

Urban Natural Burial: Re-presenting Data as a Means of Communicating New Approaches to Green Infrastructure

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Introduction

The authors have published a number of articles (Ian Fisher and Ann Sharrock, 2013, 2014) and have received media coverage on their proposals for linking natural burial, urban microclimate modification and the revaluing of privately owned urban “hope value” land.

The purpose of this paper is to further explore the ideas advanced in the author’s research and their potential as formative elements in green infrastructure. To facilitate this process, the authors intend to analyse and test the medium of info graphics as a vehicle for communicating the assembled but separate empirical evidence as a means of supporting the validity of their research.

The authors feel that this approach could not only convincingly display potential performative aspects in a more legible format, but also “uncover realities previously unseen or unimagined” (James Corner 1999)

Background

There is the potential for a unique confluence of opposing thought between the non-secular attitudes to burial and the scientific secularism implicit in the creation of healthy and liveable cities.

Burial sites reflect ancient traditions, which are culturally loaded with a mixture of fear and respect for death. This results in artificially manicured and maintained sites that remove the culture of death from daily life and are zoned to the peri urban fringe. Many of these working burial sites are now close to full capacity.

In cities, where land values and access to open space are at a premium there is a need to maximise the performance of land and introduce adaptive strategies as a more dynamic approach to creating sustainable urbanism.

Within the UK Green Infrastructure typography, cemeteries and graveyards are seen as assets in supporting sustainable cities. In reality their location,

accessibility and potential multi-use are undervalued in this context and therefore judgements about their “landscape” performance are compromised by the privilege of non-secularity.

We are proposing separating the non-secular ceremony of burial from its territorialisation of the ground plane in time and space, in order to liberate land as a staging for biocentric systems, which would act as a means of synthesis and mitigation for anthropocentric activities. The model that is being proposed is based on the concept of woodland burial, which would act as an adaptive piece of green infrastructure that could create the setting for the ceremony of burial, but equally act as a network of interconnected ecologies, measured by their performance in contributing to a more healthy city.

Our research has examined how managed woodland could occupy a network of un-programmed spaces within the existing urban framework, creating local burial sites and spaces that through their association would generate respect and responsibility, providing secular spaces of escape and contemplation and community focus. As biocentric mediators they would absorb pollution, reduce the urban heat island effect, create resilient habitats, manage storm water run off and provide biomass for local use.

Literature Review

The review provides examples of current knowledge from the study areas A, B, C as they are selected principally as a measure of the relevance of existing research and practice.

- A) Natural burial and the availability of cemetery space in England
- B) Green infrastructure as a key element in modifying urban microclimate
- C) The economic measure of private land in urban areas in England.

The fourth subject area is the method of interpretation of this assemblage of knowledge through the medium of info-graphics.

In 2013 BBC Local Radio approached 699 local authorities, 358 of which responded and it was reported that of these, 25% said that they would have no burial space in 10 years’ time, and 44% indicated that they could only accommodate burials for the next 20 years. While cremation accounts for three quarters of funerals, many people including some faith groups for whom burial is a religious requirement, do not wish to consider this option. (www.parliament.uk, 2015). In addition people still expect a ‘plot’ for their urn, which can take up significant space and while the Environmental Protection Act 1990 required that all cremators had to comply with specified

emission requirements by 1998 and remove mercury from emissions to air by 2013, pollution and fuel use is still a concern.

The first natural burial ground was opened in 1993, championed by Ken West. The premise was innovative:

“Opening a natural burial ground near to an urban area provides three benefits. It provides additional burial space; satisfies a growing demand for environmentally friendly funerals and provides new amenity green space for the community”. (Ministry of Justice, Natural Burial Grounds, 2009).

There are now over 270 natural burial sites in the UK (Natural Death Centre 2015). No single model governs the design and management of natural burial grounds; their location (new burial grounds and areas within traditional municipal cemeteries) and their ownership (local authority, charitable trust and private company) and grave-marking/tending permitted to the bereaved.

Dr Julie Rugg, of the University of York's cemetery research unit commented in the Guardian (2015) “I tend to think of cemeteries as being like schools and hospitals. They are an emotional locus ... Without them, a neighbourhood is bereft of a particular kind of community space. Where else would you get that in an urban landscape? They add an emotional intelligence to a city.”

The urban heat island (UHI) phenomenon and mitigation methods dominate research in the area of urban climatology. (Wong, Nyuk Hien Jusuf, Steve Kardinal, 2011), Although research tends to concentrate on urban areas that are already “hot”, (Ed Mat Santamouris and Denia Kolokotsa 2016) there is evidence that these issues are equally relevant in Northern climates. (Levermore, G.J Parkinson, J.B 2011)

Pollution and the ability of plants to act as “cleaners” is an essential part of urban microclimate studies and recent publications refer to a number of different research outputs, which reflect the inter-relationship of vegetated buildings and the mosaic of vegetation structures, which fulfil the role of green infrastructure. (Brown. R 2010)

There are different opinions on the size of vegetative blocks and their effectiveness in mitigating urban microclimates and some research has taken place on the relative positioning of green infrastructure elements in Northern cities (Millward, Andrew A Torchia, Melissa 06/2014)

Urban private land in England is primarily valued on its potential for building development. This appears to be the only return that is economically viable, considering the value attached to developable land in urban areas. Literature that includes measures of the value of vacant sites tends not to be cross-disciplinary in terms of linking future values and economic returns with environmental potential. Current articles reviewed by the authors examine land as a resource for environmental mitigation in urban areas - the greening syndrome. (Timon McPhearson, August 21, 2012) This provides short term gain in “beautifying” derelict plots, raising the awareness of the community as temporary owners/stewards and a possible temporary productive capacity. What they are unable to do is to look beyond the environmental value and match that with stable long-term economic returns, which would be attractive to investors. The private sector has attempted to develop an investment model, but this lacks credibility and the only viable stakeholders are central and local government organisations. (HUD.Gov winter 2014)

Goals and objectives

The objectives of this paper are:

- To justify the potential for a positive and productive relationship between natural burial, green infrastructure and vacant urban land in respect of economic, cultural and environmental indices
- To question the existing emotive responses to urban natural burial, through the repurposing and re-display of empirical information from different subject areas
- To investigate a method of communication, which makes the argument for urban natural burial more accessible and justifies its inclusion as a component of green infrastructure

Method(s)

The method is separated in to two phases:

1. The explanatory phase, which explains the themes and connections, which justifies the relationship between these different subject areas.
2. The second is experimental and commences a process of testing different possibilities for displaying this relationship as an effective component of green infrastructure through the medium of info graphics.

Results

Infographics are graphic visual representations of information, data or knowledge created with the intention of presenting complex information quickly and clearly.

Utilising this method our aim is to present the benefits of using a network of urban sites for natural burial in terms of mitigating the effects of the urban heat island effect, and the contribution such a site would make to green infrastructure and its function as a community resource.

Qeepr has produced infographic sheets on the negative environmental impacts of formal burial and cremation and suggests that people consider green burial as an alternative (Figure 1). UHI's and urban pollution has a strong scientific pedagogy and results are primarily communicated through linear, scatter, bar graphs and tables (Figure 2).

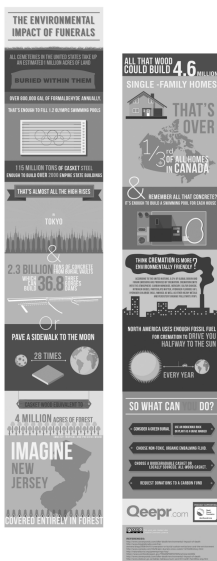


Figure 1. Negative environmental impacts of burial and cremation

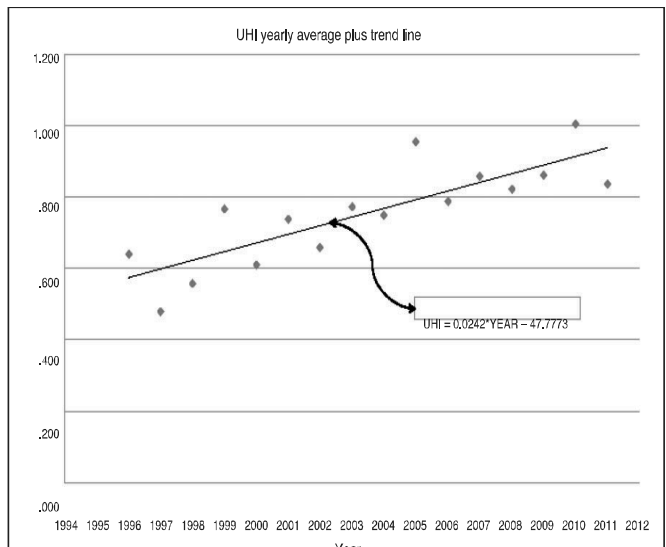


Figure 2. UHI yearly plus trend line. Manchester

Green Infrastructure has two visual mediums. Diagrams, drawings and plans produced by the professions involved in its delivery - Landscape Architects, Planners, Urban Designers (Figure 3). “Utopian” images produced to seduce and sell an idea to “the public” (Figure 4).

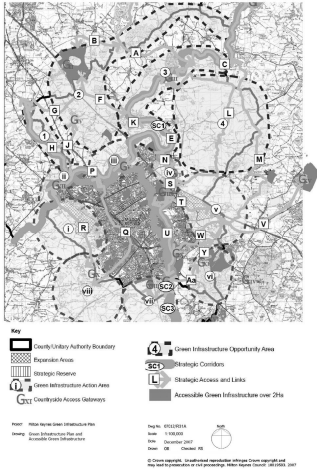


Figure 3. Green Infrastructure Opportunity and Action Areas - MK GI Plan. Milton Keynes Council



Figure 4. Illustrative view of Orchardson Street. A new vision for neighbored streets Paddington Green

The presentation of information on the value of urban land is divided between the statutory obligations of the local authority to map the infrastructure of their estate (Figure 5), central government statistics on comparative land values (Figure 6) and written information published in journals and papers (Figure 7).

Table 1: post permission residential land value estimates, per hectare

Estimated value ¹ of a typical residential site	
Local Authority	
Adur	£3,574,000
Allerdale	£846,000
Amber Valley	£445,000
Arun	£2,464,000
Ashfield	£1,100,000
Ashford	£1,506,000
Aylesbury Vale	£3,635,000
Babergh	£1,205,000
Barking and Dagenham	£8,000,000
Barnet	£15,700,000
Barnsley	£1,053,000

Figure 5. Extract from Department for Communities and Local Government. Land value estimates for policy appraisal. February 2015

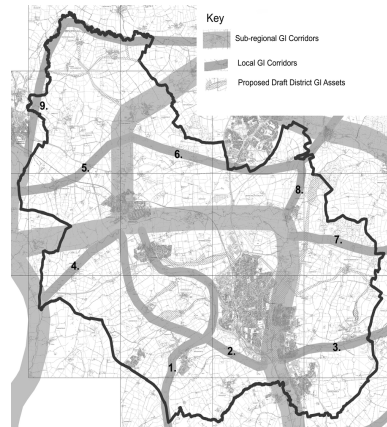


Figure 6. GI Corridors & Proposed Draft District GI Assets. Kettering Borough Council



Figure 7. Southwark-rotten borough

The Unknown Unknown - Why Circles?

Draft ideas for an info graphic to explain the use of the circle as the key icon in developing the relationship between urban natural burial and green infrastructure.

DH Laurence, New Heaven New Earth

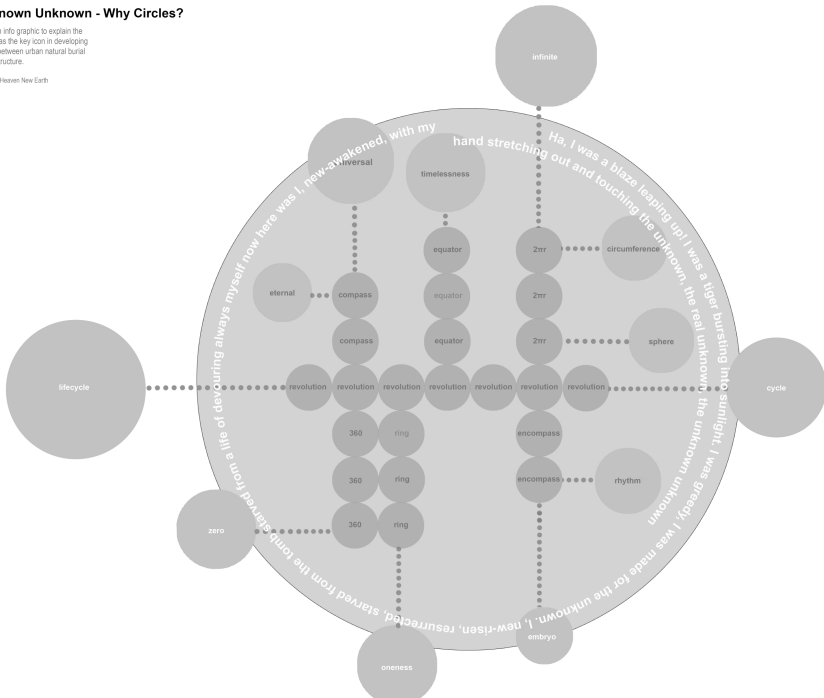


Figure 8. Draft ideas for an info graphic to explain the use of the circle as the key icon in developing the relationship between urban natural burial and green infrastructure.

Conclusion

The consequences of pollution in cities (BBC News 6.00pm. Thursday February 25th 2016), accessibility issues, a lack of space for cemetery expansion and the willingness to examine radical solutions (www.urbandeathproject.org) have all contributed to removing the taboos

surrounding death. This paper is intended as part of this process. The ultimate objective is to justify finding methods of developing joined up solutions to address a range of isolated problems and developing a communication method through openly accessible empirical information, which explains the potential of these relationships.

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- Figure 5. Extract from Department for Communities and Local Government. Land value estimates for policy appraisal. February 2015
- Figure 6. <http://consult.kettering.gov.uk>
- Figure 7. Private Eye. Date unknown
- Figure 8. Draft ideas for key icon in info graphics