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BIOTECHNICS

THE PRACTICE OF SYNTHESIS
IN THE WORK OF
PATRICK GEDDES

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BIOTECHNICS

The name Geddes has made three impacts at different times upon the minds of British people. There was Jenny Geddes who threw a stool at the head of the preacher in St. Giles' Cathedral, 1637. There were the brothers Sir Aucland and Sir Eric Geddes, chiefly associated with axing civil servants, though one of them wrote a remarkable book. And there was P.G.—Sir Patrick Geddes (who might, incidentally, have sympathised with both the stool-throwing and the axing, though his own methods were different) whose thought and activity have had far more effect than many people realise—though many would recognise some of it as found in the influential books of Geddes' devoted follower Lewis Mumford. Such words as 'conurbation' and 'megalopolis' are to be heard or seen almost daily now, but those who can trace these words to their origin in Geddes are still few.

Sir William Holford, then President of the Town Planning Institute, said at the Geddes Centenary in 1954 'The Greek epigram on Plato is applicable to him: "Wherever I go in my mind I meet Geddes coming back"'. Another professor at that time compared him to Leonardo da Vinci, and in 1924 he had been called 'a modern Michelangelo'. He has also been compared to Aristotle. This is clearly very odd, and we shall have to try and unravel it.

For much of the factual background of this lecture I am of course, as all interested must be, particularly indebted to the published work of Amelia Defries, Philip Boardman, and Philip Mairet. I have talked with many of the dwindling number who knew him personally. I remember vividly how, when I spoke of Geddes to the late Sir Patrick Abercrombie (whose post-war plans for London were not taken sufficiently seriously), his face lit up and he exclaimed 'He was my master!'.

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It is of particular interest for our series of New Atlantis Foundation lectures that it was this many-sided but elusive thinker and man of action, Sir Patrick Geddes, who was invited by Dimitrije Mitrinović, the Founder of the New Atlantis, to be the first President of the New Europe Group, which came into existence in the years immediately after the General Strike of 1926. They had met in 1916, according to Mr. Philip Mairet, who brought them together because of the immense importance he attached to them both; and Mitrinović constantly drew attention to the significance and potentialities of Geddes' way of looking at man in society and in nature. Geddes, for his part, was stimulated and interested by what he found in this group, and in a letter of 1931 wrote

'I have been particularly stirred up by your society—the most helpful and exemplary I've come across in London'.

And in another letter he stressed how much he saw the need for the kind of psychology (principally that of Alfred Adler) which had been the study of the founders of the New Europe Group.

It might be possible—as indeed happens among the various relevant groups of specialists—to look on Geddes as the father of town-planning, or as a notable biologist, or as a sociologist with a strong practical bent, or as one of the leading British exponents of Anarchism. In fact he was all of these. Sir William Holford quotes Israel Zangwill as saying, after a visit to Geddes: 'Obviously it is his architectural faculty that has saved him; there stand the houses he has built, visible, tangible, delectable, a concrete proof that he is no mere visionary'.

By training he was primarily a biologist—though he had walked out of the department of botany at Edinburgh University after only one week. He spent some time under the great Huxley at the Royal School of Mines (now part of Imperial College) and after rebelling at the formalism of the examination system he succeeded after a year in getting into a course in biology. In his first attempt at research, encouraged by Huxley, he proved the famous professor wrong. Huxley was generous enough to publish this paper with credits to his pupil. Geddes did some work at Kew Gardens, had a look at the Science Department at Cambridge and did not like it, thought of going to work in Germany, but accepted a post as demonstrator at University College, London, where he

had one meeting with Darwin. During this time, we learn, Geddes made his discovery of the presence of chlorophyl in some of the lowest animal species. He over-worked, and was sent to Brittany, where he was inspired by the Marine Biology Station at Roscoff. Through Huxley he had thus become introduced to French life and thought (Geddes regarded this as 'an inestimable service'), which was of permanent influence on his work. He moved to the Sorbonne in Paris—this being at least the fourth of the universities with which he was connected. Later, with his best pupil J. Arthur Thomson, he was to continue his contributions to biology in the authoritative works on 'The Evolution of Sex' first published in the U.S.A. and 'Life—Outlines of Biology'; and himself to write biological articles for the great encyclopaedias.

After a succession of University connections from none of which did he obtain a degree, he held a lectureship at Edinburgh for nine years, and it was as a Professor of Botany that he had his one senior academic post. Apart from the extraordinary phenomenon of a professor without a degree, this appointment at University College, Dundee, (part of the University of St. Andrews) quite near his childhood home of Perth, was also remarkably enlightened and fortunate, since he had to be there only in the summer term. That post he held for thirty years. It is perhaps not quite so surprising that he got it, if we consider that his application was a pamphlet of 100 pages listing his publications and experience and supported by a small army of academics including Darwin. There are many fascinating details about all this, which can be read in the books about Geddes, and his farewell lecture in 1919—'Biology and its Social Bearings: How a Botanist looks at the World'—has been reprinted and should be read and re-read as a classic statement of the organic way of thinking about human problems. It is difficult to resist quoting from it at great length. Perhaps these extracts, even as abbreviated, will give some small idea of its maturity of thought.

'To begin with botanists, even at their driest and worst, they were more reasonable than they seemed, and more practical also, for "all knowing is classifying".'

'The herbarium of Linnaeus—of dried plants, well arranged and labelled—and his System of Nature is the first great landmark

in the modern history of the Natural Sciences, botany and zoology.

‘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 depending 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 the coins. Whereas 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. Moreover, the leaves made the coal: coal is but plant-life fossilized; and hence the coal-miners are the modern masters of Energy. Not so long ago these men were literally sold with the mines—they were thus actually serfs, if not slaves, until the 19th century; but now, in the twentieth, they are claiming a directive share in the energy they set loose. From the fossil-leafage which they deal with, has come the past industrial revolution, and now is threatened another.

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‘The Germans, like the machine and money worshippers at home—for this Darwinism is really an economic theory—say the world is one of “tooth and claw”; but there were some of us who had tried also to “consider the lilies, how they grow”. I sincerely believe that the author of that saying knew and meant what he was saying, and that as literally as we do!

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‘You see, the Catholic reads this verse, so he cuts the lilies, and puts them on the altar; then the Protestant comes along and throws them out! That is too much as yet the history of Christianity. But this very science of Botany, in which both types of would-be Christians have seen so little, is left alone in its centuries of endeavour seriously to obey this counsel, to consider the lilies and find out how they grow. See here how tall and strong this one is growing, seeming to be using all its energies for itself. But next see how this one is going through a conversion, for there are the buds; and this one in bloom is now living for its species—flowering magnificently, and so also now only fully individualizing itself in blossom. And its

“purity” is the very opposite of the sexless misunderstandings of the past. It is the fullest splendour and frankness of sex in nature, naked and not ashamed.

Turning now to philosophy in general, we may be thankful for Bergson, his ideas and outlook. For from it we may look back on the great war as a culminating dispute between the German philosophers of the state, and the French philosophers of Freedom and Life, in the course of which their audiences fought, as audiences so often used to do in the debates of old. Yet what is Bergson’s *Elan Vital* but an appreciation of how flowers grow? Our older theories were more of how artificial flowers got put together, or how anglers’ flies were dressed: mechanical beautiful, no doubt, but not real flowers or flies!

‘Here in this garden the collection is small as gardens go; for we keep nothing here which will not actively grow. Some, as you see, grow here till they make a wilderness—but this, too, is “life more abundantly”. Thus, too, you can see in the garden outside, how Bergson’s doctrine of “Duration” is an escape from thought of time as mechanically told by the clock, to appreciation of the phase and quality of growth to which each living thing has come.

‘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.’

This may be enough to suggest the manner of his thinking. But the biological, the organic, can be traced much further, in the application of his thought to civic planning—the growth of cities to be seen as comparable to other forms of life—and to sociology, where his triad of PLACE—WORK—FOLK is explicitly related to the biological triad of ENVIRONMENT—FUNCTION—ORGANISM.

One further extract from his lecture may be added here:

‘Madame Montessori has shown how writing and arithmetic can be far more rapidly taught than at present, still more all subjects of vital interest, and so of education proper. Instead,

then, of starting with the three "R's" we substitute the three "H's"—Heart, Hand and Head—for in that order they develop. 'But the mistaken and perverted order is still prevalent, and still authoritative; and beginnings like Madame Montessori's, or our own at the Outlook Tower—of course with its complementary Inlook—are still far too few.

'People laugh at Madame Montessori's sense-training: but it has to go farther yet. The eye is predominantly important for this intellectual life (Do you see?) and the ear for emotional appeal (He that hath ears to hear—). Odour is deeply related to memory, and taste to good taste, and thus to character; and touch to realism and sympathy. The muscular sense is related to mathematics and also to music: and the orientation sense is related to morals and character—"steady" and "well-balanced", "giddy" or "unbalanced", as we commonly say. And as senses are thus deeply related in life, so with our ideas, our whole personality and powers.

'Hence we must cease to think merely in terms of separated departments and faculties, and must co-relate these in the living mind; in the social life as well—indeed, this above all. Thus emotional education involves Re-religion, and this Re-politics, of which civics is the best beginning. Intellectual education involves general and sensory, imaginative and artistic education: Re-education, Re-creation, and thus Re-construction and the conception of Culture in its literal sense, of "to cultivate". Thus, then, we are reaching a re-classification of our ideas and our ideals with them. Each science is thus associated with its related arts and crafts, from simple occupations to complex ones.

An illustration to the Dundee farewell lecture

a. { Physics Esthetics	to { Mechanical Industries Arts & Crafts
b. { Biology Psychology	{ Hygiene & Medicine Education
c. { Sociology Ethics	{ Government Religion

'In such ways again we come to see that material and spiritual becomes at one! Ethics and politics thus unite into Etho-Polity, which, despite all discouragements and setbacks and appearances to the contrary, is none the less the coming polity. So with education, not merely with bio-psychology; but psychobiology, the sound mind maintaining the sound body. 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'.

Anticipation of changes which have since entered into University thinking will not be missed here. Geddes strongly attacked the departmental separatism of university organisation. It may be seen as a late fruit of this thinking that the first of the new wave of British Universities after the last War, Sussex, abolished the idea of departments from the start.

From the brief outline and extracts given, we can begin to see the wholeness of this man's many-sided activities, in fields which are often considered as quite unrelated. And when we remember that one of the greatest spokesmen of anarchism, Prince Kropotkin (who has been described as one of the two saints of the nineteenth century) was also a biologist, we find a clue to that much misunderstood way of thinking, in the idea of natural growth 'from the roots up' and natural relationships of units into colonies of units, as against centralism and any form of imposition of order from above.

As Geddes put it:

'Go back to Nature and life; to the Soil and its resources; to the Home and its sacred immemorial associations; to the true city, which reconciles all the elements of a rich and genuinely human existence. Then federate your Cities into a State, every part of which enjoys Home Rule, is itself a living organism, and no longer a mere duct feeding the Capital or the Capitalist, whose aims are more money or more pleasure. Oppose to the "predatory" Empires the land that nourishes its people'.

He would have seen and wished for the Europe of the future to be not a market based on a few nations only, but a complex



multiple federation of regions, and of guilds both industrial and cultural—a grand enlargement of that Central European country, Switzerland, which happens to have evolved what is perhaps the best *political* constitution, but incorporating also the healthy rural-urban, agricultural-industrial balance and the cultural creativity of the ancient Greek ‘city State’.

The city for Geddes was the essence—the place not merely of the market and the parliament or palace but also the cathedral and the university. In this sense he envisaged a radiant and healthy equality between the regions of our own country, none dominating, none unhealthily over-specialized (as our own industrial areas unfortunately became during the first Industrial Revolution).

The detailed application of this vision was carefully worked out by an admirable geographer who was one of our own Patrons, the late Professor C. B. Fawcett, in his book ‘Provinces of England’, published in 1919 and re-issued in 1960.

Problems of Welsh Nationalism and Scottish Nationalism would fall into place if Fawcett’s twelve Provinces of England, or something very like them, were fully realised—as would problems of nationalism everywhere if Geddes’ ‘Devolution in Federation’ and ‘Federation in Devolution’ were carried out *on every plane*—political, economic and cultural.

He had of course, particular reason for his awareness of these issues and their underlying realities. His wise father, Captain Geddes, was bilingual in English and Gaelic, and when the family moved from Ballater to Perth young Patrick had the stimulus and educational advantages of a fine small city at the very hub of Scotland, a rich and varied natural environment, and a father who knew perhaps instinctively that the most lasting educative experiences might be those of activity in making things grow in the garden. His walks and rambles showed young Geddes the determining nature of the lie of the land and its resources, and he saw the skills of the different craftsmen and artisans arising from the nature of their work but then reflecting back on it to change even the environment. ‘Holland made the Dutch. Yes, but the Dutch made Holland’ was one of his later observations about this.

To take a telling example in which Geddes showed the way but failed to win the support that might have avoided years of bloodshed and suffering—the case of Cyprus—where he tackled

a problem arising from the Armenian refugees who had escaped persecutions in the Turkish Empire. When we look at Cyprus, what are the facts resulting from the simplest survey (and remember that a key to Geddes' method is to start always with the survey—'diagnosis before treatment')? As a background to the troubles of our own day we see, even without going there, that we have the case of a fairly large and well populated Mediterranean island, with a majority speaking Greek a very long way from Greece, and a minority speaking Turkish within sight of the Turkish mainland. That is enough for a start to warn one of the kind of trouble to be expected. But look into the geographical setting more closely, as Geddes did, and what do we find? An island situated near the centre of a standing geo-economic problem affecting a considerable population in all the Eastern Mediterranean lands—the problem of irrigation. What Geddes said was the need of Cyprus 'is not for British civil servants but for the geologists, water engineers and agricultural scientists of all interested countries, with powerful international backing, to move in on this problem and tackle it using Cyprus as a base. If Britain wants to be specially involved let her set up the Institute and send some good scientists'. This could become not only a prototype and pilot scheme, but a working base for the solution of irrigation problems in the whole Eastern Mediterranean area; thus, also the island would be revived and dynamised into a new collective purpose, in which the claims of rival nationalists would have to sink down. Many British as well as Cypriot and other lives might have been saved by this, and the whole economic and social development of the Eastern Mediterranean speeded up.

By his actions in Cyprus Geddes did in a very short time solve many of the problems of the 600 Armenian refugees who were his reason for going there. But note that his actions included buying a farm there so as to work out a solution to some of the environmental problems, and also re-enacting the miraculous performance of Moses' rod by striking the rock so that the water (which was trapped within it) gushed forth.

May I now try to put simply and clearly what are the underlying concepts of Geddes' approach to the problems of man in his environment — admitting all the risks attendant upon simplification.

Every human being, wherever located, is in a threefold relationship to existence, and it is this. He is related to his environment by its situation, whether north, south, east, or west by longitude and latitude; whether in frigid, temperate, or torrid zone; whether near an inland sea or the great ocean or deep in one of the great land masses; whether on rich arable or bare rock, in scrub or in forest. This is his *economic* dimension. Secondly, he is related to those other human beings who share the same environment, and possibly also others, more distant, who do not. This is his *political* dimension. But wait, you may say, what if he is Robinson Crusoe? The answer is that the lack of fellow-humans is just as much a feature of his political situation as the complications that arise from their presence. Thirdly, there is still part of his life unaccounted for, when we have paid full attention to the economic and the political. It is what is going on in his own mind and heart about it all, and about the thought and feeling of his predecessors. Some would describe this third dimension as his relation to God, others as his relation to values—but however we conclude about that, he has this *cultural* dimension.

Now the sciences of the first two are geography and economics, and of the third is anthropology. They give us the techniques of studying—Geddes' monosyllabic triad of PLACE, WORK, FOLK. In fact he relates Place to geography and to politics—as our constant need to refer to maps about the affairs of Czechoslovakia, Vietnam, Nigeria or Northern Ireland may illustrate.

Then there is another way of working 'from the ground up' which Geddes has shown. He called it "the valley section", and showed how you start up in the hills, where rivers are born, and you will find, as you go down to the sea, the following basic human types: the miner, the woodman, the hunter, the shepherd, the poor peasant, the farmer, the fisherman. This sounds perhaps a tame enumeration—but Geddes builds up on each a fascinating delineation of typological characteristics, entirely concrete and richly illustrated both by individuals and by cultures and civilizations. It is one of the most stimulating parts of his sociology—far removed from the number-crunching of a great deal of what goes under the name of sociology in these computerized days. The richness of Geddes' insights into the organic connections all

the way from the environment to the culture is an outstanding example of synthesis.

This scheme of the valley section shows the concreteness of his thinking, as well as of his inventiveness. It has often been told how when his health broke down through overwork on biological research in Mexico, he temporarily lost his sight. His active brain used his fingers and he found them tracing out the simple grid pattern of the panes of his window. Imagine it starting in this simple way: three squares along and three down. He began to fill these squares with inter-related triads, in his mind's eye. He became fascinated with squares—incidentally soon after this he became a good chess player. Then he made more, many more, such grids and elaborate variations on them by folding paper. He called these his 'thinking machines'.

They led to a series of diagrams of ever increasing comprehensiveness culminating in the superimposition of four of these nine-fold figures upon a fourfold plan derived from Auguste Comte; so that starting from Place, Work and Folk we end up with a morphological attribution of the Nine Muses.*

Trouble with his eyes had this effect, so well stated by Philip Mairet: 'Baulked of further insight into the microscopic aspects of life, he turned to the macroscopic organizations of whole cities, societies, and regions'.

It is a mark of the exceptional quality of Geddes' thinking that it shows this characteristic—often a mark of genius: the essentials of it are present from the beginning, not gradually acquired as a result of possibly random experience. I have three of the earliest pamphlets and among the earliest publications of Geddes, dating from 1884 and 1888. One is on an economic subject, one is on a political subject, and one on a cultural subject, thus representing the three hypostases of life. In 'Principles of Economics' this young biologist in 1884 (it was in fact a lecture to the Royal Society of Edinburgh) says:

'When we add up the aesthetic subfunctions of all "necessary" ultimate products, and add to this the vast quantity of purely aesthetic products, we see how small the fundamental element of production has become in relation to the superior, and reach

*See illustration on page 24 and description on page 13.



the paradoxical generalisation that production, though fundamentally for maintenance, is mainly for art.'

In 'Co-operation versus Socialism' (1888), where he stays near this theme but is of course primarily concerned with the political question of how to organise this aspect of life, he says:

'No theory of consumption exists at all'
and recommends that we

'begin with the study of the consumption of wealth'.

He has this to say about a problem which is very much upon us today:

'So long as the workman who strikes so readily for a rise or against a fall of wages submits patiently to the increasing unwholesomeness of his material surroundings or resents all outlay on their amelioration, it cannot be said that the realities of wealth have as yet been really discerned behind their symbols by either capitalist or labourer.'

Indeed this is not just one of our current problems, but two: strikes and pollution. Geddes' concern about the end-products of life, what we do with our earnings and our opportunities shows in the third of these early pamphlets, 'Every Man his own Art Critic', also of 1888. In the course of this very comprehensive essay, in which he writes of the clash between the Hellenic and the Hebraic ideals, Geddes says:

'The strife had still to fall to its present level in the "hardly human abjection" of our modern city . . .'

Thirty-four years later, in another very rare pamphlet—this one a more substantial publication reprinted from 'The Indian Journal of Economics'—we find him, under the title 'Essentials of Sociology in relation to Economics', showing how the facts of Place, Work, and Folk—Environment, Function, and Organism—are studied through their sciences of Geography, Economics, and Anthropology. This threefold analysis and synthesis is to be found in the work of Frédéric Le Play as 'lieu, travail, famille'; but, as we shall see, Geddes did not leave Le Play's work where he found it. In this same document we find Geddes' statement of

the foundations of sociology in the work of Auguste Comte (who invented the word). Comte* sees a basic distinction between the temporal and the spiritual, which shows very clearly in his fourfold analysis of essential social types. As transmitted by Geddes this appears in square form against an equilateral cross, with upper left PEOPLE, lower left CHIEFS, lower right INTELLECTUALS, and upper right EMOTIONALS. In Geddes this diagram is not static; it corresponds to his own nomenclature of ACTS, FACTS, DREAMS, DEEDS which because of the arrows down, across, up, and then across again, appears to be in a state of constant motion.

What in fact Geddes was doing went much further than this, because in a masterly synthesis of the work of the two great but otherwise separate French masters he combined this essentially theoretical sociology of Comte with the highly practical invention of the engineer Le Play—which was to get at the facts by seeking them out right into the home of the worker, through the medium of the family budget. Le Play thus became the originator of modern statistical survey methods in sociology (though, as Miss Gladys Mayer has pointed out, an early form of statistical survey was known even in Roman and Egyptian times) and Geddes had nothing against this.

One of Geddes' sociological insights which has borne fruit is his analysis of the Industrial Revolution into two quite distinct phases. Borrowing neatly from the terms of archeology he called *Palaeotechnic* the period of the first coal, iron and steam revolution—characterized by massiveness and a rather crude and not very efficient display of power, often accompanied by ugliness and squalor. This was succeeded by the *Neotechnic*—characterized by electrical power and the use of glass and light alloys in construction, thus leading to clearer and brighter buildings and also the freedom to create industry wherever it could usefully fit, and not only close to the coalfields or with access to them. Lewis Mumford in his classic study 'Technics and Civilisation' showed the need for identifying a much earlier period of technology, which from antiquity had made use of the natural elements of wind and water to provide power. This dawn of technology he appropriately

*See Ninth Foundation Lecture 'The Order of Mankind as seen by Auguste Comte' by David Shillan.

called *Eotechnic*. Geddes may have failed to look back as far as this, or to see the need for classifying it as a separate period, which it is, but his eye was very much upon the future. He saw us well into the Neotechnic period, but to him this, like the Palaeotechnic was only a bridge. What he was pressing towards was the *Biotechnic* age—the time when life values should predominate over money or any other purely material valuation. Moreover this would signalise the predomination of living thought over the dry intellectualism associated with the Neotechnic period. Beyond or perhaps synonymously with the Biotechnic he saw the *Eutechnic*—spelled with Eu- by analogy with the spelling he always used for Eutopia, for he pointed out that Sir Thomas More left it to us to decide whether we should move towards Outopia (No-place) or Eutopia (Fair-place). And in this last Geddes firmly believed. He considered it practical to work for 'Eutopia now'.

Geddes had the happiest touch with words, and found ways of using them that counteracted any tendency for them to go dead. He used 'politography', 'politogenics', and 'eupolitics'; and in a famous passage on the decline and fall of cities he said:

'In all the great cities—especially the great capitals—London, New York, Petrograd, Berlin and Vienna, Paris and so forth—you have in progress the history of Rome in its decline and fall. Beginning as Polis, the city, it developed into Metropolis, the capital; but this into Megalo-polis, the city overgrown, whence megalomania. Next, with ample supply of "bread and shows" (nowadays called "budget") it was Parasitopolis, with degeneration accordingly. Thus all manner of diseases, bodily, mental, moral: hence Patholo-polis, and finally, in due time Necro-polis—city of the dead, as its long-buried monuments survive to show.'

One can only comment—see Piccadilly Circus today.

Mention of More's 'Utopia' reminds us of another excellent illustration of Geddes' practical effectiveness when he could get his own way. Every time we go along the Chelsea embankment and enjoy the splendid XVth century fabric of Crosby Hall, (which is even finer inside than outside) we should be grateful to Geddes. That Hall was standing neglected in Bishopsgate

where it was all that remained of Sir Thomas More's great house, once a palace of Richard III. Geddes saved it from destruction by bankers and got it transported bodily to the site of More's garden at Chelsea, where it serves a thoroughly Geddesian purpose as the refectory for a hall of residence for university women, and as the setting for artistic events.

To recall briefly how Geddes, with immense dynamism, started to carry his ferment of ideas into practice we have to go back to the beginning of the century. His way was to seize an opportunity and turn it into an example. Andrew Carnegie had left some of his vast fortune for the improvement of his native town of Dunfermline. Geddes was invited to make suggestions for development for a park and appropriate buildings around it. The resulting proposals can be studied in the substantial volume called 'City Development', published in 1904. It is one of the foundations of the modern art and science of town-planning, for which many people all over the world still turn to this country. In Edinburgh Geddes and his wife and associates were building up a new type of civic museum in the Outlook Tower on the Castle Rock, with a camera obscura as the summit and starting point, giving as it does what Geddes often referred to as 'The Synoptic Vision'—and giving it in rich colour too, so that it is the artist's vision rather than the scientist's which comes first. The museum below led one from the local to the worldwide, by the imaginative use and logical arrangement of a surprising variety of exhibits. But all around were some of the worst slums in Britain, in the abandoned houses of the former great families of the Royal Mile, their descendants now so much better housed by the Adam Brothers and other master architects in the New Town. So Geddes and his wife moved into one of these tenements and proceeded, by doing it, to show how they could be transformed.

This is an example of what the late Prof. Fleure in a lecture to us before the New Atlantis Foundation was set up, called Geddes' 'teaching by action'. That work is still going on today, and the results are worth seeing. Then he opened people's eyes to the wonderful heritage of Dublin, and showed the way to practise his 'conservational surgery' there, where he was the guest of the Viceroy, while tackling some of that city's housing problems.

This he saw, as we can see in Belfast today, was a considerable factor in political unrest.

The Outlook Tower on the Castle Hill at Edinburgh—'the world's first sociological laboratory', as it has been called—has been allowed to fade and die, though the camera obscura in its turret can still be visited, and should be. The loss of this type museum is a serious one—though many of its implications have been followed up in other places and other contexts. There are indeed within a hundred yards of it two examples of the saving and transforming of fine old town houses that were degenerating into slums. At Gladstone's Land the Saltire Society keeps one of these tall old mansions in good condition for the display and study of many things Scottish; and at Lady Stair's house there is a good museum of the three popular Scottish classics in the field of literature, Burns, Scott and R. L. Stevenson. But neither of these comes anywhere near making the points that the old Outlook Tower made so brilliantly by its synthesized presentation of all sides of life within their environment, animate and inanimate. What is lacking is not the artistic element, or the historic, or the antiquarian, but the scientific—the very morphology of life, that becomes living and real by the correct juxtaposition of diverse and interacting elements that reveal life as organism.

Geddes' contribution to educational thought and practice is a big enough subject for a lecture in itself. Here I will refer only to his influence on the teaching of geography, which has been completely transformed in the last half century, and to his successful advocacy of survey methods as part of school work. This has many applications, and Environmental Studies are now a recognised feature in schools. In one branch of more advanced geographical work Geddes has stimulated the studies of 'Human Geography', particularly pioneered by the French, and his is one of the first voices to call for the study of the Earth as the Home of Man. The idea of 'Tracing History backwards' by taking the children, say, to the Parish Church, and getting them to think and ask questions of how it came to be there and to have acquired its various architectural features, is another example of a 'subject' revived by Geddes' influence.

The Land Utilisation Survey of England was carried out with very considerable help from school children under the directly

Geddesian leadership of the late Sir Dudley Stamp. In the field of higher education two major features stand considerably to his credit; halls of residence, and (really Geddes' invention) summer schools—two features which we take so much for granted that we do not usually think where they came from.

It is perhaps worth recalling that Professor Frederick Soddy—co-discoverer with Rutherford of the possibilities of atomic energy and winner of the Nobel Prize for his discovery of isotopes—left his modest fortune not to the furtherance of chemical science, nor that of monetary reform (to which he had devoted the last part of his life) but to regional studies on the Place—Work—Folk lines developed by Geddes. And today we have the Frederick Soddy Research Fellowship in Geographical Sociology at the University of Sussex maintained by the Frederick Soddy Trust, which also supports many regional study expeditions throughout the world.

Geddes' last main activity was in connection with a very special university hall of residence, the Collège des Ecosais, which he established at the University of Montpellier, where he particularly appreciated the situation both cultural, with memories of Rabelais, and physical, with its synoptic view towards the Mediterranean, and where he set up a new small Outlook Tower. It was here that he was working mainly on ecological studies, a field now recognised as so vitally important, at the time of his death in 1932, shortly after receiving his knighthood from King George V.

During the later years of Geddes' life invitations had come from India, from Palestine, from Cyprus. It is a sad commentary that so many of the projects which he had worked out and got started have never been completed—such as the Jerusalem plan, making the most of the marvellous setting for the Hebrew University there. In India he accomplished much—but very much was left undone. Some of his vital work is contained in his various planning reports. That for the Maharajah of Indore is outstanding but there were a dozen or more others. Geddes' method is illustrated by his contribution to Malaria control. Instead of oiling the tanks to destroy the mosquitos and thus depriving the villagers of an important amenity, he stocked them with fish to eat the larvae and with ducks to keep down the fish. It is pleasant to recall the delightful episode, which has been more

than once described of how he cleaned up Indore by getting himself made, in effect, Maharajah for a day and staging a highly imaginative pageant for the festival of Diwali which included a great rat covered with highly enlarged fleas, and high distinction showed to the refuse-sweepers who were garlanded and honoured. The procession was to go along the streets which were judged the best kept. It is pleasant to see how Geddes had prepared for such a use of pageantry some time before, in Dublin, where he had organised a procession of eighty Irish mayors in their robes and chains as part of a pageant in connection with his Civics Exhibition.

It may be of interest to recall here what was said about him by Rabindranath Tagore:

‘What so strongly attracted me in Patrick Geddes when I came to know him in India was, not his scientific achievements, but, on the contrary, the rare fact of the fullness of his personality rising far above his science. Whatever subjects he has studied and mastered have become vitally one with his humanity. He has the precision of the scientist and the vision of the prophet; and at the same time, the power of the artist to make his ideas visible through the language of symbols. His love of Man has given him the insight to see the truth of Man, and his imagination to realise in the world the infinite mystery of life and not merely its mechanical aspect.’

One of the greatest setbacks of Geddes’ life was the loss of the ship, sunk by the raiding cruiser ‘Emden’, carrying his exhibition of cities (twenty years’ work) to India in 1914. But immediately he set to work and built up another. As he wrote to his wife at the time:

‘There is no doubt we are at the making of a new science, a finer geography, a more concrete and vital history—a more real interpretation of human life, and this in all its aspects, from economic to psychological and ethical!’

A loss from which he never quite recovered was that of his son Major Alisdair Geddes, described as ‘the best observer in the British Army’. Then came an even more crushing blow. His wife and constant working partner died.

Later Geddes did marry again, but his last years, though actively devoted, mostly to the developments of Montpellier, seem to have been saddened by his bereavements together with a realisation that so relatively little out of all that he was offering would be taken up and carried into effect, and that men were going on blindly in their old ways towards what might be another cataclysm.

Do we look on him, then, as in the end a failure? It must be apparent from what has been said that I do not take this view. Even if he sometimes failed to get himself properly understood and sometimes perhaps expected too much, the failure is on the side of those who did not take him seriously enough and quickly enough. If we face the question of whether the modern, new, world is still accessible to Geddes' approach and methods, the question is more difficult to answer. I cannot do better than quote two short extracts from that wise man and human scientist the late Sir John Russell, giving his farewell lecture to the Le Play Society, which Geddes had founded:

'So the towns expand and factories increase: people become more and more urban; more and more of the countryside is swallowed up. The late 20th Century townsman can have little sense of the original natural environment but only of an urban setting for his place of work, and a suburban setting for his house which is much the same everywhere though the designers of the modern new towns try to retain something distinctive of the natural features. The influence of the town on its environment spreads far outside its boundaries.

'In a broad way one can say that the old Le Play-Geddes formula—Place, Work, Folk—is still valid as the basis of sociological study. But the changes in place and work are so rapid that they have insufficient time to exert their full impact on the folk before they are superseded by some new change that may have quite different impacts. Change and change have always been busy, but never as busy as now, and they will be busier than ever in the future.'

We may see Geddes as directly in the great line of Carlyle, Ruskin, and William Morris, whose influence has been so profound and so far-reaching. More of a practical man than

either Carlyle or Ruskin though less of a writer than both, he seems to come nearer to Morris. Though less of an artist than Morris he perhaps avoids the touch of naivety which marks Morris' involvement in politics, great and noble though this was. Geddes never loses sight of the whole human problem but he does not look for solutions (or even the beginning of solutions) on one level, such as the political, alone.

His own criticism of Carlyle, Ruskin, and Morris, much as he respected them, was that they were too romantic. His own scientific and technical sureness in fact make him an even more effective champion than they were against the Leviathan that was already threatening us.

Time is lacking now to speak of Geddes' work with the Sociological Society, but this has left us books and articles by the Branfords and others.

A synthesized statement of Geddes' mature counsel was published by the New Europe Group in the 'Thirties' and re-issued for his centenary celebrations in 1954. You may find it in what was probably the original source of William James' famous statement about 'The moral equivalent of war':

'In order to be ready for the New Order: The things we are to leave behind us are the selfishness of individualism and the present system of industrialism. Secondly, the centralisation which has destroyed local life almost everywhere in Europe, sacrificing everything to the tyranny of the great capitals and culminating in the State worship which is seen at its worst and strongest in Berlin. And, thirdly, the abstract intellectualism divorced from life and action, unhistorical and unprogressive, a culture of mummeries, not of growing and changing human minds.

'For this we are to substitute a new culture which is to be historical, looking back to beginnings and on to ideals; one that sees in the last century's great discovery of evolution no mere mechanical process of combative physical egoism, but a force in which altruistic impulses play their part as well as egoistic, and the struggle for individual existence rises into the culture of existence as a member of a community.

'And, above all, we are to substitute for the worship of capitals and the State a revived city and regional life, rejoicing in

variety, unashamed of provincialism, co-operating in friendly rivalry towards a rich growth of national life. This ideal can never be achieved where the State has seized upon the control of education and imposed an organised cult of State worship upon what should be the free and manifold spiritual life of a nation.' There follows the paragraph I have already quoted about building up a federation. He continues:

'Let the great teaching bodies and first of all the universities come into touch with life under its various beneficent activities. Break up the monopoly of London, send men to study the aspects and products of Nature in regions where they can be seen at first hand. Find equivalents for the hunter's passion, the war-instinct, in rude and noble tasks which call out these misused powers for the good of society. Let journalism learn its vocation, which is the daily priesthood of truth, not sensation and scandal-mongering and the advertisement of mischievous, trivial, or cheating information.

'The churches have their duty, also, which regards, and in the best annals of the past never neglected, the consecration of men's earthly life, here and now, to spiritual holiness. You must begin with "place, work, folk", and go on to "polity, culture, art". Never divorce these from one another, as men did in the 19th century; or if you do, the "place", will become hideous, the "work" slavery, the "folk" degenerate, the "polity", despotism, the "culture", vanity, the "art" vicious.

'You have brought your analytic genius to a stage where it acts as pure destruction, and is exploding mankind by means of its scientific achievements into a horror that has no name. Try now synthesis. The world of beauty has perished, or is perishing under your devilish inventions. Build it up again out of life, by the spirit, as the city of Mansoul, as reaching unto Heaven as the City of God.

'For this make free use of the public credit for social investments; but don't pay the tribute called "market rate of interest"; create the credit against the new social assets, charge it with an insurance rate and a redemption rate, and pay the bankers a moderate commission to administer it through their system of interlocking banks and clearing-houses; the present unacknowledged use of the public credit by bankers must be recognised

and regulated, and private profit must be subordinated to the new communitary uses.

‘And eschew the despotic habit of regimentation! Whether by Governments, Trusts, Companies, Tyrants, pedants or police; try the better and older way of co-ordination expanding from local centres through city, region, nation and beyond; so may the spirit of fellowship express itself, instead of being sterilised by fear, crushed by administrative machinery or perverted by depression. Again and again resist the political temptation to centralise all things in one metropolitan city; seek to renew the ancient tradition of Federation between free cities, regions, dominions.

‘Encourage the linkages of labour and professional associations across international frontiers; it is these that can quicken the unity of Western civilisation and bring forth its fruits of concord. Further, let our imperial bureaucrats cease from their superior habit of instructing the Orientals and try and learn from them.’

Let the following passage provide our conclusion.

‘Summing up: Aim at making individuals more socialised and commodities more individualised. To that end, let schools subordinate books to out-door observation and handicrafts; let teachers draw the matter and the method of education from the life and tradition of their pupils’ own region, as well as from the history and culture of mankind at large. Let universities seek first for synthesis in the civic life around them; and only thereafter in the pages of philosophy. Above all, let governing bodies learn, if not from the Churches, at least from the psychological and social sciences, the distinction between temporal and spiritual powers, and cease to play the double role of Pope and Caesar.’

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*Containing a full Bibliography.

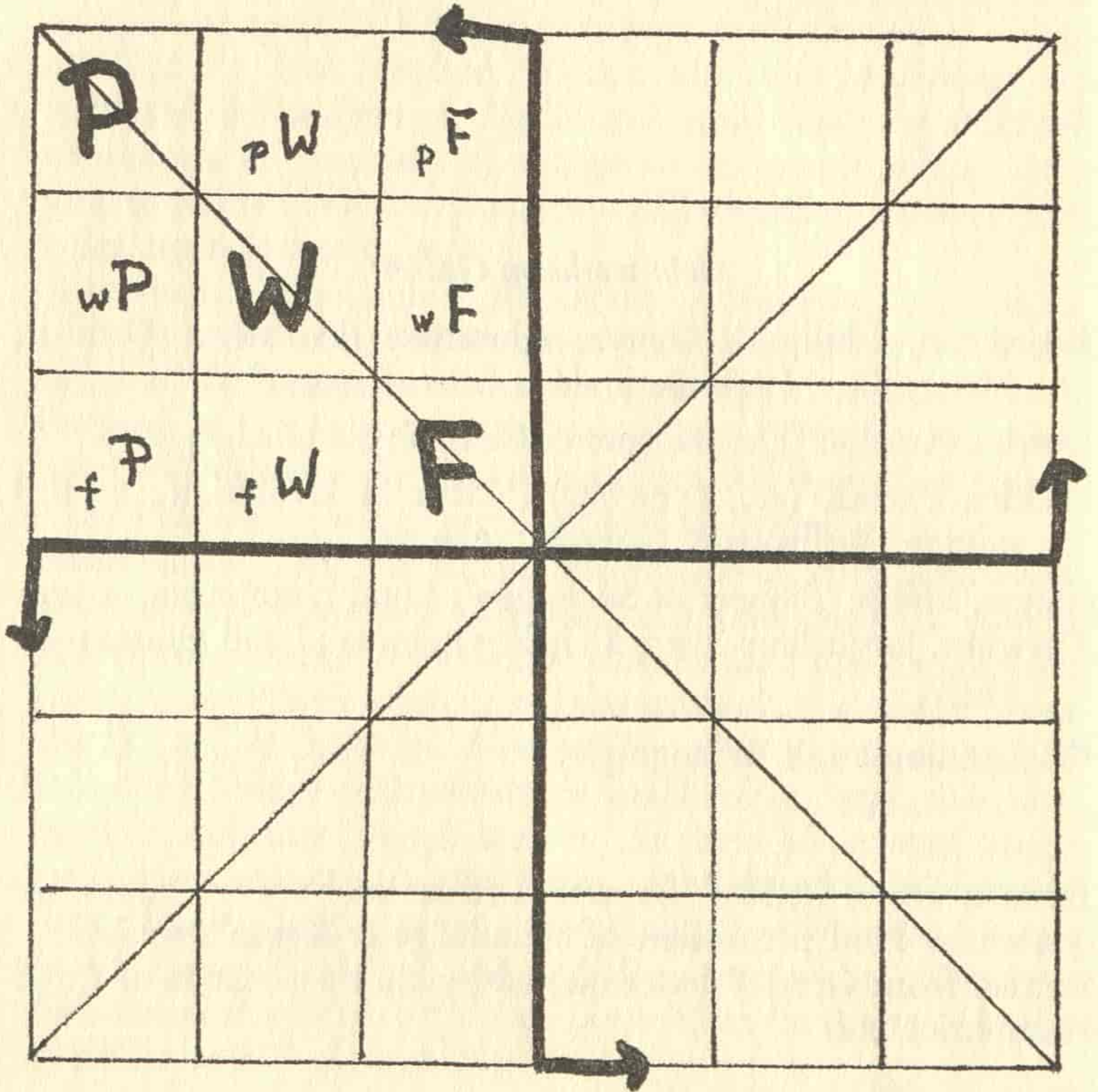
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ERRATUM

In the last paragraph, page 22,
second line, "commodities" should
read "communities".

Towards the Notation of Life

ACTS DEEDS



FACTS DREAMS

Place, Work, Folk, and their combinations in a 'thinking machine'



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