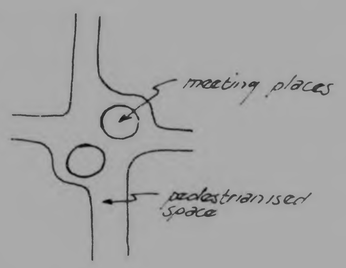
free pedestrian movement in outdoor communal living space.

constrained vehicular movement by narrow public space.



INFRASTRUCTURE.

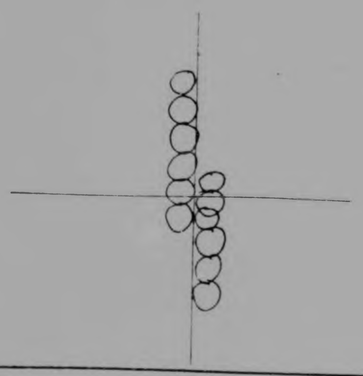
piped water and soak-away grey water and biological sewer system.



ACTIVITIES.

activities connecting to the space would include a gospel-preacher, teacher, child minder, doctor, etc.

activities in the space would include space for play, meeting, talking, resting, etc.



LANDSCAPE

basic shade trees to soak up grey water disposal as well as narrow public space to slow down traffic.

basic shape of space can be determined in advance but provision of elements, structuring of space and manner in which detail is shaped should be left to the residents connected to the space.

cut corner for improved sight.

a process of collaboration and participation should be followed in guiding the residents connected to the space, in shaping the space.

pre-spacing of trees is required to facilitate soaking up of grey-water disposal soak-aways.

gravel surface initially. residents can decide when to upgrade whereupon self-help centre should assist in paving

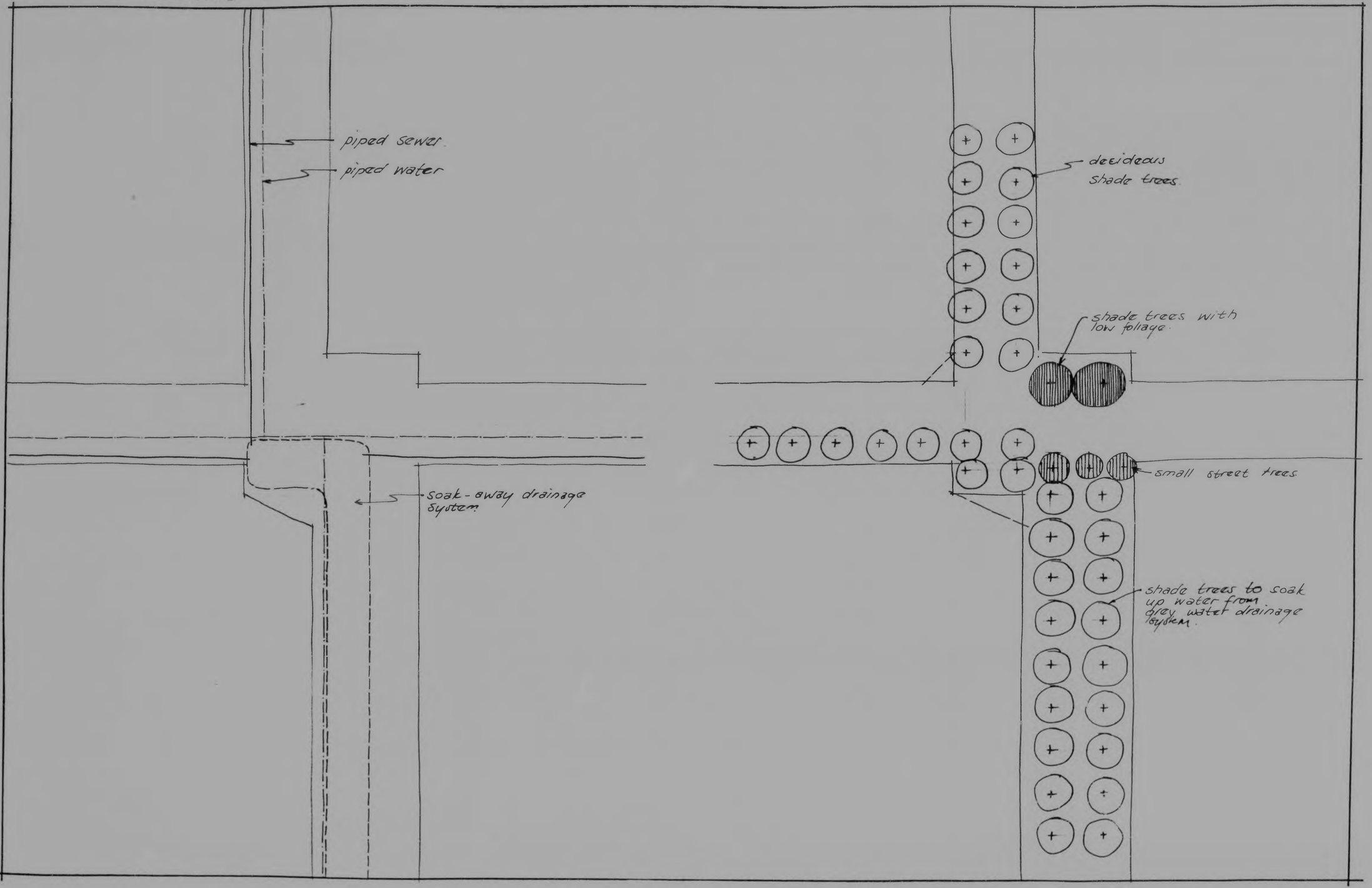
cut back for meeting space. could have different shapes.

cut corner for drainage and sight distance. avoid wher foundations.

space where built form can cover public space from first storey and higher.

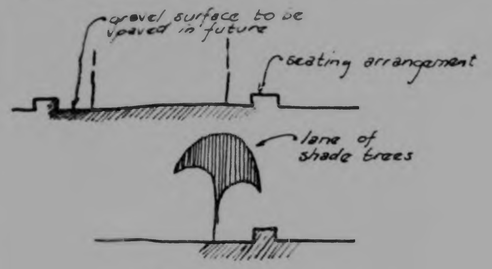
INFRASTRUCTURE AND LANDSCAPING

NODE 8



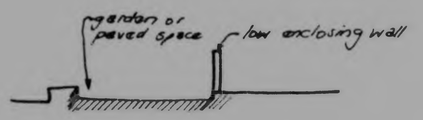
SPATIAL ELEMENTS AND PRINCIPLES

STRIP 5

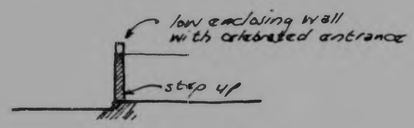


vehicular and pedestrian movement space

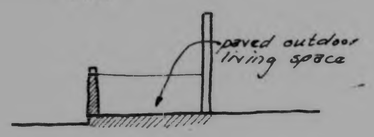
edge



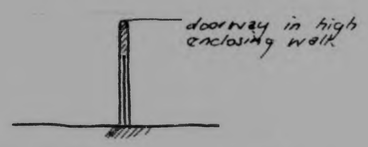
semi-public space



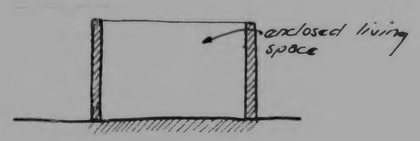
edge



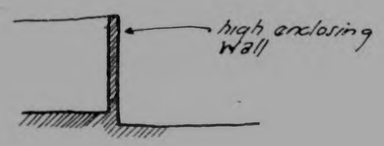
semi-private space



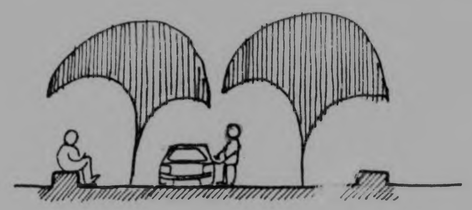
edge



covered enclosed private space



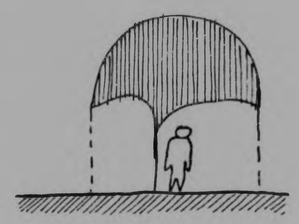
edge.



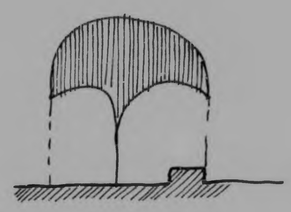
pedestrians and vehicles share space - pedestrian preferential space.



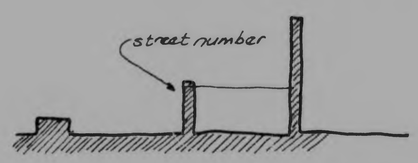
protective edge bfor pedestrians seated on the periphery of the public space.



protect pedestrians from natural elements.



protect and shade seating space.



demarcate transition between public and more private domains.

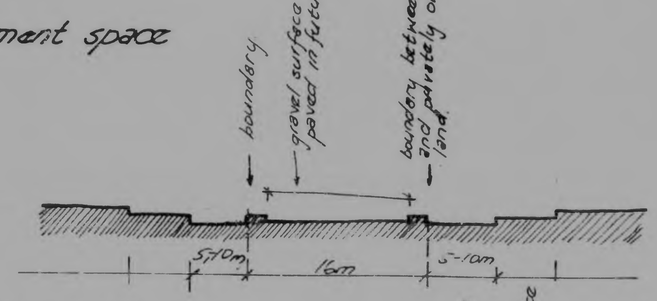
DEVELOPMENT PROCESS

STRIP 5

private enclosed space
edge
semi-private space
edge
semi-public space
edge
public space

covered enclosed living accommodation
high enclosing wall
outdoor living space
low enclosing wall
gardening or paved space
seating element
paved and tree planted pedestrian and vehicular space.

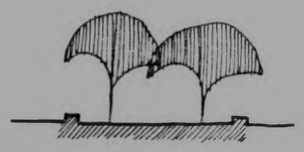
movement space



structuring of activities

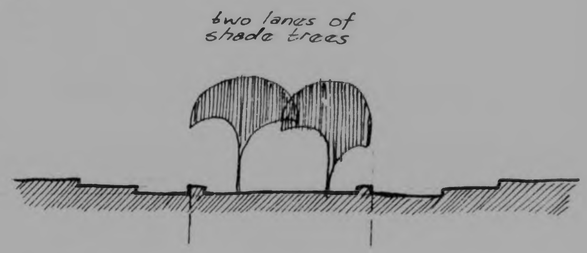


enabling structure

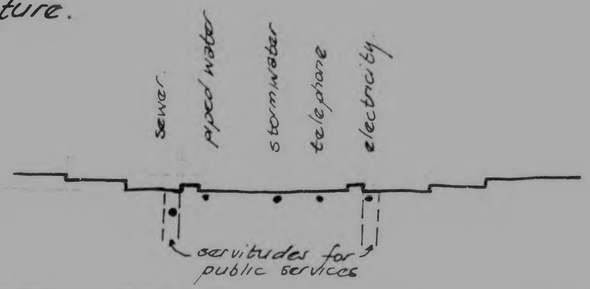


- the self-help centre should prepare the surface of the public space between the seating space for paving by the residents.
- the self-help centre should initiate the paving process and maintain the momentum by providing piece work to residents.
- the self-help centre nursery should make trees available for planting and initiate planting programmes with the residents by provision of piece-work employment.
- the construction of the seating arrangements should be undertaken by each erf owner. the self-help centre should assist by initiating the construction of seating space on a few sites where the cost thereof has already been included in the price of the erf.
- piece-work employment finance should be added in as a percentage of monthly maintenance or upgrading charges to each owners bill
- if paving of public space is undertaken by self-help centre on behalf of the residents the cost should be borne by the residents.

landscaping

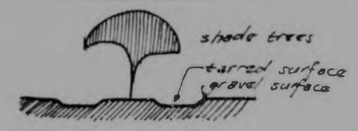


infrastructure.

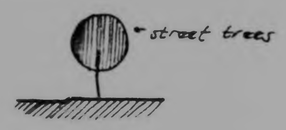


SPATIAL ELEMENTS AND PRINCIPLES

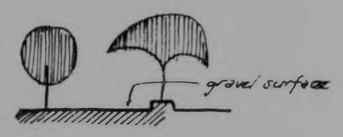
STRIP 6



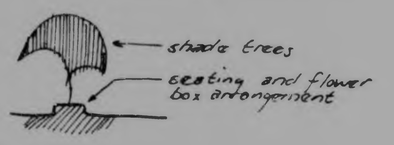
vehicular movement and storage space



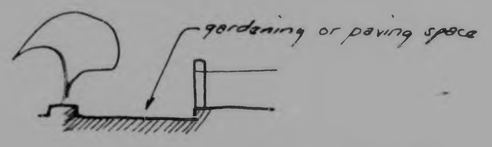
edge



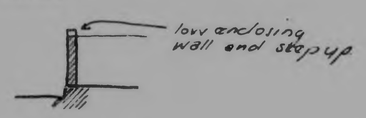
pedestrian movement space



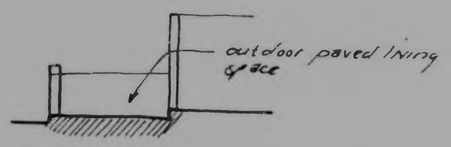
edge



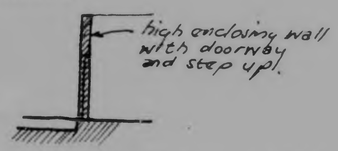
semi-public space



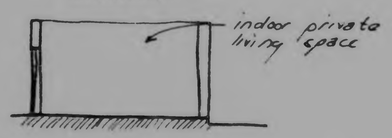
edge



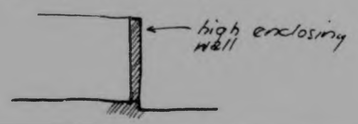
semi-private space



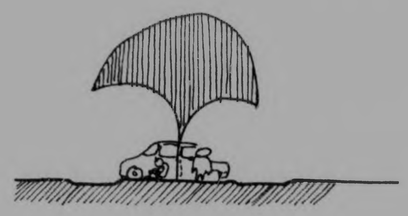
edge



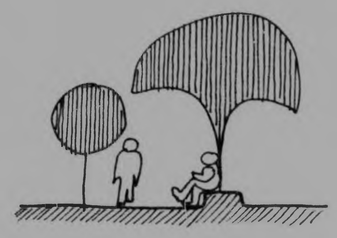
covered enclosed private space



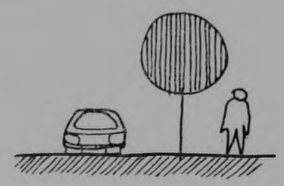
edge.



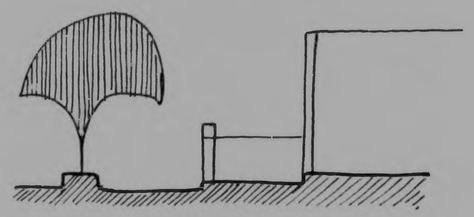
protect parked vehicles and or children at play from natural elements.



protect pedestrians from natural elements



protect pedestrians from moving traffic



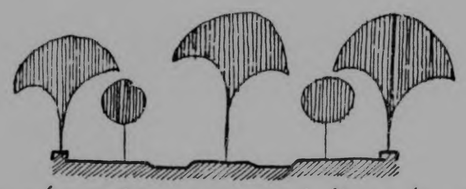
demarcate transition between public and more private domains clearly.

DEVELOPMENT PROCESS

STRIP 6

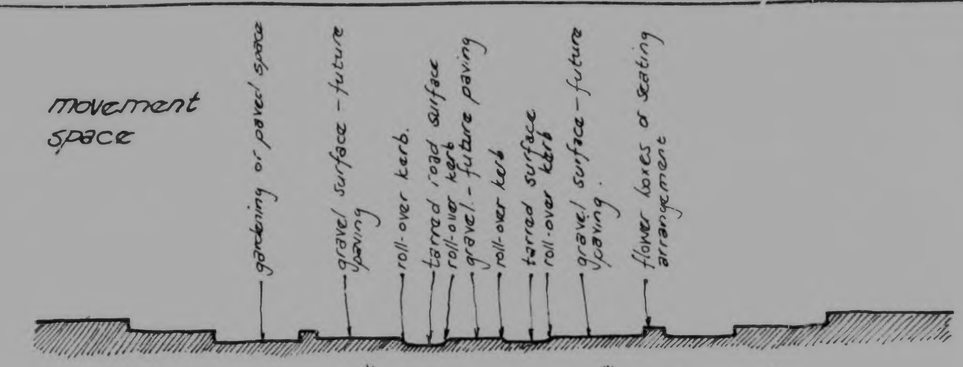
private enclosed living space	covered enclosed living accommodation
edge	high enclosing wall.
semi-private living space	outdoor living space
edge	low enclosing wall
semi-public space	gardening or paved space
edge	low flower boxes with seating space
public space - pedestrians	gravel surfaced space.
edge	roll-over-kerb with lane street trees
vehicular movement space	tarred surfaced space
parking space	gravel surface with lane of shade trees
vehicular movement space	tarred surfaced space.
edge	roll-over kerb with lane of street trees
pedestrian movement space.	gravell surfaced space.

enabling structure.

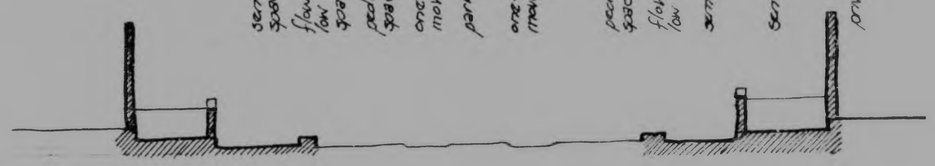


- the construction of seating space and flower box arrangements on site boundaries as well as tree planting to be arranged by the self-help centre.
- individual owners should arrange seating space and flower box arrangements to their own design and build with the assistance of the self-help centre who to should supply the trees. and plant them.
- tarred road surface with gravel sidewalks to be constructed by the self-help centre. street trees and centre tree lane to be planted by the self-help centre to the proposed design
- maintenance of street trees and centre tree lane to be done by self-help centre. in interim stage when french-drain system is still in use, trees can soak up french drain water and need no maintenance
- site owners should maintain trees on site boundaries.
- upgrading of sidewalk space to be initiated by self-help centre by involving residents on both sides of the road. alternatively self-help centre can undertake paving and recover from owners in monthly maintenance charges.

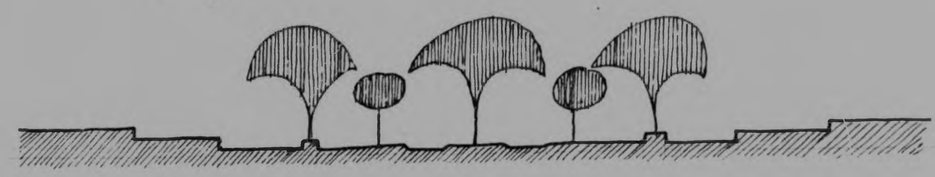
movement space



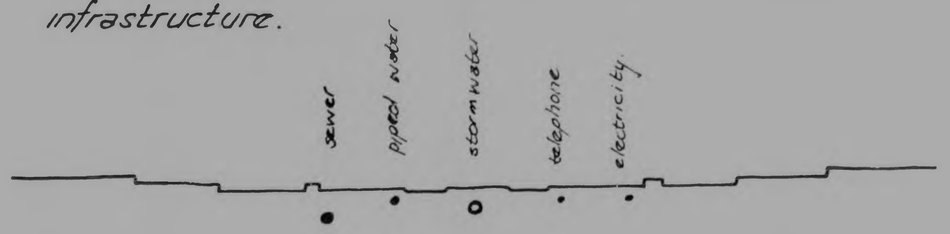
structuring of activities



landscaping

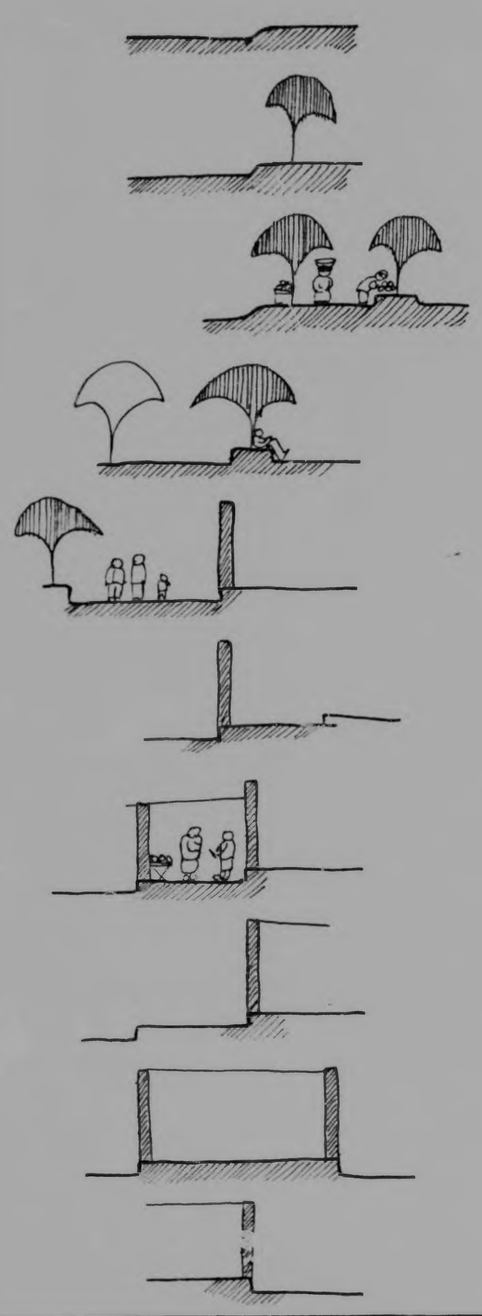


infrastructure.



SPATIAL ELEMENTS AND PRINCIPLES

STRIP 7



vehicular movement space

edge

open informal trading space

edge

pedestrian movement space

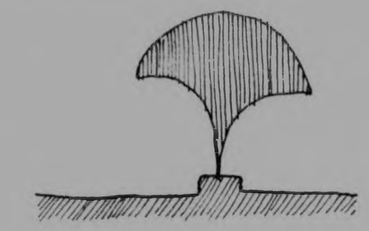
edge

covered formal and informal trading space

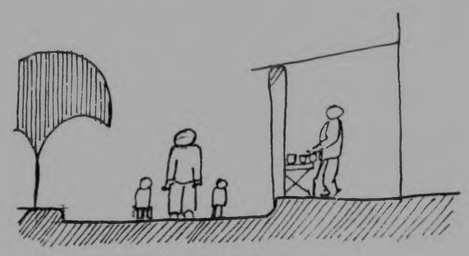
edge

covered enclosed formal trading space

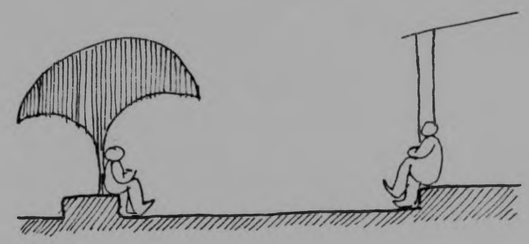
edge.



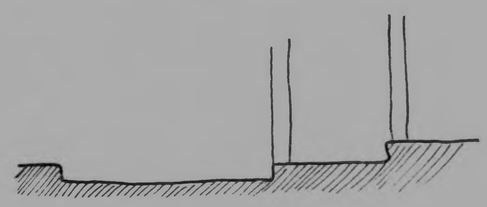
protect informal traders from natural elements



protect pedestrians and informal traders from natural elements provide safe space for children to meet



provide seating and resting space for the aged.



demarcate transition of spaces clearly.

DEVELOPMENT PROCESS

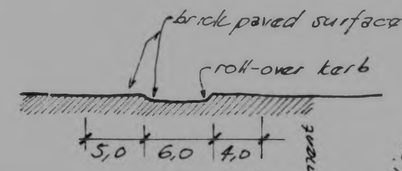
STRIP 7

formal trading space	covered enclosed build space
edge	high enclosing wall with step up
informal covered trading space	covered built space
edge	colonnade
pedestrian movement space	paved sidewalk space
edge	seating and display space under trees
informal trading space	paved level space
edge	roll over kerb and step.
vehicular movement space.	paved space.

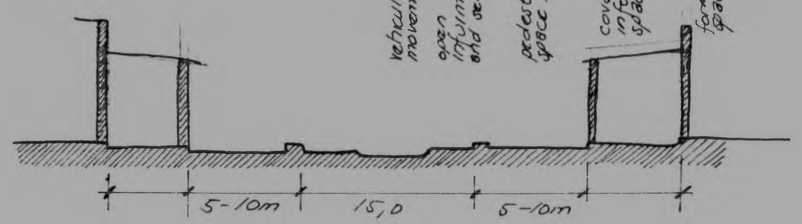
enabling structure.

- construction of seating space around tree trunks to be initiated by the self-help centre
- individual owners can construct seating space to their own design around any tree trunk in front of their site.
- self-help centre to provide trees as well as undertake planting if residents will not assist. in the planting process.
- cost of trees as well as planting to be recovered directly from maintenance rates of individual owners. cost should be spread over a year period.
- gravel roads and sidewalks to be constructed by the self help centre. costs to be recovered in selling price of erven.
- upgrading of road and sidewalks to be initiated by owners of sites! - savings club. self-help centre to assist with construction.
- full cost of infrastructure available at the time of sale of sites should be recovered in sales price of erven.

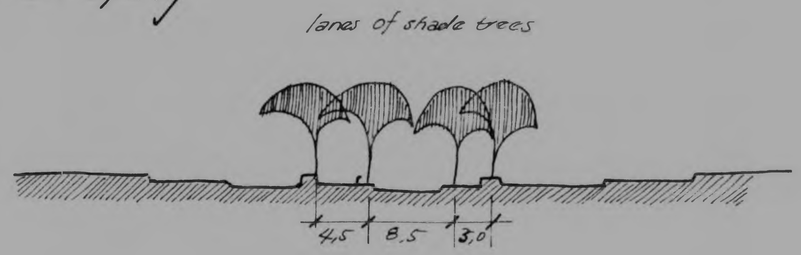
movement space



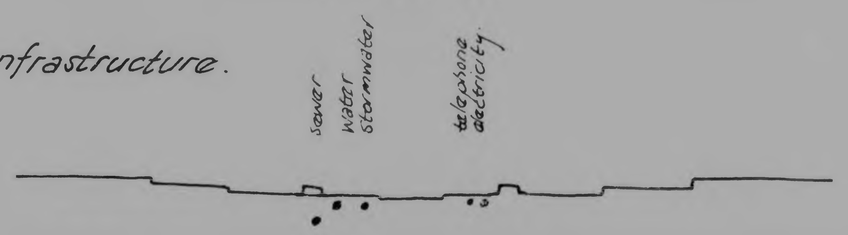
structuring of activities



landscaping

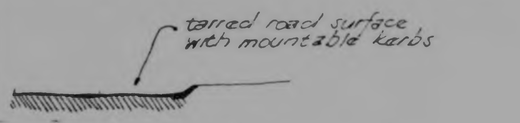


infrastructure.

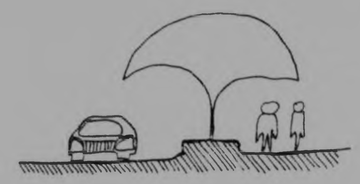


SPATIAL ELEMENTS AND PRINCIPLES

STRIP 8



vehicular movement



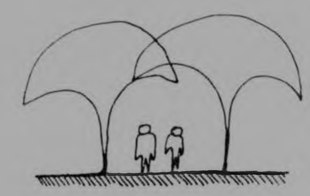
protect pedestrians from moving vehicles.



edge



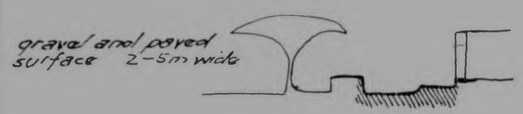
pedestrian movement



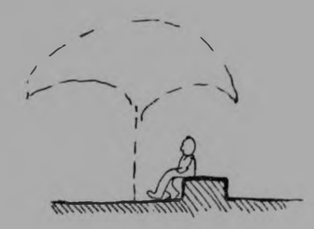
protect pedestrians from the natural elements.



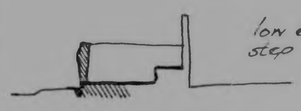
edge



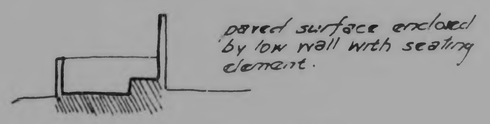
semi-public space



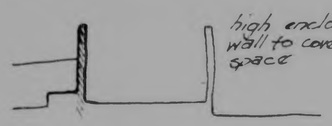
demarcate boundary between public and private properties as part of the social space.



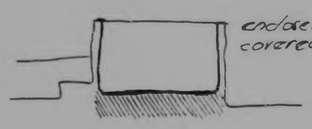
edge



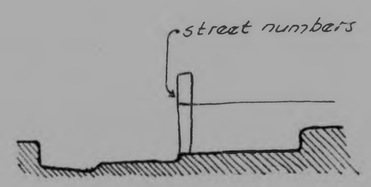
semi-private space



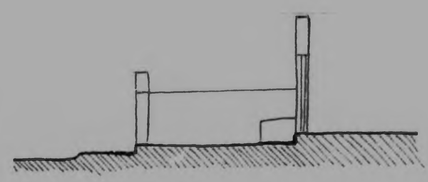
edge



private enclosed space.



facilitate a transition from public- to private domains of each individual living environment



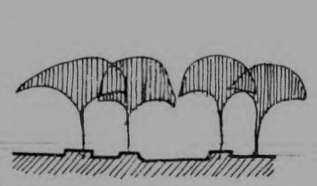
connect outdoor semi-private living space to semi-public space.

DEVELOPMENT PROCESS

STRIP 8

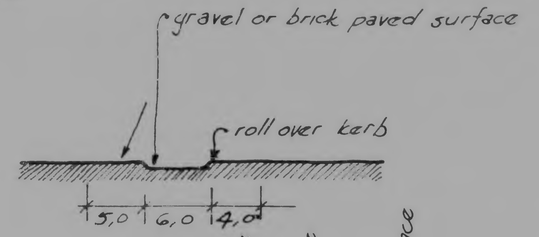
semi-public space		paving or gardening space
edge	//////////	lane of trees with seating space
pedestrians		hard surfaced space
edge	//////////	lane of trees with seating space
vehicles		hard surfaced space
edge	//////////	lane of trees with seating space
pedestrians		hard surfaced space
edge	//////////	lane of trees
semi-public space		paving or gardening space.

enabling structure.

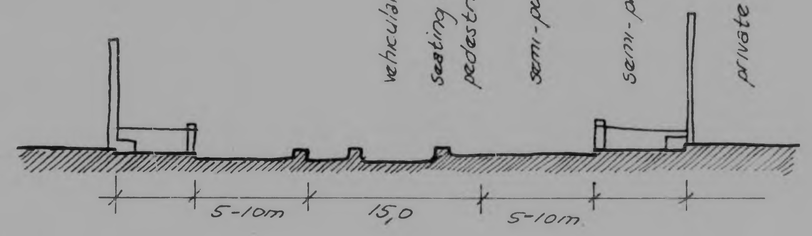


- construction of seating space around tree trunks to be initiated by the selfhelp centre.
- individual owners of sites can construct seating space around any tree on the sidewalk in front of his site.
- self-help centre should provide shade trees and encourage individual owners to plant those in front of ther houses themself.
- cost of trees to be recovered in monthly maintenance rates from owners directly.
- gravel roads and sidewalks to be constructed by self-help centre
- costs of gravel roads and sidewalks to be recovered in selling price of erven.
- upgrading of road and sidewalk surfaces to be initiated by owners on both sides of road. self-help centre should assist in implimentation with owners.
- full cost of infrastructure available at the time of sales should be recovered in the selling price of the erven. in the town.

movement space

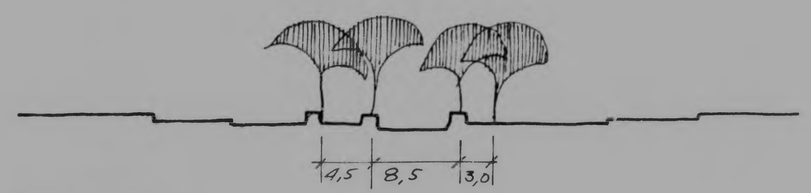


structuring of activities

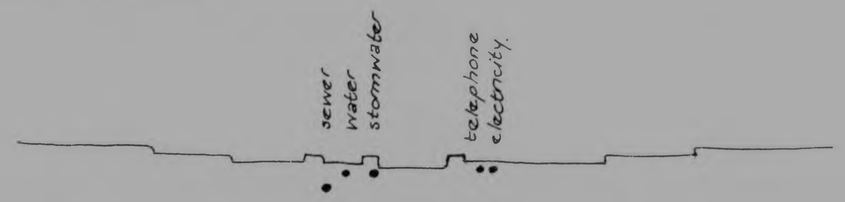


landscaping

lanes of shade trees.



infrastructure



CONCLUSION.

The importance to develop the public environment to function as a living room to the residents of the urban environment, in especially the local urban environment, is basic to those people who have an outdoor lifestyle. Their needs should be recognised and those facilities and spaces necessary to accommodate outdoor lifestyles, should be provided in the public environment where the individual as well as the community at large can benefit.

From this study the following principles became important:

1. If the public environment is designed and developed primarily to accommodate the car and its functions, it cannot function effectively and efficiently as an outdoor communal living room to the people who are dependent on it in their daily life.

2. Efficient and effective urban environments are not created by pre-designing and pre-building the overall as well as the individual environments.

3. The individual should create the individual environment and the public sector should develop the collective public environment to accommodate the lifestyles of the inhabitants.

4. The car and its activities should have a secondary function in the public urban environment at the neighbourhood and lower order scales.

5. Urban Design Guidelines can be vague and loosely defined as in the metropolitan environment, or more specific and detailed as in the local area environment, depending on the objective.

6. Urban Design Guidelines should be robust enough to accommodate change and be expanded to other parts of the urban environment to provide identity.

By following these basic principles those preconditions for urbanity, which have been lost over time in technological advancement, can be recovered and retained in existing as well as in newly developing urban environments.

BIBLIOGRAPHY

1. Oscar Newman : April 1976 : DESIGN GUIDELINES FOR CREATING DEFENSIBLE SPACE. U.S. Government Printers Office.

2. David Dewar and Roelof Uytenbogaardt : 1976 : HOUSING. A COMPARATIVE EVALUATION OF URBANISM IN CAPE TOWN. UPRU, Cape Town.

3. Paul Olivier : 1971 : SHELTER IN AFRICA. Barrie and Jenkins, London.

4. David Dewar and George Ellis: 1979 : LOW INCOME HOUSING POLICY IN SOUTH AFRICA. Citadel Press, Landsdowne, Cape.

5. Donald Appleyard : 1981 : LIVEABLE STREETS. University of California Press, Berkeley.

6. Jane Jacobs : 1961 : THE DEATH AND LIFE OF GREAT AMERICAN CITIES. Vintage Books, New York.

7. Victor Gruen : 1973 : CENTRES FOR THE URBAN ENVIRONMENT. Van Nostrand Reinhold Company, New York.

8. David A. Crane : 1960 : THE DYNAMIC CITY. Architectural Design, April 1960.

9. David A. Crane : 1960 : THE CITY SYMBOLIC. Journal of the American Institute of Planners, November 1960.

10. Kevin Lynch : 1960 : THE IMAGE OF THE CITY. The MIT Press. Massachusetts.

11. Fumihiko Maki : 1964 : COLLECTIVE FORM THREE PARADIGM. School of Architecture, Washington University.

12. Fumihiko Maki : 1964 : LINKAGE IN COLLECTIVE FORM. School of Architecture, Washington University.

13. Horacio Caminos, Reinhard Goethert : 1978 : URBANIZATION PRIMER. MIT Press, Cambirdge, Massachusetts.

14. Horacio Caminos, John F.C. Turner, John A. Steffian : 1969 : URBAN DWELLING ENVIRONMENTS. Massachusetts Institute of Technology.

Author Janse van Rensburg E G
Name of thesis Urban design guidelines for space creation in an urban Black residential environment 1985

PUBLISHER:
University of the Witwatersrand, Johannesburg
©2013

LEGAL NOTICES:

Copyright Notice: All materials on the University of the Witwatersrand, Johannesburg Library website are protected by South African copyright law and may not be distributed, transmitted, displayed, or otherwise published in any format, without the prior written permission of the copyright owner.

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.

Author Janse van Rensburg E G
Name of thesis Urban design guidelines for space creation in an urban Black residential environment 1985

PUBLISHER:
University of the Witwatersrand, Johannesburg
©2013

LEGAL NOTICES:

Copyright Notice: All materials on the University of the Witwatersrand, Johannesburg Library website are protected by South African copyright law and may not be distributed, transmitted, displayed, or otherwise published in any format, without the prior written permission of the copyright owner.

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.