RECONFIGURING THE BURNT SCAR

A LANDSCAPE ARCHITECTURAL RESPONSE TO THE KNYSNA FIRES of JUNE 2017

by Louise Kathleen Brukman
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RECONFIGURING THE BURNT SCAR
A LANDSCAPE ARCHITECTURAL RESPONSE TO THE KNYSNA FIRES of JUNE 2017

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BRKLOU004

Submitted in partial fulfilment of the Master of Landscape Architecture Degree
Dissertation
120 Credits

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Supervisor: Dr. Julian Raxworthy

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June 2017 will be remembered by South Africans for decades to come. A moment when Mother Nature showed her true power and the only option was to get out her path or watch in awe. Within 72 hours 20,000 hectares of land and in excess of 800 homes were burnt in the Knysna region along the Garden Route. While fires are not uncommon in this area, this fire had all the conditions to make it 'The Perfect fire'. It was simply a matter of time for these conditions to align.

This project begins with an understanding of conditions that caused the fire using the agent of time. Time, according to French philosopher, Henri Lefebvre, can be classified into three categories; Linear Time, Event Time and Cyclical Time.

Through this process one is able to isolate the solvable from the unsolvable environmental conditions and thus an ongoing proposal for intervention can be proposed. The process of reconfiguring the burnt scar begins through the implementation of immediate solutions and long term planning.

This project traverses a variety of scales due to the types of fuel load that contributed to the fire. The large areas of unmanaged fynbos, the pine plantations that border Knysna region and the havoc caused as it ripped through the urban settlements down to the domestic garden scale. At a regional scale the reconfiguring of the burnt scar requires a management system that is responsible for immediate controlling of erosion post fire. As well as the monitoring and the implementation of controlled ecological burns of fynbos stands and the removal of alien invasive species.

Furthermore, it is proposed that the reconfiguring of the burnt scar requires a restructuring of the commercial plantations and the establishment of critical fire breaks affecting the urban interface. The introduction of fire resistant non-native commercial trees mass scale present a landscape character and scenic value to the region that calls upon the ideals of the Picturesque.

A significant contributing factor the fire was the fuel load within the suburban environment. This project proposes a vegetation palette that property owners could use in a variety of ways to form domestic scale fire break, that when in-conjunction with neighbours, a district break is established.
RECONFIGURING THE BURNT SCAR

THE RESEARCH STUDY
STUDY ABSTRACT

This project traverses a variety of scales due to the types of fuel load that contributed to the fire. The large areas of unmanaged fynbos, the pine plantations that border Knysna region and the havoc caused as it ripped through the urban settlements down to the domestic garden scale. At a regional scale the reconfiguring of the burnt scar requires a management system that is responsible for immediate controlling of erosion post fire. As well as the monitoring and the implementation of controlled ecological burns of fynbos stands and the removal of alien invasive species. Furthermore, it is proposed that the reconfiguring of the burnt scar requires a restructuring of the commercial plantations and the establishment of critical fire breaks affecting the urban interface. The introduction of fire resistant non-native commercial trees mass scale present a landscape character and scenic value to the region that calls upon the ideals of the Picturesque.

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+++++Time and landscape architecture
CONTRIBUTING FACTORS - KBYNSA FIRE

REGIONAL DROUGHT SINCE 2015

HOT AMBIENT AIR CONDITIONS

WIND SPEED OF 100KPH

ACCMULATION OF FUEL LOADS AT A REGIONAL AND SUBURBAN SCALE
EVENT TIME

Event time refers to consecutive time. If the event stays at a specific location, the propagation of the fire is depicted in this way. An event timeline can summarize the spread of fire and can be used to identify the trend and factors of forest fires.
CYCLICAL TIME

Cyclically timed by seasons and cycles, the continuous unfolding of human time and the cyclical cycles. While the natural cycles are the natural time, the human time is cyclical. The continuous unfolding of human time and the cyclical cycles.
DOCUMENTED VEGETATION POST FIRE: JULY- OCTOBER 2017
RECONFIGURING THE BURNT SCAR

DESIGN DISSERTATION
DESIGN DISSERTATION ABSTRACT

This project traverses a variety of scales due to the types of fuel load that contributed to the fire. The large areas of unmanaged fynbos, the pine plantations that border Knysna region and the havoc caused as it ripped through the urban settlements down to the domestic garden scale. At a regional scale the reconfiguring of the burnt scar requires a management system that is responsible for immediate controlling of erosion post fire. As well as the monitoring and the implementation of controlled ecological burns of fynbos stands and the removal of alien invasive species. Furthermore, it is proposed that the reconfiguring of the burnt scar requires a restructuring of the commercial plantations and the establishment of critical fire breaks affecting the urban interface. The introduction of fire resistant non-native commercial trees mass scale present a landscape character and scenic value to the region that calls upon the ideals of the Picturesque.

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RECONFIGURING THE BURNT SCAR
MANAGEMENT

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Time and landscape architecture
COMPARTMENTS

ECOLOGICAL BURNS

The web modality of information led us to the conclusion that the Polygon platform is an essential tool for research in the following aspects:

LAND USE

EVEYR

MAJOR ROADS

TRIBUTARIES

VEGETATION TYPE

SLOPE ASPECT

SLOPE GRADIENT

EROSION CONTROL

The above map indicates the extent and location of the railway network in the region. This map was created using GIS software and shows the location of the railway network in the region. The map was updated to include the latest information available.
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PLANTATION TREE CONFIGURATION

The plantation in the...tions...m/>s...-f.../n.../in.../t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...t...
LANDSCAPE CHARACTER + THE PICTURESQUE

The image displays a network of landscapes and the picturesque views of the region. The proposed interventions aim to enhance the landscape's aesthetic and ecological values. The new configurations will create new perspectives and experiences for visitors. The images illustrate the proposed changes, highlighting the integration of natural elements and the enhancement of the landscape's visual appeal. The diagrams and photographs provide a comprehensive view of the proposed landscape transformations.
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GARDEN BREAKS AT 40°

Using the above five indicators, plant the gardens of the stepping stone to the garden of the stepping stone. The stepping stone for each step in the garden angle is designed to be in the form of a square. This shape is a large and long form design that makes the garden appear coherent and visually appealing. The garden breaks have been designed to enhance the existing gardens.
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2. I have used the Harvard convention for citation and referencing. Each contribution to, and quotation in, this dissertation from the work(s) of other people has been attributed, and has been cited and referenced.

3. This dissertation is my own work.

4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

Signed

Signature: ____________________________________________

Date: __15 December 2017___
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<td>S. K. O. J. M. A. I. O. R. R. S. E. E.</td>
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