

# A Living Memorial

## for Ken Saro-Wiwa

by

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with the help of :

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Advisory support gratefully received from:

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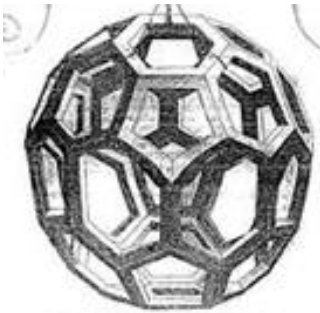
Usman Haque, architect and artist [www.haque.co.uk](http://www.haque.co.uk) □

Gregory Cowans, architect and writer

# the c60 carbon molecule:

the Living Memorial to Ken Saro-Wiwa is symbolically structured around the c60 carbon molecule. Discovered in 1985, the c60 carbon molecule is composed of 60 carbon atoms, arranged as 12 pentagons and 20 hexagons.

the c60 molecule is the most **symmetric** molecule known to us - the molecule with the largest number of symmetry operations possible. Throughout the ages, artists have intuitively hinted at the possibility of such a structure; Leonardo da Vinci for instance drafted the 'truncated icosahedron' in his book *De Divina Proportione* ("On Divine Proportion").



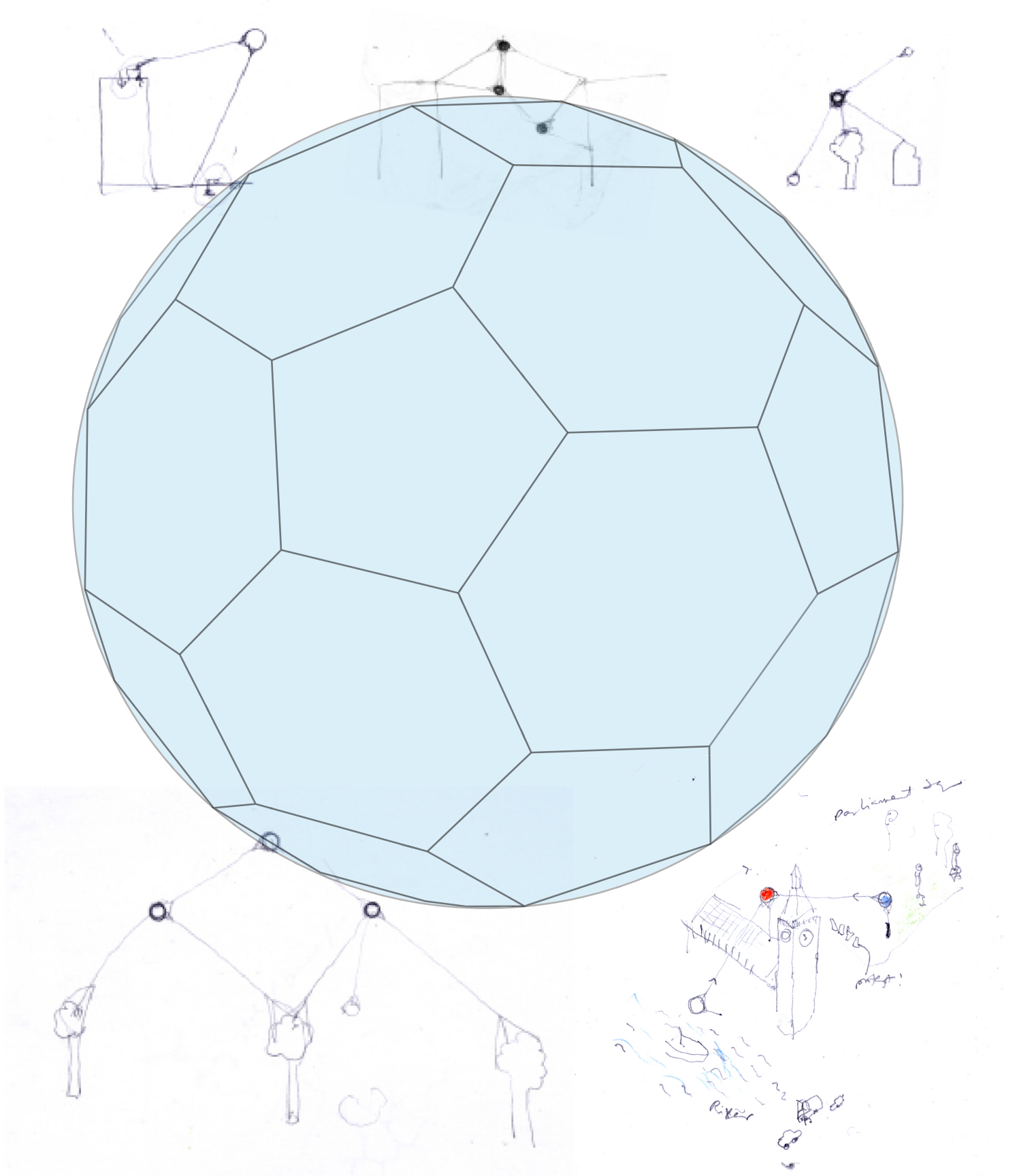
In the Living Memorial for Ken Saro-Wiwa the c60 symmetry signifies simplicity, economy and boundless possibilities.

I have used the c60 structure to hold 3 spheres, the sphere being a single unitary shape. I have located the spheres in the sky which still for us evokes the boundless: awe and imagination beyond our control.

The relationship in scale of a c60 molecule to a Living Memorial sphere is of a similar order to that of the spheres to the Earth. Each of the spheres acts as a symbolic *intermediary* between the inner and outer symmetry.

# the c60 module

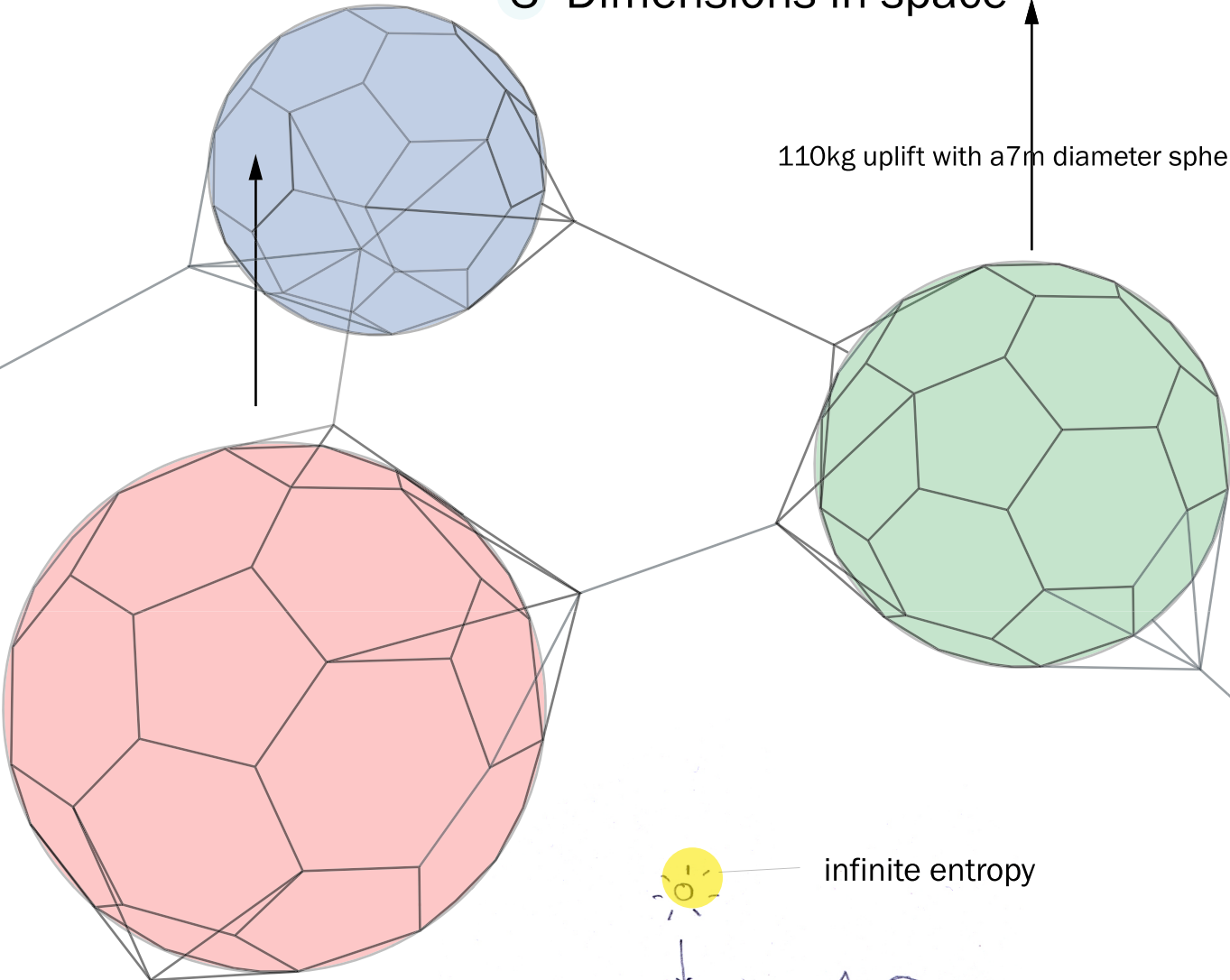
with its symmetry offers endless possibilities in 3-dimensions  
using the uplift provided by a helium filled sphere  
the spheres can be connected by lightweight carbon fibre cables  
of 3mm gauge barely visible to the eye



basic layout:

- 3 c60 spheres
- 3 primary colours: Red, Blue, Green
- 3 Dimensions in space

110kg uplift with a 7m diameter sphere



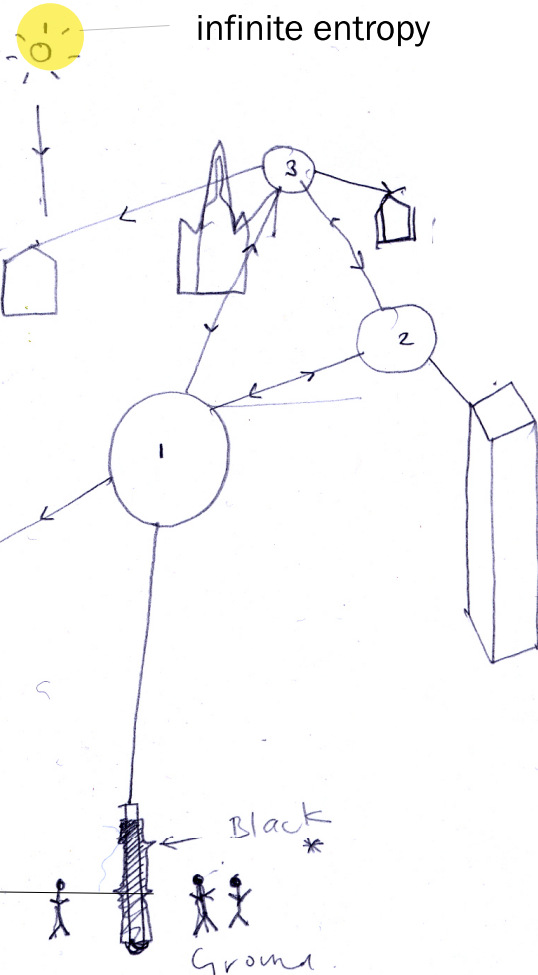
cables from 7m above ground:  
3mm gauge carbon fibre  
invisible to the eye from distance



steel tube  
or carbon steel

Ground footprint (not always required):  
50cm diameter hole  
steel fixed to concrete below pavement  
slab rises to 7m above ground

zero entropy :  
Black flared tree trunk





# 1kiloWatt of energy

I started this project with an energy limit of **1Kilowatt** - less than what an electric kettle uses. This kilowatt was to be produced *autonomously* of the National Grid.

My working process has been to extrapolate the kilowatt as *far possible* - the technology I have used is a means to this end: that is, a process of blowing up the 1kW of energy to its visual limits.

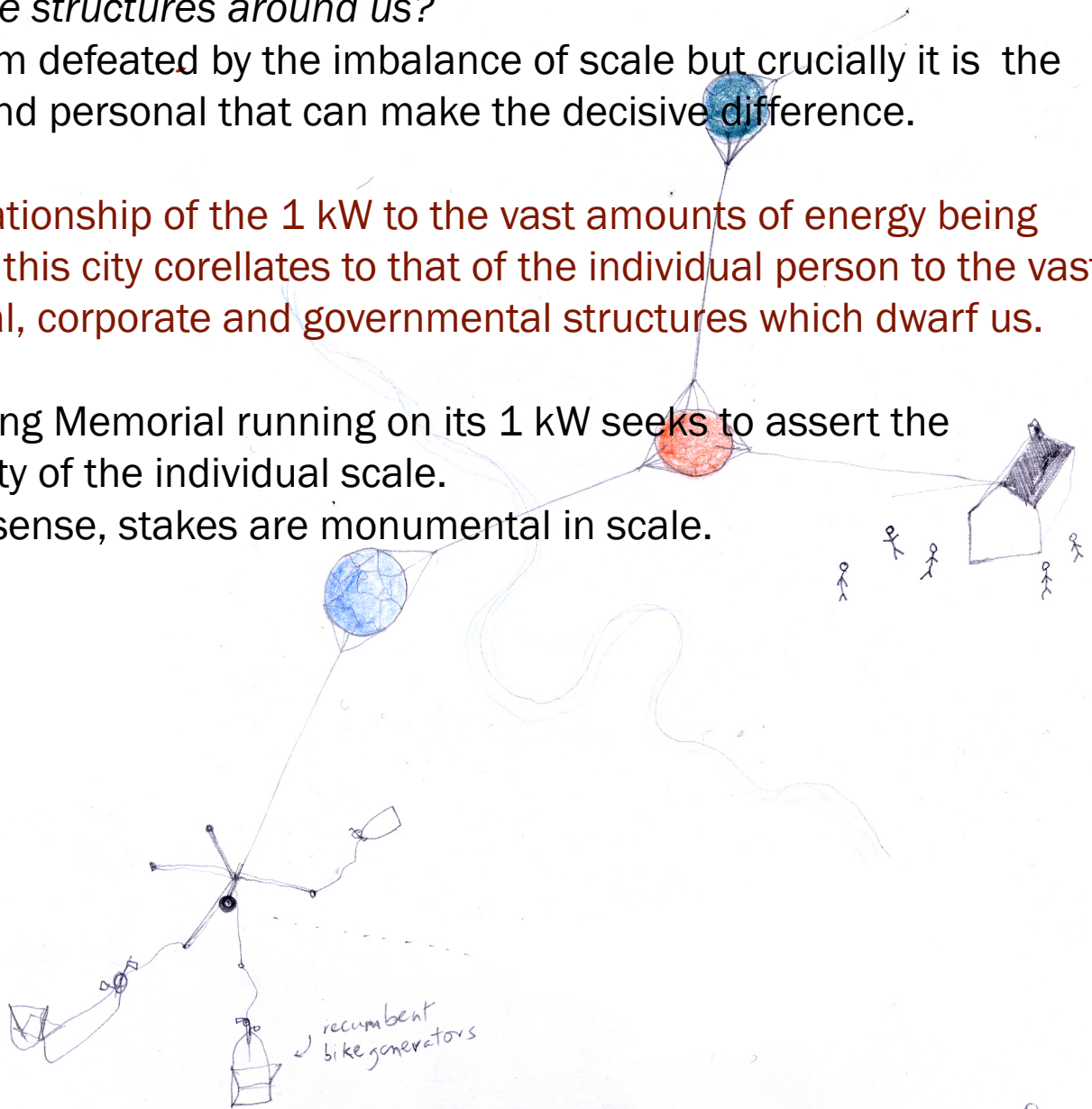
The 1 kilowatt threshold is key in that it asks the question *how significant is 1 kW to the huge amounts of energy consumed by the huge structures around us?*

We seem defeated by the imbalance of scale but crucially it is the small and personal that can make the decisive difference.

The relationship of the 1 kW to the vast amounts of energy being used in this city correlates to that of the individual person to the vast financial, corporate and governmental structures which dwarf us.

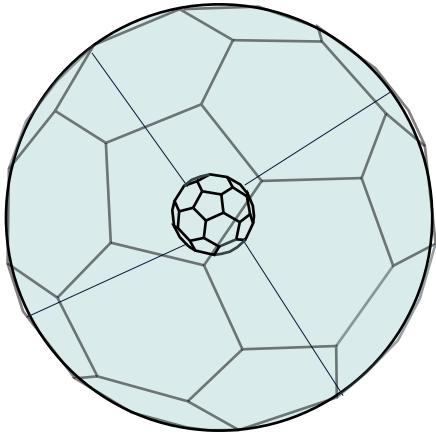
The Living Memorial running on its 1 kW seeks to assert the centrality of the individual scale.

In that sense, stakes are monumental in scale.



\*Early in the project I was thinking of using bicycles to generate the energy needed to power the Living Memorial. My present proposal uses solar panels instead as it frees the ground, reducing the work's footprint and increasing its site location possibilities, whilst connecting the earth to the sun through the work.

# the c60 spheres:



7 metre diameter spheres

Translucent PVC/Nylon or Polyurethane Membrane

Helium filled, held in 3mm gauge c60 carbon-fibre tensile cage

Suspended mini - c60 box at centre containing:

Strip boards holding 1200 -1800 LEDs

+ Single Board computer + gsm modem + transformer

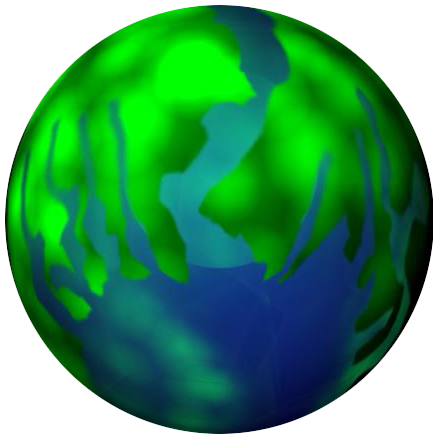
LED brightness 12,000 to 14,000 mcd each (milli-candles)

Power consumption apx 30milli-amp per LED light

5 volt max. i.e. 0.15 Watt per LED light

Each sphere with 1200 core LEDs working = 180Watts max

Colour and Brightness of sphere controlled by single board computer



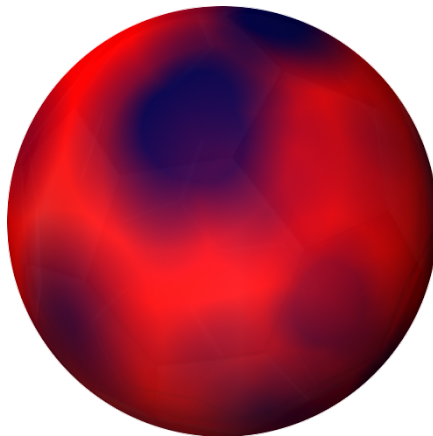
## sphere 1 (Natural Environment)

Main core LEDs: Green, Blue, White

surface fabric: translucent green

LEDs project contours of tributaries of Niger Delta

Colours and intensity change with fluctuations in carbon monoxide and carbon dioxide levels in environment.



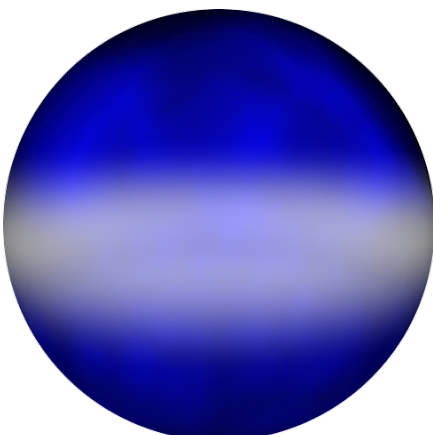
## sphere 2 (Artificial Environment)

Main core LEDs: Red, Blue, White

surface fabric: translucent red

Colours and intensity vary with fluctuation of energy from solar power and host building's energy input from National Grid.

Dots speckle red glowing sphere.



## sphere 3 (Cultural Environment)

Main core LEDs: Blue, White, Amber

surface fabric: translucent blue

Colour of sphere varies with intensity of web activity relating to project issues and SMS texts  
Activity will change with locations and parallel education programmes.

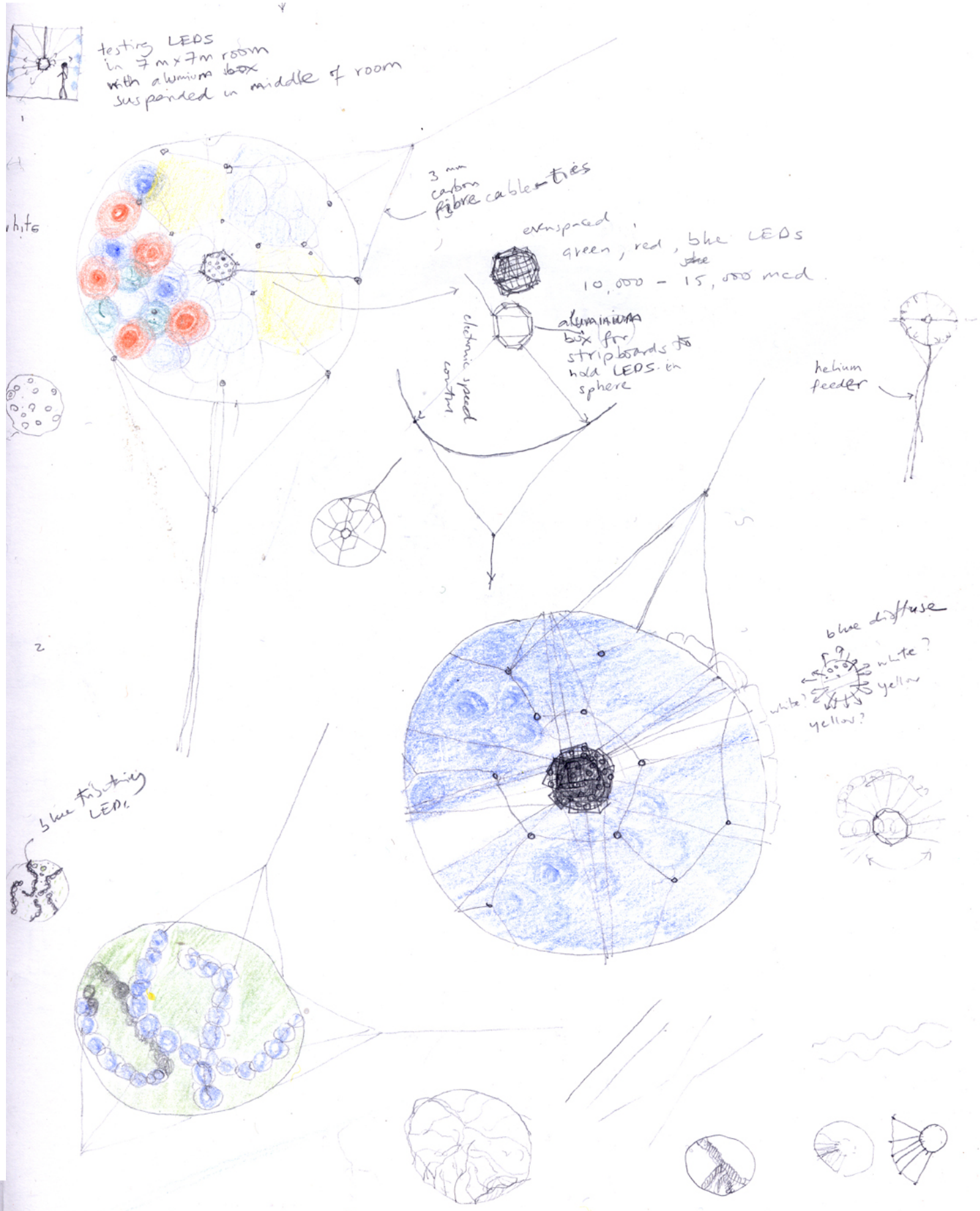
Horizontal ring increases or decreases in width.

\* Simulations will vary, These are just rough possibilities and custom programming can be changed for new functions

# the LED colour lights

in the centre of the sphere would be assembled in an artisanal way; for instance by hanging the c60box that holds them in the middle of a 7 by 7 metre room.

The process would be like arranging a large vase of flowers - except here we are using LED lights instead of flowers and petals.





# the locations

With its small footprint and endless positional permutations the Living Memorial can be anywhere.

For the 5 temporary sites, there are 2 strategies:

firstly, I have deliberately sought out the organs of the modern state, the seat of legislative power, the judiciary and corporate concentration with these sites:

30 St Mary Axe, the Gherkin Tower, Bishopsgate, London EC3  
High Court (Royal Courts of Justice), the Strand, London WC2  
Parliament Square, London SW1

Beyond London consists mainly of villages each with its High Street and residential amenities where most of us live.

I have chosen 2 local High streets:

Roman Road, London E2

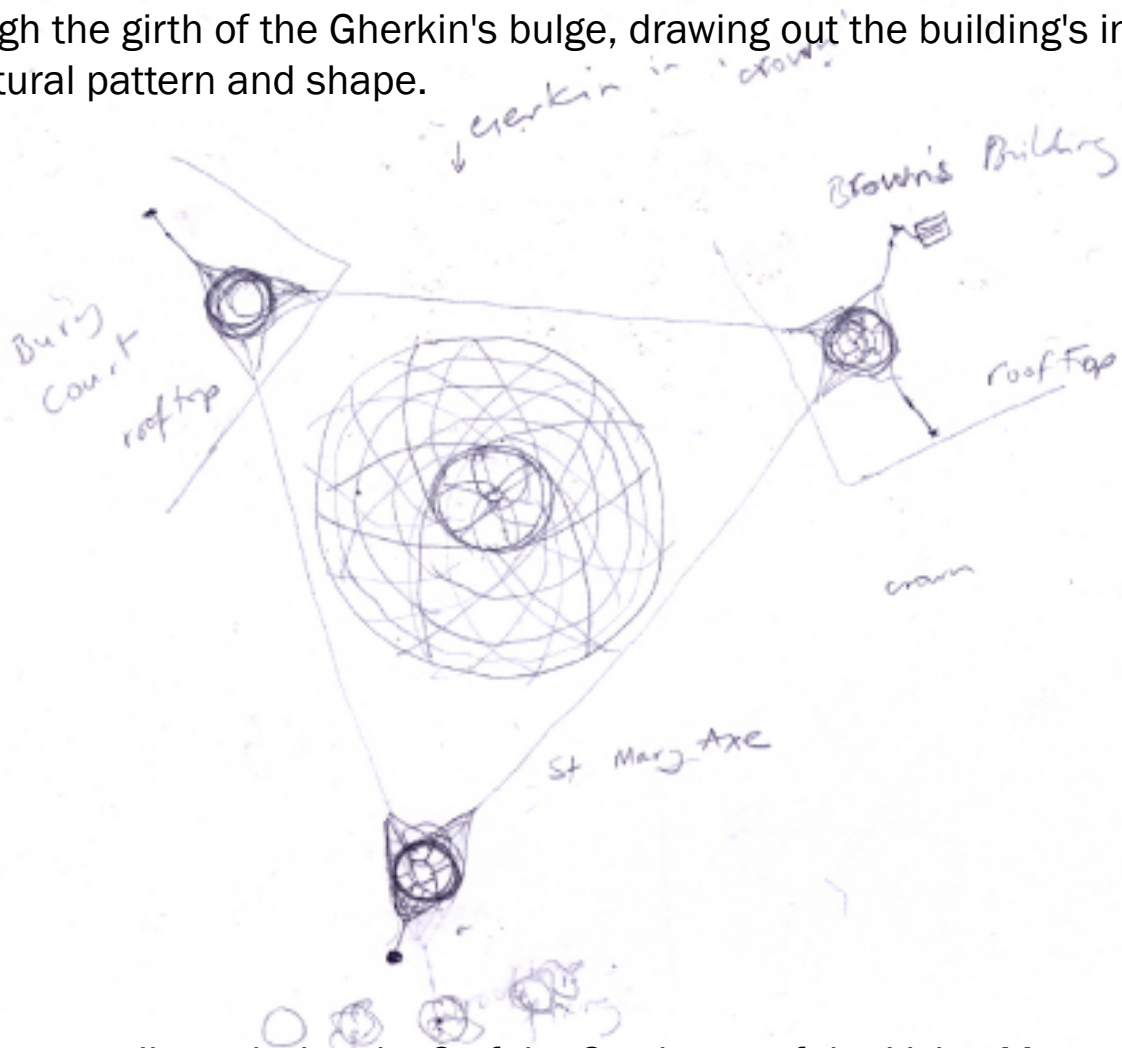
High Street, East Ham London E6

These high streets usually back on to terrace housing or modern hi-Rise Estates such as Cranbrook Estate Roman Road London E2 and Halley Road E6 which I have chosen as sites.

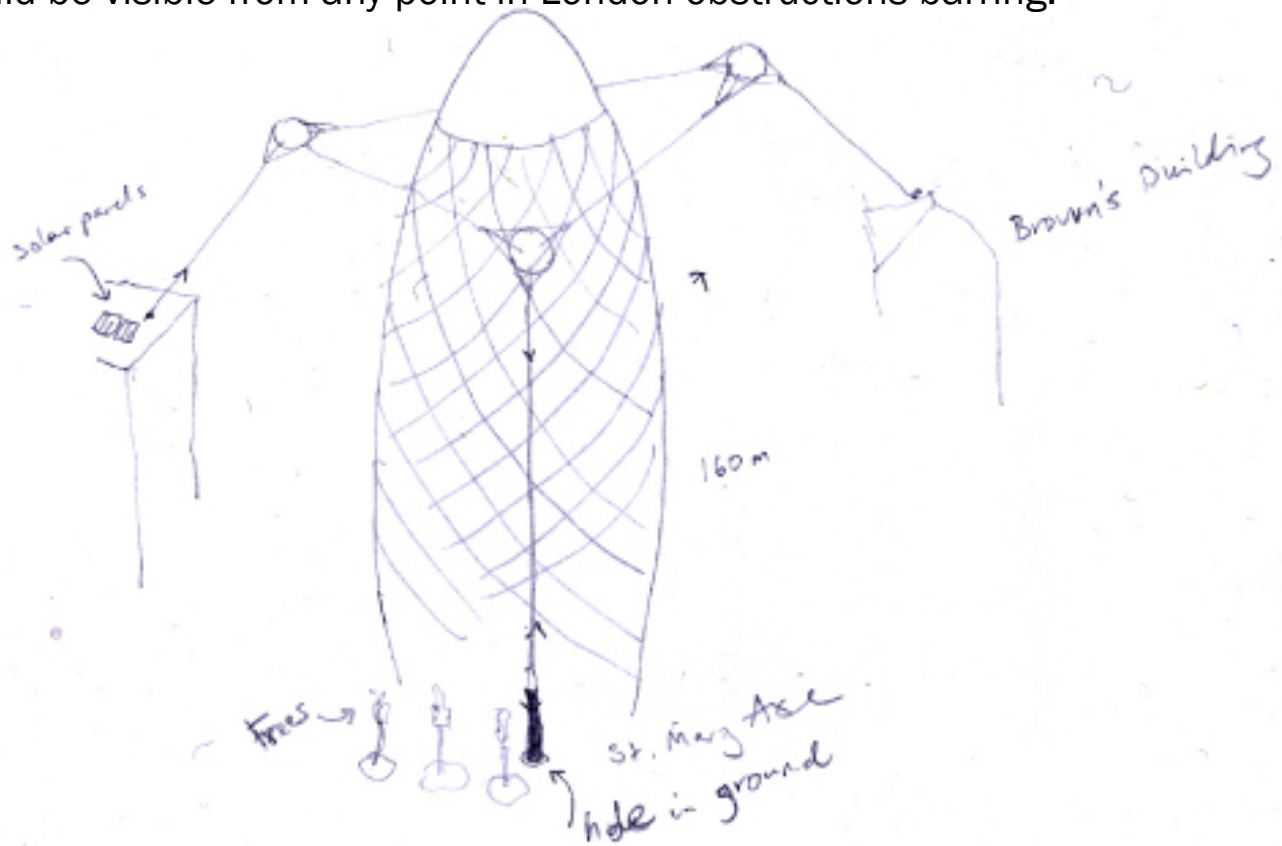


For the permanent location I would suggest **the River Thames** - the river is the reason why London is here. I can visualise the Living Memorial as a new kind of bridge crossing the Thames at different points keeping an eye on the flow of the city, proudly reminding London of the issues the memorial invigilates over.

Each site offers unique formal and compositional opportunities.  
 At 30 St Mary Axe I suggest an equilateral crown which rises precisely through the girth of the Gherkin's bulge, drawing out the building's ingenious structural pattern and shape.



Set on an equilateral triangle, 2 of the 3 spheres of the Living Memorial would be visible from any point in London obstructions barring.





30 St Mary Axe

during daytime, the translucent spheres look like blurry blobs of colour  
the carbon fibre cables would be barely visible



30 St Mary Axe seen from Aldgate





St Mary Axe seen from Whitechapel Market



Cranbrook Estate Roman Road London E2





off East Ham High Street, London E6

In this street the spheres would be secured to chimney tops with carbon fibre cables

**the Living Memorial server** is the virtual space working parallel to the c60 spheres. It is also a space open to the public. The server is a 24/7 watchman - it is a search engine using its custom software to continuously hive - using keywords - data, statistics and links on environmental justice and civil liberty.

**It is this data traffic that controls the activity of the LED lights in the c60 spheres** Through the server the Living Memorial measures its environment and communicates with its public through the spheres. The Memorial so acts as an oracle for the new century; it communicates directly with Londoners through **poetry and sms text**. I have chosen poetry as the medium of personal communication for the Living Memorial because poetry as an art form needs no quantifiable resources, but goes deepest to what is most intrinsically human. A sms text verse sent from the Living Memorial leaves a deep imprint in the mind and propagates the values of this art form in new ways. The Living Memorial can act in tandem with the publication of poems inspired by Ken Saro-Wiwa and be a vehicle to further the boundless vision in the work of poets around the world.



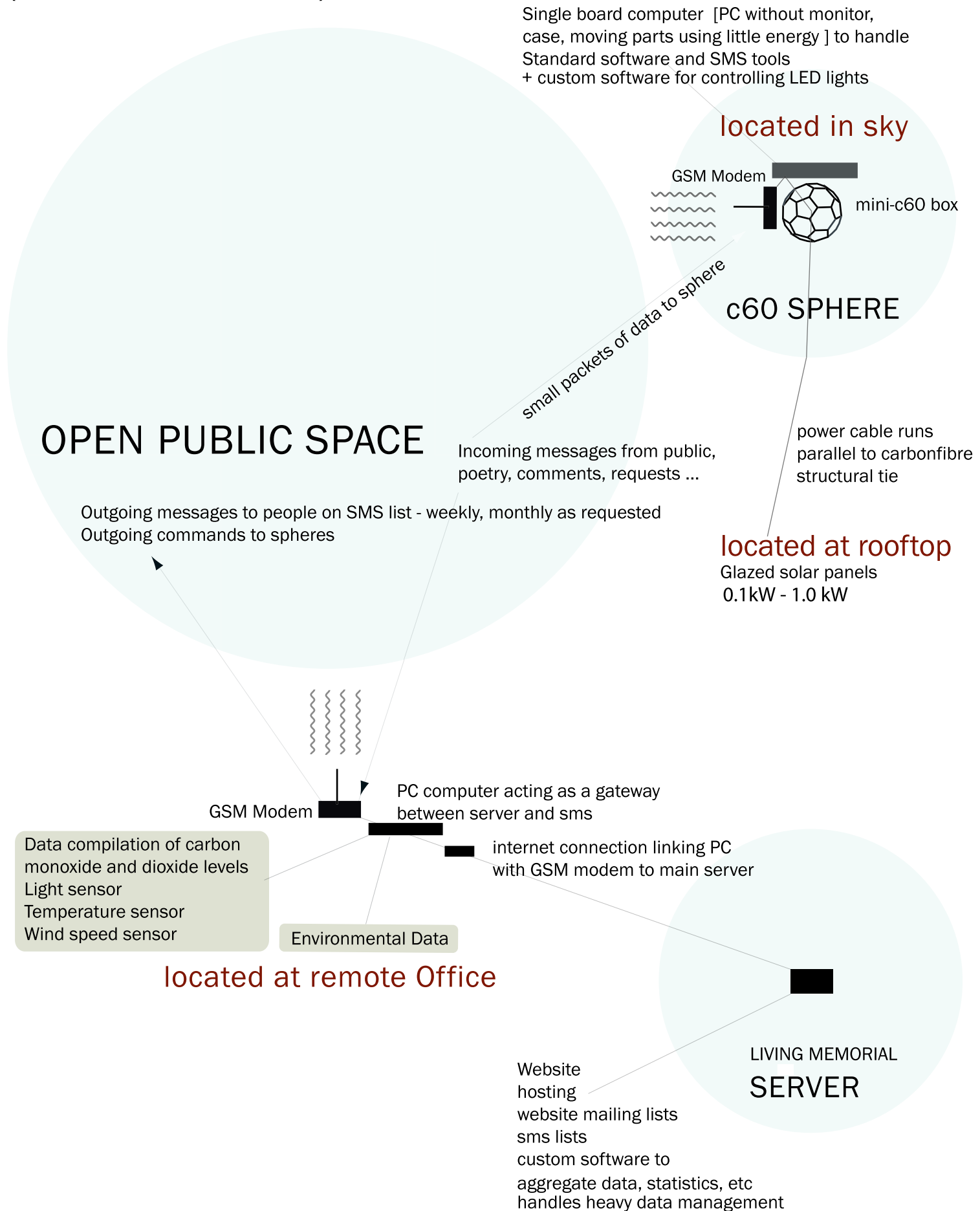


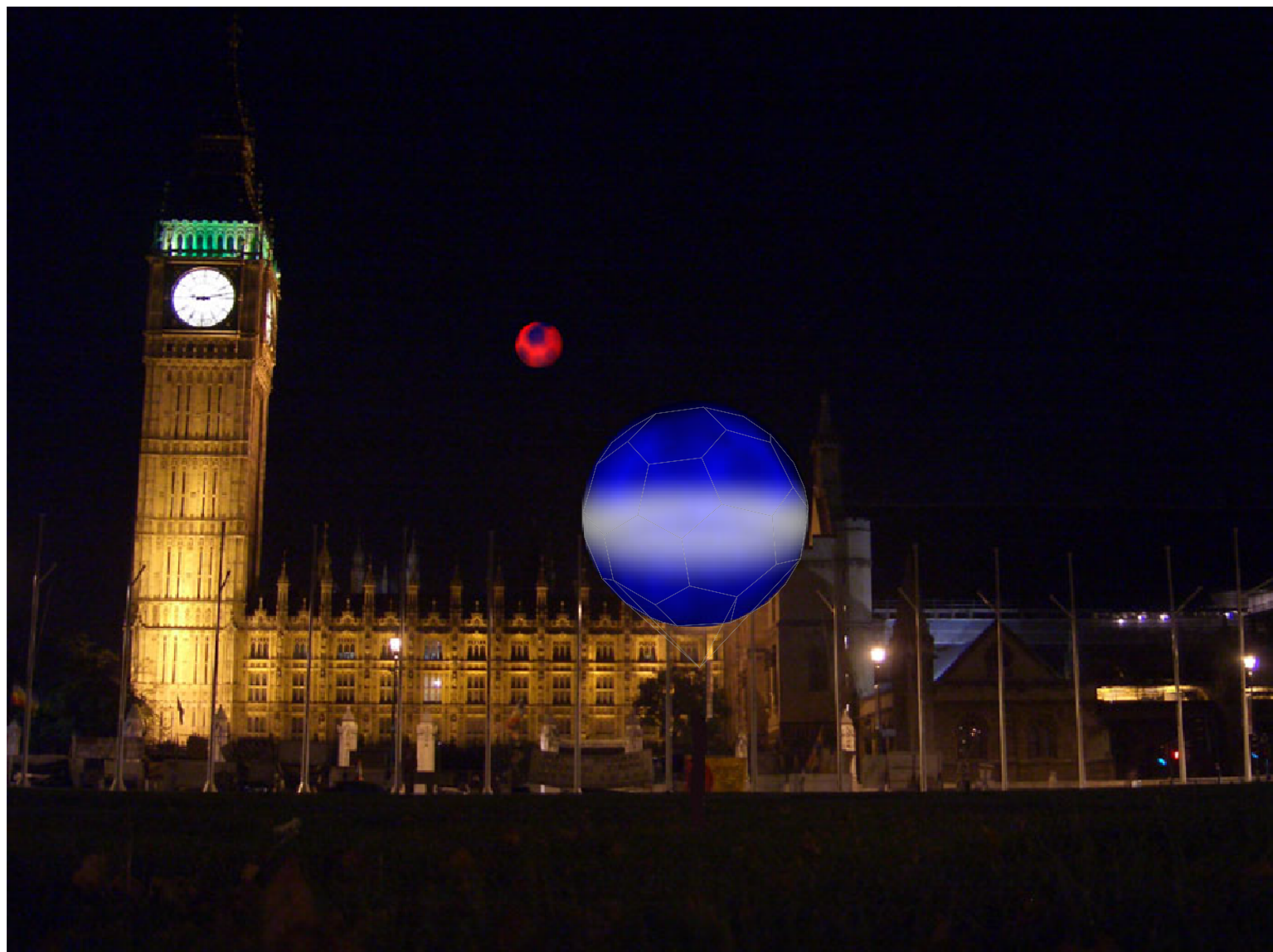


Royal Court of Justice, the Strand, Holborn

# How the server communicates :

(the technical info)





Parliament Square

The third sphere would be positioned over the House of Commons by the Thames



## in conclusion,

the figure of Ken Saro-Wiwa is seminal for our age and the possibilities and challenges that face us; the tragedy of Saro-Wiwa lay not only in the confrontation between the individual subject, and the twin apparatus of state and corporate structures. With Saro-Wiwa, the individual was synonymous with an autonomous community and people who assert their wish to be who they want to be, and to live with their resources in keeping with their identity and values. This is the issue pervasive to most conflicts around the world today.



Cranbrook Estate, Roman Road



Permanent Location[s], crossing River Thames by City hall

Saro-Wiwa's personal tragedy so challenges the greater conflict at large in the world; of whether the political and economic structures of the modern hydro-carbon age can allow us the autonomy, and emergent hybridity that ironically new technology promises; and of whether we can evolve a new vision of society and the use of its collective resources.

The Living Memorial for Ken Saro-Wiwa needs to be talismanic and free spirited - like Ariel boldly placing these issues at the heart of all things.