The City is a Thinking Machine

Volume I: The Exhibition
The City is a Thinking Machine
Patrick Geddes and
Cities in Evolution

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Volume I: The Exhibition

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The City is a Thinking Machine is a research project bringing together in an exhibition, Geddes’ collection of city plans with his thinking and lecture notes. The exhibition also includes projects by eight practices affiliated with the Geddes Institute at the University of Dundee. Affiliates include members of the academic and professional communities from Scotland and abroad, and include artists, architects, and the Local and Strategic Planning Authorities. Our aim is to demonstrate the continuing significance of the thought on cities and society by polymathic Scottish planner and botanist Patrick Geddes. The city plans were drawn from Geddes’ touring Cities Exhibition, most of which have not been brought to the public view since the Outlook Tower closed in 1949. The lecture notes include his ‘thinking machine’ diagrams, drawn on folded paper, which trace the linked evolution of civic society and the places they build to live well in them. Most of the diagrams have not, to our knowledge, been exhibited or published before, nor have they been seen together with the plans. The project included a public lecture program whose aim was to contextualise the work represented in the exhibition. The project marks the centenary of the publication of Geddes’ Cities in Evolution (1915).

Reproduced here are the ten A1 exhibition information panels, texts by Lorens Holm, design by Lorens Holm and Cameron McEwan.

The following texts are by Lorens Holm unless otherwise stated.

The project was run by Deepak Gopinath, Lorens Holm, and Matthew Jarron at the University of Dundee, with strong visual assistance from Cameron McEwan and Tracey Dixon. Photographs of the opening by Cameron McEwan. Photographs of the exhibition and exhibition materials by Tracey Dixon. Website by Tracey Dixon. Exhibition vitrines organised by Lyle McCance. Publication curated by Lorens Holm, designed by Cameron McEwan. Exhibition, curated by Lorens Holm, in the Lamb Gallery, University of Dundee, under the directorship of Matthew Jarron. For video recordings of the opening and lectures, visit the Geddes Institute website: http://www.dundee.ac.uk/geddesinstitute/projects/citythink/.

1 The only other recent exhibition of Geddes’ work comprised city plans only. Cf. Collecting Cities – images from Patrick Geddes’ cities and town planning exhibition (Glasgow: Collins Gallery, University of Strathclyde, 1999).
Sir Patrick Geddes, polymathic Scottish planner and botanist, published *Cities in Evolution* in 1915. This seminal text argued that his touring Cities Exhibition constituted an exhaustive body of knowledge indispensable for good city and regional planning. The text also argued for a form of participatory civics that he described as applied sociology. Geddes (1854-1932) was trained as a botanist by Thomas Henry Huxley, and became a city planner by vocation. He designed the plan of central Tel Aviv in 1925. He was a mentor to Lewis Mumford (1895-1990), the American theorist of cities and technology. Geddes held the Chair of Botany at University College, Dundee (1888-1919) and the Chair of Sociology & Civics at University of Bombay (1919-1924). He coined the term *conurbation* for the way towns grow together into cities, advocated the practice of urban *surgery* to selectively re-articulate them, and emphasised the importance of the city region as the critical unit for planning.

‘No one who studies animate nature can get past the fact of beauty. It is as real as the force of gravity.’
This exhibition is a research project whose aim is to critique Geddes’ thinking on cities. It brings city plans from Geddes’ touring Cities Exhibition together with his thinking and lecturing diagrams, to make explicit the connections between them. The ‘thinking machine’ diagrams, which are drawn on folded paper, attempt to understand the linked development of people and places; the ‘flip chart’ notes accompanied his lectures. These diagrams and lecture notes have not to our knowledge been exhibited or published before, nor have these plans been brought to the public view since the Outlook Tower closed in 1949. The exhibition also includes recent work in architecture and planning by affiliates of the Geddes Institute at the University of Dundee, which has been informed by Geddes’ thinking. The exhibition marks the centenary of the publication of Geddes’ seminal text, *Cities in Evolution*, and all quotes are taken from this text. The Geddes material is drawn from the Archives at the Universities of Dundee, Edinburgh, and Strathclyde. This research is funded by the Carnegie Trust for the Universities of Scotland.
**Key concepts in *Cities in Evolution* (1915)**

**Thinking machine**
The attachment of people to their places (correlating the characteristics and constitutions of social groups and environments, their combined developmental histories, what today we call *synchronic* and *diachronic* relations).

**Conurbation** or con-urbanisation in contrast to sub-urbanisation and garden cities urbanisation (distinguished from city-making)

**The city region** - The city and its region are the basic unit of human ecology [resources and watersheds].

**Knowledge** is spatial and place-based and inscribed upon the surface of the earth.

**Society** is spatial and place-based and inscribed upon the surface of the earth.

The city is our greatest *artefact* and *archive* of knowledge.

**Governance** - the city is a precondition for participatory democracy.

The importance of the city survey & exhibition [= the prominence of media].

Geddes’ ‘4 fold’ way - *acropolis, forum, cloister, cathedral* [= government, market, school, religion].

Cities and their peoples evolve - **evolution** not development.

**Civic Exhibition** [local] ... **Civic Survey** [local] ... **Cities Exhibition** [global]

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**Goals**
To use the exhibition format to evaluate the thought of Patrick Geddes and update it for the 21st century. To build a critical discourse of contemporary Geddesian thought on cities and their regions by exhibiting the Geddes archive in dialogue with contemporary practice.

**Team**
Lorens Holm, Architecture, University of Dundee [PI]
Deepak Gopinath, Town & Regional Planning, University of Dundee [CI]
Matthew Jarron, Curator of Museum Services, University of Dundee [CI]

**Exhibitors**
John Dummett, Duncan of Jordanstone College of Art & Design, University of Dundee
Pamela Ewen, TAYplan SDPA Manager + Deborah Peel, Town & Regional Planning, University of Dundee
Paul Guzzardo, independent media activist, St. Louis & Buenos Aires
Graeme Hutton + Architecture and the City, Architecture, University of Dundee
Tracy Mackenna & Edwin Janssen, Duncan of Jordanstone College of Art & Design, University of Dundee
Cameron McEwan, Architecture, University of Dundee
Fergus Purdie Architects, Perth and University of Dundee
Jelena Stankovic, Architecture, University of Dundee
Why city evolution? How is evolution different from development?

Geddes published *Cities in Evolution* (1915) almost 60 years after Darwin published *On The Origin of Species by means of natural selection* (1859). Darwin’s contribution to the theory of evolution was to realise that the mechanism for the evolution of species was natural selection by adaption to the environment. Species evolve because some individuals within the species are better adapted to their environments than others. *Evolution* thus focuses attention on the relation of populations to cities, whereas *development* focuses more narrowly on cities. On this evolutionary view, transport infrastructure is a material environment that people use and adapt to their needs, even as they adapt to it, not simply a machine for moving people. Geddes’ thinking machine diagrams document his struggle to understand changes to populations and environments in terms of how they organize each other. It is not the city or the population that evolves, but city and population that evolve together as one complex and heterogeneous formation.
To Geddes’ sociological thinking, the city was a worked example or material demonstration of the relation of people to their environments. People adapt to their environments so they can live well in them; people adapt environments to fit their daily practices. All human environments are built environments. The problem: how to conceptualise this dual relation in a way that organises vast amounts of sociological knowledge. Geddes would fold a sheet of paper up to 64 times to create matrixes that would correlate a form of society with a form of city, or – in Geddes’ terms – work, place, and folk. This framework for thinking about people-place adaption is a powerful model for understanding the attachment of people to places, which has the potential to contribute to our understanding of environmental wellbeing, and has the potential to inform UK Planning Policy.

‘Every city seeks to complete itself. It finds itself with the means and the will to develop its own civilisation within, not merely draw it from without. Thus Glasgow stamped its utilitarian philosophy upon the world by producing Adam Smith.’

*Cities in Evolution, p. 90*
In *Cities in Evolution*, Geddes argues the need for an exhibition comprising city plans and views, accompanied by tables of data, in order to build a knowledge base in cities, and to disseminate that knowledge to city inhabitants and design professionals. The exhibition is a form of research into what he variously called the Science of Cities, Sociology and Civics. The exhibition started in London and travelled to Edinburgh, Dublin and Belfast in 1911. The exhibition was sunk en route to India during World War I. A second exhibition toured to Madras (1914), Calcutta (1915), Nagpur (1916) and finally Bombay (1923) – the year Le Corbusier published *Vers une Architecture*. It found a permanent home in the Outlook Tower, Edinburgh. Geddes modelled the exhibition on the International Expositions in Paris (1878, 1889, 1900) and the Great Exhibition in London (1851). These exhibitions provided material evidence - not theory - for development of industry and culture.
In addition to the touring Cities Exhibitions, Geddes proposed that each city have a permanent Civic Exhibition located in the city centre, which would include all the place-based knowledge about the city region. He organised such institutions at Crosby Hall, Chelsea, and at the Outlook Tower, Edinburgh. He argued that the Exhibition was a pre-condition for representational democracy – you cannot responsibly exercise the right to vote if you do not know about the place you live and its outwardly radiating economic-political-geographic relations to the region and the world. The Civic Exhibition was the *Polis*, or at least a necessary component of it. The content for the Exhibition would be compiled by a comprehensive Civic Survey. The Survey was a keystone in Geddes’ activism. It was conducted by citizens and design professionals alike, in order to foster civic participation, like participatory action research today.

‘The Survey of Cities is a main feature and purpose of our Exhibition.’

*Cities in Evolution*, p. 85

‘We have therefore addressed ourselves towards the initiative of a number of representative and typical City Surveys, leading towards Civic Exhibitions; and these we hope to see under municipal auspices, in conjunction with public museums and libraries in Leicester, Saffron Walden, Lambeth, Woolwich, Chelsea, Dundee, Edinburgh, Dublin.’

*Cities in Evolution*, p. 145
Geddes bought the Outlook Tower, with its rooftop views of Edinburgh, as the home to his Cities Exhibition and Edinburgh Civic Exhibition. For Geddes, the synoptic view is a form of what we would call the multi-disciplinary. It is not the same as the generalist view, of which he was also an advocate. The synoptic view involves the integration of knowledge from many specialisms into a single approach to planning. The Outlook Tower was organised with the same logic as the Civic Exhibition, beginning at the top with plans of Edinburgh. As the visitor descended, each floor housed content with a more expansive geographical radius. For an expansive thinker like Geddes, who – let us imagine – was always battling with a tendency to diffusion, it is not surprising that the concentration of knowledge in a single point and its integration into a synoptic view, should be the preoccupation of his life.

‘The general principle will now be clear; and be seen as applicable in any city. It may be experimented with in anyone’s study, even begun upon the shelves of a bookcase.’

*Cities in Evolution*, p. 116

‘The general principle is the synoptic one, to utilize all points of view, ... an Encyclopaedia Civica of the future.’

*Cities in Evolution*, p. 114
For Geddes, knowledge is spatial and the city is a knowledge environment. Geddes was an activist, not a scholar. With his wife, he financed the renovation of tenement slums in Edinburgh, he participated in founding the town planning association, and he founded civic education centres. The purpose of the City Survey and the Civic Exhibition was to produce a proactive electorate. The purpose of the Cities Exhibition was to produce informed city plans. The central problem for activism is not knowledge *per se*, but how knowledge can be put to work. For Geddes, this was a problem of organisation. If the Survey was about the acquisition of knowledge, the Exhibition and Outlook Tower were about how to organise it spatially so it can be made instrumental. The key was to integrate the specialist disciplines that go into planning cities, what Geddes called the *synoptic* view.

‘Town plans are thus no mere diagrams, they are a system of hieroglyphics in which man has written the history of civilization, and the more tangled their apparent confusion, the more we may be rewarded in deciphering it.’

*Cities in Evolution*, p. 170
Geddes argued that the significant unit of ecology and economy is the city region – the city and its watersheds; it should therefore be the unit of planning, and not the political boundaries that define most planning authorities. This logic has informed the formation of Scotland’s four regional Strategic Development Planning Authorities, of which Tayplan, based on the Tay river valley, is one. City and region are in a relation of mutual dependence: the region supplies the city with materials, water and power; the city supplies the region with goods, trade and knowledge. This relation is captured in Geddes’ Valley Section diagram, based on the Tay and Forth rivers. Geddes used the Valley Section to correlate the industrial practices that transform landscapes – like mining and farming – with the regional landscape. It thus reflects Geddes’ interest in understanding the adaptive relations of people to the environments they inhabit.

‘By descending from source to sea we follow the development of civilisation from its simple origins to its complex resultants. It takes the whole region to make the city. As the river carries down contributions from its whole course, so each complex community is modified by its predecessors.’

‘Civics as Applied Sociology,’ in Sociological Papers (1905), p. 105
Town plans are thus no mere diagrams, they are a system of hieroglyphics in which man has written the history of civilisation, and the more tangled their apparent confusion, the more we may be rewarded in deciphering it.

Geddes, *The City in Evolution* (1915)

...the great city is the best organ of memory man has yet created.

Geddes had an extensive collection of city plans. He collected them because he was convinced that the city had inscribed in it the knowledge that constitutes civilisation. The city is a knowledge environment, and knowledge equals inscription. He advocated the civic survey as a way to accumulate this knowledge the way an editor may collect an author’s texts, he advocated what we called conservative surgery as a form of urban renewal that erased as little inscription as possible. Tabula rasa modernist planning constituted for Geddes a catastrophic loss of knowledge tantamount to the destruction of the library at Alexandria. The other reason for collecting plans was because Geddes used them. They were part of a cities exhibition that was supposed to tour continuously around the world; in fact it made it to about a dozen cities in the UK and India.

Geddes also left an extensive collection of lecture notes and what he called thinking machines, which were his gridded diagrams for organising his thought on the evolution of cities and social life. He was an eccentric thinker on cities, and a broad thinker. He produced ideas which were extraordinarily malleable from which sociologists and urbanists continue to mine theses.¹

The grids and other diagrams are enigmatic. They look discursive, but they do not reveal themselves the way a crime novel reveals itself. In my view, the idea that Geddes struggles with throughout his career, is how to build an evidence-based theory that matches people to places, how to match the characteristics of a society with the characteristics of the environments they build to live well in them. It is not easy to collect the evidence, what Geddes called concrete knowledge, but more difficult still to get beyond the evidence to a theory that does not simply record the evidence but understands it. Hence Geddes’ grids.

This research project is timed to celebrate the centenary of Cities in Evolution. The idea of matching the characteristics of a society to the characteristics of the constructed environment – Geddes borrows it from evolution theory. Geddes was a student of Thomas Henry Huxley, the great supporter of Charles Darwin, for whom the origin of the species was not a starting point but a process, the process of evolution. The evolution of species is driven by the competition to survive. Species compete by adapting to their environments. So here Geddes has a society that is adapting to their environment by constructing it; adapting it to their use, and also being adapted

by it. And it is that interaction between people and places that he struggles to conceptualise all his life.

The reason why this idea is so important today is because it keys directly into the idea of wellbeing. How do we live well in the environment. Where in the environment do we find the satisfaction of our drives, derive our happiness, our stability, our love life?

It is probably safe to say that although everybody knows what wellbeing is, it is difficult to measure and almost impossible to define.² It is probably why planning policy flags wellbeing in the environment as a key issue (health and wealth), but is unable to discuss it in depth. Geddes cannot define it either, but he is able to deepen our thought about wellbeing: he offers the alluring possibility that it depends upon constructing adaptions between people and places.³

Wellbeing is subjective, which means that you cannot find out what it is by asking people because everyone will give you a different answer. To arrive at the sort of consensus that qualifies it for objectivity, it must be interpreted and situated within a discourse.⁴ If you want to know what it is to be a subject of the city, you need to look at how the city organises the human subject’s social and psychical relations. That is what Geddes was doing with his civic survey and his diagrams. He was looking at how the constructed environment shapes society. How it organises the social relations of the individual and the collective, be it lovers, shopping, or politics. Think how important that party wall was, with its loose brick, for defining Romeo and Juliet; or the medieval city for defining the feudal turf war of the Montague and Capulet Houses.

The two examples that Geddes returns to are the Greek polis or city state, which he correlates to a certain form of participatory democracy and presentation of the self⁵; and the correlation between the Medieval university town and the contemplative life. This latter is perhaps best visualised by Antonello da Messina’s St. Jerome in his Study. In these two places/times,

². The difficulty in defining wellbeing does not stop researchers from endeavouring to measure it. In our audit society where everything has to be measured to be valued (and even charities are valued monetarily), the inability to measure is fatal, even if not knowing what you are measuring isn’t.

³. Planning policy documents fall back on indicators like proximity to shops, as if how far you are from a shop accounts for the sort of attachment to the environment upon which wellbeing depends.

⁴. The only way to drill into a subjectivity is to look at whatever it is that the subject is subject to. If you want to know what it is to be subject to the crown, you have to unpack all the crown-ish relations that organise social life, like the queen’s speech, habits of genuflection, the honours list, royal reporters.

⁵. Similar to what Hannah Arendt called the space of appearance, for which see The Human Condition.
Geddes can find a correspondence between a city form, a social form, and a form of individual subject. These correlations may be too discursive and too general to lead to design proposals, but they might lead to more informed and more nuanced thinking on wellbeing, which might eventually lead to design proposals.

Geddes was an ardent proponent of citizen participation in cities. His project is about raising what we might call civic consciousness, analogue to Marx’s class consciousness. Geddes had a narrative for the technological evolution of civilisation that runs from the paleotechnic to the neotechnic. As we would expect from someone who found it difficult to engage with others at the level of theory-informed practice, his narrative of advancement is muddled. Paleotechnic followed by neotechnic. Two neologisms. In Cities in Evolution, he introduces them in the form of a narrative of technological advancement from coal-based economy (Britain, bad) to hydro-based economy (Norway, good). At other places in Cities..., he makes it clear that this distinction is in the service of something altogether more speculative and compelling, even if flawed, perhaps compelling because it is flawed. It is about how a society uses technology as part of an evolving process of self-realisation and emancipation.

A society uses technology either to keep itself ignorant and overwhelmed by the conditions of production so that it cannot reflect upon them (disenfranchisement, pollution, long work hours). This is business as usual, paleotechnic. Or it uses technology to raise consciousness so that it is fully in command of its capacity to participate in democracy. These positions are staked out today in the debate about digital surveillance and new media. The reason this distinction is important for architects and planners, in addition to media activists, is that – for Geddes – it is the city itself – our built environment, our houses, our streets, our public spaces, the environment that we collectively construct for ourselves so that we can live well in it – that is our media, and hence the primary vehicle for raising civic consciousness. This is not to deny the role of other media. We have seen the roll of digital media in organising the Arab spring. Digital media seems to have the capacity to initiate change, but it takes the city to sustain it.6

For Geddes, civics is about knowledge and participation, and both are place-based. The city is a technological artefact and it either keeps us divided

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6. About the successes and failures of social media in the Arab spring, see The Review section in The Guardian (Saturday 23 January 2016) pp. 1-5, ‘On the anniversary of the start of the Arab spring, 10 writers from across the region look back’.
Priene.
The Greek *polis*, which Geddes correlates to a form of participatory democracy and presentation of the self.
and isolated, or it becomes a platform for collective self-determination. For Geddes, civics is about building the knowledge environment, the environment that gives you the knowledge necessary to participate in your own governance. The environment that allows you to communicate with your peers. It is modelled, rather idealistically, on a form of university that no longer exists. Raising civic consciousness was about public participation in the planning process of a city through city surveys; and planning was about building knowledge and governance. If we want wellbeing we need cities that make the formation of social groups possible, as opposed to cities that fracture and isolate them. We need cities that are machines for collective thinking. United we stand, divided we fall.7

What is extraordinary about the material is the diffusion of Geddes’ thought, going to so many places, spanning so many disciplines. And also its dogged persistence, sustained in a single lifeline of publications, lectures, exhibitions, planning projects, suspended between optimism and failure. Geddes was an activist, and an advocate. He saw something that he could not communicate because it was a message that others refused to receive. He saw something that we seem to be congenitally constituted to refuse, at the level of the individual and at the level of the collective, where it takes a political form. This refusal silenced him: you cannot shout into the void forever. You cannot sustain a message, without an audience to hook it. We carry with us the fantasy that we are autonomous from our environment, as if we survey it from a vantage point. We think that there is a high palisade between us and environment within which we dwell, as if without this autonomy we could not survive.

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7. Hence a definition of inhabitation that goes beyond the simple fact of living somewhere. And wellbeing in the constructed environment as an inter-subjective condition where our environment speaks to us or which we speak through to others, even though we are rarely aware of it. Wellbeing is modelled on the conversation that you feel comfortable in. If media also brings us into conversation, it is an enhancement of something that the city already does.
**Detail, Hellenic (Aristotle Plato Socrates) ... Sportive (cynic)**

Thinking machine diagram with 64 squares (black) showing successive cultural epochs from the Hellenic to the Sportive. Geddes matches the characteristics of successive societies with the characteristics of the environments they build in order to live well in them. Societies are assigned an iconic thinker (Aquinas, Erasmus,...). The classification is eclectic, combining architectural form (Medieval, Renaissance) and intellectual form (Encyclopedic, Examinational). On the right hand edge he correlated characteristics of the age (Sophistic,... Torpid to Memorist, Obliviscent).

Strathclyde, T-GED 22/2/2.2.
Views of The City is a Thinking Machine exhibition opening.
The city is a thinking machine, it thinks us. It constitutes an environmental consciousness: material things like streets, buildings, lampposts, telephone boxes, stonewalls, field furrow, shadows falling across thresholds, sandwich wrappers, bus shelters, curbstones, cornices, flowerpots in windows, doors opening onto courtyards, conversations coming out of open windows, distributed in a particular way, in so far as we symbolize them so that they enter our collective consciousness. It means that when we intervene in our material culture, we intervene in who we are. Not our identity. Our being.
The title of this exhibition was taken from the name that Geddes gave to his grid notes. Geddes called his thought grid diagrams, folded so he could find his way around them in the dark, thinking machines. In these diagrams, every social group is given a form defined by a thinker, a building, an industry, what they would collect if asked to survey their town and build a museum of themselves. Every social group lives somewhere; it inhabits the field of significant objects, which gives it a spatial form. The spatial form for Geddes’ thought, the thought of that comprehensive but blind thinker of cities, was a landscape oriented grid. Inscribed hereon was a hope, a promise for the future, the ideal of a match between a people and a place, of which every community falls short. Indeed, Geddes – Geddes the pragmatist, the activist, the advocate, the theorist by doing – was in many ways, a utopian who hid his utopia in sociology.

The survey was key. Geddes unwittingly did an end run around identity discourse and identity politics, the ‘theory’ that leads to the politics of isolationism, jingoism, racism, xenophobia, envy, fear, genocide, all of which constitute different forms of self-destructive individualism (think of the sentiments evoked by images of fatherland or homeland). There are ways that communities are bound to places but they have nothing to do with identity and everything to do with the citizen survey of a place that captures the attachments of a life that are so quotidian that they go unnoticed.

Geddes regarded the city as the reservoir of knowledge and the largest and most elaborate artifact of civilisation. It needs to be surveyed. Conducted by citizens, not professionals. He regarded the survey as an on-going exercise in knowledge acquisition as much as an exercise in participation, raising awareness about, and stewardship for, the environment we live in. We construct it by acts that are individual and incremental; but in the end it is a mass phenomenon. This awareness-raising, he called Civics. We called it environmental consciousness because it works through the environments that we collectively construct in order to live well in them. The city is outside us all around us but never fully recognized. The city and the city museum is never complete.

The city is a thinking machine, we think ourselves. Writing at the beginning of the modern era, Geddes set the agenda for cities. Modernism has left us with a rich heritage of space that has nothing to do with efficiency, function, or profitability. The project for urbanism is to continue to develop that richness by working through the consequences of the many and varied threads that bind space and subjects to each other in modern thought.
Psychoanalysis which emerged with Freud at the end of the 19th Century is the modernist discourse. Nothing in Beckett or Joyce – both paramount modernist authors – would be intelligible without the irreducible bind between space and subjectivity. This cannot be said directly, it can only be alluded to, fictionalized, said in moments of protest when secondary comments interrupt the discourse of our masters.

We can bring together thought fragments that coalesce around modern ideas of space and consciousness, a kind of ghost writing. In *The Architecture of the City* (1966), Aldo Rossi argues that the city constitutes the collective memory of its inhabitants; in *The Eternal Present* (1964), Siegfried Giedion, in order to make sense of architectural history, resorts to a succession of three space conceptions that he says might be regarded as a *cultural unconscious*, and to which he almost associates three spatial subjectivities. (*Eternal Present* is as good a description as any of the Freudian unconscious). In psychoanalytic theory the speaking subject is implicitly spatial: in *The Four Fundamental Concepts of Psychoanalysis* (1964), Jacques Lacan, the post-Freudian analyst, argues that the *locus* of the unconscious is the *field of the Other*. This is the public field of symbols from which speech draws. Elsewhere I argue for the locatedness of subjectivity, and – by looking at the psychoanalytic formula, *the speaking subject* – orient this subject in the space that cities make. Geddes city survey speaks to the locatedness of subjectivity. This spatiality is largely unacknowledged in psychoanalysis and architecture.1

The city determines us because we think ourselves by constructing it. It is a game of thinking by doing. *It thinks us* heads in the direction of the automatic language/speech of the unconscious and to a signifier pool that is bigger than any individual. We build the city by incremental individual acts of will that masks a mass consciousness. The survey museum is as much about knowledge of the city as it is about knowledge of ourselves. We see reflections of this survey museum in Walter Benjamin’s unfinished encyclopedic *Arcades Project* (1927-40), a project that haunted the city arcades, the sites of

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Geddes’ project never got off the ground. The question is, how do we make the museum that allows us to index the city; how do we make it in a way that allows us to read ourselves? And how do we make it in a way that allows us to reflect upon the critical issues confronting us today? There is need for public reflection. In an age of global warming, a reasonably switched-on newspaper like The Guardian (Saturday 16 April 2016) can still promote holiday cottages with outdoor heated swimming pools as if that was an acceptable idea. One of the lessons of the city and its index is that the incremental and individual choices we make lead to a collective picture that we never fully apprehend.

Geddes realized that the development of technology changed the possibilities for the city survey and the index. If old technologies prevent emancipation, new liberating social technologies allow us all to be data gathers, and not simply data gathers, but also data producers. No one is offline anymore; we produce data with every gesture; we produce data the way we exhale carbon dioxide. We are also able to organize data, qualify it, create narratives with it. We are all writers of fiction now.

Ghost Writing with Geddes

*Essentials of life theory.*
Detail.
Let’s bring together a number of fragments that coalesce around the idea that the city is a material spatial consciousness that is other to us, a kind of ghost writing that writes us. The ghost is the ultimate other.

Ghost

*Phantomology* >> Ghost logos >> the word of ghosts

*Phantomography* (or is it Phantasmography?) >> ghost graphos >> ghost writing

From *The Oxford English Dictionary* for *ghost writing* and *ghost writer*

1964  M. McLuhan, *Understanding Media* ii. xxi. 212  Modern ghost-writing, teletype, and wire services create an insubstantial world of ‘pseudo-events’.

The OED does not have *phantomology* or *phantomography*. It has *phantasmography* and *phantasma*, a variant of *phantasm*, a mass noun for illusion or deceptive appearance.

Google has:

*Phantomology* - Ghost study. The neuroscientific study of phantom limbs, the body in the brain; virtual reality (anticipated by Stanislaw Lem (who also wrote *Solaris*), in *Summa Technologiae* (1964)).

*Phantomography* - Ghost writing

Geddes was familiar with the conjunction of cities and writing. In *Cities in Evolution*, the city is like a hieroglyph, writing in stone. We have the same cognitive relation to the city that we have to a book. We could read it if we knew how. We could learn about ourselves as individuals by reading what we collectively have written.

There is a longstanding association between the city and the unconscious. In an oft cited passage from Freud, Rome the eternal city is compared to the unconscious, in which a whole life/history is condensed into a single plan and what is forgotten is never lost, but reappears when we shift our position. Lacan, the post-Freudian psychoanalyst, that ghost writer if there ever was one, once quipped that the unconscious was rather like Baltimore early in the morning. Let’s imagine Lacan staring out his hotel window after an overnight flight from Paris, clocks, traffic lights and neon signs going on and off in the night (today we would include CCTV in this loop): the city communicating with itself whether or not anyone is paying attention. Lights
The city is always fleeting, disappearing, vanishing before we grasp it. To grasp it means to find our coordinates in its complex surface, which means to grasp ourselves. It constitutes a form of writing whose significance escapes us, is never fully recognised. It is a form of stone media, the media of a collective consciousness, what Geddes called Civics, but it goes by other names in other discourses. Geddes proposed what he called the citizen survey that would be an on-going stock-taking exercise. As if the survey could organise the city for us.

The city is never fully there to us, and yet we all still participate. It is also more there than we are, going on without us. Not fully there, not even to the master planner, who assumes the position of omniscience. To the inhabitant, the city is too large. It is the paradigm of the incomplete signifier chain, within which, the inhabitant is a signifier in an endless chain of signifiers. Positive science assumes that if we had the resources (time energy money), we could arrive at a comprehensive knowledge of cities. This assumption is driven by a phantasy of wholeness and completion.

A Geddes flip chart, the screen grab of a lecture: ‘Essentials of Life Theory’. Life. Theory. Life is a theory. Life is an idea not a machine.

(1) $\text{ENV[ironmen]}t + \text{ORGANISM}$

(3) “CORPSE” + “GHOST” “BODY” & “MIND”

(6) $\text{LEGITIMATE MATERIALISM}$ (“MECHANISM”)

(7) $\text{LEGITIMATE IDEALISM}$ (“VITALISM”)

(finally) $\text{PROGRESS} \rightarrow$ (with an arrow)

The notes are numbered to read sequentially. They are also arranged in two columns under environment and organism. This is a familiar binary, except that it is complexified by a series of other binaries cascading under it: materialism/idealism and mechanism/vitalism. So we have the material and the ideational – legitimate or otherwise – placed in thesis/antithesis, associated with car tubes and anatomic tubes.

Essentials of life theory.
Life. Theory. Life is a theory. Life is an idea not a machine.
If you take the life out of body and mind, you are left with corpse and ghost. For Geddes, the essence of life is an idea we attribute to others in the presence of their speech and action, akin to Spirit or Greek *pneuma*. And in this respect, he stands opposed to the life sciences.

The discourse of body and mind are shadowed by another discourse of corpse and ghost that seems relegated to the environment. The ideational is shadowed by the material, as if the ghost is the material form of the mind, in the way that the corpse is the material form of the body, the body reduced to meat, the mind reduced to a whitish vapour. The left side is where Deleuze + Guattari, those philosophers who prepared the way for a 21st century materialism, belong. These columns are synthesised into progress. Maybe Geddes was a Hegelian.²

Writing is the material ghost that does not endure. We usually associate the material with the enduring and the ideational with what vanishes. The right side: the non-material but enduring because it has agency. The left side: the material but fleeting, the side that Geddes was most attached to, whether in love or loathing, we do not know. We know that he was most attached to it because under corpse and ghost, he wrote ‘(Necrology) (Phantomology)’, and under that, in pencil – perhaps added later – ‘Necrography Phantomography’. This is the realm of what is not life science, what is not positivism, and not amenable to evidence-based research; it is spoken about most confidently in the negative. Under body and mind, he wrote the entirely predictable ““Biology” + “Psychology””, no pencil note below.

There is a longstanding antagonism in western philosophy between writing and speech, which values speech over writing. Speech is pure, it emanates directly from the ideational whereas writing is material, hence reduced, traduced, debased, corruptible, secondary, seconded, sectioned. The fact that writing is material and endures leaves it open to corruption. The project of deconstruction was to flip this 2000 year old prejudice against writing. Derrida argued that writing trumps speech, inscription trumps logos. There is always a material remainder or residue to the ideational. After the voice has vanished into echo and echo into nothingness, there is inscription. The longstanding preference in western culture for the present truth of speech over the dissimulation of writing is belied by a reliance on writing in western thought that won’t go away. Writing validates speech, guarantees its

possibility and veracity. Without the material practice of writing, the voice of the poets would be unknown. So too would be the capacity to compare the true from the false.³

Geddes’ ghost writing constitutes an extraordinary challenge to the logocentrism of western thinking, which stands alongside Derrida’s project of deconstruction.

Phantomology, the study of ghosts, phantoms, apparitions, ephemera, leads to writing. But not the writing that a mind would write, writing that makes sense, but a kind of other writing. Phantom writing, writing that does not make sense, or that disappears like phantoms, maybe disappears because it does not make sense. Like the writing of cities, which never makes sense because we are always in the middle of it. This is the realm of automatic writing, séances, oracular voices. For Lacan, maybe for Geddes too, the city was automatic writing. As if to acknowledge the fleeting nature of the material, the words “LEGITIMATE MATERIALISM” and “MECHANISM” are abraded, in the process of disappearing.

Writing associated with the mind endures because it is purposive; it has sense, direction, aim. Think of the master-plan, Haussmann’s clear strokes. Phantomography or ghost writing is fleeting because it does not make sense. It may flicker briefly but vanishes into the mire of babble, nonsense, leaving a trace of anxiety. Ghost writing and corpse writing are both under the sign of the environment as opposed to the sign of agency. Instead of a thought emerging from the focal point of a mouth or a pen, it is ambient.

Corpse writing, or writing on the corpse or a corpse that is writing, would be the material signifiers that constitute the city, the buildings and streets and their stones, Rossi’s elements and types that constitute a collective memory, as opposed to ghost writing which are its temporal signifiers, the snapshot that captures the non-posed moment of fleeting lived experience, not the building, but the stepping out of the building Early Sunday Morning (Edward Hopper⁴), or a particular look through the windscreen at a rain swept Tesco. Signifiers that vanish at the moment but which constitute the unconscious discourse of its inhabitants.

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³ Jacques Derrida, Of Grammatology, (Baltimore: Johns Hopkins University, 1976).
Tesco late one Sunday afternoon.
Evil or Medusopolis

Imagine a city whose coat of arms is the head of a wildwoman.

Imagine a city that turned you to stone if you looked at it too closely.
The figure of Medusa is ambiguous. In Greek mythology, Medusa was a diety so hideous that she turns to stone, anyone who was captivated by her magnetic gaze (a contemporary equivalent of such captivating visuality might be ISIS propaganda death videos, available on the internet). She has entered culture as a signifier of: male castration, female rage, and a reality that we cannot face. We have a traumatic relationship to the truth. She also signifies a terrifying beauty, and, when affixed as a talisman to a shield, is supposed to ward off evil. You might want her on your city gates. Geddes regarded the city as a hieroglyph in which the knowledge of a civilisation is inscribed in its stones, available to those who know how to read it, suggesting that the gaze of Medusa may be the general sign and condition of cities.

A few passages from *Cities in Evolution* explains “EVILS organic and social”:

The life and labour of each race and generation of men are but the expression and working out of their ideals. Never was this more fully done than in this Paleotechnic phase, with its wasteful industry and its predatory finance – and its consequences (a) in dissipation of energies and (b) in deterioration of life.’ Under dissipation, Geddes lists ‘our national luxuries, that of getting alcoholised, “the quickest way of getting out of Manchester.”

War is explained, necessitated, by the social psychology of our Paleotechnic cities. War is a generalising of the current theory of competition as the essential factor of the progress of life. If competition be the life of trade, competition must also be the trade of life. What could Darwin and his followers, do but believe this and project it upon nature and human life.

Trade competition, nature competition, and war competition have not failed to reward their worshippers. This is the natural accumulation, the psychological expression of very real evils and dangers.

First, the inefficiency and wastefulness of Paleotechnic industry, with corresponding instability and irregularity of employment; second, the corresponding instability of the financial system, with its pecuniary and credit illusions; third, the physical unfitness which we all feel in our Paleotechnic town life.¹

Geddes was an activist and an advocate of activism in the constructed environment. His notes are not lecture notes in the sense that lectures are academic sites for the

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¹. Geddes, *Cities in Evolution* (1949) pp. 40-41, the quotes abridged by the author.
acquisition of knowledge, but battle plans and tool kits for action.

Inhabiting the intersection of the Medusa-polis + Gorgono-polis matrix, is Geddes’ Town School University City diagram (reading counterclockwise). He publishes its full form in *Cities in Evolution* as ‘The Notation of Life’. This matrix describes the parallel evolution of the constructed and social environments. The Town is the form of a subsistence society whose labour is consumed by food production and reproduction of the species. The School is the form for a society in which surplus has left space for reflection upon itself and the world. The University is the form of a society in which reflection and knowledge lead to planning for the future. The City is the dynamic form of constructed environment that corresponds to a society who subsists, reflects, plans, and puts plans into action.²

A city that is *not* evil is a city whose development is informed by the citizen survey. When you ask each citizen to survey his/her own city or part of a city, you get a picture of the city that is collective and subjective. It is also emergent in the sense that – like grounded theory – it is not preconceived by a master-planner. In that way, you get a city whose development matches the imaginations of its inhabitants more directly than if these aspirations are channelled through the profit motives of a few developer-owners. Imagine a form of collective dialogue between a society and the constructed environment it inhabits, whose currency is an on-going city survey. There is an intellectual lineage that links Geddes to his student Louis Mumford, the writer on the historical development of cities and technology, and to Marshall McLuhan, the theorist of cultural development and communications technology. A city is *not* evil whose form and technology support the co-evolution of society and constructed environment from Town to City.

The shift to what Geddes called *neo technic* culture, is updated for today when the philosopher Gilles Deleuze writes about the shift from Michel Foucault’s disciplinary societies of enclosure to open societies of control. Computing replaces the wall. The tag replaces the prison. The money market replaces the factory. The individual with an identity is replaced by a *divial* that is a cluster of numeric codes in a digital matrix (DNA, bank card numbers, etc). The shift in technology opens up new forms of repression and new possibilities for emancipation. Within this new social order we can use digital media to survey ourselves within the city.³

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"EVILS organic and social."
The gaze of Medusa may be the general sign and condition of cities.
Geddes’ Farewell to Students

Excerpts selected by Murdo Macdonald¹

1. For the full text see Amelia Defries, The Interpreter: Geddes, London, 1927. This selection was made in 2007 by Murdo Macdonald, Professor of History of Scottish Art, University of Dundee. The excerpts appear in the order they occur in the lecture. There are some small changes to the original punctuation.
How many people think twice about a leaf? Yet the leaf is the chief product and phenomenon of Life: this is a green world, with animals comparatively few and small, and all dependent upon the leaves. By leaves we live. Some people have strange ideas that they live by money. They think energy is generated by the circulation of coins. But the world is mainly a vast leaf-colony, growing on and forming a leafy soil, not a mere mineral mass: and we live not by the jingling of our coins, but by the fullness of our harvests.

But growth seems slow: and people are all out for immediate results, like immediate votes or immediate money. A garden takes years and years to grow – ideas also take time to grow, and while a sower knows when his corn will ripen, the sowing of ideas is, as yet, a far less certain affair.

Star-wonder, stone and spark wonder, life-wonder, folk-wonder, these are the stuff of astronomy and physics, of biology and the social sciences. … To appreciate sunset and sunrise, moon and stars, the wonders of the winds, clouds and rain, the beauty of woods and fields – here are the beginnings of natural sciences.

We need to give everyone the outlook of the artist, who begins with the art of seeing – and then in time we shall follow him into the seeing of art, even the creating of it. In the same way the scholar and the student may be initiated … into the essential outlook of the astronomer and the geographer, of the mathematician and the mechanic, the physicist and the chemist, the geologist and the minerologist, the botanist and the zoologist, and thence more generally, of the biologist. Next, too, the anthropologist … and the economist.

But this general and educational point of view must be brought to bear on every specialism. The teacher’s outlook should include all viewpoints. … Hence we must cease to think merely in terms of separated departments and faculties and must relate these in the living mind; in the social mind as well – indeed, this above all.

And so – with art inspiring industry, and developing the sciences accordingly – beyond the attractive yet dangerous apples of the separate sciences, the Tree of Life thus comes into view.
Geddes and the Global
Geddes situated the expansion of cities within the context of civic participation and democracy, advancements in technology, and global communication. These ideas resonate today, at a time when nation states are grappling with the consequences of globalisation, cities are under increasing pressure to accommodate new populations without losing sight of sustainability, and societies struggle with concepts of wellbeing in increasingly monetized environments. Geddes’ proposal for the civic survey as a vehicle for citizen participation, is a model for participatory research that is now common in art practice, the social sciences, and media ecology.

The globalisation of culture is about building a network of local cultures. Globalisation and technology dominated Geddes’ thought as they do today. Geddes had an extensive collection of city plans from around the world. He worked in the Middle East and in India, both places which were, in the 1920’s, in transition or on the verge of transition. This ledger organises the world’s religions and language groups from their cradle in the mid East. The Cities Exhibition was intended to collate best practice on cities and society. Although it travelled to only a dozen cities, the ambition was for it to tour the world in perpetuity in order to update people everywhere about the state of civilisation. For Geddes, globalism was a collation of many locals.

Most people associate the phrase *act local think global* with Geddes, although this form of words is not found in his texts. The local-global message of Geddes’ Cities Exhibition is that everyone is in a position to be informed by the practices of others, and when it comes to your own practice, you must be attentive to its localness. This sounds obvious, banal almost, but we often do the inverse and suffer the fiery blowback. We tend to treat as universal, practices that are particular to our own wellbeing. We have seen what happens when we assume that our commercial society, which has a particular historical development, is exported to regions that have different histories. Corporate architecture and planning – posing as modern – are perhaps the most visible examples of a local practice that is assumed to be global. Rather than introjecting lessons from around the world as Geddes would do, we project our local vision of wellbeing and knowledge everywhere. Globalism always seems to go from us to them, and Geddes’ lesson seeks to reverse this trope. In this context, globalism offers the hope of a two way street. We reach out to the world, the world globalises us.

The exhibition focused on what Geddes called civics, how the constructed environment figures in the formation of social groups and their collective consciousness. Digital media is replacing city space as the site
for the congregation of social groups and it remains to be seen how this transforms the way publics form. Internet trolls have made it clear that one aspect of digital media that does function in the same way as space is that it does not have the same degree of unorganised public accountability. In Hannah Arendt’s terms, the public space of appearance is an essential part of the polis, for it is where I show my cards and stand accountable to others.¹

We do not yet understand this shift from space to media, and the degree to which one will assimilate to the other. Digital media is the candidate for Geddes’ neotechnics, the technologies that will transform social formations as opposed to reinforcing current ones. The cloud has brought the world’s societies together in a new fuzzy place; and nobody thought this might not always be a good thing. Cultures are now in each others faces, and sometimes, when cultures are different, they clash. Neotechnics has brought the revolution together, but – as Arab activists have pointed out – the demise of the Arab Spring has demonstrated that once together, neotechnics alone cannot sustain it. You still need the city.²

The environment is the single most important problem facing mankind, it is also the only global problem. It is not clear if and how the humanities discourses emerging from twentieth century European secular modernism will address it. Until now, the response to environmental degradation has been almost exclusively scientific, and humanities have not yet had a proper go, as if the reality of environmental degradation was not specific to place and culture, and not therefore within the remit of the humanities. The humanities have not responded with a critique of contemporary human practices and civilisations. And yet the environmental problem could be stopped if we were able to take stewardship of ourselves and our environment and live within our means. Environmental degradation is a problem internal to humankind that has been externalised as an object of science. A humanities inquiry would examine how we collude with our own destruction by externalising the problem.

One of the problems with bringing the humanities to bear on a global problem is that the humanities are regarded as specific to a culture, and the problem of the environment is everywhere. Science transcends places.

It is everywhere and for all time. The scientific method is not similarly culture bound even thought it was developed during the Western European Enlightenment. However, if the sciences have the scientific method, the humanities have language and disputation in language. Language and disputation are the universal method of the humanities. And the human categories of which the humanities treat – including love and loathing, identity and attachment, the ecstasy of drink, how they work themselves out in the world – are universal. The scientific method is more systematic than language, but they are equally universal. The humanities approach recognises the environmental problem is a problem of the relation of the environment to a social group, an object to a subject, and of subject to subject, and not simply a problem of the object, and that any scientific approach that treats exclusively of the object, even if only as an heuristic, as a laboratory condition, is undercutting its own project. Geddes understood that the relation of environment to social group is universal.

Geddes collected the city plans because in his view the city was a noetic environment. Civilisation inscribes its knowledge upon the surface of the earth, and the form of that inscription is the city. Arguably, Geddes’s work is not social science, or any kind of science, but fiction. He writes narratives. The humanities write the narratives that we live by. We need evidence, but we also need narratives. Because it is the narratives that organise our spending, our lifestyles, our decisions about where to put our priorities. Advocacy requires a cross between the research journal publication and the Guardian editorial. The ‘think piece’ on the global needs to be made respectable within research journal circles, because otherwise, the research journal, dutifully publishing papers on the evidence of global warming, will be colluding with global warming. Writing just before the full development of modernism, for Geddes, globalism is not a single culture exported everywhere – this was the excess of modernism – but a mosaic of interconnected locals.

Following pages: Valley Section with Hunter-Warrior and Peasant-Shepherd. Image courtesy of Strathclyde T-GED-3-5-54.

Front Cover of McLuhan’s War and Peace in the Global Village.
THE RUSTIC TYPES UNDER LEADERSHIP OF THE HUNTER-WARRIOR FOR WAR

THE RUSTIC TYPES UNDER CO-ORDINATION OF THE PEASANT-SHEPHERD FOR CIVILISATION
Marshall McLuhan
Quentin Fiore
authors of the electrifying bestseller
THE MEDIUM IS THE MASSAGE

WAR AND PEACE
in the
global village

Co-ordinated by
Jacome Agel
Languages

1. Indo-European
   - aa. Shantam
     1. Indian (Sanskrit, Bengali, etc.)
     2.Iranian (Farsi, etc.)
   - Persian (Persian, Persian)
     3. Armenian
       1b. Centum (Celtic, Teutonic, Italic)
         - Albanian, not represented
       2. Greek
       3. Slavonic (Russian, etc.)
         - Bulgarian
       4. Assyrian

2. Semitic
   - Hebrew and Phoenician
   - Arabic
   - Ethiopic (not represented)
   - Aramaic and Syriac
   - Chaldean

3. Caucasian
   - Eastern Cauc. (Tchetchen, Ossetian)
   - Western
     - Tchetchen
     - Abkhaz
   - Georgian
     - Adjarian

4. Uro-Altai
   - Tatarian
   - Turkish

5. Dravidian, Induspean
   - Chinese, Tibetan, Burmese, etc.

Religions

- Abyssinian
- Chaldeans, Copts, Egyptians
- Nestorian, Jacobites
- Armenians
- Bulgarians, Serbians, Russians, Orthodox, Arabs
- Greeks, Catholics

Numbers:
- Arameans: 1.200.000
- Nestorian: 200.000
- Jacobites: 350.000
- Georgians: 600.000

Blue numbers give population inside Turkish Asia.
Red numbers give total population, inside and outside Turkish Asia.
Detail, Classification of languages and religions

A ‘ledger’ of languages and religions in Turkish Asia, with entries for Christians, Muslims, Pagans, and Atheists along the top, and Indo-Germanic, Semitic, Caucasian, and Ural-Altaic down the right hand side. The Ural-Altaic is an obsolete language classification. This is typical of Geddes’ thought – to develop a classification system that ‘grids’ knowledge in order to correlate ideas and phenomena, to demonstrate an evolitional pattern.

University of Strathclyde, T-GED 22/2/29.
Peter Smithson’s *Valley Section* (left) and Cedric Price’s version of an outlook tower, *The Looking Machine* (right).
Question
How to sketch the significance of Patrick Geddes, the Scottish polymathic planner and botanist, to contemporary thinking on cities and their regions? Geddes was able to articulate conceptual frameworks for the evolution of cities – what he called ‘thinking machines’ – and to create resilient narratives for understanding the dialogue between the on-going processes of city evolution and democratic social organisation. The keystone of this project was an exhibition that combined historical material from the Geddes archives, with contemporary projects that draw on Geddesian strategies for making sense of our cities and the social formations that they support. It is part of a larger project to re-evaluate contributions to urban thought from the 20th Century – from Geddes to the recent architectural and planning avant-gardes – and re-integrate it into contemporary urbanism.

The centenary of Cities in Evolution
This project used collaborative dialogue to develop new readings of his most significant text, to reboot it for the 21st century problems and technologies facing cities today. We can read Cities in Evolution against Le Corbusier’s ‘architecture or revolution’ (1923), the metabolist movement (1950s, Japan), and the reaction to modernism formulated by the architectural avant-garde (1970s, New York) out of which emerged key contemporary practitioners including Venturi [pop culture], Rossi [rationalism], and Zaha Hadid [technologic expressionism]. Arguably the avant-garde project out of which post-modernism emerged, failed because it could not develop a subject adequate to their formal and social experiments [Gandelsonas]. 30 years earlier, Geddes had proposed an other, potentially more compelling subject, a kind of Hannah Arendtian subject of labour and democracy [Arendt, Frampton].

The demise of cities and the relevance of Cities in Evolution
Geddes is regarded as the father of British town planning, with work in Scotland, Palestine, India, and France. Two central premises in Cities in Evolution are that cities evolve – they are complex organisms that adapt to their environments – and that there is a definable relation between the spatial organisation of the constructed environment and the formation of the communities that occupy it. These premises derive from the fact that
the foundational livelihoods upon which all others are built, involved food production and resource extraction and were therefore associated with the land. As populations become increasingly urbanised, we witness the dissolution of cities and city culture into processes of urbanisation and urban management [Aureli] determined primarily by economic narratives based on generation of capital. Geddes argued that the city is our most precious artefact because it is the repository of knowledge about our social and geographic nature [Welter]. This sited and spatialised knowledge is a precondition for informed participatory democracy. Geddes repeatedly refers to the importance of the city survey and exhibition as the model for public engagement because it is the model for engagement with knowledge of ourselves. Geddes’ question: how, then, to build for democracy?

New narratives for the evolution of cities
The aim of this project is to build a body of contemporary Geddesian thought on cities and their regions by putting a series of design and planning projects in dialogue with Geddes’ thought. In particular to demonstrate the relevance of that aspect of his thought that focuses on the link between social formations and environmental ones. To develop social narratives that are sufficiently compelling and rhetorical, to hold their own in the debate with prevailing economic narratives. To determine the possibility for new narratives of society within a built environment almost totally determined by economic development. To make this case through the demonstrable form of the exhibition.

What are the alternative narratives for 21st Century urbanisation? These must be compelling and resilient, and allow us to navigate the evidence base, and provide a moral basis for action, and in particular, must augment current economic narratives. And in the Scottish context, what is the potential for new thought on the city and its regions, focusing on the urban-rural interface and the city-region dependency?

Exhibition as research
This exhibition was our machine for answering the research questions, our principle research output, and primary vehicle for dissemination. It discussed:

the built environment as the locus of collective thought and knowledge,
and hence of democracy;
the evolution (not development) of the city, as a natural extension of land
and man;
place-based knowledge (= knowledge of places, and knowledge organised
spatially).

The workshop, lectures, and exhibition created an extended site for the
interpretation of *Cities in Evolution* and for the collaboration between text and
image, which can often say together what they could not say alone. They put
Geddes into practice on multiple fronts (architecture, planning, media) and in
multiple locals (Perth, Dundee, St. Louis).

**Significance**
At a time when economics and security dominate the debate about cities, we
need to mine the recent history of urban thought for alternative narratives
about the city and its regions, which can provide new tools and new ideas for
evolving them. Given the economic, climatic, and social problems facing cities
today, and the realisation that the quality of space impacts upon the quality of
life, this project could not be more urgent. Geddes’ thought addresses several
Scottish Government National Outcomes; it relates directly to the importance
of living in well designed places and building resilient communities. It
addresses planning policy emphases upon mental and bodily wellbeing in the
built environment. It addresses the question of how we value the environment,
taking up the challenge laid down by the Scottish Government: ‘We challenge
everyone involved in development to drive up standards for planning, design
and maintenance of the built and natural environment.’

Geddes was the key thinker in a form of Humanism derived from
place-based thinking. His discourse has its roots in the Scottish Enlightenment,
with its multi-disciplinary approach which put botany in dialogue with civics,
and grounded in the natural world. He was also a key thinker in what was to
become European Modernism. This project by the Geddes Institute celebrates
Scotland and Scottish Universities.
References
Mario Gandelsonas, ‘From Structure to Subject: The Formation of an Architectural Language’ in *Oppositions 17*.
Colophon


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