The City is a Thinking Machine

Volume II: The Geddes Archives

The City is a Thinking Machine Patrick Geddes and *Cities in Evolution*

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Edited by Lorens Holm and Cameron McEwan

Volume II of IV.

Volume II: The Geddes Archives
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## +
A Note about the Images

Three Universities
Geddes' collected texts and images are located in the archives of the Universities of Dundee, Edinburgh, and Strathclyde, without whose support, including the support of Caroline Brown (Dundee), Grant Buttars (Edinburgh), and Victoria Peters (Strathclyde) and their respective staffs, it would not have been possible to exhibit the centrepiece of this project. These include: a selection from Geddes' extensive collection of city, regional, and national plans; his lecture notes and diagrams, including versions of his gridded thinking machines and valley sections; his principle publications, including a first edition *Cities in Evolution*, the *Dunfermline Report* and the *Cities Exhibitions Catalogues*; finally, a number of correspondences, memorabilia, and a draft of *Cities in Evolution*.


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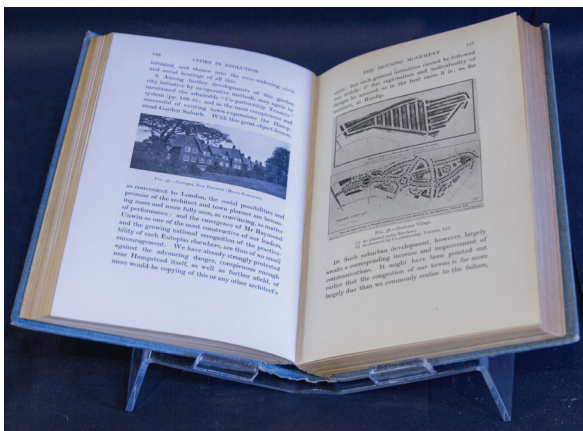
Exhibition Items
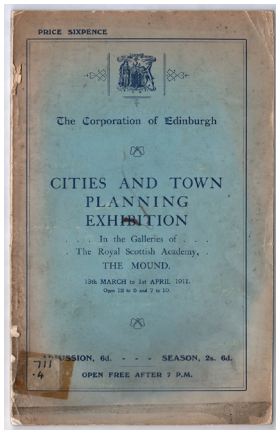
Patrick Geddes, *Cities and Town Planning Exhibition* Guide-Book and Outline Catalogue (Edinburgh 1911).

Courtesy of Fergus Purdie, Architect.
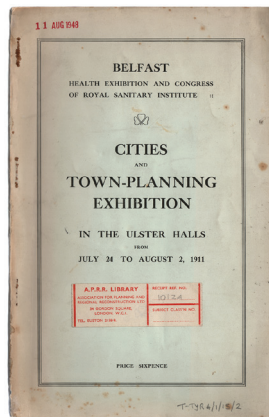
Patrick Geddes, *Cities and Town Planning Exhibition* Guide-Book and Outline Catalogue (Belfast 24 July – 02 August, 1911).

Strathclyde, T-TYR 4/1/15/2.

Patrick Geddes, *Cities in Evolution: An introduction to the Town Planning Movement and to the study of Civics* (London: Williams and Norgate, 1915). First edition.
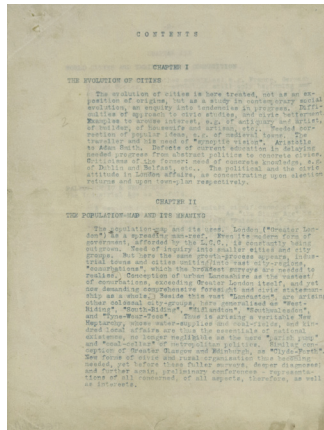
Courtesy of Murdo Macdonald, Professor of Scottish Art, University of Dundee.
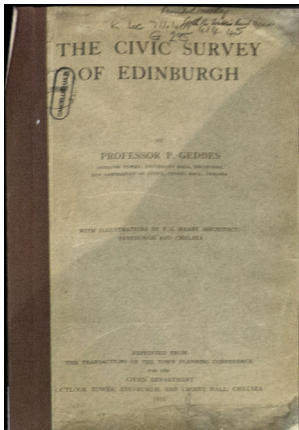
Patrick Geddes, *The Civic Survey of Edinburgh* (1911)
Civics Department, Outlook Tower, University Hall, Edinburgh and Laboratory of Civics, Crosby Hall, Chelsea.
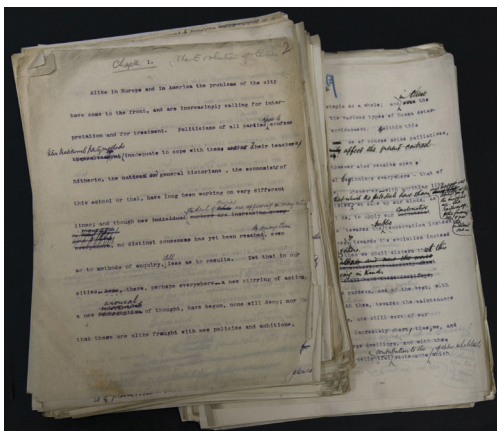
Dundee.

Typescript
Typescript summary of the chapters in Patrick Geddes, *Cities in Evolution* (5 pages)
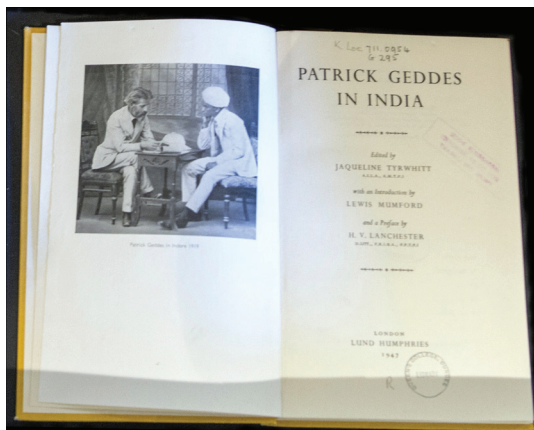
Strathclyde, T-GED 1/1/1.

Typescript
Typescript manuscript of *Cities in Evolution* (315 pages) with annotations by Geddes.
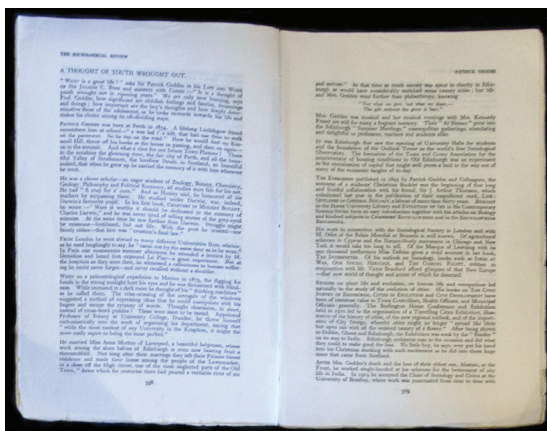
Strathclyde, T-GED 1/1/2.

Jacqueline Tyrwhitt, ed., *Patrick Geddes in India* (London: Lund Humphries, 1947). First edition.
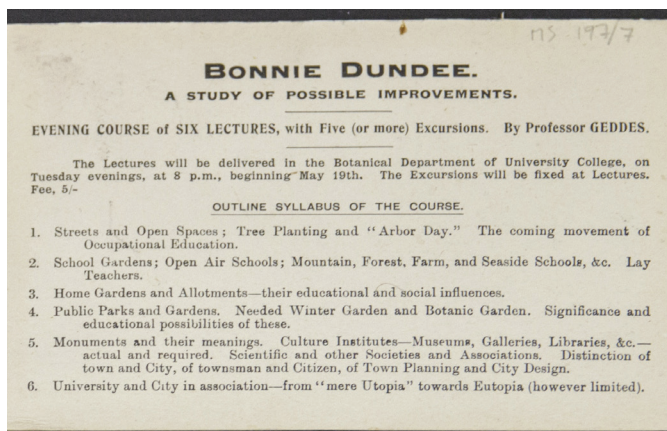
Dundee.

Patrick Geddes, 'A thought of youth wrought out' in *The Sociological Review*.
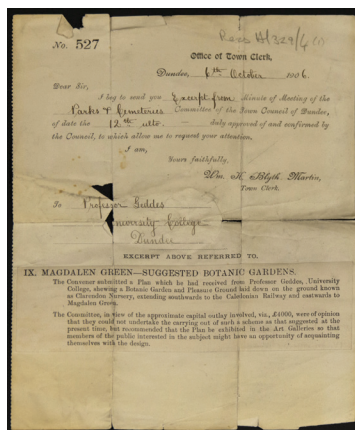
Dundee.

Patrick Geddes, *Bonnie Dundee – a study of possible improvements*

Dundee.

Correspondence
Receipt from the Office of Town Clerk to Professor Geddes of University College Dundee, of plans for a Botanical Garden at Magdalen Green and the council decision to reject the proposal on grounds of cost.

Dundee.
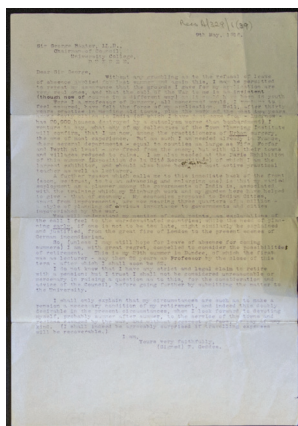
Correspondence
Letter from Patrick Geddes to Sir George Baxter, Chair of the Council of University College Dundee, in which Geddes protests that for two years running he has been denied a leave of absence during the summer (09 May 1916).

Dundee.

Photograph: Calm on the Tay   16x10cm
Photograph cut from a book. Its inclusion by Patrick Geddes in his papers is symptomatic of the attention to locality, that dominated his praxis.

Strathclyde, T-GED 22/1/590.

Geddes' Law of three states

Geddes' diagram correlates the *military*, *legal*, and *industrial* to Auguste Comte's three stages of social evolution, the *theological*, *metaphysical*, and *positive*. The positive stage describes the age of scientific explanation. Geddes also seems to 'flash forward' to the counterparts *vital*, *regional*, *civic* which appear in inverse order. Comte's theory of the parallel evolution of social and knowledge formations was influential on Geddes' thought.

Strathclyde, T-GED 22/2/21.

Comte's Law of three states

Geddes' diagram of *Comte's Law of Three States*. Auguste Comte (1798-1857) was a French philosopher and founder of the discipline of sociology, an influence on Karl Marx and John Stuart Mill. Comte argued that each branch of knowledge evolved through three stages from the metaphysical or fictitious to the metaphysical or abstract to the scientific or positive.
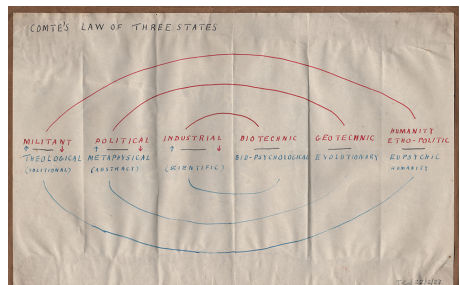
Strathclyde, T-GED 22/2/27.

9

Hellenic (Aristotle Plato Socrates) … Sportive (cynic)
80x60cm, pencil and colour crayon
Thinking machine diagram with 64 squares (black) showing successive
cultural epochs from the Hellenic to the Sportive. Geddes matches the
characteristics of 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.
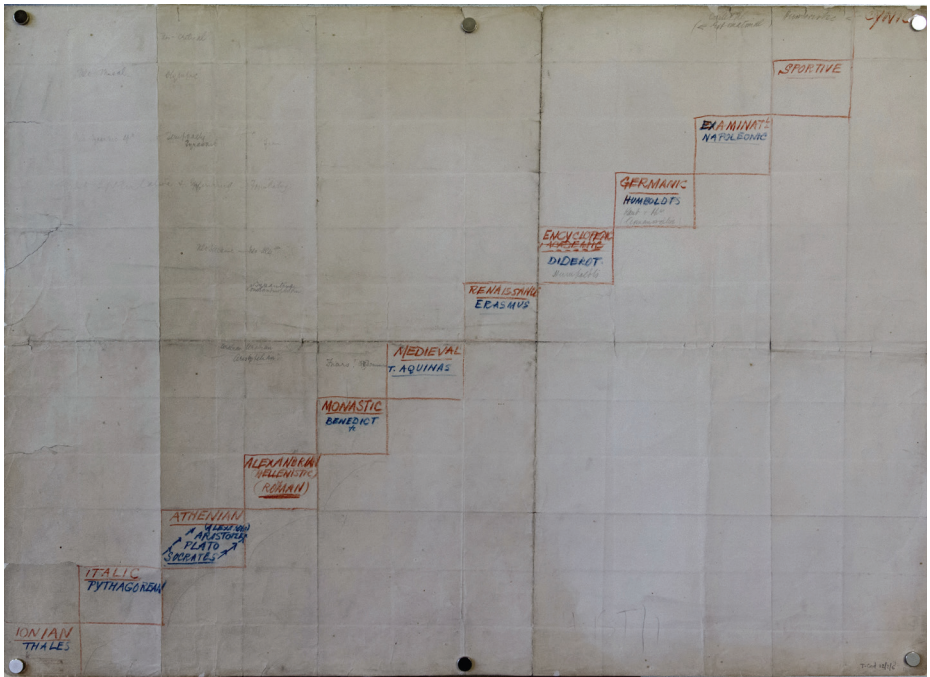
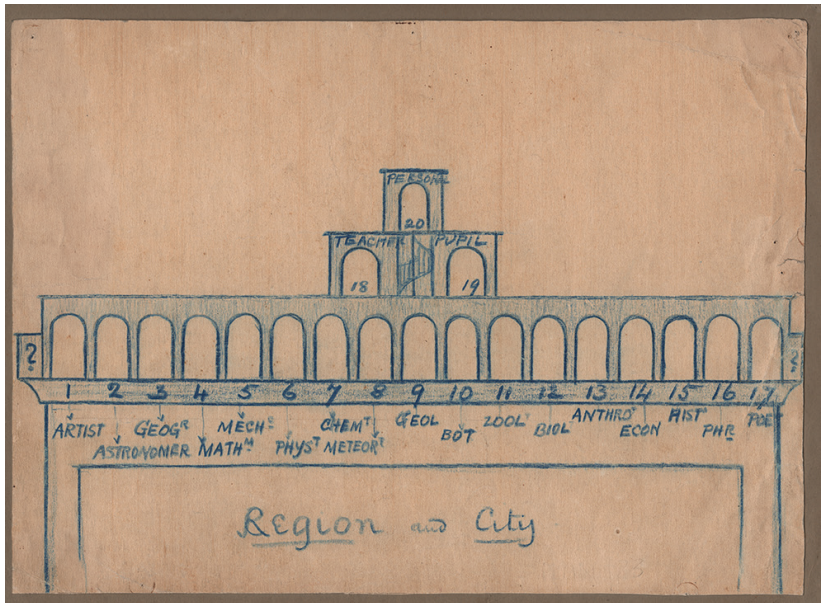***Ionian (Thales)... Cynic***
80x60cm, pencil and colour crayon
Thinking machine diagram with 144 squares (red) showing successive
cultural epochs from the Ionian to the Cynic, in which Geddes matches the
characteristics of successive societies with iconic thinkers in each period.

Strathclyde, T-GED 22/2/6.

Diagram labels (top tier): PERSONAL, 20, TEACHER, PUPIL, 18, 19

Arches numbered: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

ARTIST ↓ GEOG^r MECH^s CHEM^t GEOL ZOOL' ANTHR^o HIST POE^t
ASTRONOMER MATH^n PHYS^t METEOR^r BOT BIOL ECON PH^r

Region and City

Outlook Tower

Diagram showing the top tiers of the *Outlook Tower*. Each profession occupies a niche atop a level called *city and region*. An abbreviated form of this top appears in his diagrams for the Outlook Tower (shown at left but not exhibited), which has levels for city (top), land, language, occident, orient, humanity, life, cosmos (bottom). In *Cities in Evolution*, he advocated the synoptic view, and gave it the material metaphor of the Outlook Tower. He argued that the synoptic view involved integrating the many specialist views necessary for city planning into a single view. Geddes describes the sectional organisation of the Outlook Tower starting with a view of Edinburgh, the views of specialists standing upon the parapet, ending at the bottom with its international trade relations. He writes 'The general principle - successively enlarging social zones, from that of the prospect outwards - will now be clear. It may be experimented with in any city, even begun upon the successive shelves of a book-case.' *Cities in Evolution* (1949) page 116.

Strathclyde, T-GED 22/2/8

CAMERA.
PROSPECT.
EDINBURGH.
SCOTLAND.
LANGUAGE.
EUROPE.
WORLD.
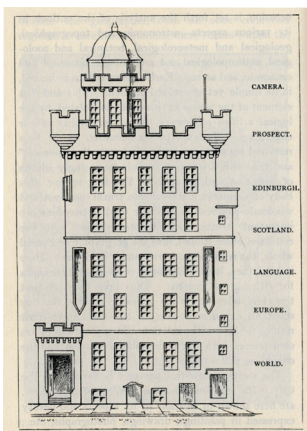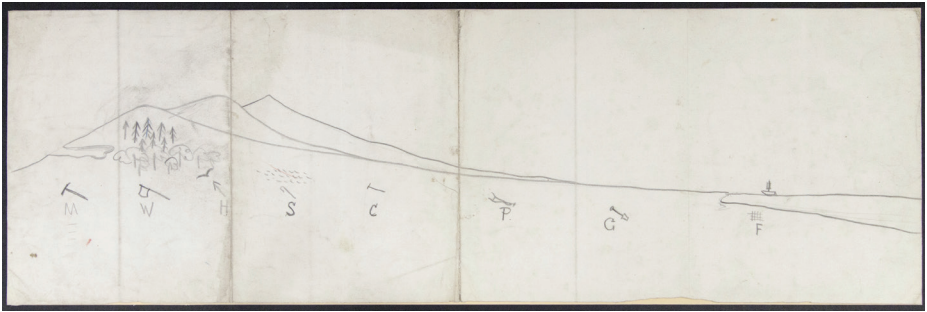
Valley Section (large)

This valley section appears to be based on Dundee, running down from the Cairngorm glens, to the Strathmore Valley, ending in the Tay. Note the initials and symbols for the livelihoods that occupy it. M = miner; W = woodsman; H = hunter;…. The valley section describes the interdependency of the city and its region. The city supplies trade and goods to the region, the region is essentially the watershed, supplying raw materials, food, and water to the city. 'We enter the gallery devoted to Geography as yielding and illustrating the fertile principle of Geographical Control. This conception is of the settlement of men, as initially determined by their immediate environment; extending into larger towns and cities, yet retaining much of their initial regional character and activity, spirit and type.' *Cities in Evolution* (1949) page 93.

Strathclyde, T-GED 22/2/10.

Valley Section (small)

12x7cm, pencil on card
'The Valley Section is almost everywhere, in Western Europe the characteristic geographic unit. This serves as an introduction to the Rational Geography of Cities. These are best studied with the Valley Section and its resultant occupations and corresponding types of settlements. Note the Miner, the Woodman, and the Hunter on the heights; the Shepherd on the grassy slopes; the Peasant on the lower slopes; the Fisher at sea-level. Thus have cities arisen and still arise. As the merchant nobles of Venice sprang from the fishing boat, or the millionaires of Pittsburgh arise beside the forge, so surely do their cities retain the essential character conditioned by their environment and occupation.' *Cities in Evolution* (1949) page 166.

Dundee.

13

City Sections

21x30cm, photograph of a montage of sections of Edinburgh, organised vertically like an Outlook Tower, from 'Eugenic and Educational' (top) to 'Medieval'. Geddes used Edinburgh for his city sections and Dundee for his valley sections. He matches social formations with city institutions. In 'Industrial', the sequence runs from the factory to the tomb of Adam Smith. In 'Financial', 'bank' is uphill from, 'doss house'. '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'. The Eugenics tier is a landscape without a slope or other indicator of hierarchy, and suggests that without the segregating hierarchies built into the lower tiers, the human race would improve its stock. 'A partial answer begins with Racial Anthropology, which has been dear to Teutonic and Anglo-Saxon historians, and is now widely imitated. Following upon this we come to Civic Demography, thence to the new-born Eugenic movement, and to a selection from recent Child-Welfare Exhibitions. Past origins, present facts, future developments are thus considered.' *Cities in Evolution* (1949) pp. 40-41 and 92.

Strathclyde, T-GED 22/2/24.
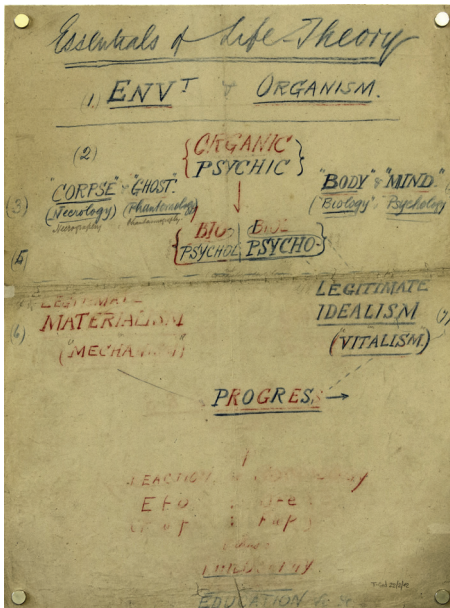
Essentials of Life-Theory

60x80cm, pencil and colour crayon on paper

Lecture notes with topics organised sequentially from 1-7, also organised as a symmetrical spatial array under the headings of the first topic, 'Environment & Organism'. He maps the human subject onto the categories of the material and the ideational. The 'dead' version of the human subject is corpse and ghost (topic 3). The 'live' version is body and mind (topic 4). Finally, these categories are sublimated under 'Progress'. Maybe Geddes was a Hegelian. Under topic 3 he contemplates ghost writing (*phantasmography*). It is characteristic of Geddes to be concerned with the organisation of knowledge and the disciplines (here both temporal and spatial), and with how they can be activated for change.

Strathclyde, T-GED 22/2/12.

***Evils Organic & Social* (large)**

60x85cm, pencil and colour crayon on paper in 8 sections taped together
Lecture notes mapping society and civic life, showing the evils of the
paleotechnic city here represented by the intersection of Medusopolis with
Gorgonopolis. These evils include poverty, indolence, vice, and folly. The
intersection includes Geddes' diagram of the joint progression of the built
environment and civic consciousness from T[own] > S[chool] > U[niversity]
> C[ity]. The eight sections form a blue and a red column of 4 tiers each.
Blue indicates analysis. Red constitutes a civic call to action.
The four tiers, from top down are:

IV. Evils organic and social   > A call to Arouse Revive Transmute
          (accompanied by an Edinburgh city section)

                                                           (Educate) (Civicise)
III. Vital + Civic   > A call to Develop + Civilise
II. History - phases and annals   > A call to Direct Politise Continue

I.   Geography – Survey   > A call to Develop Colonise
                                                               Country Plan Town
          (accompanied by a Dundee valley section)

Strathclyde, T-GED 22/2/18.1.

16
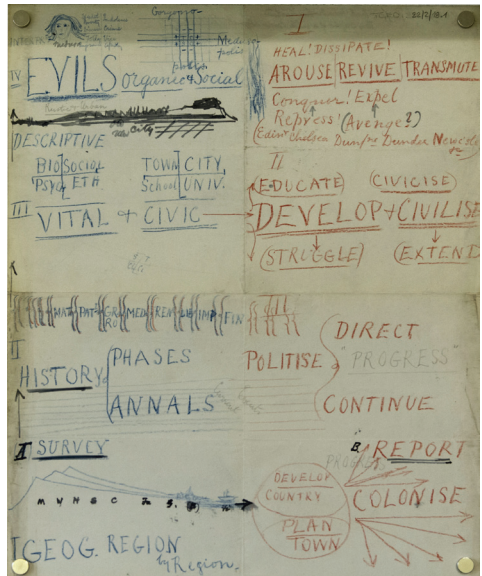
Evils Organic & Social (small)
30x50cm, pencil and colour crayon on paper folded into 8 sections
See notes to *Evils Organic & Social* (small)
'Trade competition, nature competition, and war competition have not failed to
reward their worshippers. This is the natural accumulation, the psychological
expression of very real evils and dangers.' *Cities in Evolution* (1949) page 41.
The figure of Medusa is ambiguous. In Greek mythology, Medusa was so hideous
that she turns to stone, anyone who captures her gaze. She has entered culture
as a signifier of, variously: male castration, female rage, and a reality that we
cannot face. She also signifies a terrifying beauty, and, when affixed as a talisman
to a shield, is supposed to ward off evil. Geddes regarded the city as a hieroglyph
in which the knowledge of a civilisation is cast in stone, available to those who
know how to read it, suggesting that the gaze of Medusa may be the general sign
and condition of cities.

Strathclyde, T-GED 22/2/18.2.

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 evolutional pattern.

Strathclyde, T-GED 22/2/29.

Nehemiah Chap. III

A contemporary reproduction of a Renaissance Plan of Ancient Jerusalem. The Book of Nehemiah is a book in the *Tanakh* or *Hebrew Bible* and in the *Old Testament*. Nehemiah chapter 3 records rebuilding the walls and repairing the gates of Jerusalem in the 5th Century BC. In *Cities in Evolution*, Geddes refers to 'the gridiron plan of heavenly Jerusalem…' and 'the theoretical Jerusalem of the old print…' (page 170).
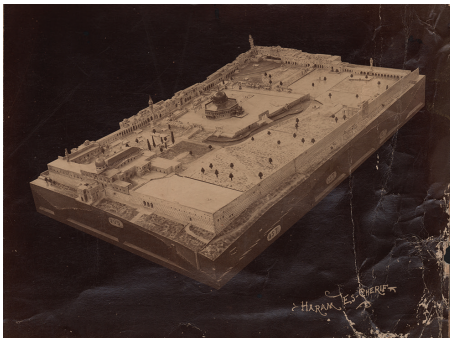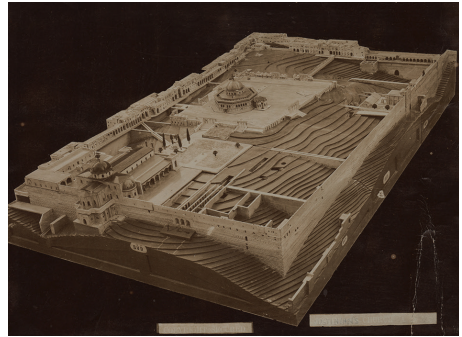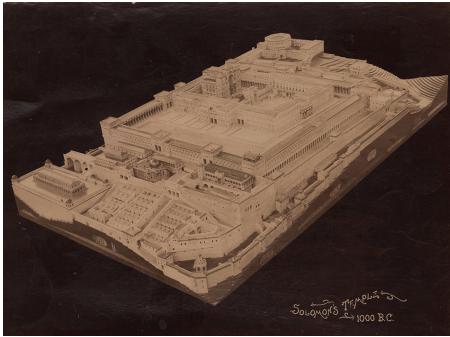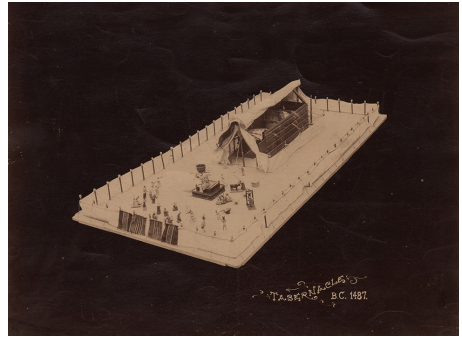
Strathclyde, T-GED 22/1/1697.

Photograph: Geddes

12x8cm
Snapshot of Patrick Geddes riding a donkey in Palestine. Geddes was commissioned to develop master plans of Jerusalem (1919) and Tel Aviv (1925).

Edinburgh, A4 P7.
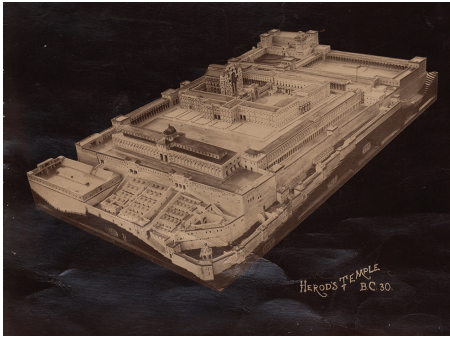
Temple Mount
28x22cm each
Five photographs of models of the *Temple Mount in the Old City of Jerusalem*, beginning with the Tabernacle in the desert (compare to the Tabernacle in Le Corbusier's *Vers une Architecture*), and showing its evolution through Judaic, Greco-Roman, Christian, and Islamic traditions.

Edinburgh, A1.17.

City of Jerusalem Town Planning Scheme (1918)
56x47cm

'There in the past stand Jerusalem, Athens, Rome: in the present we progressive Americans, Germans, Anglo-Saxons, carry the torch as best we may. Those who do not see this indebtedness to the past, are they not dulled in the smoke-cloud of Paleotechnic industry?' *Cities in Evolution* (1949) page 102

Strathclyde, T-GED 22/1/1699.

Environs of Jerusalem
'In the study of cities, little Jerusalem counts for more than Babylon the Great.'
'It is ever a group-emotion, a group-enthusiasm, which makes and remakes cities: and the cry, "O Jerusalem! Jerusalem!" will never fail of echo and response throughout the ages'. *Cities in Evolution* (1949) pages 92 and 123.

Strathclyde, T-GED 22/1/1698.

Jerusalem
Three images mounted on a
23x52cm sheet
Montage of three images associated
with Jerusalem: interior of the Dome
of the Rock, view of St. Peters from
the villa Doria, model of Solomon's
temple. In *Cities in Evolution*,
Geddes reproduces Carpaccio's
painting *The Sermon of St.
Stephen at Jerusalem* (page 180).
This montage suggests a relation
between sanctity, pilgrimage,
and architecture. 'Chaucer's tale-
tellers upon the Pilgrim's Way to
Canterbury is but the art-conserved
instance of what went on in every
country, and to all its great national
shrines. Excelling all these was the
great pilgrimage, that attracting
Christendom to Rome; beyond
that, yet greater, to Jerusalem –
the Pilgrimage indeed.' *Cities in
Evolution* (1949) page 60.

Strathclyde, T-GED 22/1/1712.

21
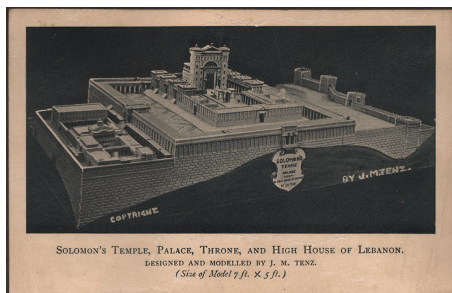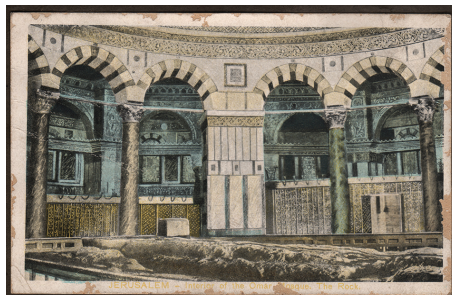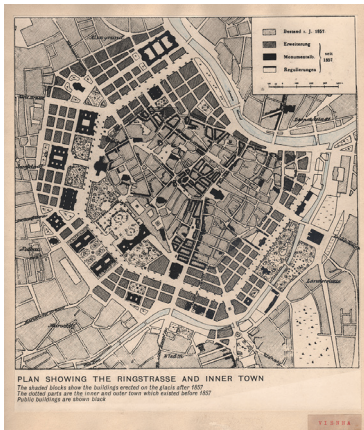
Vienna
17x16cm mounted on brown paper 18x19cm
'Plan showing the Ringstrasse and inner town' showing 'buildings erected on the glacis [of the inner ring of fortifications] after 1857'. Cut from a book, no date, no attribution.

Edinburgh, A1.60B.
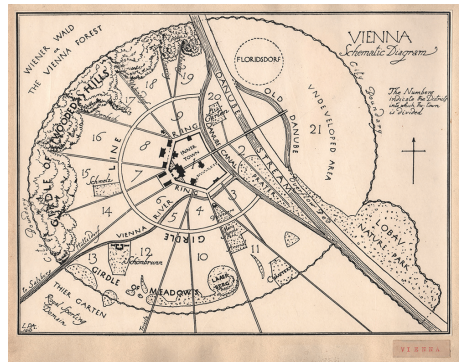
Vienna
'Schematic Diagram' showing the Inner Ring(strasse), the middle ring street or Girdle Line, and City Boundaries (by LPA 1910). This diagram was reproduced in the 'Great Capitals' portfolio in *Cities in Evolution* (1949) page 188. Caption: 'Plan of modern Vienna 1910, showing the famous ring of boulevards replacing fortifications, also a proposed "green belt"'.

Edinburgh, A1.61A.

Vienna Cities Exhibition No. 706

Plan of Vienna with its two rings of fortifications, from the Cities Exhibition (No. 705). Similar to the plan in the 'Great Capitals' portfolio in _Cities in Evolution_ (1949) page 188. 'The magnificent forest girdle of Vienna is the only adequate European parallel', _Cities in Evolution_ (1949) page 66.

Strathclyde, T-GED 22/1/72.

London

Port of London and its trade including plans, aerial views (photographs and engravings), and tables showing the volume of imports and exports between 1860 and 1920. There is an annotated aerial view of the Port of London in *Cities in Evolution* (1949) pages 178-79.

Strathclyde, T-GED 22/1/244.

London Cities Exhibition No. 565

A visual survey of the route of the proposed Northern Junction railway including plans and photographs of the sites for cutting and stations, demonstrating its deleterious effects upon Ealing, Neasden. This sheet demonstrates Geddes' close attention to the detail of places, and how a civic survey might be used for political action.

Strathclyde, T-GED 22/1/240.

London **Detail. Cities Exhibition No. 353**
Mounted on brown paper 97x168cm
London County Council Fire Brigade Plans showing the locations of Fire
Stations and Fire Alarms (1911) [top, 91x69], and the sites of fires (1911)
[bottom, 91x69] plus three pages of a report on fires and property values,
1866-1913 [middle]

Edinburgh, A1.69.

Hampstead Garden Suburb

This plan is part of an ensemble of images including a reproduction of a perspective by Raymond Unwin (not included), which relates to the 'Garden Cities' portfolio in *Cities in Evolution*. 'Salisbury [laid out as a veritable garden city] at its beginnings six centuries ago was curiously like Letchworth or Hampstead Suburb today (1910), so far as its homes were concerned.' *Cities in Evolution* (1949) page 3.

Strathclyde, T-GED 22/1/262.1.

New Earswick Garden Suburb, York, the Joseph Rowntree Village Trust.

This plan is part of an ensemble of images including four photographs (not included), which relates to the 'Garden Cities' portfolio in *Cities in Evolution*. 'It is from Letchworth and Hampstead, from Woodlands and Earswick, as of course from the old-world villages they continue to renew, that we may best learn to house our people in moderate numbers to the acre, and with the most essential conditions of health for children, wife, and man.' *Cities in Evolution* (1949) page 68.

Strathclyde, T-GED 22/1/334.1.

***Freudenstadt* Detail**
99x137cm
Freudenstadt, Baden-Wurttemberg, Germany, was historically a centre for protestant refugees and latterly, a spa and health resort known for its high altitude and proximity to the Black forest. In the 19th and 20th centuries, visitors included George V, the Queen of Sweden, John D. Rockefeller, and Mark Twain. Note the geometric clarity of its centre, which imposes itself upon the region. The centre of this plan is reproduced in *Cities in Evolution* (1949) page 183. Caption: 'Freudenstadt in Germany in the 19th century, a city of protestant refugees.'

Strathclyde, T-GED 22/1/1052.

Turin (1906) Cities Exhibition No. 278.
Compare to the plan of Turin reproduced
in *Cities in Evolution* page 169. 'Note the
plan of Turin, as the best example of a
great modern city which has retained its
Roman lay-out, and continues steadily upon
its historic lines. The layout of Turin as an
outpost camp of expanding Rome 2000
years ago, viewed in the face of a series of
plans, from camp to capital may be seen
as a single oscillation of history.' *Cities in
Evolution* (1949) pages 168-70

Strathclyde, T-GED 22/1/1583.

Piazza Vittorio Emanuele, Piazza Castello, and _Ponte Sul Po e Piazza Vittorio Emanuele,_ Turin.
Three 19th Century engravings of Turin street scenes. Compare to the aerial view of Turin reproduced in _Cities in Evolution_ page 169. Geddes showed city views with city plans in order to visualise how people occupied the spaces represented in plans.

Strathclyde, T-GED 22/1/1585.1&2 (top two).

Edinburgh (bottom).

PIAZZA VITTORIO EMANUELE

PIAZZA CASTELLO

PONTE SUL PO E PIAZZA VITTORIO EMANUELE

Gerardimontium, vulgo Gheertsberghe

It was critical for Geddes to visualise the relation between city and region, hence this regional view or valley view of the city. Unless it was visualisable, this relation would be an abstraction. Reproduced in *Cities in Evolution* (1949) page 183 as 'Oudenarde, Holland in the 18th Century', caption: 'These examples show the civic magnificence of the democratic cities of the Netherlands'.

Strathclyde, T-GED 22/1/1652.

Berlin (1910) Detail
142x113cm

'Berlin has been overtaking Paris throughout the last generation; and the designs of its latest town planning competition (1910) shows that it is following the example of Vienna in dealing far more boldly with its outlying suburbs than are Paris, London, or other great cities.' 'Dresden, Munich, Berlin, Leipzig, Dusseldorf each had its own civic exhibition. ' *Cities in Evolution* (1949) pages 22-23 and page 77

Edinburgh, A1.58
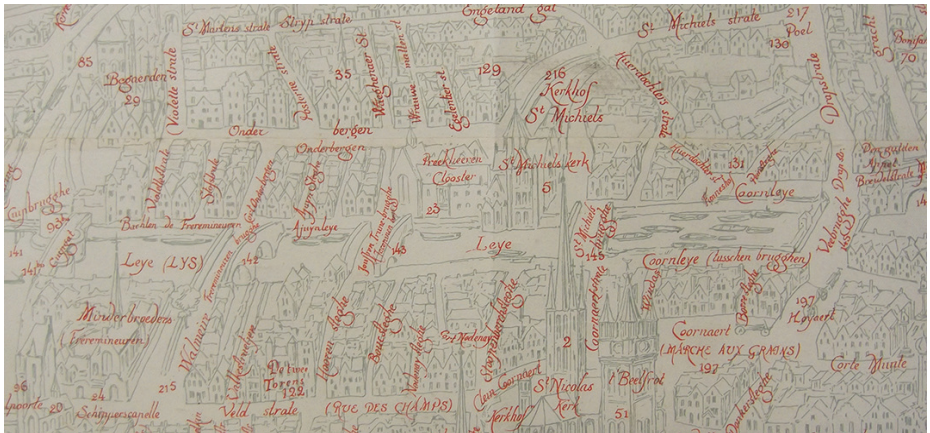
Ghent **(Ganda Gaillie Belgice Civitas Maxima 1434) Detail. Cities Exhibition No. 1002A**
172x87cm
Reproduction of a drawing or wood engraving of an aerial view of *Ghent* and the surrounding countryside, the so-called Ghent 'frieze'. 'That the study of historical cities, of Edinburgh or Chelsea, of Paris or Ghent, may thus yield fresh results, may be readily accepted.' *Cities in Evolution* (1949) page 94.

Edinburgh, A1.26.B.

Edinburgh

Aerial view looking west, ca 1450, ink and watercolour by Frank C Mears (1910). Many of Geddes' city views situate the city within its region - an aim they share with the valley section. Geddes argued that the relation of city to region was critical. Reproduced in _Cities in Evolution_ (1949) page 172, with the caption 'Mediaeval Edinburgh from Salisbury Crags'.

Edinburgh, A.2.24.
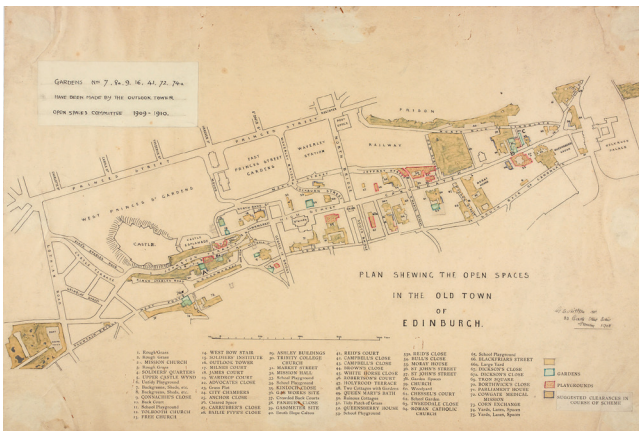
Edinburgh
30x21cm
Photograph of 'Plan shewing the open spaces of the Old Town of Edinburgh'. Geddes was interested in recuperating the green spaces of Edinburgh for recreational and domestic use. To this end, he advocated what he called conservative surgery, making minimal strategic cuts in the city fabric so as to 'aerate' the slums for the wellbeing of its inhabitants.

Edinburgh, A2.146.

Colophon

Cover Image: Detail of *Nehemiah Chap. III.* Strathclyde, T-GED 22/1/1697.

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