

SIR PATRICK GEDDES 1854 - 1932 :: 1 :: **GEDDES TODAY** "Geddes Then"





"Geddes Then"

OK you may say, but why all this talk about Patrick Geddes - who was this man? I might have entitled this piece, "A Most Unsettling Person" had that not been used previously as the title of one of the biographies of Geddes. Patrick Geddes easily answers that

has been termed the "worlds first sociological laboratory". It was based in some respects on the medieval way of life in Edinburgh but extending to the country beyond the city and the wider world.

He failed to gain the Chair of Botany at Edinburgh (a Regius Chair) and occupied the chair at Dundee University from 1889. This only required attendance for one term each year so Geddes was free for the rest of the year to develop his thinking in "civics" how towns and cities functioned – or how they ought to function – like other organisms he realised they needed to have healthy environments in which to thrive. He set out to spread this doctrine, about integrated communities, towns with countryside, cities and Conurbations (his word) in various parts of Britain and abroad, notably in India.

remarkable man, paradoxical and unorthodox, a professor with no interest in degrees, a scientist and artist who had experienced a period of blindness, whose Outlook Tower, to embrace a view of the world became a camera obscura show viewing the passers-by on Princes Street, who had met Darwin, Ghandi and Rabindranath Tagore.

Ian Kinniburgh

Ian Kinniburgh studied under Arthur Geddes - one of Patrick Geddes's son's - at Edinburgh University and visited the College Des Ecossais at Montpellier.



description. If I say that the subtitle of another biography describes PG as "biologist, town planner, reeducator, peace-warrior", you may begin to see the sort of character we have.

Some biographies still maintain that he was born in Perth, not Ballater! It is generally conceded nowadays that he was born in the Deeside town on 2nd October 1854. It is not known in which house and, with his father a serving soldier; it may even have been in the barracks. A few years after Patrick was born the Geddes's moved to Perth, where their house, Mount Tabor is still in existence and whence, eventually he went to the Academy. In addition to formal schooling, it is known that Geddes, from an early age was fascinated by plants and animals - he spent hours and hours botanising on Kinnoull Hill. As he grew up he initially wanted to be an artist but father put that idea out of his head (at least temporarily).

By now he was thoroughly into what became town (and country) planning. 1911 saw his great Cities Exhibition in Britain, the Continent and India. His doctrine of "diagnosis before treatment" clearly stems from his earlier days as a pure scientist as does appeal for "conservative (small c) surgery": analysis then synthesis, but "survey before alteration" springs more from architecture than biology. A story from PG's time in India illustrates his practical approach - in helping the people of one city to improve their surroundings, he insisted in being created "Maharajah for a day" so that he would have the power to order things to be done, things like cleaning the streets, clearing up black spots and so on.

His wife Anna had done much to encourage his latent



interest in the arts and music, and these [SEPT.'21, 1850. elements were now firmly in place alongside more scientific ones. His care in developing communities was now as much for their spiritual as physical health. At a time when scientists were becoming more deeply specialist, Geddes became more generalised. His ideas for wholeness were foreign to the scientists with whom he had previously been associated – it may be this that results in no trace of his name in many scientific biographies today – not being treated as a scientist. While scientists were gaining confidence through a basis of knowing more about less and less, Geddes was developing his ideas of whole communities working together, he was conferring with artists, musicians, and poets, mystics even – as well as other scientists. Practically attempting to design better towns, cities for people of all sorts, types and classes to live together in harmony. He stated, "our greatest need is to grasp life as a whole". The synthetic approach.

Above: From the "London Illustrated News" (c. 1850's). Queen Victoria and the Royal Party arrive at the Monaltrie Hotel, Ballater en route to Balmoral Castle.

View from the Old Bridge.

Note that the Old Bridge (replaced), Church (replaced), arch and houses in the distance no longer exist and the Hotel has been extended.



Charles Darwin Author of "On The Origin of Species by Natural Selection"



Rabindranath Tagore, Poet and Philosopher (Left) and Mahatma Ghandi, Indian Freedom and Human Rights campaigner

Above: From the "London Illustrated News" 1850 - Ballater Temporary Barracks. Patrick Geddes' Father, Captain Alexander Geddes, was posted here. Patrick Geddes may have been born here. The soldiers are standing in what is now the Church Green.

Then he went to Edinburgh University to study Botany, but he did not like the formal teaching of a subject he had already become familiar with on his own and he gave up after one week. With the firm idea that he wanted "to study life", Geddes went to London where he studied under T.H. Huxley. Later, while working at University College, he met Darwin and Wallace. He had also studied zoology in France where he had seen the aftermath of war and perhaps begun to think about social conditions. He was asked to set up a marine laboratory at Stonehaven for Aberdeen University. Now in his twenties and with a promising career in biological science before him, Patrick had a sudden illness, which left him blind.

No longer able to use a microscope, he began to develop abstract thinking techniques and from this point his interests developed into what were eventually to become the social sciences – the study of life from a different angle. His sight slowly returned – by now back in Edinburgh, he could at first work for only two hours each day at the University Botany Department. In 1886 he married Anna Morton and they went to live in the Royal Mile of Edinburgh – a very different

In 1924 he settled in Montpellier, an ancient university town in the south of France where he established an unofficial student residence which he hoped would become a Scots College (the Collège des Ecossais) for wandering students. In this he was harking back to medieval ideas, looking for unity among scholars who saw a wholeness in their studies and in where they lived with others from other lands. There were to be American and Indian Colleges too.

His work in planning was recognised in India, where he had replanned fifty cities and in Palestine. "Where is Patrick Geddes?" someone asked, when being told "he is planning the New Jerusalem", the initial enquirer remarked on how sorry he was to hear that Geddes had died!

Below: Ballater from Craig Coillich 2003





The three doves symbol appearing at the top of these pages was Geddes's personal symbol.

"Geddes called them the three S's

and they stand for Sympathy, Synthesis and Synergy. Sympathy for the people and environment affected by any social remedy; synthesis of all the factors relevant to the case; and synergy - the combined co-operative action of everyone involved - in order to achieve the best result. The doves also represent peace. One of the most evocative sentences Geddes ever wrote is:

prospect from today – a slum area of the city. Here it People volunteer for war; and it is a strange and a dark superwas that he began his "neighbourhood and community" He died in 1932, having received a knighthood (for stition that they will not volunteer for peace'" services to education) in recognition of his work. A concept. He set up the first student hall of residence Paddy Kitchen, "A Most Unsettling Person" and in 1892 he established his Outlook Tower which www.ballaterscotland.com/geddes Ballater Geddes Project 2004 wishes to thank these organisations who have generously funded or supported this Exhibition or Project The Saltire SCOTTISH NATURAL HERITAGE **Ballater & Crathie** Aberdeenshire Asylum Pictures Ballater Marr Area SE Partnership Community Victoria Council BALLATER ⊌<u></u>≦্থ Society Council Week



By Leaves we Live Sir Patrick Geddes 1854 - 1032. Son of Ballater & International Scot

Initial Geddes Exhibition

A Geddes Exhibition for Ballater of five panels explaining the Project was exhibited in 2000 along with a supporting brochure. Arts workshops and country walks were held to complement the exhibition (pictures below) and the Exhibition has been dis-

played in Ballater and on a tour of libraries in the North East of Scotland. Some of our panels and materials were recently loaned to a Scottish Executive Event in Edinburgh to reward good planning where the Old Royal Station, Ballater was praised. The panels are permanently based in Ballater School to serve as teaching materials for our schoolchildren.

about aspects of the project. These pages are high on the list of viewers of this web site. If you have an interest in Patrick Geddes you may like to be listed in our Directory. If so, please visit it to see who is already there and what details you might like to give and then e-mail us.

Geddes Walkway

A Walkway has been initiated between the Old Royal Station and Ballater School. The route is mostly marked by lovely work done by Ballater School children inscribed on plaques. Many thanks to the children for

beautiful Ballater and the Cairngorms, Lochnagar, Morven etc. and the Cairngorms National Park.

Views from Geddes's Outlook Tower over Edinburgh













Arts Workshop: **Sculptor Gavin Smith** encourages wood carving



Country Walk: Andrew Manwell explains local geography





Sir Patrick Geddes Way At the initiative of BGP2004 the name Sir Patrick Geddes Way (possibly the longest street name ever?!) was given to a street of new affordable

housing in the east of Ballater, very much in keeping

Arts Workshop:

carving

Sculptor Kenny Munro demonstrates stone



their work – it is very impressive and is a pleasure for parents and children to see. Geddes was an advocate for the arts and education. (See Panels 3 & 9).



Ballater, Scotland -Kolkata, India **School Links** Again with Ballater School, the Project is pioneering International links. Patrick Geddes worked with the

famous Indian poet Rabindranath Tagore and helped plan an international university in India which still exists today (See Panel 7). Through a Project member

Kenny Munro contact has been made with the School of Art and Craft in Kolkata (formerly Calcutta) - Geddes worked there - to which links have been established. Tandra Chanda, a partner



in the school, came to Ballater School and BGP2004 resolved to create links using the Internet to transmit pictures, video and voice. BGP2004 proposed the acquisition of cameras to make this possible and Bal-



later Victoria Week has kindly gifted four of them. Our thanks go to Ballater Victoria Week for helping to enhance the school children's studies

A Ballater Geddes Project 2004 public consultation

Communications

Members of the Project have given numerous talks, lectures, held consultations and

kept the media informed of our progress.



For 2004:

Completion of started Project strands.

Return trip by BGP 2004 member and artist Kenny Munro to India (see panels 5-6 for reports and lovely pictures).



with Geddes' ideals - he felt that all should live in decent accommodation regardless of wealth.

Tullich Road Bus Stop and Shelter

A bus stop has been erected at Tullich Road at new housing to provide shelter to passengers and encourage an alternative to



the car. This would have appealed to Geddes, an environmentalist 100 years ahead of his time.



The bus stop bears the Project logo and a short biography of Geddes to inform passengers of their famous local son while waiting for the bus. Makes a change from advertising!

Geddes Web Site

A web site has been established at: www.ballaterscotland.com/geddes

to explain Patrick Geddes's importance and the Project's activities which features: Geddes informa-

tion, reading lists, links to universities and other sites, a very useful international







placing cameras on Craig Coillich hill, Ballater. The Outlook Tower on the Royal Mile in Edinburgh shows the city and surrounding area using a periscope to project an image in a darkened room. We have proposed to do the same here into the Old Royal Station Building and onto to the World Wide Web for educational purposes and to allow visitors and those unable to get into the hills to see them. The images would be available on the Internet, and, in the Old Royal Station by means of a steerable camera projecting its images onto a table there. We recommend a visit to the Outlook Tower in Edin-

Web Cam / Camera Obscura The Project has proposed to replicate the Outlook Tower in Edinburgh using modern technology by

This "Geddes Today" Exhibition.

Further artistic collaboration in September 2004 between Schools in Ballater, Finzean and India on the theme of "Rivers and Leaves".

Collaboration with various groups around Scotland and the world to celebrate the 150th Anniversary of Geddes's Birth.

The Ballater Geddes Project 2004 has run from 1999 to 2004. This exhibition is the culmination of our five year journey learning about Geddes, his life, his ideas and his practical actions and effects.



Although the Project itself formally ends this year some aspects will carry on, and we are sure that the impact of our Project on ourselves and others will resonate down the years because, as Lewis Mumford wrote:

"the work of Patrick Geddes and the tasks he set for himself as a solitary thinker and Planner have now become the collective task of our generation....his work goes on."





burgh to see the 150 year old technology in action or

you can view photographs taken from it by a Geddes project member at <u>www.ballaterscotland.com/geddes</u> remembering to substitute beautiful Edinburgh for

Right and above: Wood Sculptor Gavin Smith carves the posts for the Geddes Walkway in Ballater. BGP2004 Convener Sheila Potter admires the work

www.ballaterscotland.com/geddes







'Prophets are proverbially without honour in their own country, but even so the neglect or ignorance of Sir Patrick. Geddes in Scotland goes to an uncommon degree and throws a very disconcerting light on our whole national condition, since he was one of the outstanding thinkers of his generation, not merely in the world, and not only one of the greatest Scotsmen of the past century but in our entire history."

Hugh MacDairmid by Sheila MacLean

That was the verdict of the poet Hugh MacDairmid, who pointed to Geddes's refusal to specialise as one

of the causes of his neglect. Geddes was knighted for services to education; one of his biographers describes him as 'biologist, town planner, re-educator and peace warrior"; and he was also a sociologist, drama producer, university planner and landscape architect. That list is misleading, for Geddes's life was not without focus. He chose life itself as his subject and refused to subdivide it.

curiosity of his children about nature in the garden by being himself "head gardener".

Geddes adopted what for the Victorian age were unconventional but highly effective methods of



teaching. His children were taught at home, and he leased the Camera Obscura at the top of the High Street in Edinburgh and renamed it "The Outlook Tower". (Described by Charles Zeublin as "the world's first sociological laboratory.") Here he conducted groups, with a constant running commentary ranging over the history, geology, sociology, art, and geography of Edinburgh as The Outlook Tower, Edinburgh seen from the roof gallery and the camera obscura at the top, then ranging on the lower floors through a series of ever-widening exhibits about Scotland, the British Empire, Europe and the World. He pioneered the idea of Summer Schools (now adopted by many Universities), deliberately bringing together leading minds from different academic specialities. Later as he became more involved in town planning, he made great use of major exhibitions, being there in person as much as possible to talk the viewers through the exhibition (and much else if they gave him the chance!). He found books too restrictive. Above all he believed in active participation and endless discussion, with ideas flowing, and sparking yet more ideas, as the ideal of learning.

won there, too, a good while later, owed much to the Australians and, before them therefore, to The Evolution of Sex." "Grieve on Geddes"

"University Militant"

Universities should be free to indulge in the battle of ideas and do useful, practical things thought Geddes. PG liked the concept of "The University Militant" - the title of a book by American writer Charles Ferguson published in 1912 for what he thought that Universities should be doing - a more active role than just teaching what had gone before. Geddes deplored any attempt to dictate education and said: 'Education, like religion, can only be truly vital in the measure of its freedom from external authority; since truth, like goodness, cannot be imposed from without, but can only grow with mind and soul within."

"Everything I have done", he once said at Le College des Ecossais, "has been biocentric; for and in terms of life, both individual and collective; whereas all the machinery of the state, public instruction, finance and industry ignore life, when indeed it does not destroy it. The only thing that amazes me, therefore, as I look back over my experiences is that I was not caught and hung many years ago."

Rob Cowan quoting the Scottish Poet, Hugh MacDairmid (1892-1978), and Geddes, in "Town and Country Planning" September 1979.

Patrick Geddes had a very broad view of the interpretation of the term 'education' and was highly critical of the boring

straightjacket of the Victorian ideas which held sway in the schools, colleges and universities of his time. He said, "It is high time to abolish compulsory public instruction based on the three R's. Reading, Riting and Rithmetic have too long been stuffed into young minds as routine work in the scholastic mills". "But the ... age dawning in the twentieth century must have something better; it will have something better: a life-centred, folk-centred culture. It will have an



Education by the Three H's

instruction based not on the three R's, but on the three H's: the vital education of Heart, Hand and Head." (See Panel 10). This meant that a child should be content and happy, that the distraction of physical needs, e.g. hunger, should be attended to, and then they would be receptive to intellectual training. 'The child's desire of seeing and hearing, touching and handling, of smelling and tasting are all true and healthy hungers" declared P.G., "and it can hardly be too strongly insisted that good teaching begins neither with knowledge or discipline, but through delight."

Universities

It would be fair to say that Geddes had a love/hate relationship with the Universities of his day. While believing, with an almost religious zeal, in a high level of education for all, he was disappointed with the way Universities were run, how they taught and what he saw as the limited range of their activities. And he wasn't shy of saying so which, of course, didn't endear him to the educational establishment! Apparently paradoxically, Geddes sought University posts while simultaneously remaining highly critical.

Geddes wanted to popularise and bring good education in all areas of knowledge to as many people as possible always with a view to bringing them together - Synthesis. For this he was good naturedly called the "Professor of Things in General", less pleasantly, he was bitterly criticized as an "intellectual whore" for his perceived promiscuity in all fields of knowledge by the increasing ranks of University specialists of his time. In bringing education to all Old College, Edinburgh Geddes started and was

University Planning

After success in planning Santinitekan, with Rabindranath Tagore in India, Geddes was to face defeat of his ambitions in Jerusalem planning the University there:

"Charles Ashbee....wrote in 1923 that:

"Geddes's chief work out here has been the plans, en ebauche, for the Zionist University, a magnificent scheme and a wonderful report. But it has cleft Jewry in twain. The orthodox and the ritualists have no use for a Universitas in the real sense of the word, such as he desires, nor have the political propagandists for the scholar and the man of science.

Will it be a university or only a Zionist university? Geddes has thrown down the glove to Jewry. It is another challenge to the theocratic state and the old devil of sectarianism who stands between us and our search for truth. Will the challenge be taken up? ...But when all's said and done, Pat is right. His prophecy is likely to sound the farthest. You can have no sectarian university"....

Dr. Weizmann (1874-1952), the great Zionist Leader (first President of Israel) whose vision transcended all

sectarianism, later wrote...



"The ideal of the Hebrew University was for many of us the noblest expression of our Zionist humanism. On it were concentrated the dreams of our youth and the endeavours of our manhood. A Hebrew University in Palestine would mean release from the pariah status Chaim Weizmann which was the lot of Jewish youth in so many of the Universities of Eastern and even Central Europe. It would provide a focus for the free development of the Jewish spirit. It would give scientific guidance and moral inspiration to the builders of the new Zion. It would pave the way for a synthesis between the spiritual heritage of our people and the intellectual movements and aspirations of our age... I still hope before I die to see the great assembly hall which Geddes designed rising on the slopes of (Mount) Scopus".

His motto, "Vivendo Discimus" – "By Living We Learn", followed the thinking of all the great teachers from Socrates on, that learning is a life-long process. He urged people to be active, i.e. if you want to understand a neighbourhood, go out and explore it. If you want to know about the way of life of a farmer or fisher, try it out for yourself for a spell – experience is the best teacher.

Geddes encouraged parents to widen the educational horizons of their children e.g. 'On the shoulders of parents, possibly helped by the exceptional teacher, rests the burden of



'leading children out into freedom, of giving them the franchise of the world of culture which the routine education of the three R's, been despite all machinery of standards, addition f of special subjects and what not, hopes and promises to give but necessarily fails." Quotes From "Patrick Geddes: Maker of the Future" by Philip Boardman

He was a teacher by example in whatever aspect of life he happened to be engaged. He took over a slum, cleaned and painted it, went to live in it, and then encouraged his



tireless in promoting the University Extension Movement in Scotland which took University teaching out to ordinary working people. This can be seen as a forerunner of the Workers Educational Association and the Open University.

"1903 Albert and Frances Mansbridge established an Association to Promote the Higher Education of Working Men, bringing together supporters of working-class education from the churches, the Co-operative Movement, trade unions and the University Extension Movement. The association was renamed the Workers' Educational Association in 1905 to better represent the inclusive equality of the movement." From the Workers Educational Association web site: http://www.wea.org.uk/Centenary/timeline/ 1900.htm

"Adult Education"

"In his earlier days he (Geddes) was seriously considered a theorising genius in biology and even regarded as a potential successor to Darwin and Huxley. In collaboration with J. Arthur Thomson.... he wrote the book Evolution of Sex regarded then as an original and brilliant contribution to the science of Biology. Amelia Defries in her book The Interpreter Geddes mentions a dinner in 1923 in Le Play House, London which was held in honour of Geddes "... Sir John Cockburn who presided, said that it might surprise Professor Geddes to hear that he was one of the causes of the Womens Suffrage Movement! For, he explained, it was after reading The Evolution of Sex and being armed by it in his youth, that he went to Australia and there fought till women had votes. So the fight which was afterwards taken up in London, and

(A contrast between Geddes/Weizmann versus those paying for/ lobbying for particular features in the University. The assembly hall was the primary and largest building in Geddes's plan where all could meet and interact. It was a domed building which the sectarians described as being like a Mosque. Those same people preferred to have the largest building be the centre for Hebrew studies).

From "A Vision of Zion" by Graham Ross. Explanatory text in italics added for this Exhibition.

The Scots College, Montpellier

After India, in later life, Geddes bought a property and founded the College des Ecossais for travelling Scots students near the University of Montpellier in the south of France. There was to be a College des Indien (Indian) headed by Rabindranath Tagore (see Panels 7, 8 & 14), and College des Americain (American). The concept of itinerant students went back to earlier times when students throughout Europe would travel to other countries and

institutions to complete their education in real situations rather than be restricted to dry home and university study.



neighbours to do the same. He established the first selfgoverning student hostel in Ramsay Gardens, Edinburgh then went on to encourage universities around the country to do the same. He encouraged the

SP & TP



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SIR PATRICK GEDDES 1854 - 1932 :: 4 :: **GEDDES TODAY** Environment



Geddes the Environmentalist -"By Leaves We Live" is the motto of Ballater Geddes Project 2004. It is taken from Geddes' own longer statement:

"By Leaves We Live"

'This is a green world, with animals comparatively few and small, and all dependent on 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. 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."

considerations to town planning but his many other interests. To the end of his life he insisted on teaching outdoors whenever possible, taking his students on long walks

into the neighbouring countryside. He was an environmentalist long before the word "environment" became fashionable, and his teachings are increasingly studied and applied today.

"After early and extensive biological studies he diverged into a comprehensive philosophy aiming at the coordination of man with his environment which he described as 'the new humanism'. With this aim in view, he became an amateur, in the best sense of the word, of all the arts and sciences, and endeavoured to employ his knowledge in raising the standard of living for all with whom his activities brought him in contact."

passive and plastic to its conditions, more under the sway of environmental change, and hence this seasonal change of plant life becomes the more impressive spectacle of living nature.



See the tide of life set in with a flood in spring, filling every corner of the earth with sprouting seeds and shooting stems, and crowding spreading rippling leaves; how as the russet underwood warms to the fuller sun through branches still bare it glows with bright golden patches of lesser celandine. See how its dead leaves silently sink under a restless foam-tipped sea of green anemone; how every mossy bank is set with primroses in crowded constellation; and how the deep summer sky shows first in sheets of hyacinth. Soon comes high tide of leaves in June: the full-robed year is crowned and garlanded with exuberant blossom to which July brings the strongest chords of colour. 'Yet already the tide has turned, the flowers are withering or fading, but a new profusion of fruits, more strangely varied even than the flowers, is rising in their place. These, too, ripen and pass and the seeds, each a young life, find ofttimes through strange adventure - their resting place

It sums up very neatly Geddes' understanding of the various elements of nature: people, crops, animals,



mountains, trees, and above all fresh air. Given an unconventional education by his father, in which the outdoors and various aspects of nature were given more emphasis than book learning, it is

not surprising that his choice of career was in biology. He showed great promise in his early work in marine biology. He softened the harsh "survival of the fittest" theory of Darwin by describing the cooperation necessary in symbiosis, which had evolved, for example, in jellyfish.

This promising future was cut short by temporary blindness and poorer eyesight which made it impossible

to use a microscope for long periods, so he turned the focus of his biological understanding onto the environment in which people lived. Leading by example, he moved his home into a slum



tenement in the High Street in Edinburgh, and set about brightening and modernising it, then cajoling his neighbours to do the same. He advised on the renovation of old buildings, designed garden suburbs, wrote "Cities in Evolution", a design for Pittencrieff Park in Dunfermline. Although considered too ambitious at the time, it has since been well studied and many of its ideas adopted. He widened his interest to the world at large, with



'Environment and organism, place and people, are inseparable....'

"As biologists know, and as the finer civilisations have at various times magnificently

shown us, Health results from 'the good life', that is a life of normal and full reaction within an adequate environment. Such an adaptation, which has become normal to flower and tree, insect, bird and beast, has grown increasingly harder for man to attain since his social grouping has become larger and more complex (from rural village to crowded industrial city)."

"A garden is the very best of Savings Banks for, in return for

deposits of time and strength, otherwise largely wasted, the worker reaps health for himself and his children in air, vegetables and in fruit."

"The judicious planting of trees may also increase breezes

instead of impeding them. Currents of air flow, as in the stream, faster and stronger round the side of obstacles. By planting a dense mass of foliage we can increase the breeze on either side of it and even a little way beyond it, for the air flows in rolling waves over the obstacles as well as in swift currents around each side."





and sleep. The shivering leaves surrender their life to the branches which have borne them and fall away, often beautifully transfigured in dying; only their tiny nurslings the buds remain, warmly wrapped away within their protecting sheaths. Life has ebbed out of sight; Prosperina is in Hades and sky and mother earth must mourn till her release."

"Il Faut Cultiver Son Jardin"

(Voltaire "Candide") "An active, constructive peace is the only one that can compete with war and its glory: action. Therefore, said Geddes, peace means an unending



fight against disease and slums, ignorance and economic injustice, against deforestation and waste of natural resources; peace means, both concretely and figuratively, that everyone must cultivate his garden."



exhibitions in Paris and Dublin, and lecturing in the USA.

For ten years he spent most of his time in India, becoming a professor at the University of Bombay. He applied what he called

"conservative surgery" to the renovation of the slum quarters of Indian cities. He preserved all that was still good, clearing the clutter of rickety extensions to increase the flow of air, and preserving trees, in the shade of which much of the life of the people was conducted. He preserved too open water wherever possible, for its cooling effect on the air around it. He considered above all the effect of change on the people who were to live in the cities and towns he renovated, avoiding wholesale clearances just for the sake of some grand design, which would have left countless people homeless.

He spent the last phase of his life teaching mainly at the Scots College in

Montpellier in the south of France, lecturing and holding summer schools



"The Evolution of Sex"

Three of the book's four divisions were taken up



with descriptions of processes of reproduction in representative forms of life, with summaries of experiments performed and of theories propounded up to the year 1889. But the fi-

nal section - and the one of greatest interest today put forth Geddes's remarkable theory which, curiously enough, received experimental confirmation some forty years later in the laboratories of American scientists." (Boardman)

" 'There was in this garden,' said an English visitor, 'a veritable artist's laboratory, even apart from its seasonal bursts of flowers.... A Monet or a Claus might have painted on indefinitely, studying here the varieties of colour possible when all seems green.' (University College Dundee).'' (Boardman)

"How did Geddes himself see and feel nature? How did this Scottish Darwin record his impressions in the only textbook he ever

wrote? Here is a fragment from his account of the pageant of the



"Geddes reiterates his own sweeping ecological warning that wherever and whenever a function or an environment is found to have a bad influence on the organism, 'its modification must be attempted, and, failing that, its abandonment faced'. Further he



prophecies that if man is

"... to remain healthy and become civilised...(he) must take special heed of his environment; not only at his peril keeping the natural factors of air, water and light at

their purest, but caring only for 'production of wealth' at all, in so far as it shapes artificial factors, the material surroundings of domestic and civic life, into forms more completely serviceable for the Ascent of Man."

Sheila Potter

"Care of Mother Earth is the prime task of man" Patrick Geddes







'Life is indeed universally rhythmic, in animal as in plant; but the plant is more



Quotes: Boardman, Tyrwhitt

www.ballaterscotland.com/geddes







Patrick Geddes's understanding of environmental education grew from his own experience as a child. He was the youngest by several years of four siblings. By the time he was three years old his

father, after serving for thirty years in the Royal Highland Regiment, had semi-retired as Captain in a volunteer regiment, the Perthshire Rifles. The family settled in Mount Tabor Cottage high up on the side of Kinnoull Hill, overlooking Perth and a wide area of the surrounding Tay River valley and hills beyond. Patrick was not considered strong enough to attend school until he was nearly eight, and in the meantime his father had plenty of time to attend to his early education. This turned out, for a child of the Victorian era to be very unconventional, as is shown in this example, which taught gardening, measuring and counting all at the same time: (About planting Potatoes)

He turned his attention to the environment in which humanity lived and now developed his life-long method of teaching: by example and personal involvement. He moved with his wife Anna, who gave her full support, into a slum tenement in the High Street in Edinburgh and showed by example how to renovate and make habitable a sound but neglected building. He then encouraged the other inhabitants to do likewise. From this modest beginning over the years he improved the environment of several buildings in the Royal Mile, using them as hostels to improve the lot of students at Edinburgh University, and taking on and extending Ramsay Gardens, beside Edinburgh Castle. Holding various teaching posts, including the part-time Chair of Botany at Dundee, he also ran a series of Summer Schools at Ramsay Gardens, with a wide range of subjects: environment, sociology, arts, music, in fact anything PG felt was important, including his first love gardening. He aimed to create gardens below the castle above the Grass Market in Edinburgh. He was also known to lead parties of students, who would otherwise have been sound asleep, to the top of Arthur's Seat to enjoy the atmosphere on a fine moonlit night!



Ballater School "The School in theTrees" (hint - green roof) and with the enthusiastic help of Indore's mayor ('an able Brahmin doctor'), the Scottish Maharajah launched a campaign that revealed him an able general of reconstruction. They spread news throughout the city that a new kind of pageant and festival would be given on next Diwali day, this being an important holiday representing several great occasions: a day of harvest; the New Year's day of one sacred calendar; a day commemorating the slaying of a fearsome giant by Rama and 'most appropriate of all, for my purpose, Diwali is the signal for that strange and terrible domestic cataclysm, that annual insurrection of the women from which all men can but flee, and which is as well known in West as East – here as 'spring-housecleaning'.



Primary 1 draw Leaves and Butterflies



"And of course at first I put them in too irregularly; but soon saw the sense of not having them too close at one point, and too far away at another. So he showed me how people learned to measure, setting one foot after another; and thus we found the length of the row in feet. Then, cutting a stick a little longer than his foot, he gave me this for a measuring-rod, and now I relaid my potatoes with accuracy as to length.... Then I counted them (I think there were 31 or 32 in the row) and he suggested cutting notches on the stick to remember this number by. But this was to be a long operation, so he showed me how to simplify it: with three deep notches for the tens, and little scratches beside the last one for the rest."



In later life he spent ten years in India, advising on the renovation of the poor slum parts of several cities by what he called "Conservative Surgery", that is opening the streets up to air and light



A Bee gets busy

by demolishing the worst houses, while saving and renovating where at all possible.

One of the most effective and imaginative examples of his education about the environment of the entire population of a whole city took place in Indore, India and it is worth describing in full:

Maharajah for a Day

"He had been shocked to find it (Indore) one of the most plague-and malaria-ridden cities in India, with a life-expectancy of only 18.6 years, and tried to find some effective means of improving these conditions. But as he tramped through crowded lanes and along the dirty river-fronts, marking on a map the most serious menaces to public health, the Indorians displayed signs of open hostility. The sight of Europeans prowling about with maps always made the Indians fearful of what demolition might soon strike their homes or neighbourhood, but the presence of the bearded Scotsman with his face marked by recent sorrows and overwork spread nearterror among the townspeople. Finally, P.G. asked his Indian assistant why everyone pointed at him. And it was reluctantly explained that they thought he was 'the

After widely announcing that the new festive procession would not follow either the traditional Hindu or Moslem route through the city, but take instead the one along which most houses had been cleaned and repaired, P.G. and the mayor enlisted the aid of each priest and mullah by having the roads and pavements outside all temples and mosques cleaned and mended, and trees planted around them. Free removal of rubbish was advertised far and wide and in the six weeks of preparation for this special Diwali, over 6,000 loads were carted away from homes and courtyards, 'with much inconvenience to the rats formerly housed therein'. These plague-spreading pests were trapped by the thousands in the city and along the river banks. Meanwhile a wave of housecleaning, painting, and repairing swept through every quarter of Indore, for each one wanted to win the honour of having the procession pass

Geddes The Thinker



Primary 2 draw Animals and Fish



Primary 2/3 draw Birds

He loved to roam over Kinnoull Hill, collecting ferns for his garden, and quartz crystals from a small quarry. He spent long hours observing the river valley below, which led to his later theories of the 'Valley Section' and the interconnectedness of everything.

As an adolescent, his father widened his horizons still further by taking him on a long walking tour to visit relatives and friends in Ballater and Grantown-on-Spey, crossing the mountains between the valleys of the Dee, Don and Spey.

With such an early education it is not surprising that he settled on biology as his chosen career. He studied under Huxley, knew Darwin, by then an old man, and by his early twenties was a marine biologist with a growing reputation for original research. Unfortunately, at this juncture his eyes were damaged during a visit to Mexico and he had to give up long periods of microscope work.



the Old Royal Station via Monaltrie Park to **Ballater School**

Primary 7 draw Animals and Plants



Geddes Walkway from

Geddes The Teacher



old Sahib that brings the plague!'.

Geddes went that very afternoon to the Home-minister of the ruling Prince of Indore and, after explaining the problem, boldly



Tadpoles in the River Dee

requested to be made Maharajah for a day! Consent was speedily given, and thus armed with princely authority

'Then on the great day came forth our pageant, with streets athrong with villagers from far and near. First the procession ... Contd. Panel 6

along its streets.

and Sheep



Geddes The Planner



Primary 4 draw Deer and Badger



Geddes The Ecologist and Patron of the Arts



Primary 5 draw Animals and Fish



Geddes The Philosopher



Primary 6 draw Animals and Plants

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... of the State – music, cavalry, camelry and elephantry, as well as infantry and artillery: and after these a chosen series of beautiful led horses, richly caparisoned, from the Maharaja's cast stables; and one more marvellous still, in

spotless white raiment, with new brooms flowergarlanded. Their carts were all fresh-painted, red and blue, and their big beautiful white oxen were not only well-groomed and bright-harnessed for the occasion but had black-polished hoofs, blue bead necklaces and golden flower garlands, with their great horns gilded and vermillioned by turns. Every sweeper too was wearing a new turban, and of the town's colours – as were all the employees and higher officers of Indore, as well as the mayor and myself; this had been arranged with his warm approval as a symbol of the democracy of civic service.

As the sweepers began their march, Geddes warmly golden trappings greeted the leader, a stately patriarch with a magnificent white beard, and took a marigold for his button-hole from the old man's broom-garland.



through cleaning up the city and partly because its season was over. Geddes was the leading figure in Indore, and people followed him in the streets,

pointed at him, talked excitedly. Now they called him 'the old Sahib that's charmed away the plague!'

Learning about height, sounds and surveys at Ballater Environmental Education Centre

of which none had seen the like'.

Diwali in the Madras Presidency in 1945

Agriculture and the harvest were portrayed by chariots carrying the Sun-god, the Rain, and so on. Elephants laden with cotton-bags and carrying merchants in silver howdas on their backs signified the importance of cotton to Indore. The climax of this section of the parade was Lakshmi, the goddess of prosperity, on the dazzling white elephant of her legend. Here P.G. had encountered some difficulty, for the nearest white elephants belonged to the King of Siam, and even his were only light pink. But an idea inevitably struck Geddes;

With a little persuasion we were able to give this mount two coats of whitewash, from trunk to tail.

What snowy brilliance in the sunshine – a paragon of a white elephant, such as neither king nor goddess had ever ridden before!'



Thereupon a burst of cheers went down the line. Well done; a good idea! Cried the mayor to me. Why? What? Said I.

Said he, Custom would not let me do that, as a Brahmin, to an Untouchable; but as a European you were free to. You could not have done better: you have treated them as men, as equals, and thus encouraged them more than

I can tell you! (And so indeed it afterwards proved).

Behind the sweepers marched a civic procession worthy of the



Geddes Walkway Posts in preparation

free cities of Europe at their apogee: caste labourers, firemen, and police; officials, mayor, and Maharajah Geddes; and after them, enthroned on a stately car, a new goddess evoked for the occasion: Indore City. Her banner bore on one side the city's name in illuminated letters and on the other side the city-plan in large outline, with heavy red lines showing the proposed changes to be made.

Following this Goddess were big models of the public library, museum, theatre, and other buildings P.G. had projected; and a whole group of floats contained models of the private homes that were to replace slum dwellings. Next came floats representing all the crafts, on which masons, potters and others busily acted out their parts.

As the first half of Patrick Geddes's career in India comes to a close with his return to Scotland in 1919, what better commentary on the vicissitudes of these years than his own definition of magic and romance:

"While a man can win power over nature, there is magic; while he can stoutly confront life and death, there is romance." (Boardman)

To the end of his life, back in Edinburgh and then in Montpellier in the south of France, he continued to teach, leading his students out into the open air at every opportunity, and taking examples from nature.

Today many of Geddes's original ideas have been incorporated into modern environmental educational thinking without many either knowing or acknowledging their source. Two projects which have been inspired by Geddes are: the designing of the plaques by the Ballater children which combined nature and art, and the work of the Kolkata children again combining craft, art, poetry and tradition. The video link will give both schools international insight into one another's culture.

The example set by Geddes's Summer Schools is now widely copied by Universities and Colleges around the world, and with the aid of modern technology, the Open University brings wide and varied subjects within reach of everyone.

After the gaiety of harvest, came a dismal change of

There appeared:

scene and tone.

'melancholy, wailing, and discordant instruments; weird figures, as tigers, as demons, as disease – the latter breaking jointed, bacilli-like twigs and casting them at the crowd. Types too of poverty and misery as well as wretched disease-sufferers; and among and after these came sinister swordsmen, barbarous raiders, threatening with dagger or with lance: in short the ugly aspects of war. Next followed models of slum-dwellings, well caricatured with their crumbling walls and staggering roofs, broken windows and general air of misery and dirt. Then the Giant of Rama's legend, but here presented as the giant of dirt – a formidable figure some twelve feet high... Then following him, the Rat of Plague, also made by clever and skilful craftsmen: a good six feet long, this rodent, and quivering all over with the rat-fleas which carry plague, fleas here similarly magnified by use of locusts dipped in ink and mounted on quivering wires.

Nor did we forget huge model mosquitoes for malaria. Again a brief break after all these instructive horrors. Then cheerful music, heading the long line of four hundred sweepers of the town, two abreast all in

Then

'the future gardens: great drays laden with fruit-laden banana plants, papayas and more: and with flowers as well, and sacks of fruit, to toss to children. We even sacrificed the Maharaja's biggest and best orange-tree, which went swaying through the streets, and dropping its golden burden. And to wind up all, a dray giving away innumerable tiny pots with seedlings of the Tulsi plant, (Ocymum sanctum of Linnaeus) the 'sacred basil' of European poets, which is the central symbol of the well-kept Hindu home.

Thus we perambulated pretty well the whole city for the long afternoon; and then wound up at dark at the public park, where the Giant of Dirt and the Rat of Plague were burned in a great bonfire; and their disappearance announced by fireworks'.

The results of this dramatised lesson in civics were quickly apparent. A new spirit of house-pride and selfconfidence spread among the Indians whom generations of disease had defeated and discouraged; even the sweepers performed their humble tasks with renewed zeal. Practically all of the thousand plots laid out in garden suburbs were taken up in a short time. But most important of all, the plague came to an end, partly

The latest developments are the John Muir Trust Awards, made to those who's projects protect wild places, and their new links to the Cairngorms National Park through the appointment of Dr. Robbie Nicol as John Muir Trust Award Manager. He came from another modern educational establishment: the outdoor education section of Edinburgh University.

Sheila Potter

Did you know...

...that if you visit Edinburgh Zoo (or the Scottish Zoological Park to give it its proper name) that it was designed by a local Ballater lad by the name of Patrick Geddes?

Geddes and his son-inlaw, the architect, Frank



Part of Geddes and Mears Plan for Edinburgh Zoo (1925)

Mears (later Sir Frank), provided the design for the Corstorphine Hill site. The highly popular Zoo has now provided education and enjoyment for generations of people from all over Scotland and further afield.



www.ballaterscotland.com/geddes





Language of Rivers and Leaves -From Bengal to Ballater by Boat!

This traditional 5.5m boat was cycled over 70 kms through the night by rickshaw to reach its destination in the centre of Kolkata at the School of Art and Craft.

"Our aspirations come in the" guise of children" - Rabindranath Tagore (1861 - 1941).



Girls dance to celebrate the "Sonar Tari"

Geddes's

cities was

visionary

educational

poet

environmental

Rabindranath

Tagore and the

survey of India

extensive. Bengali

educators and missionaries. The BGP2004 ambition to develop e-mail and webcam exchanges is in progress. Initially we navigated by boat using the sun and stars and now Internet via satellite supports the values of this creative initiative. I'm sure Geddes would have approved!

The Bengal boat named "Sonar Tari – Golden Boat" – was specially

commissioned and named

after Rabindranath Tagore's famous poem "Sonar



Kenny Munro and Tandra Chanda at the School of Art & Craft, Kolkata, India

Autumn Event: Bengali festival in Aberdeenshire 27 September – 3rd October 2004: Following on as a reciprocal event from the Kolkata activities (April). Celebrating river



Students decorate the "Sonar Tari'

communities with environmental themes. A week of work shops at Ballater and Finzean primary schools:

Bashabi Fraser (writer/poet) / Kenny Munro sculptor / Musician, - performer of Indian Music/Dance have been contracted to work with school and community to

A uniquely painted Bengali river boat is to travel to Aberdeenshire this year (2004) to celebrate the historic work undertaken in India by Sir Patrick Geddes & his family in the early part of the 20th Century. This also celebrates Patrick Geddes's birth in Ballater in 1854 and contributes to a nationwide programme of events. Driven by the expressive arts, an exciting project has been devised for schools, but with broad appeal, which embraces environmental themes/cultural diversity; revealing strong international links and creating new bonds between communities in Scotland and India.

Geddes, like John Muir, and those environmentalists who followed; such as Arthur Geddes (PG's son), Frank Fraser Darling, Morton Boyd and Tom Weir all promoted a passion for experiencing the great outdoors and learning from nature. Interaction with the natural world inspired mottoes and phrases such as: By Leaves We Live / By Creating We Think and, life simply explored with a code relating to community as the relationship of Folk - Work - Place.



Students at the Kolkata School of Art & Craft study Ballater Geddes Project 2004 leaflets and web pages

college at Santiniketan (later Visva-Bharati University see right) impressed Geddes with his humanitarian interest in education.

Tari" (See Panel 8):

Artist / educator Kenny Munro has been working with "Ballater Geddes Project 2004" since 1999. He has been employed, with others, by Aberdeenshire Council to activate international links, enabling schools in both countries to exchange cultural and environmental messages via the expressive arts.

Kenny Munro conducts workshops in Kolkata, Bengal, India, 4 - 14 March 2004 with pupils and



Pulak Ghosh and Tandra Chanda interviewed about "Geddes & Tagore" and "Rivers & Leaves"

plus folders of cultural data from Ballater and Finzean schools. (Biggest challenge was 30-40 C and humidity)".

Retracing and celebrating the work of Patrick **Geddes in Bengal**

The programme for events had been well planned with 700 printed green invitation sheets going out in advance to publicise in Bengal, invite public and interested parties and to generate maximum media interest. (Formal credit to Aberdeenshire Council, Ballater Geddes Project 2004 and list of supporters).

· A formal inaugural event on the 5th April enabled "hand over of cameras etc.". · Daily Workshops with pupils morning and evening. Symposium with dance music on the 11th. · On 14th (First Day of Bengali New Year); a large scale procession, featuring painted boat, students/parents etc. with police escort and driven on by Indian bagpipers, TV coverage translated as 4/5news slots at 5pm and 10pm on two occasions. · Documentation – We have good still and video coverage of events. And suitable material for future exhibitions. · Most significantly I wish to try

deliver a multi arts event to culminate with a procession on the 2nd October / symbolic launch of boat "Sonar Tari".



Aberdeenshire and Asia: Indian family at Balmoral in 19th C. Other Indian links to Aberdeenshire: Queen Victoria employed an Indian advisor/clerk "munshi". Abdul Karim, a Muslim, ("her excellent Abdul" – (tutor/

Abdul Karim with Queen Victoria reproduced in a Ballater Old Royal Station Exhibit

secretary) and his family lived on the Balmoral Estate. (Karim Cottage). Several Indians, employed by Victoria are said to be buried in the local burial ground at Ballochbuie.

Ref. "A Queens Country" by Robert Smith. ISBN 0-85976-533-4

About Visva-Bharati University, India What the two colleges (Santiniketan and Sriniketan) are for:

It is clear from Tagore's "mission statement" why Geddes and Tagore got on so well - it chimes with Geddes's belief in a high level of education for all and the "Three H's" on panel 3.

Santiniketan

To study the mind of man in its realisation of different aspects of truth from diverse points of view.

To bring into more intimate relation with one another, through patient study and research, the different cultures of the East on the basis of their underlying unity.



meeting the students and handing over of the two digital cameras from Ballater

teachers of the

School of Arts and

"Arrival 2nd April – A

Crafts, Kolkata.

fine reception,

Geddes Project 2004,

Many now believe that Scotland's Parliament must interpret the core values promoted by Geddes as part of an environmental and educational philosophy which has vision and encourages community empowerment. The arts have a major role for the interpretation of these values.

River communities 5000 miles apart share not only an appreciation of Geddes but trading links which reach back over 100 years. The boat is used as a universal icon which both enables communication, discovery and cultural/economic trade and exchange.

For example: The jute trade with India was important and the rail network to Ballater would have brought many manufactured goods; such as carpets, linoleum and thousands of jute sacks for potatoes and grain etc. But significantly it is also interesting to realise that from the 1820's most of Scotland's fishing fleet was preserving its nets, sails and ropes with tannin from "cutch" (resin from the Acacia Tree) which was imported from India.

We are recognising history but importantly we are also celebrating community life now. This innovative global project raises



Ballater Geddes Project 2004 Web Site material and leaflets used as teaching materials in Kolkata (Calcutta) India

to enable Tandra Chanda and Pulak Ghosh (Teachers in Kolkata) to take part in Aberdeenshire Events (Sept.-Oct. 2004).

> RIVERS & LEAVES engal Boat - Painting Workshops 200

Certificate of Achievemen

The school of Art & Craft, Kolkata (India) and Ballater Geddes Project 2004, Scotland

Certificate of Achievement given to students who

decorated the "Sonar Tari"

mary of Sir Patrick Godde

We also decided to have printed certificates of achievement for the pupils who worked on "Sonar Tari" and significantly the boat will be shipped to Scotland for Autumn 2004 activities in Aberdeenshire. Proposed to launch on Loch Kinord,

To approach the West from the standpoint of such a unity of the life and thought of Asia.

To seek to realize in a common fellowship of study the meeting of the East and the West, and thus ultimately to strengthen the fundamental conditions of world peace through the establishment of free communication of ideas between the two hemispheres.

And, with such ideals in view, to provide at Santiniketan, a centre of culture where research into and study of the religion, literature, history, science and art of Hindu, Buddhist, Jain, Islamic, Sikh, Christian and other civilisations may be pursued along with the culture of the West, with that simplicity in externals which is necessary for true spiritual realisation, in amity, good fellowship and co-operation between the thinkers and scholars of both Eastern and Western countries.

Sriniketan

To win the friendship and affection of villagers and cultivators by taking a real interest in all that concerns their life and welfare, and by making an effort to assist them in solving their most pressing problems.



The Home Page of the Visva-Bharati University Web Site Rabindranath Tagore pictured centre

To initiate a dialogue between academic study and research of rural economy / culture and on-field experience.

awareness and opportunities for school children in both countries and enables them to communicate with one another. English language is a strong element within the Indian education system, which was influenced by Scots

outside Ballater, for a "short" but significant baptismal ceremony on the 2nd or 3rd October. This will also trigger the potential for making of a the replica of the Kinord Canoe in due course.

from: www.visva-bharati.ac.in

www.ballaterscotland.com/geddes





Geddes's meditation on the Ganges:

"The Sacred River"

"The day before this letter (quoted before), Geddes started a long one to his friend Fleure in which he speaks of the development his Valley Section is undergoing in India, namely 'to that of the Sacred River'.

For the Ganges (its sister streams in some measure also) has been educating me, sometimes consciously, & also gradually & subconsciously, to realise this, & something of what it has meant for civilisation - what it continues to mean - what it may also mean for the future.'



Tagore's meditation on river life:

The Golden Boat from Sonar Tari, 1894

Clouds rumbling in the sky; teeming rain. I sit on the river-bank, sad and alone. The sheaves lie gathered, harvest has ended, The river is swollen and fierce in its flow. As we cut the paddy it started to rain.

One small paddy-field, no one but me -Flood-waters twisting and swirling everywhere. Trees on the far bank smear shadows like ink On a village painted on deep morning grey. On this side a paddy-field, no one but me.



The Great Biocentric – Sir Patrick Geddes – By Leaves We Live

The significance of his Ideas, Work and Legacy for us today. **Celebrating the Past** in order to influence the Future.

Much has changed in



Students of the School of Art & Craft celebrate **Tagore and Geddes**

the world since his birth in Ballater 150 years ago. However his promotion of positive values attached to Humanity, Education for Life and striving for International Peace are universal issues, which will always need WORK by FOLK in every PLACE on the planet!

The Ganges reminds him of his own childhood river, the Tay, 'which will always be for me my main impulse of the lifestream and of the cosmos'.

This leads in turn to his early experience of sunsets reflected in the river and his 'first - and still brightest - vision of - what I took to be - God'. Reminiscing about the fine views from the Kinnoull Hill cliffs, he sees that 'it must have been in the climbings and ramblings over this fine valley landscape... that I got the feeling of the valley section which has been a main vision of geography in later years'. These views of town and countryside also aroused his interest.

'in the plans and detailed aspects of cities, & also in their generalised aspects & their ideal significance - & these as in direct continuity one with another, and not belonging, like the religion and politics around me, to different worlds, both always uninteresting, & even repellent, since as I later came to see unreal'.

P.G. comes back to the Ganges and its 'mighty convergents' which sweep down from 'Himalayas to delta and ocean ... Co which make the journey from Calcutta to Dacca so impressive', and finds this too vast in comparison with European distances and valley sections.

Yet the extraordinary magnitude with its extensiveness is more of a world-vision, & so completes our otherwise too micro-cosmal & local ones'.

You see too the importance of this greatness of scale in the special metropolitance of Benares - which it is well worth coming to India to feel, as you can't do until you have spent long mornings & afternoons & evenings upon the river with its marvellous architectural medley, & its strange intensity & variety of religious and ritual life'."

Who is this, steering close to the shore, Singing? I feel that she is someone I know. The sails are filled wide, she grazes ahead, Waves break helplessly against the boat each side. I watch and feel I have seen her face before.

Oh to what foreign land do you sail? Come to the bank and moor your boat for a while. Go where you want to, give where you care to, But come to the bank a moment, show your smile -Take away my golden paddy when you sail.

Take it, take as much as you can load. Is there more? No, none, I have put it aboard. My intense labour here by the river -I have parted with it all, layer by layer: Now take me as well, be kind, take me aboard.

No room, no room, the boat is too small. Loaded with my gold paddy, the boat is full. Across the rain-sky clouds heave to and fro, On the bare river-bank, I remain alone -What I had has gone: the golden boat took it all.

Rabindranath Tagore, friend of and collaborator with Patrick Geddes.



Studying Life: Celebrating the Living Community In simple terms I think PG is always reminding us to; look at nature, try to understand its functions and our place within the "whole scheme of things".

Celebrating the creativity and energy within every person, creature, and plant.



Recognising the endless flow of diversity, beauty and fundamental relationship between all things.

Encouraging collaborative action On every level of community life he advocates trying to

Patrick Geddes inspired installation by artists Kenny Munro and Lesley-May Miller

turn difficulties into opportunities; energising people to celebrate civic values and promote an "unfettered" approach to education. However, with this sense of cultural wealth, explore old and new avenues of opportunity, in any field, and find a way to share and communicate the experience.

Creative action is the answer

From "The Worlds of Patrick Geddes" by Philip Boardman.



The 2004 "Sonar Tari" with decoration by the Indian students - handprints, BGP2004 logo and **Ballater and Finzean Schools names**



Tandra Chanda (left) and Pulak Ghosh display Geddes material brought from Scotland by Kenny Munro

Students dance to celebrate the "Sonar Tari"



Students decorate the "Sonar Tari". The boy's hat proclaims "By Leaves We Live"!

Whether planting a tree, organising a gala day or hill

walking with friends. It all reflects on a sense of "empowerment" to achieve things. Exploring and reinterpreting the environments which we all inhabit provides endless scope for educational comparisons and exchange of knowledge.



"A Place for Geddes" by Kenny Munro

On a pragmatic note

I admit much of the above has a resonance of an

idealistic philosophy and based on a willingness to "pull in the same direction". Life can be complicated with many choices and challenges. Geddes, throughout his career was faced with more than his fair share of "battles" and personal grief. Clearly he was despondent at times but he kept persevering and presents, in my view, a great icon for determination and self belief.



Barefoot painting of the "Sonar Tari" in Bengal Not often seen in Ballater!

Kenny Munro



www.ballaterscotland.com/geddes





SIR PATRICK GEDDES 1854 - 1932 :: 9 :: **GEDDES TODAY** Arts Advocate



Patrick Geddes was neither musician, painter nor sculptor though he worked in nonfiction writing and poetry. His first wife Anna, a gifted musician, introduced him to the pleasures of music which

he had missed out on as a child (apart from hymns presumably) due to a strict Free Church upbringing by his parents. This did not stop him grasping the importance of the Arts. As a young student he had gone missing from Thomas Huxley's lectures for a month to tour London's many Art Galleries and Museums!

Throughout his professional life he appreciated the importance of Art "feeding the soul" and became involved in various ways to promote it either personally, through publishing, education, or commissions. Later, as a Planner, Geddes always tried to build artistic and cultural venues into his plans. Sadly planners and builders in later days failed to heed that lesson and can still get away with providing housing and nothing else simplifying the job and maximising profits - but also creating many modern slum housing estates.

annual review also called 'The THEORE Evergreen' as a medium of EVERGREEN A NORTHERN SEASONAL



industry, Glasgow'. Another part of his purpose consisted in renewing local feeling and local colour in Scotland, not in terms of a narrow 'patriotism' but to the end that she might again, become like Norway, one of the 'European Powers of Culture' and share in 'that wider culture-movement which knows

published in 1895-96.

"He aimed at thawing out the

'frozen ice-pack of culture' in

Edinburgh and at bringing some

feeling for art to 'that inferno of



A Schoolgirl's Memories of Tagore

The circumstances of Tagore's visit to a little market town in the north of England are longsince forgotten. I think a member of the

congregation of which

my father was Session Clerk had worked in India and knew the man poet, religious preacher, social reformer, musician. At any rate Tagore, who must have been over 70 years of age



was one evening invited to speak to the congregation. At the time I was learning to play badminton and that seemed infinitely more attractive than going to a dry talk. I do remember my father saying 'Please yourself, but when you are



Summer Schools 1887-1899

As part of "seeing life whole" as Geddes put it, he ran a series of summer schools that attempted the unification of art, literature and science, each informing the others. They went "... from two small courses... offered to a handful of students in 1887, to a full-fledged summer school of art, letters, and science which by 1893 numbered 120 students from a half-dozen countries and a score of lecturers."

"The motto of the Summer Meetings was Vivendo Discumus – By Living We Learn – and therefore, reasoned PG, what better way is there of learning something new than by taking part in actual life as people live it? Secondly, he held constantly before both teachers and students one goal: to reunite the separate studies of art, of literature, and of science into a related cultural whole which should serve as an example to the universities still mainly engaged in breaking knowledge up into particles unconnected with each other or with life."

Philip Boardman 'The Worlds of Patrick Geddes"

From the Geddes's twin eyries of the Outlook Tower and Ramsay Gardens, above Edinburgh on the Castle Rock, Geddes and Anna looked over the region and out to the world. At Ramsay Gardens Geddes founded the Old Edinburgh School of Art recruiting, among other artists, John Duncan, Charles MacKie, James Cadenhead, Robert Burns and William Gordon Burn-Murdoch (See Panel 14). The



neither nationality or race." (Boardman)

An aside - Another view of Art!

"Yet even on the basic level he emphasises that a great part of so-called necessaries of life are not really needed, unlike fuel or shelter. These he (Geddes) calls the super-necessaries...

"And when we add up the aesthetic subfunctions of all 'necessary" (i.e. not vital) 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 the paradoxical generalisation that production – though fundamentally for maintenance - is mainly for art."

(Boardman)

Welcome to the consumer society!

Paul Robeson

In 1930 Geddes wrote to a friend about Paul Robeson, the famous American singer, in London:

'What a man! What a singer! What an actor! What an artist! Simple feeling to deep emotion, simple joy of life to pathos, to humour, homeliness to spirituality! Never have I seen or heard anyone so able to give the culminating expression of his people."

Geddes goes on to espouse the "liberating" effect of music on both black and white races and recommends the songs of Rabindranath Tagore to Robeson. PG even felt moved to verse by Robeson's performance:

'Well done, your falling Emperor's part; Othello, matched to Shakespeare's art: Next show your people's vivid heart: Play Toussaint L'Ouverture, Tween pale and dark, too long apart."



older you will be glad you went". So I went.

Tagore had been born just after the Indian Mutiny. Most Indians stayed at home for fear of losing caste by crossing the sea, so they knew little of other lands. He told us of his life as the son of a





Bengali land owner who had revived a Bengali religious society. They believed in One Supreme Being. Tagore and his brothers grew up in an atmosphere of culture and religion. He managed

his father's estate

and produced a regular magazine that guided his people to nationalism. Deeply religious, he spoke of visions when he was





appealed to for love of his fellows. Tagore wrote in Bengali and I suppose only if one understands the language can one appreciate the beauty of his poems, plays and novels. A number were quoted

but they are long since forgotten. Years later I read some of his lyrical poetry and a novel, 'Gora', dealing with the struggle between old and new in Calcutta society. Through his writings



there is a sense of the beauty of nature, a love of children and a consciousness of the love of a Supreme Being. He put Indian thoughts and points of view to

On earlier visits he had travelled to build



"Natura Naturans" R. Burns

naming was deliberate in that Geddes wished to reestablish the Old Town as a cultural centre in addition to his efforts to revive it as a place to live. Geddes and his



followers felt that the earlier Celtic traditions in art and poetry in Scotland were being ignored by the "establishment" of his time and set out

A Masque of Love 1921 by John Duncan

to give them a place by promoting a

"Celtic Renaissance".

... the Professor fulfilled all the requirements of a patron, playing the role of a modest Medici in the Athens of the North" "He directed the decorational activities of the Edinburgh Social Union..." (Boardman) in addition he had various artists paint murals and panels around Edinburgh including Ramsay Gardens and the Outlook Tower.

"The Evergreen"

"In 1724 Allan Ramsay had published 'A collection of Scots Poems Wrote by the Ingenious before 1600', called 'The Ever Green', in which he pleaded for a 'return to nature' and the old native poetic tradition. The residents of the new Ramsay Lodge and Ramsay Gardens, 170 years later, printed a Christmas book entitled 'The New Evergreen' in memory of Ramsay whose house and whose tradition they inherited. This little book then suggested to PG & Colleagues (Geddes's and William Sharp's publishing house) the possibility of establishing a semi-

Paul Robeson as Othello and Peggy Ashcroft as Desdemona from the 1930 London production of Shakespeare's Othello

Not bad for a man who felt his "Scottish Oppressions" from time to time. And not a racist bone in his body perhaps surprising in a time of Empire. Still, a man who wishes to "see life whole" would have no right creating differences between races or sexes!

The Scottish Scientist and The Indian Poet

One of the most fruitful of the scientist Geddes's relationships, artistically and in planning and education, was getting to know the revered Bengali Poet Rabindranath Tagore. He had been invited by PG to lecture at a summer meeting in India. Tagore was also an educator, and Geddes willingly offered to help him plan a University based on his schools at Santiniketan and Srinitekan (See Panel 7).

Tagore to Geddes, on plans for an International University in India:

'I merely started with this one simple idea that education should never be dissociated from life....'

Entirely in line with PG's philosophy.

Tom Potter







raise money. I think when I met him he was just on a social visit. I think I enjoyed the talk but memory fails after so many years – and it was a

the west.



long time ago! I do remember refreshments being served and the farmer's wife who was the mother of one of the boys in my class making sure that I got rather more than my share of fresh cream meringues. I suppose as the

only child there I stood out like a sore thumb. At any rate I thought 1 was someone special when the speaker came to talk to me. He asked



me what I wanted to be, why I wanted to go to University and, as a result of what must have been probing questions, why I was



interested in History and in the Bible. He spoke eloquently about love and compassion and a few people gathered round. I do remember that when we left he shook hands with me. I suppose I felt I had done the right thing in sacrificing the badminton!

Dr. Sheila Sedgwick (Local Historian) 2004

The artwork placed throughout Dr. Sedgwick's recollection is kindly supplied by Ballater Primary School, Scotland and The School of Art and Craft, Kolkata. India which takes young to older students. The Scottish Scientist and the Indian Poet both placed high value on art, for all, and as part of a broad education.

Patrick Geddes

most appropriate -

"By Leaves We Live" -

BGP2004 member Ian Mitchell

teaching art at Ballater School.

The leaves in the background are

www.ballaterscotland.com/geddes





SIR PATRICK GEDDES 1854 - 1932 :: 10 :: **GEDDES TODAY**



Politics & Economics



"By Leaves We Live"

'This is a green world, with animals comparatively few and small, and all dependent on 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. 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." Patrick Geddes (1888)



the end in itself. This is recognised by those who would use it as a means of coercion, social control and as an incentive

(Government and (mostly) Big Business). It could also be regarded as an irresponsible means to proceed. When the value of money is dictated by a few people in positions of power - first Financial Markets and then Governments where actions are generally reactive rather than positive - how can ordinary people have confidence to plan or construct in such a system rather than just hope for the best?

Our species has never really consulted on whether we think money and our economic system are a good idea, or, if there are any better alternatives. Universities continue to teach Capitalism and Marxism as, apparently, the only alternatives to choose between with scant attention paid to anything else although many people have ideas however good or bad, traditional or new, practical or impractical.



speculations in rise of land values or on profits of jerry-building; but to house the homeless. We have to rebuild the schools; but not to pass examinations in, or provide returns for metropolitan clerks to pigeon-

hole; but to teach the children.'

(Boardman)

In 1930 Geddes wrote:

"How are we to get from Wardom to Peacedom? From the exciting Nationalisms and Imperialisms of the first to peaceful Regional and Civic developments in the second?...

With business ever expanding...what can be thought of, or devised, much less applied, to abate the ever-increasing world-domination of Finance, with its accepted faith in Money, as supreme and quintessential Power, to and by which the essential prayers (i.e. of aspiration) of civilised men seem ever more convincedly directed?"

In 1912 Geddes and others, believing the First World War was inevitable (he'd seen it coming from about 1900), wrote a ten point credo called "What To Do" for post war reconstruction and renewal, here is one of them:

'Raise the life-standard of the people and the thought-standard of schools and universities; so may the workman and his family receive due mead of **real** wages; the leisure of all become dignified; and for our money-economy be substituted a life-economy."

Patrick Geddes was scathing of the economic system of his time (and by extension ours - as little has changed). Although Geddes refused to carry any political label preferring to "get his sleeves rolled up", and give practical help where he could, his economic thoughts are perhaps closest to the Russian Anarchist, Prince Peter Kropotkin. He stressed "Mutual Aid" as a factor in evolution and as an example for a better economic system.

This proposed: not monarchy, competition, enforced collectivism or dictatorship, empire or constant war, but voluntary, community co-operation on a personal, local, regional and global basis. As a believer in co-operation to get things done on a human scale Geddes had no time for the confrontational politics of his time (or again ours) whether parliamentary, economic, Marxist or Capitalist. Both Evolutionists, Geddes and Kropotkin studied nature and human society and found numerous examples of co-operation in contrast to the limited "nature red in tooth and claw" proposal of Darwin. Both abhorred the economic and military Darwinism of the time (empire, competition, struggle and war) which still holds sway today. "Globalisation" is not new - See the history of The British and other Empires.



"This is a green world...

In 1917 Geddes wrote:

'The earlier ... period was that based on coal and steam and typified by waste of resources, smoke and soot covered cities, blighted landscapes, and stunted human lives.

A time of making money anyhow and having wars anyhow, with only utilitarian economists and liberal lawyers, or else imperial bureaucrats and bards, as our rival priesthoods: the whole system being crowned at its summit by the ruling financier."

(Boardman)

What has changed?

From 'Ideas at War' (1917)

'The Mechanical Age came into being as machines supplemented or displaced manpower and multiplied the social injustices already existing. It did not invent slums and the sweatshop, it merely standardised these evils and increased them a thousand fold. The economic gospel of the age was that 'the highest duty of man is to buy in the cheapest and sell in the dearest market'. Aided by Liberalism' in thought and politics, the Mechanical Age achieved a system of free public instruction in the three R's* - falsely referred to as an 'elementary education' - so that the quality and quantity of clerks and bureaucrats might be improved. Incidentally, the emphasis on arithmetic as a key to success diverted the attention of workers from real wages to money wages; hence their demands for 'more money', not for better housing or cleaner air to breathe." (Boardman)

(Boardman) What has changed?

There is still a job of work to do here for our time. In 1930 Geddes was still puzzling how to get from the money-economy to the life-economy he had espoused in 1912. He was clearly as disappointed as were many of his generation with the "business as usual" approach of world powers and Empires after World War One, with an eye to the rematch that was World War Two.

2004 - The 150th Anniversary of Geddes's Birth

An intensely compassionate, humanitarian and practical man Geddes argued human need is more important than commerce or money. In our time the current AIDS epidemic in Africa cannot be treated properly because the drug companies want more than can be afforded by African countries. People die because money is more important than they are. This is not the *life-economy* that Geddes desired, it is the *money-economy* he deplored. If our *money-economy* can supply polluting vehicles, lethal weapons, life shortening tobacco and heroin and not life saving drugs can it not rightly be described as, in some respects, a death-economy? (See also Lewis Mumford on Geddes on panel 14 "A Geddes Miscellany").

Geddes strove to "see life whole" - how all aspects of it are interconnected. In his time he saw the cities as living a parasitical existence on the rural areas particularly in imperial capitals which sucked in resources to fight wars and build empires. One of the largest factors affecting economics in our time and Geddes's is and was the "flight from the land" into the cities. In 2004 more than half the worlds' population is now urban and this trend continues apace. Geddes (and Kropotkin) looked for inspiration to the previous city-states, before the rise of nation states, where parity of esteem was given to rural and urban values and occupations and were shared by both. They saw the need for renewed, cleaned up and "greened" cities. (See Panel 1).

Although sadly, in his lifetime Geddes didn't get down to writing a definitive work on his economic ideas the thrust of his thinking can be pieced together from various statements. As a biologist Geddes took his starting point not from any political or economic dogma but from - what were the best conditions for the organism (i.e. humans) to thrive and enhance their quality of life? This is why Geddes is as relevant today as when he lived.

So, what would a Geddesian *life-economy* look like? What are real wages?

We live in a society where money is more important than people, animals or plants. Is the history of the human race to be written in the ledgers of commerce, in pay cheques? or rather, will it be recorded that humans lived a full life based on the realities of existence on this planet? In his famous "By Leaves We Live" statement Patrick Geddes laid down a fundamental challenge to our species. That is whether to base our lives on a realistic understanding of our situation and build upon it or follow an illusion based on the elevation of money and its pursuit above all other factors. To live limited, part lives, as Geddes would have seen it.

The "By Leaves We Live" statement could be simply put as – you can't eat money. Money, of itself, provides no sustenance, shelter or education nor security particularly when it fails to have value as in the Wall Street Crash of 1929 and subsequent Depression or any other economic event since. When hungry, would people rather have food or gold?

Is it a form of slavery to money to decide that things can only be done if there is enough money around (whatever its value – what if its value is zero?) or that things are worth doing in themselves? Somehow, things did get done before the advent of money. What makes life worth living? Is it family, children, friends, learning, humour, achievement, experiences, adventure, art, thought, etc... or cold metal coins? The clear implication of Geddes' statements is that money is a distraction from the reality of our existence. Money, from being a convenient means of exchange, has become

* Geddes preferred the three H's - "Heart, Hand and Head", arguably a more comprehensive view of education for human existence. Even today Governments and Business still stress the three R's and an arbitrary percentage attending University as essential to "compete (economically) with other nations" and as "factory fodder" at home. The three R's Geddes saw as but tools in a total, broad education.

"The Imperial Age continued the Mechanical by extending the latter's methods and goals to all corners of the earth. Hand-inhand with this imperialism, the Financial Age developed, for wherever pounds, francs or dollars went, the flag soon followed, and vice-versa.

The mainsprings of the Financial Age were the legislation of limited liability companies in England, the creation of monopolistic trusts in the USA, and the perfection of profiteering techniques in both countries.

(Boardman)

From 'The Coming Polity' (1917)

We have to re-open the coalmines, renew the machinery, and multiply the products like our predecessors of the industrial and liberal age; but not merely for sale and personal profit, but for clothing the naked. More important still, we have again to till and plant the ground; but not merely or mainly for market, but to feed the hungry. Again we have to build houses, but now no longer merely as properties, as comfort-villas or luxury-palaces - still less as

In 2004 the population of the world is over 6 billion with consequent pressure on resources and many areas of the world are still rapidly industrialising creating environmental pressures. The use of money allows irresponsible deforestation and plundering of resources at arms length around the world without heed for the local consequences. The absurdity of trading "pollution credits" or attempts to give a monetary value to a tree or blade of grass would undoubtedly have horrified Geddes although he would see it as an inevitable extension of our current economic system. As a biologist and evolutionist Geddes thought it was the quality of (i.e. the variety of its abilities), and quality-oflife of the organism in ecological terms, not the quantity, that gave it the best chance of evolutionary success and survival. A life-economy and real wages would be directed to these ends, a *death-economy* wouldn't. Tom Potter

On a personal note. Some years ago I came to the conclusions that: we should abandon the use of money, markets and nations as harmful to human existence, that the current economic system is incompatible with widely expressed environmental concerns and that we are one people on one planet. It has been a pleasure to discover support for this in the thoughts of my cousin Patrick. Geddes. It would be fitting that the proposal of alternatives to current and older systems should be the work of this generation saddled as it is with apparently no choice of economic systems. Geddes knew where he wanted to go - out of the straightjackets of finance and commerce - and into a system where things are done because they are worth doing and enhance life.

It has also been pleasing to discover lots of other cousins of Geddes descent and make friends with Project members here and abroad who appreciate what Geddes achieved in work and in thought. It has been an education!



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SIR PATRICK GEDDES 1854 - 1932 :: 11 :: **GEDDES TODAY**

Geddes' World 1/2

World

Cities.

a democratic society.

Geddes

Patrick Geddes



1854 Born in Ballater, Scotland, 9 December The English poet Alfred, Lord Tennyson, publishes his poem 'The Charge of the Light Brigade', a poetic description of the disastrous attack on October 25 1854 by the Light Brigade at the Battle of Balaclava, during the Crimean War.

> The English social scientist Herbert Spencer publishes Principles of Psychology, in which, several years before Charles Darwin's The Origin of Species, he sets out a theory of evolution.

6 May Sigmund Freud, Austrian neurologist, founder of psychoanalysis, born in Freiberg, Moravia (now Príbor, Czech Republic) (-1939). 26 July George Bernard Shaw, Irish dramatist, literary critic, and socialist propagandist, born in Dublin, Ireland (-1950). 16 October Oscar O'Flahertie Wills Wilde, Irish poet and dramatist, born in Dublin, Ireland (-1900).

1857 When Patrick is three the 16 November British troops, under the Scottish general Sir Colin Family moves to Perth, Scotland. Campbell, commander of the forces in India, future field marshal and Baron Clyde, relieve the north Indian city of Lucknow, besieged by Indian rebels.



12 August The first message by transatlantic telegraph cable is sent from Newfoundland, Canada, to Valentia, Ireland. 23 April Max Planck, German theoretical physicist who is the originator of quantum theory, born in Kiel, in the duchy of Schleswig (-1947). 14 July Emmeline Pankhurst, militant English suffragette, born in Manchester, England (-1928).

24 November Charles Darwin publishes On the Origin of Species by Natural Selection, which expounds his theory of evolution by natural selection, and by implication denies the truth of biblical creation and God's hand in Nature. It sells out immediately and revolutionizes biology.

Belgian inventor Etienne Lenoir builds the first internal combustion

engine in Paris, France. Operating on coal gas it has only a 4% efficiency.

The English writer Charles Dickens publishes his novel A Tale of Two

The English philosopher John Stuart Mill publishes On Liberty. His most

important work, it is an attempt to safeguard the rights of individuals in

10 March Scottish-born US inventor Alexander Graham Bell transmits the first complete sentence by voice over wire using his newly invented telephone in the USA: 'Mr Watson, come here. I want you'. marks the beginning of the end of the age of steam. More than 30,000 are built in the following decade.



German engineer Nikolaus Otto patents the four-stroke internal combustion engine, the prototype of modern engines. Its development

1 January Queen Victoria of Britain is proclaimed empress of India. The French bacteriologist Louis Pasteur discovers that certain bacteria die when cultured with another type of bacteria, suggesting that the latter gives off a toxic substance – an antibiotic.

6 December US inventor Thomas Alva Edison patents the phonograph. Recording involves the transmission of sound vibrations through a large horn and a diaphragm to a stylus, which inscribes a groove on a rotating wax cylinder. Reproduction of the sound is achieved by reversing the process. The first reproduction of a human voice occurs on the 29 November when Edison utters the words 'Mary had a little lamb'.

1878 Roscoff, France PG at- 30 November English chemist and physicist William Crookes describes tends marine biological station an early form of the cathode-ray tube, now known as Crooke's tube, to and Sorbonne University, Paris the Royal Society. It is a forerunner of the television tube. under Lacaze-Duthier (1878-9).

Dutch doctor Aletta Jacobs opens the first contraceptive clinic in the world, in Amsterdam, the Netherlands.

5 June Francisco 'Pancho' Villa, Mexican revolutionary who fights against the regimes of Porfirio Díaz and Victoriano Huerto, born in Hacienda de Rio Grande, Mexico (-1923).

1879 PG to Mexico for research. 3 September Afghan troops massacre the British legation at Kabul, Goes blind, invents "Thinking reigniting the Anglo-Afghan war ended by the Treaty of Gandamak on Machines" while blind (1879-80). 26 May.

Sight recovers on return home. 5 March William Henry Beveridge, British economist who was the chief architect of Britain's welfare policies, born in Rangpur, India (-1963). 14 March Albert Einstein, German-born US physicist who develops the theory of relativity, born in Ulm, Württemberg, Germany (-1955). 19 May Nancy Witcher Langhorne, Lady Astor, British politician and the first woman to sit in the House of Commons, born in Danville, Virginia (–1964). 7 November Leon Trotsky (adopted name of Lev Davidovitch Bronstein), communist theorist and activist, a leader in Russia's October Revolution of 1917, born in Ianovka, Ukraine, Russian Empire (-1940). 21 December Joseph Stalin (adopted name, Russian for steel, of Josef Vissarionovich Dzhugashvili), secretary general of the Communist Party of the Soviet Union 1922-53, and premier 1941-53, born in Gori, Georgia, Russian Empire (-1953).



home secretary.

German inventor Hermann Ganswindt proposes using steel cartridges loaded with explosives to achieve escape velocity and leave the Earth. He is the first to link rockets and space flight.

💠 PATRICK GEDDES 🗇

ATRICK GEDDES

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3 January J(ohn) R(onald) R(euel) Tolkien, English novelist, known for his Lord of the Rings trilogy, born in Bloemfontein, South Africa (-1973). The US artist Mary Cassatt paints The Bath.

4 December Francisco Franco, Spanish leader of the right-wing nationalist forces in the Spanish Civil War 1936-39, then dictator for life, born in El Ferrol, Spain (-1975).

1893 PG publishes "Chapters in New Zealand becomes the first country to extend the franchise to women. Modern Botany". Completes an- 6 November Peter Illyich Tchaikovsky, leading 19th-century Russian nex e to University Hall, Ram- composer who, amongst a great variety of works, composed the music say Gardens and Ramsay Lodge. for the ballets Swan Lake, The Nutcracker, and Sleeping Beauty, dies in St Expands Summer Meetings in Petersburg, Russia (53).



26 December Mao Zedong, Chinese Marxist theorist who is chairman of the People's Republic of China 1949–59 and chairman of the Chinese Communist Party 1949–76, born in Shaoshan, Hunan Province, China

1894 PG starts publishing 23 July Japanese troops seize the royal palace in Seoul, Korea, and take project, Patrick Geddes and Col- control of the country, which has traditionally been a Chinese fieldom. leagues, with William Sharp. 22 December Major Alfred Dreyfus, a Jewish French army officer, is

convicted of treason by a court martial, and is imprisoned on Devil's Stevenson

Island, French Guiana. The English writer Rudyard Kipling publishes his collection of tales The Jungle Book.

3 December Robert Louis Stevenson, Scottish novelist who wrote Kidnapped, Treasure Island, and The Strange Case of Dr. Jekyll and Mr Hyde, dies in Vailima, Samoa (44).

1895 Birth of PG's son, Arthur. 2 May Territory belonging to the British South Africa Company south Publishes "The Evergreen - A of the Zambezi is organized to form Southern Rhodesia. Northern Seasonal." Russian scientist Konstantin Eduardovich Tsiolkovsky publishes Gryozy meson o zemle i nebe/Dreams of Earth and Sky. The first book about space travel, EVERGREEN it discusses the possibility of space flight using liquid-fuelled rockets, "The Evergreen" and the idea of designing spacecraft with a closed biological cycle to

provide oxygen from plants for long flights.

modern communism, dies in London, England (75).



1858



1860



22 May Arthur Conan Doyle, Scottish novelist who creates the detective Sherlock Holmes, born in Edinburgh, Scotland (-1930). 30 June At the Oxford meeting of the British Association, Bishop Samuel Wilberforce and biologist Thomas Henry Huxley debate creationism

versus evolutionism. 17 March The Second Maori War breaks out in New Zealand, arising out of grievances against British settlers encroaching on aboriginal

territory. 5 May The Italian soldier and patriot Giuseppe Garibaldi and his Redshirts ('The Thousand') sail from Genoa, northwest Italy, to attempt to complete the unification of Italy.

3 March An edict emancipating serfs on private Russian estates is





proclaimed, ending the medieval practice which ties them to their landlords. 17 March The kingdom of Italy is formally proclaimed by the first Italian parliament. King Victor Emmanuel is proclaimed king.

12 April-13 April Confederate forces take the federal garrison of Fort Sumter, Charleston, South Carolina, after a 40-hour bombardment, marking the outbreak of the American Civil War. Rabindranath Tagore Indian Poet and Philosopher born.



22 September The US president, Abraham Lincoln, declares that all slaves will be free from 1 January 1863. The first casino opens in Monte Carlo, Monaco.



English chemist John Newlands devises the first periodic table. The French artist Edouard Manet paints Déjeuner sur l'herbe/Luncheon on the Grass. It causes an outcry when it is exhibited in the Salon in 1865, where it is condemned as badly painted and obscene because of its

1864



Scottish physicist James Clerk Maxwell introduces mathematical equations that describe the electromagnetic field, and predict the existence of radio waves.

The Russian writer Leo Tolstoy publishes the first part of his epic novel War and Peace. The second part appears in 1869.

The British Parliament passes the British Locomotives on Highways Act,

or 'Red Flag Act'. It reduces the speed limit for steam-powered carriages

to two miles per hour in cities and four in the country, and requires men

on foot carrying red flags to precede them. It stifles further development

26 May The surrender of the last Confederate army at Shreveport, near

New Orleans, Louisiana, ends the American Civil War.

of steam carriages and cars in Britain.

fungi.

composition of nude female figures and male figures in everyday dress.





12 June A secret treaty is agreed between Austria and France, by which the French emperor, Napoleon III, promises French neutrality in Austria's coming war with Prussia provided that Austria cedes Venice, which France will in turn hand over to Italy. The German embryologist Ernst Haeckel proposes a third category of

living beings intermediate between plants and animals. Called Protista, it consists mostly of microscopic organisms such as protozoans, algae, and







1880 PG demonstrator of The Suez Canal linking the Mediterranean and the Red Sea is used by Botany at University of Edin- 4,344,000 tons of shipping, 70 % of which is British. burgh (1880-9). "Writes, lectures, c. 1880 Ibn Saud, Arabian tribal and Muslim leader who founds the on Cell Theory, Classification of modern state of Saudi Arabia in 1932 and begins to exploit its oil Statistics, Principles of Econom- resources, born in Riyadh, Arabia (–1953). ics, Capitalist and Labourer, Fifty thousand private telephones are in use in the USA. **John Ruskin etc.**" Greenwich Mean Time is established as the legal time in the British Isles.



1882

Virgina Woolf







1885

1884



Violent pogroms against Jews begin in Russia and eastern Europe, forcing many Jews to emigrate westwards in succeeding years. Near East"

(Mustafa) Kemal Atatürk, Turkish soldier, statesman, and reformer, founder and first president of the Republic of Turkey 1923-38, born in Greece (-1938)

6 August Alexander Fleming, Scottish bacteriologist who discovers penicillin, born in Lochfield, Ayr, Scotland (-1955).

18 January A(lan) A(lexander) Milne, English author who creates Winniethe-Pooh, born in London, England (-1956).

25 January Virginia Woolf, English author and critic, born in London, England (–1941).

30 January Franklin Delano Roosevelt, US statesman, thirty-second president of the USA 1933-45 (re-elected three times), a Democrat, born in Hyde Park, New York (–1945).

1 May Chancellor Otto von Bismarck introduces a state sickness insurance scheme in Germany to lessen the appeal of socialism to the working classes.

27 August Krakatoa volcano, Indonesia, explodes in one of the most catastrophic volcanic eruptions in history. The explosion is heard nearly 3,000 miles away. Over 36,000 people in Sumatra and Java are drowned by an ensuing tsunami 35 m/115 ft high, and dust, which is thrown 80 km/50 miles into the air, drifts around the world, causing spectacular sunsets for over a year.

13 February (Wilhelm) Richard Wagner, German dramatic composer and theorist, who wrote the operatic sequence Der Ring des Nibelungen/ The Ring of the Nibelung dies in Venice, Italy (69).

April-August Germany occupies South West Africa, Togoland, and Cameroon.

6 July Gregor Mendel, Austrian monk and botanist who laid the mathematical foundations of genetics, dies in Brünn, Austro-Hungarian Empire (61).

The Spanish architect Antonio Gaudí begins work on the Sagrada Familia Church in Barcelona, Spain, an extravagant and idiosyncratic building that is still unfinished at his death in 1926.

Britain proclaims a protectorate in Southern New Guinea, following German annexation of the north part of the island. 5 February The Congo State is established as a personal possession of King Leopold II of Belgium.

25 February Germany annexes Tanganyika and Zanzibar, forming German East Africa and continuing its expansion into East Africa. 17 May Germany annexes Northern New Guinea and the Bismarck Archipelago.

5 June The British proclaim a protectorate in the Niger River region of West Africa. 26 January The Sudanese followers of the dervish Mahdi (prophet)



take over PG's projects.

1898

the process of pasteurization, dies in Saint-Cloud, near Paris, France **1896 Town and Gown Associa-** Queen Victoria becomes the longest-reigning British monarch. tion Ltd., formed by friends to 12 December The Italian inventor Guglielmo Marconi publicly

Friedrich Engels, German socialist philosopher who, with Karl Marx,

wrote The Communist Manifesto (1848) which laid the foundations of

28 September Louis Pasteur, French microbiologist who proved that

micro-organisms cause disease and fermentation and who developed

demonstrates his system for commercially viable radio communication in Britain and obtains a patent. 24 September F Scott Fitzgerald, US novelist and short-story writer, born in St Paul, Minnesota (-1940).

1897 PG and Anna In Cyprus as English physicist John Joseph Thomson demonstrates the existence of "economic missionary to the the electron, the first known subatomic particle. It revolutionizes

knowledge of atomic structure by indicating that the atom can be subdivided.



Emile Zola

Wreck of the

Hindenburg

(eppelin)

Walt

Disney

Monet

Water

Lilies

1901

The English writer Bram (Abraham) Stoker publishes his novel Dracula, a classic horror novel that launches the Dracula myth. The English writer H G Wells publishes his novel The Invisible Man. **28 March** Japan adopts the gold standard, linking its paper money directly to its gold reserves, the accepted Western base for a stable financial system.

12 August The islands of Hawaii are annexed to the USA. 13 January French novelist Emile Zola publishes his 'J'accuse!'/'I Accuse!', an open letter to the French president protesting that Alfred Dreyfus is the victim of an anti-Semitic plot.

28 March The first German Navy Bill is introduced by Alfred von Tirpitz and begins the expansion of the German navy and competition with Britain's naval power.

26 September George Gershwin, US composer and songwriter of Broadway musicals, born in Brooklyn, New York (-1937).

1899 PG receives £3000 from Sir 12 October A Boer ultimatum demanding Britain stop sending troops Robert Pullar to form Interna- to southern Africa expires and the Second Anglo-Boer War begins. tional School at Paris Exposition. New Zealand-born British physicist Ernest Rutherford discovers alpha In the USA, lecturing and organ- and beta rays, produced by the radioactivity of uranium.

ising American group of Inter- -1900 British archaeologist Arthur John Evans excavates the palace of national Association for the Ad- Knossos, Crete.

vancement of Science, Arts and The French artist Claude Monet paints Water Lilies, the first of a long Education to meet in Paris (to series that occupy him for the rest of his life (he dies in 1926). 1900).



21 July Ernest Hemingway, US novelist who writes A Farewell to Arms (1929) and For Whom the Bell Tolls (1941), born in Oak Park, Illinois (-1961).

1900 PG at Paris Exposition and **11 November** Following British conquests, the Boer forces under General the International School, Tries to Christiaan De Wet resort to guerrilla tactics, raiding communications and British outposts. Horatio, Lord Kitchener orders that women and save the Rue des Nations

children related to Boer combatants be interred in concentration camps, and extends the 'scorched earth' policy started by Field Marshal Frederick, Lord Roberts, destroying Boer farms.

German physicist Max Planck suggests that black bodies (perfect absorbers) radiate energy in packets or quanta, rather than continuously. He thus begins the science of quantum physics, which revolutionizes the understanding of atomic and subatomic processes.

2 July German inventor Ferdinand Graf von Zeppelin's lighter-than-air ship LZ-3D1 makes its first flight, at Lake Constance, Germany. It has an aluminium sheeting hull.

22 January Following the death of Queen Victoria of the United Kingdom after a brief illness, the prince of Wales accedes to the throne as Edward VII. The Scottish architect Charles Rennie Mackintosh designs the interior and furnishings for the Ingram Street Tea Rooms in Glasgow, Scotland. His work is one of the finest expressions of art nouveau design in Britain. 10 December King Charles XV of Sweden awards the first Nobel prizes, funded by the legacy of the Swedish industrialist Alfred Nobel.













Curie

3 December The English statesman William Ewart Gladstone forms a Liberal ministry in Britain after victory over the Conservatives in the general election. French geologist Louis Lartet is the first to discover the skeletal remains of anatomically modern humans, in a cave near Cro-Magnon, France. They are 35,000 years old.

The German philosopher Friedrich Nietzsche publishes Gözendammerung/ Twilight of the Idols.



The English philosopher John Stuart Mill publishes 'The Subjection of Women', an essay arguing for sexual equality. 2 October Mahatma Gandhi (honorific name of Mohandas Karamchand Gandhi), leader of the nationalist movement to free India from British rule, born in Porbandar, India (–1948). 1869-70 At the First Vatican council, a council of the Roman Catholic Church convened by Pope Pius IX, liberalism is condemned and the infallibility of the pope is asserted.



The English scientist William Henry Fox Talbot reduces photographic exposure time to one-hundredth of a second, making moving pictures feasible.

22 April Vladimir Ilyich Lenin, founder of the Russian Communist Party, leader of the Russian Revolution, and head of the Soviet Union 1917-24, born in Simbirsk, Russia (-1924).

1871 - 74 Private study and read- 18 October Charles Babbage, English inventor who designed the first ing in humanities and science.



digital computer, dies in London, England (78). Populations of selected countries (in millions): Germany, 41; USA, 39; France, 36.1; Japan, 33; Great Britain, 26; Ireland, 5.4; Italy, 26.8. 18 January Following the defeat of Emperor Napoleon III of France in the Franco-Prussian War, King Wilhelm I of Prussia is proclaimed German emperor at Versailles in France, the North German Confederation having been enlarged to include all the German states except Austria-Hungary.





7 September A meeting of the three emperors Wilhelm, Alexander, and Franz Josef in Berlin, Germany, leads to a tacit entente between Germany, Russia, and Austria-Hungary to uphold authoritarian rule in Europe.

The US astronomer Henry Draper develops astronomical spectral photography and takes the first photograph of the spectrum of a star – that of Vega.

c. 1872 Grigory Yefimovich Rasputin, Siberian peasant and mystic who influences the Russian tsar Nicholas II and tsarina Alexandra, born in Pokrovskoye, Siberia, Russia (-1916).





1874 Attends Edinburgh Uni- 30 November Winston Churchill, British prime minister 1940-45 and versity for one week. At Royal 1951-55, who leads Britain through World War II, born at Blenheim School of Mines, London stud- Palace, Oxfordshire, England (-1965). ies under Thomas Huxley.

David

Livingstone



in Bologna, Italy (-1937). 4 February The British general Garnet Wolseley burns the Ashanti capital of Kumasi in west Africa (modern Ghana), ending the war between the Ashanti and Britain over ending the slave trade.



Definitive legislation is passed outlawing the use of children as chimney



Mohammed Ahmed of Dongola capture the city of Khartoum, capital of Anglo-Egyptian Sudan, massacring the inhabitants and the occupying Anglo-Egyptian forces, including the Anglo-Egyptian commander, British general Charles Gordon.

1886 PG marries Anna Morton 1 January Britain annexes Upper Burma, though guerrilla warfare (1886), moves with her into slums continues.

of Old Edinburgh, there begin- 8 June British prime minister William Ewart Gladstone's Liberal ning 'conservative-surgery' reha- government is defeated on the second reading of the Irish Home Rule Bill, with 93 Liberals, including John Bright, Joseph Chamberlain, and bilitation. the Marquess of Hartington voting with the opposition. 8 May John S Pemberton invents the soft drink Coca-Cola in the USA: it goes on sale in Atlanta, Georgia, as 'the intellectual beverage and temperance drink', and is claimed to be a cure for headaches and dyspepsia.

1887 Birth of PG's daughter France organizes Cochin China, Cambodia, Annam, and Tonkin as the Norah. Starts University Hall as Union Indo-Chinoise (French Indochina).

student hostel, also Summer Polish philologist Luwik Lejzer Zamenhof devises Esperanto: based on Meetings in Edinburgh. phonetic spelling and a very simple grammar, it becomes the most widely accepted of the artificial languages. He invents it as a way of combatting nationalism. German immigrant Emile Berliner patents his gramophone, a machine

which plays discs, in the USA. Commercial production begins in Germany in 1889 and in the USA in 1894.

1888 PG issues Pamphlet, "Co- 15 June Wilhelm II becomes emperor of Germany on the death of his operation versus Socialism" . father, Frederick III.

Applies for Chair of Botany in The Dutch artist Vincent van Gogh paints Sunflowers and The Night Café. University of Edinburgh - does 13 August John Logie Baird, Scottish engineer who is the first to televise not get it. Delivers lecture on moving pictures, born in Helensburgh, Dumbarton, Scotland (-1946). "The Rise and Aims of Botany" 15 August T(homas) E(dward) Lawrence ('Lawrence of Arabia'), British at University College, Dundee scholar, military strategist, and author, born in Tremadoc, Caernarvonshire, Wales (-1935).

1889 PG Professor of Botany in 31 May The Naval Defence Act in Britain inaugurates an extensive naval University College, Dundee building programme, the prime minister Lord Salisbury undertaking that (1889-1919). Publishes "The Evo- Britain will maintain a navy equal to the combined strengths of the next lution of Sex" in collaboration two largest fleets according to his 'two-power standard'

with J. Arthur Thomson. 6 May The Eiffel Tower opens in Paris, France. Started in 1887, it is the

tallest building in the world at 300 m/984 ft high, and is made of 12,000 prefabricated wrought iron parts. It heralds a revolution in civil engineering. 16 April Charlie Chaplin, British-born US actor and director of the silent film era, who gains fame playing a pathetic but humorous character, born in London, England (-1977).



Groucho

Oscar

Wilde

Marx

1890

Nazi) Party, dictator of Germany 1933–45, born in Braunau, Austria (-1945) The French corset-maker Hermine Cadolle creates the first bra, which

18 December Sir Frederick Lugard occupies Uganda for the British East Africa Company.

The French artist Henri de Toulouse-Lautrec paints Dance at the Moulin Rouge.

take up cycling.

2 October Groucho (real name Julius) Marx, US comedian of stage, film, radio, and television along with two of his brothers, Harpo and Chico, born in New York, New York (-1977).

1891 Birth of PG's son Alasdair 4 April The Pan-German League is founded, a popular association dedicated to agitating for German expansionism.

and asteroids move or 'blink'. The Irish writer Oscar Wilde publishes his novel The Picture of Dorian Gray and Lord Arthur Savile's Crime and Other Stories. The Scottish writer Arthur Conan Doyle publishes the first of his Sherlock Holmes stories in Strand Magazine.

5 December Walt Disney, US motion-picture producer and creator of Mickey Mouse, Donald Duck, and other characters, born in Chicago, Illinois (-1966).

5 December Werner Heisenberg, German physicist and philosopher who introduced the uncertainty principle into quantum mechanics, born in Würzburg, Germany (-1976).

1902 Proposes National Insti- 11 July Robert Cecil, Lord Salisbury, retires as British prime minister, tute of Geography for Great Brit- and is immediately succeeded by his nephew Arthur Balfour. ain which did not materialise. British writer Beatrix Potter publishes the classic children's book The Gives a course of lectures on Tale of Peter Rabbit.

Nature Study at Cambridge. **27 February** John Steinbeck, US novelist who wrote *The Grapes of Wrath*, born in Salinas, California (-1968).

1903 Applies unsuccessfully for 15 March British forces under Colonel Morland complete the conquest directorship of Edinburgh Mu- of northern Nigeria by taking the key Nigerian town of Sokoto from seum of Science and Art. Con- the emir of Kano.

ducts Summer School in Edin- 17 November The Russian Social Democratic Party splits into the **burgh on theme of "Edinburgh** Mensheviks ('minority'), led by Grigory Plekhanov, and the Bolsheviks and its Region". Makes Dun- ('majority'), led by Vladimir Ilyich Lenin, at their London congress. The fermline civic survey (1903-4). latter group favours a violent seizure of power.

Publishes "City Development", 17 December US aviator Orville Wright makes the first successful flight report on Dunfermline survey in an aeroplane with a petrol engine at Kitty Hawk, North Carolina, (1903-4). Makes ideas known covering 37 m/120ft in a flight lasting just 12 seconds. During the day, through the newly organised So- Orville and his brother Wilbur make a number of flights, the longest ciological Society in London covering 260 m/852 ft and lasting 59 seconds.

George Orwell (Eric Arthur Blair), English novelist who wrote Animal Farm and Nineteen Eighty-Four, born in Motihari, Bengal, India (-1950).

1904 Lectures on "Cities and 22 April J Robert Oppenheimer, US theoretical physicist and director Their Culture Resources" at of the Los Alamos laboratory which built the first atomic bomb, born in London School of Economics. New York, New York (-1967).

Applies unsuccessfully for prin- 11 May Salvador Dalí, Spanish surrealist painter who also designed cipalship of Durham College of furniture, jewellery, and stage and film sets, born in Figueras, Spain (-Science.

> Spanish physiologist Santiago Ramón y Cajal demonstrates that the neuron is the basis of the nervous system

> German physicist Albert Einstein develops his special theory of relativity in a series of four papers in Switzerland.

24 March Jules Verne, French author who pioneered modern science fiction writing, dies in Amiens, France (77).

21 June Jean-Paul Sartre, French existentialist philosopher, novelist, and playwright, born in Paris, France (-1980).

The British government passes legislation to provide children with free meals at school.

10 February The British battleship HMS Dreadnought is launched at Portsmouth, England. Its massive armament (10 30 cm/12 in guns and 24 12-pounder guns) makes all other warships obsolete and its name becomes a generic term for battleships with large-calibre armament. 13 March Susan B(rownell) Anthony, US suffragette whose work eventually led to women's suffrage in the USA (1920), dies in Rochester,

New York (85). **22 October** Paul Cézanne, French post-Impressionist painter whose work

led to the development of cubism, dies in Aix-en-Provence, France (67).

31 August Britain and Russia sign a convention on Persia, Afghanistan, and Tibet, establishing zones of influence and removing obstacles towards an alignment of Russia with Britain and France against the Central Powers (Germany, Austria-Hungary, and Italy).

The Heidelberg jaw is discovered in a sand pit at Mauer, Germany. Belonging to Homo erectus, it is the oldest European hominid fossil discovered to date and thought to be 400,000 years old. French philosopher Henri Bergson publishes L'Evolution créatrice/Creative Evolution. 2 February Dmitry Mendeleyev, Russian chemist who developed the periodic table of elements, dies in St Petersburg, Russia (72). 22 May Laurence Olivier, English stage and film actor, director, and producer, born in Dorking, Surrey, England (-1989). 26 May John Wayne, US film actor who usually starred in westerns and war films, born in Winterset, Iowa (-1979).



frees women from the restrictions of corsets.

c. 1890 Bloomers, invented in the USA in around 1850 by women's rights advocate Amelia Bloomer, become fashionable in Britain as more women

The 'blink' comparator is invented. It permits the discovery of objects in the solar system by comparison of two photographs, taken a few hours apart, of the same region of the sky. Stars remain fixed, while planets



1906

1907

1905

(1903-4).

HMS Dreadnough

lean-Paul



Hans Christian Andersen

1876

sweeps in Britain. The British confectionery company Fry's introduces chocolate Easter

25 April Guglielmo Marconi, Italian physicist and inventor of radio, born

4 August Hans Christian Andersen, Danish storyteller, dies in Copenhagen, Denmark (70).

30 June Serbia, under the nationalist leader Jovan Ristic, declares war on the Ottoman Empire.

1892 PG starts "Outlook Tower" 11 August Following electoral defeat in the British general election, the in Edinburgh Conservative prime minister Lord Salisbury resigns and William Ewart Gladstone forms a Liberal ministry, with Lord Roseberry foreign secretary, William Harcourt chancellor of the Exchequer, and Herbert Asquith

Olivier with Marylin Monroe

Laurence

www.ballaterscotland.com/geddes





17 December William Thomson (Lord Kelvin), Scottish physicist who developed the absolute temperature scale, dies in Netherhall near Largs, Ayrshire, Scotland (84).



Aehrenthal and Alexander Izvolsky, hold the Buchlau conference. Austria undertakes not to oppose the opening of the Dardanelles to Russian warships and Russia agrees to Austria's proposed annexation of Bosnia and Herzegovina.

Geiger

counter

30 June An aerial explosion equivalent to 10-15 megatons of TNT flattens approximately 2,000 sq km/1,243 mi of forest near the Tunguska River, Siberia, Russian Empire. No meteorite fragments are discovered but it is thought to have been a fragment of a comet disintegrating in the atmosphere.

German physicist Hans Geiger and New Zealand-born British physicist Ernest Rutherford develop the Geiger counter, which counts individual alpha particles emitted by radioactive substances. 9 January Simone de Beauvoir, French existentialist writer, philosopher, and feminist, born in Paris, France (-1986). 15 October John Kenneth Galbraith, Canadian-born US economist known for his liberal ideas, born in Iona Station, Ontario, Canada.



1 January The first old-age pensions are paid out by the government in Britain. These are noncontributory: the payment is small and made on a restricted basis at the age of 70.

The suffragette Marion Wallace Dunlop becomes the first hunger striker in Britain: she is released after 91 hours.

13 April An army counter-revolution begins in Constantinople (modern Istanbul), Ottoman Empire, against the rule of the Young Turks, following agitation by the Islamic Mohammedan Union. Danish biochemist Søren Sørensen devises the pH scale for measuring

acidity and alkalinity. German physicist Albert Einstein introduces his idea that light exhibits 1918 PG publishes Indore Re- 21 April Universal suffrage is granted in Denmark. port on Town Planning and "pro- 16 July Nicholas II, tsar of Russia 1895–1917, is executed by the posed university for central In- Bolsheviks, in Yekaterinburg, Russia (50).

dia". Puts on pageant in Indore 8 November A German armistice commission meets the Allied for civic improvement. Launches delegation, headed by the French marshal Ferdinand Foch, in a railway "The Making of the Future" se- carriage in Compiègne, France. An armistice is agreed, to be effective ries with Branford and Slater. from 11 November.



-1919 A worldwide pandemic of Spanish influenza (so called because of its particular virulence in Spain) kills over 20 million people, more than were killed during the conflicts of World War I. The movement of the armed forces at the end of the war promotes its spread. Russian revolutionary leader Vladimir Ilyich Lenin publishes Gosudarstvo



1919 PG gives farewell lecture at 28 November In Britain, Lady Nancy Astor is elected in a by-election UCD on "The Rise and Aims of and becomes the first woman member of Parliament to take her seat. Botany". Plans Tel Aviv and the 4 January The Red Army takes Riga, Latvia, as the Russian communists University of Jerusalem. Organ- attempt to reconquer the Baltic states.

ogy in University of Bombay.



ises School of Civics and Sociol- 15 January Volunteer soldiers suppress the Spartacist rising in Berlin, Germany, in which the Spartacist leaders Karl Liebknecht and Rosa Luxemburg are arrested and shot. 2 March The Communist Third International (Comintern) is founded

to encourage world revolution. The debate over affiliation to this body will mark the split between socialist and communist movements and

23 March Benito Mussolini founds the Fasci d'Italiani di Combattimento, an Italian fascist movement.

28 June German representatives sign the peace treaty ending the 1914-18 war in the Hall of Mirrors of the Palace of Versailles near Paris. France



in 1914).

16 January Leon Trotsky, outmanoeuvred by Joseph Stalin in his battle for the leadership of the USSR, is dismissed from the chairmanship of the Revolutionary Military Council.

The Scottish electrical engineer John Logie Baird transmits the first television images of recognizable human faces.

The film The Battleship Potemkin, directed by Sergey Eisenstein, is released in the USSR, starring Alexander Antonov, Grigory Alexandrov, and Vladimir Barsky.

c. 1925 Idi Amin (Dada Oumee), president of Uganda 1971–79, who tortured and murdered between 100,000 and 300,000 Ugandans during his presidency, born in Koboko, Uganda.

A new constitution for Lebanon (a French mandate) seeks to balance the different communities in government by providing for a Maronite president, a Sunni Muslim prime minister, and a Shiite Muslim speaker of the chamber.

19 October Leon Trotsky and Grigory Zinoviev are expelled from the Politburo of the Communist Party in the USSR, having been defeated by Joseph Stalin on the question of whether to continue Vladimir Ilvich Lenin's New Economic Policy.

German-born US physicist Albert Michelson determines the speed of light to be 299,853 kps/186,329 mps.

The Scottish electrical engineer John Logie Baird transmits pictures of moving objects over telephone lines between London, England, and Glasgow, Scotland. The first demonstration of true television, the images are 30-line silhouettes.

The US artist Georgia O'Keeffe paints Black Iris.

The English writer A A Milne publishes his children's story book *Winnie*the-Pooh.

5 December Claude Monet, French Impressionist painter, dies in Giverny, France (87).

18 October Chuck Berry, US singer and guitarist and one of the first rock and roll stars, born in St Louis, Missouri.



Andrew

Carnegie



David Lloyd George

introduces Pensions

both wave and particle characteristics. The AEG Turbine Factory in Berlin, Germany, designed by the German architect Peter Behrens, is completed. It is one of the first steel and glass

buildings. The School of Art, designed by the Scottish architect Charles Rennie

Mackintosh, is completed in Glasgow, Scotland. It is one of the most original art nouveau buildings in Britain. Russian and Polish Jews set up the first kibbutz, Degania, at Lake Kinnaret, Tiberias, in Palestine. The increasing cost of living in the USA is resulting in people having smaller families.

emy

1910 PG influences Town-Plan- 22 August Japan formally annexes Korea, having already secured political ning Conference Exhibition in and military control of the Chinese fiefdom. London and prepares his epoch- 28 February The last Chinese labourers leave the Rand diamond mines making exhibit of Edinburgh in South Africa, the slave-like conditions of their employment having and its region at the Royal Acad- created a furore throughout the British Empire.



19 May Halley's comet – which comes near the Earth roughly every 75 years – returns, with the Earth passing through the comet's tail. In the USA, it is regarded by some as announcing the end of the world. 'Comet Pills', allegedly an antidote to the poisonous gases thought to be in the comet's tail, also sell well.

The Indian writer Rabindranath Tagore publishes his Bengali poetry collection Gitanjali/Song Offering.

23 March Akira Kurosawa, Japanese film director, born in Tokyo, Japan. 27 August Mother Teresa (born Agnes Gonxha Bojaxhiu), Albanianborn Indian ascetic who founded the Order of the Missionaries of Charity, devoted to helping the poor, (-1997).

1911 PG opens his "Cities and 17 August-19 August British railway workers, led by James Thomas Town Planning Exhibition" at and demanding greater union recognition, paralyse the country by holding Crosby Hall, Chelsea and takes the first national railway strike. it to other cities



burgh.

30 April Portuguese women get the vote. New Zealand-born British physicist Ernest Rutherford proposes the concept of the nuclear atom, in which the mass of the atom is concentrated in a nucleus occupying $1/_{10,000}$ of the diameter of the atom and which has a positive charge balanced by surrounding electrons. The English-born US writer Frances Hodgson Burnett publishes her children's novel The Secret Garden.

10 March Clocks are put back by 9 minutes and 21 seconds at midnight in France and Algeria, making Greenwich time the standard.

1912 PG refuses knighthood (for 12 February P'u-i, the last Manchu emperor of China, abdicates, and "democratic reasons". Gives China becomes a republic under provisional president Sun Zhong Shan "Masque of Learning" in Edin- (Sun Yat-sen).

Werner von Braun born German meteorologist Alfred Wegener suggests the idea of continental drift and proposes the existence of a supercontinent (Pangaea) in the distant past. 14 April-15 April The British luxury liner Titanic, carrying 2,224 people

on its maiden transatlantic voyage, hits an iceberg 640 km/400 miles off the coast of Newfoundland and sinks causing the deaths of 1,513. 23 March Werner von Braun, German rocket engineer who was also involved in the exploration of space in Germany and the USA, born in Wirsitz, Germany (–1977).

23 June Alan Mathison Turing, English mathematician who pioneered computer theory and computer processes, born in London, England (-1954).

1913 At International Exposi- October Henry Ford introduces the assembly line process, reducing the don.

tion in Ghent at first World Con- time required to produce a Model T car from 12.5 to 1.5 hours. gress of Cities, PG's exhibit wins 3 March On the eve of the inauguration of the US president, 5,000 Grand Prix in competition with women parade in Washington, DC, demanding female suffrage. German exhibit. Directs English mathematician and philosopher Bertrand Russell publishes the "Masque of Learning" in Lon- final volume of Principia Mathematica/Principles of Mathematics in collaboration with another English mathematician and philosopher, Alfred North Whitehead. They attempt to derive the whole of mathematics from a logical foundation.

5 February Fights between Caucasian and black American boxers in New York, New York, are banned by the New York State Athletic Henry Ford Commission in the USA.

New Zealand-born British physicist Ernest Rutherford splits the atom by bombarding a nitrogen nucleus with alpha particles, discovering that it ejects hydrogen nuclei (protons). It is the first artificial disintegration of an element and inaugurates the development of nuclear energy. The Bauhaus school of design, architecture, and crafts is founded in Weimar, Germany, by the German architect Walter Gropius. It is transferred to Dessau in 1926.

The first radio station in Britain is established at Chelmsford, Essex. Using a 6 kW transmitter, two half-hour speech and music programmes are broadcast daily. They are banned the following year for fear of commercialization.

11 August Andrew Carnegie, US steel magnate and philanthropist, dies in Lenox, Massachusetts (83).

1920 PG publishes "An Indian 5 May Britain is awarded a mandate over Iraq by the Supreme Council Pioneer: The Life and Work of of the Paris Peace Conference deciding terms for the end of WW I. Sir Jagadis Chandra Bose" **14 November** The Russian Red Army takes Sevastopol in the Crimea.

With the evacuation of General Peter Wrangel's White forces to Constantinople, Anatolia (modern Turkey), the civil war in Russia is effectively over, with the communists victorious.

US physicist Albert Michelson, using a stellar interferometer, measures the diameter of the star Betelgeuse to be 386,160,000 km/241,350,000mi, which is about 300 times the diameter of the Sun. It is the first time

Stalin, Lenin, Trotsky an accurate measurement of the size of a star other than the Sun has been made. (By the end of the 20th century, the diameter of Betelgeuse



is thought to be 1,100 million km/ 700 million mi; that is, 800 times the diameter of the Sun. German sociologist Max Weber publishes his influential Die Protestantische Ethik und der Geist des Kapitalismus/The Protestant Ethic and the Spirit of Capitalism.

16 January Prohibition (the ban on manufacturing, selling, or transporting alcohol) begins in the USA, leading to an increase in the sales of soft drinks and coffee and a thriving bootleg and homebrew industry. 7 September The first 'Miss America' beauty competition is held in Atlantic City, New Jersey; the winner is Miss Margaret Gorman. 18 May John Paul II, pope from 1978, the first non-Italian pope in 456 years, born in Wadowice, Poland.

Five million people die in a famine in the Volga region of Russia, a consequence of Bolshevik food requisitioning policies and drought. 21 February The nationalist army officer Reza Khan stages a coup in Persia (modern Iran).

9 July The Irish nationalist leader Eamon de Valera, on behalf of the self-declared Irish Republic, agrees a truce with the British authorities (fighting ends two days later).

The Einstein Tower in Potsdam, Germany, designed by the German architect Erich Mendelssohn, is completed, one of the finest examples of expressionist architecture.

Swiss psychologist Carl Jung publishes Psychologische Typen/Psychological Types, in which he differentiates two personality types: extroverted and introverted.

5 May Chanel No. 5 perfume, created by perfumer Ernst Beaux, is launched.

19 August Gene Roddenberry, US writer and film and television producer who created *Star Trek*, born in El Paso, Texas (-1991). 27 November Alexander Dubcek, Czechoslovak communist leader 1968-69 whose liberal policies led to the Soviet occupation of Czechoslovakia (now the Czech and Slovak Republics), born in Uhrovec, Slovakia (-1992).

20 July-24 July The Council of the League of Nations approves mandates for the former German colonies of Togoland (now Togo) and the Cameroons to France and Britain, and Tanganyika (now Tanzania) and Palestine to Britain.

24 June The Jewish German foreign minister Walther Rathenau is murdered by anti-Semitic nationalists.

31 October The Italian fascist leader Benito Mussolini forms a government of liberals, nationalists, and fascists at King Victor Emmanuel III's request.



Albert

Michelson

Chuck

Logie

Berry

1927

1926

Georges Lemaître (centre) with Millikan and Einstein



Che

1929

1930

(Ernesto)

Guevara

Wall Street Crash 1929

Brown.

2 September The Turkish president Mustafa Kemal Pasha (later known as Atatürk) is empowered to nominate all candidates in the elections, giving his People's Party a monopoly.

Belgian astronomer Georges Lemaître proposes that the universe was created by an explosion of energy and matter from a 'primaeval atom' the beginning of the Big Bang theory.

German physicist Werner Heisenberg propounds the 'uncertainty principle' in quantum physics, which states that it is impossible to simultaneously determine the position and momentum of an atom. It explains why Newtonian mechanics is inapplicable at the atomic level. 6 October The film The Jazz Singer, directed by Alan Crosland and produced by the film company Warner Brothers, is released in the USA. It is the first feature film with spoken dialogue, and it stars Al Jolson, May McAvoy, and Warner Oland. All US film studios convert to sound within two years.

6 August Andy Warhol, US artist and film-maker, a leading exponent of Pop Art in the 1960s, born in Pittsburgh, Pennsylvania (-1987).

1928 PG marries Miss Lillian 12 May An Italian law abolishes female suffrage, reduces the electorate from 10 million to 3 million, and arranges for 400 government candidates to be accepted or rejected en bloc.

1 September Albania is proclaimed a kingdom and President Ahmed Bey Zogu is elected as King Zog.

1 October The Soviet leader Joseph Stalin ends the New Economic Policy and introduces state-directed economic planning and distribution, the development of industry, and collectivization of agriculture, in accordance with the first Five-Year Plan.

Scottish bacteriologist Alexander Fleming discovers penicillin when he notices that the mould Penicillium notatum, which has invaded a culture of staphylococci, inhibits the bacteria's growth.

4 February The first demonstration of colour television is given at the Dominion Hotel, London, England, on a 9 ft by 12 ft screen, by John Logie Baird.

The Walt Disney cartoon Steamboat Willie is released in the USA, starring Mickey Mouse, the first animated film with sound.

The English writer D H Lawrence publishes his novel Lady Chatterley's Lover privately in Florence, Italy. Thought obscene, the full text is not published until 1959 in the USA, and 1960 in Britain. 14 June Che (Ernesto) Guevara, Cuban and South American communist guerrilla, born in Rosario, Argentina (-1967).

24 October–29 October Share values crash on the Wall Street stock market, New York, starting with 'Black Thursday' and continuing (after closure of the market from noon on 24 October until 28 October) on 'Black Monday' (28 October) and 'Black Tuesday' (29 October). Widespread panic results in the trading of some 16.4 million shares, a new record. The episode triggers still more panic in the days and weeks ahead, ultimately precipitating the Depression.

3 October The name of the Kingdom of the Serbs, Croats, and Slovenes is changed to Yugoslavia as part of King Alexander I's attempts to end ethnic divisions within the country.

German psychiatrist Hans Berger invents the electroencephalograph, which measures and records brain wave patterns.

The German writer Alfred Döblin publishes his novel Berlin Alexanderplatz.

24 August Yassir Arafat, Palestinian nationalist politician and president of the Palestine Liberation Organization (PLO) from 1969, born in Jerusalem, in the British mandate of Palestine.

12 March–6 April The Indian nationalist leader Mahatma Gandhi opens a civil-disobedience campaign in India with his 'Salt March' (a march from Ahmedabad, Gujarat, to Dandi on the coast where, on 6 April, Gandhi seizes salt to protest at the levying of salt tax on poor people). 3 April Ras Tafari, regent of Ethiopia, becomes emperor on the death of Empress Zauditu; he assumes the name Haile Selassie ('Might of the Trinity').

18 February US astronomer Clyde Tombaugh, at the Lowell Observatory, Arizona, discovers the ninth planet, Pluto. English inventor Frank Whittle patents a turbo-jet engine. It is later used on the first jet aeroplane. The US artist Grant Wood paints American Gothic, which becomes an icon of US life, and Stone City, Iowa. 5 August Neil Armstrong, US astronaut and the first person to set foot on the Moon (1969), born in Wapakoneta, Ohio.











1921

1922



12 September Jesse Owens, black US track and field athlete who won four gold medals at the 1936 Olympics in Berlin, born in Danville, Alabama (-1980).

1914 PG makes civic survey of 28 June Archduke Franz Ferdinand of Austria-Hungary (50) and his **Dublin.** On way to India, Cities wife are assassinated at Sarajevo, Bosnia, by Gavrilo Princip, an 18-year-Exhibition wrecked by German old Bosnian Serb student linked with the Serbian nationalist society 'the submarine.



Black Hand'. The death of Archduke Ferdinand is to spark off World War I. James Joyce Minimum The Irish writer James Joyce publishes his collection of short stories Dubliners. The stories were written between 1904 and 1907.

c. 1914 Soldiers fighting in World War I find wristwatches a practical option, even though they had previously been considered effeminate.

1915 PG presents Cities Exhibi- Women in wartime Britain are increasingly taking on men's tion (replaced by friends) in In- responsibilities in the workplace, and are proving more productive in many fields

Conducts Summer Meeting in November The Ku Klux Klan, a racist society that originated in the London on "The War: Its Social 1860s, is revived by William Joseph Simmons near Atlanta, Georgia, Tasks and Problems". Returns to dedicated to 'white supremacy' and 'Americanism'. Within six years it

India.

Battle

Somme

dia.

attracts a membership of nearly 100,000. 7 May A German submarine sinks the British liner Lusitania off the south coast of Ireland, killing 1,198 passengers and crew, including

114 US citizens. 7 April Billie Holiday (real name Eleanora Fagan), US jazz singer, born in Baltimore, Maryland (-1959).

6 May Orson Welles, US film actor, director, producer, and writer, best known for Citizen Kane, born in Kenosha, Wisconsin (-1985). The film The Tramp, directed by Charlie Chaplin, is released in the USA. He also stars in it, with Edna Purviance.

(1916-17)

of the

1916 PG In Paris and India 1 July-18 November French and British troops mount the Battle of the Somme in France, a massive offensive which gains 8 km/5 mi of territory. The British Army suffers 60,000 casualties (including 20,000 dead) on the first day, while the whole campaign results in over 620,000 British and French casualties and about 450,000 German casualties.

30 December Grigory Yefimovich Rasputin, Siberian peasant and mystic, the 'debauched holy man' who influenced the Russian tsar Nicholas II and tsarina Alexandra, is murdered in Petrograd, Russia by a group of nobles (c. 54).

German physicist Albert Einstein publishes The Foundation of the General Theory of Relativity, in which he postulates that space is curved locally by the presence of mass and that this can be demonstrated by observing

the deflection of starlight around the Sun during a total eclipse. This replaces previous Newtonian ideas which invoke a force of gravity. 9 July Edward Heath, prime minister of Britain 1970–74, a Conservative, born in Broadstairs, Kent, England.

The Dada movement (producing iconoclastic 'anti-art' works) emerges in Zürich in Switzerland, its leading figures including the Romanian writer Tristan Tzara and the French artist Hans Arp. It lasts until the early 1920s, when it is absorbed by surrealism.

1917 Death of PG's son German submarine blockades of shipping lead to food shortages in Alasdair. Death of wife Anna. Britain.



6 November The 'October Revolution' takes place in Russia, Vladimir Ilyich Lenin and the Bolsheviks seizing the Winter Palace in Petrograd, Russia, on 7 and 8 November and overthrowing the provisional government. The revolution is named after the date on which it commences under the old Julian calendar (24 October).

The US inventor Edwin Armstrong invents the superheterodyne radio circuit. It allows easy tuning of weak radio waves, which it also amplifies. Its design becomes the basis of radar, television, and all amplitude modulation (AM) radios.

The films Easy Street, The Cure, and The Immigrant, all directed by Charlie Chaplin, are released in the USA. Chaplin also stars in them alongside Edna Purviance.



The US inventor Clarence Birdseye develops a rapid freezing method of preserving food that also preserves its flavour.



1923 Geddes in the USA



30 December The Union of Soviet Socialist Republics (USSR) is established through the confederation of Russia, Belarus, the Ukraine, and the Transcaucasian Federation.

Italian physicist Guglielmo Marconi suggests that radio waves may be used to detect moving objects. The US Naval Research Laboratory tests the idea and detects a ship moving between the receiver and transmitter. It is the first example of a sophisticated radar system.

18 October The privately owned British Broadcasting Company (BBC) is established. It is nationalized as the British Broadcasting Corporation in 1925.

2 August Alexander Graham Bell, Scottish-born US scientist who invented the telephone, dies in Nova Scotia, Canada. 8 November Christiaan Barnard, South African surgeon, who performed the first successful heart transplant, born in Beaufort West, South Africa.

15 November The value of the German mark drops to rate of 4,200,000 million to the US dollar; the government introduces a new currency, the rentenmark, to replace the mark.

26 May Emir Abdullah ibn Hussein (second son of King Hussein of the Hejaz) is proclaimed ruler of Transjordan (modern Jordan), which becomes an autonomous state under a British mandate. 26 October-8 November The Imperial Conference in London, England,

recognizes the right of the Dominions (Australia, New Zealand, Canada, and South Africa) to make treaties with foreign powers. 8 November–9 November In the 'Munich Putsch', the German Nazi

leader Adolf Hitler and his National Socialist German Workers' (Nazi) Party attempt a coup to overthrow the Bavarian government in Munich, Germany.

1 September Tokyo and Yokohama, Japan, are destroyed by an earthquake estimated to measure 8.3 on the Richter scale; 140,000 die. German mathematician Hermann Oberth publishes Die Rakete zu den Planetenräumen/The Rocket into Interplanetary Space, a treatise on space-flight in which he is the first to provide the mathematics of how to achieve escape velocity.

The Russian-born US engineer Vladimir Zworykin develops the iconoscope in the USA, an image-scanner that can produce electronic signals for reconstitution on the screen of a cathode-ray tube – the basis of television

Austrian psychiatrist Sigmund Freud publishes The Ego and the Id, in which he elaborates his division of the mind into the id, ego, and superego. The Radio Times, a listeners' guide to radio programmes, is launched in

13 February Charles (Chuck) E Yeager, US test pilot, the first person to break the sound barrier, born in Myra, West Virginia.

Australian-born South African anthropologist Raymond Dart discovers

the skull of an early hominid at Tuang, Botswana, which he calls

1924 PG founds and carries on The German firm Leitz introduces the Leica camera, the first Scots College, hall of residence commercially produced camera that takes 35-mm film. for foreign students at University 4 November Ramsay MacDonald resigns as British prime minister

of Montpellier (1924-32). following Labour's electoral defeat; a week later Stanley Baldwin forms a Conservative government with Austen Chamberlain as foreign secretary







John Logie Baird



Gershwin

The Russian-born US engineer Vladimir Zworykin patents the kinescope television receiver. It develops into the modern television picture tube. The Scottish engineer John Logie Baird produces televised images in outline. French writer André Breton publishes his Manifeste du surréalisme/Surrealist Manifesto.

and Winston Churchill as chancellor of the Exchequer.

The Chilean writer Pablo Neruda publishes Veinte poemas de amor y una canción desesperada/Twenty Love Poems and a Song of Despair.

The US composer George Gershwin completes his orchestral work Rhapsody in Blue.

12 June George Herbert Walker Bush, 41st president of the USA 1989-



The Empire

State Building

Wood

Gothic

American

1931 Publishes, with J. Arthur The Chinese communist leader Mao Zedong establishes the Chinese Thomson, "Life: Outlines of Soviet Republic (Jianxi Soviet) in southeast China. Many of its social General Biology".

policies will be applied to the entire country after the communist takeover in 1949.

August One of the worst floods in history occurs when the Huang Ho River, China, overflows its banks; 3.7 million people die.

30 April The Empire State Building is completed in New York. Its designers are the architectural firm of Shreve, Lamb, and Harmon. It has 102 floors and soon becomes a symbol of the city. At 381m/1,250 ft, it remains the highest building in the world until 1972.

The Spanish artist Salvador Dalí paints The Persistence of Memory, one of his best-known works.

2 March Mikhail Gorbachev, Russian politician, president of USSR 1990-91 during the downfall of communism and the breakup of the Soviet Union, born in Stavropol Kray, Russia.

7 October Desmond Tutu, South African Anglican bishop, a vigorous opponent of apartheid, born in Klerksdorp, South Africa.

3 October Britain terminates its mandate over Iraq, and it is admitted to the League of Nations as an independent state.

4 January Following the return of the nationalist leader Mahatma Gandhi to India from the second Round Table Conference in London, England, and the revival of civil disobedience, the Indian government is granted emergency powers for six months. The Indian National Congress is declared illegal and Gandhi is arrested.

2 February Sixty nations, including the USA and the USSR, attend the Geneva Disarmament Conference, at which a French proposal for an

armed force under international control is opposed by Germany. 8 November Franklin D Roosevelt wins the US presidential election in a Democratic landslide, with 472 electoral votes to the Republican Herbert Hoover's 59 votes. In the House of Representatives, Democrats pick up 90 seats for a 310–117 majority; in the Senate, Democrats gain 13 seats for a majority of 60-35.

13 March In the German presidential election, the conservative former field marshal Paul von Hindenburg receives 18.6 million votes (49.6%) against the Nazi leader Adolf Hitler's 11.3 million (30.1%)

-1934 Soviet leader Joseph Stalin collectivizes farms and seizes grain and livestock in the Ukraine and Caucasus regions, starting a famine; an estimated 5 million people die.



27 October Sylvia Plath, US poet and novelist, born in Boston, Massachusetts (-1963)

22 August-10 September In collaboration with Baird Company, the British Broadcasting Corporation (BBC) begins the first regular television service, with transmissions between 11 a.m. and 11:30 p.m.

Postscript

"Geddes was on the side of life" - Lewis Mumford.

Franklin D and

Eleanor

Frida

Kahlo

Roosevelt

If you have seen our exhibition and if you have made it through this chronology and timeline to here you will have seen some of the great world events and historical figures who were born or lived in Geddes's lifetime. Patrick Geddes deserves to be recognised with many of the great, good figures here more than, in particular, the infamous listed here. It is clear from this admittedly limited and arbitrary selection that science and art were making great contributions at this time. Geddes fervently desired the coming together of science and art and its availability to all. In this time science in particular was not tied to commerce as much as now. It will also be noted, by contrast, that governments and business were making great strides in brutality and exploitation through wars, empires and finance. Boardman, Mumford and Kitchen, noted biographers or commentators on Geddes, place Patrick Geddes's genius on the same level as Leonardo da Vinci, Aristotle and Darwin. We agree. If you do we hope you will investigate Geddes, and his relevance, further. TP



Charles (Chuck) E Yeager born

Sigmund

Freud

Britain.

1932 PG Knighted. Dies at Montpellier, France.

Memorial to Indira Gandhi



93, a Republican, born in Greenwich, Connecticut.

28 April Britain returns sterling to the gold standard (linking the value of the pound to the Bank of England's gold reserves) at the prewar level of US \$4.86, an act deemed necessary by politicians to maintain London, England, as an international centre of finance, but which leads to increasing difficulties for British industry.

1 May Cyprus is declared a British crown colony (having been occupied

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PLACE place-FOLK place-WORK WORK work-FOLM work-PLACE FOLK folk-PLACE Folk-WORK

A simple Geddesian "Thinking Machine" showing the relationships between people, where they lived and essential to understand all these survey before plan and action. This has become the basis of good planning.

As a stymied biologist and compassionate man Geddes used his scientific training and evolutionary beliefs to try to better the lot of his fellow urban and rural dwellers, first

in Edinburgh and then in what they did. Geddes thought it many locations around the aspects through comprehensive world. Geddes's time had seen the creation of slum

conditions as a result of rapid urbanisation and the Industrial Revolution in the West, decay in the Far and Near East.

Geddes saw a disconnection between countryside and city. Coming as he did from a rural village (Ballater) and rural town (Perth), he had the experience, denied to lifelong town dwellers of growing up in these areas, seeing (particularly in Perth) the relations between "Place, Work and Folk". Geddes was not in any sense some sort of rustic traditionalist but a realist. He was a realist in that he saw the necessary relations between town and country and their interdependence, despite metropolitan mores. He saw that we are all dependent on the land for food - in Geddes's case he saw both rural and urban areas as places to produce food. This was particularly to counter the poor city diet of his day – still a major concern in our time. Fruit trees should be planted at every opportunity, gardens should be cultivated and each house or block should have space for a garden to help produce the healthy life. He also saw that urban dwellers needed some of the benefits of rural life as well as the services and culture offered by the city. To this end he always tried to incorporate parks, communal green areas and ways to let in sunshine and fresh air into his plans to relieve the squalor of slums and run down areas and in healthy new developments for example those in the extension of Tel Aviv (right). In evolutionary terms and as a "dissident Darwinian" (See Panel 10) Geddes saw cities as constantly evolving organisms, in constant need of renewal to maintain them as decent places to live, indeed he saw this as a good alternative to war. He stressed the necessary survey, consultation, participation, co-operation, planning and action that would allow them to evolve on a human scale and in a humane manner. Major reports and publications include "City Development" and "Cities in Evolution".

Creating community. Modern day air. Here Geddes used his signatur 'conservative surgery" on exi Edinburgh & India, in a new c what he called "Home Bloc commerce with green, comm India, as here, Geddes had creating spaces for people



Patrick Geddes in Indore, India 1919

lived charity, they placed them in projects that enabled refugees to earn their own living and to repay the sums advanced to them." This late 19th Century approach sounds very like that taken by late 20th Century overseas aid and charitable organisations.

Quotes from - Philip Boardman "The Worlds of Patrick Geddes"

Legacy - back home in Scotland

"Lord Holfords words at the Centenary of Geddes's birth in 1954 at the Outlook Tower (in Edinburgh) - at which I was present - are appropriate enough to this essay: 'I am here as President for the time being of the Town Planning Institute and for the simple reason that the Institute without Geddes would hardly have existed. As a trade union it might perhaps have come into existence; but as a voluntary association, a learned society, it would have had an insecure foundation without the work that Geddes did. Then I am here as teacher, to acknowledge him as the great educator and interpreter of the function of environmental planning in ordinary life... in the third place I am here just because I did not know Patrick Geddes in person, because I was never directly stimulated or exasperated by his prescriptions for regional survey, his proposals for conservative surgery, his plans for regional development. On the other hand I cannot escape his influence. The Greek epigram on Plato is applicable to him: Wherever I go in my Ramsay Gardens, Edinburgh mind I meet Geddes coming back!' From "Grieve on Geddes" by Prof. Sir Robert Grieve.

"Conservative Surgery" - India



The urban ideal of a "place-work-folk" balance was realized in Tel Aviv and – thanks to the foresight, flexibility and broad-based knowledge evinced by **Geddes** back in the mid-1920s – has withstood the test of time. His plan was intended for a population of 100,000, but already by the end of the British Mandatory rule the city comprised some 8,000 buildings and a population of 150,000. The drift to Tel Aviv, and its rapid development and expansion into a leading urban centre, vastly exceeded the expectations of the local authorities and of Geddes himself. Yet even today, notwithstanding the exponential growth of business activities and traffic (during the week some 100,000 commuters arrive in town, joining an equal number of residents of the city's historic core alone), Tel Aviv remains a green city, with a clear distinction between residential and commercial areas, a fair quality of life, easy access to centres of activity and a well-developed social and cultural life. The architectural concept set out by the Geddes Plan and realized in the "White City" is reflected in Tel Aviv's characteristically free and easy atmosphere – a phenomenon that finds vivid expression in local literature and poetry." Nitza Szmuk, from her book "Dwelling on the Dunes - Tel Aviv, Modern Movement and Bauhaus Ideals"



From the UNESCO Report on declaring Tel Aviv a World Heritage Site in 2004

"Outstanding universal value"

"The White City of Tel Aviv can be seen as an outstanding example in a large scale of the innovative town-planning ideas of the first part of the 20th century. The architecture is a synthetic representation of some of the most significant trends of modern movement in architecture, as it developed in Europe. The White City is also an outstanding example of the implementation of these trends taking into account local cultural traditions and climatic conditions. Tel Aviv was founded in 1909 and built under the British Mandate in Palestine. The area of the White City forms its central part, and is based on the urban master plan by Sir Patrick Geddes (1925-27), one of the foremost theorists in the early modern period. Tel Aviv is his only large-scale urban realization, not a 'garden city', but an urban entity of physical, economic, social and human needs based on environmental approach. He developed such innovative notions as 'conurbation' and 'environment', and was pioneer in his insight into the nature of city as an organism constantly changing in time and space, as a homogeneous urban and rural evolving landscape. His scientific principles in town planning, based on a new vision of a 'site' and 'region', influenced urban planning in the 20th century internationally. These are issues that are reflected in his master plan of Tel Aviv. The buildings were designed by a large number of architects, who had been trained and had practised in various European countries. In their work in Tel Aviv, they represented the plurality of the creative trends of modernism, but they also took into account the local, cultural quality of the site. None of the European or North-Africa realizations exhibit such a synthesis of the modernistic picture nor are they at the same scale. The buildings of Tel Aviv are further enriched by local traditions; the design was adapted to the specific

When planning in an existing area Geddes held to the view that "Diagnosis before Treatment" was required and that "Conservative Surgery" was usually more

appropriate and sympathetic to an area involving the least upheaval. It was also usually cheaper than schemes Geddes considered to be wrongheaded or grandiose. These illustrations from "Patrick Geddes in India" by Jaqueline Tyrwhitt demonstrate Geddes's sensitive "treatment"



A. Portion of Tanjore Fort. The Municipal Council's proposals for the relief of congestion. Cost about Rs 30,000. Scale J cm. equals 100 feet. B. Portion of Tanjore Fort. A Magnostic survey." C. Portion of Tanjore Fort. The congested area as it would appear after the application of 'conservative surgery.' Cost about Rs 5,000.

after extensive "diagnosis" (survey) in Tanjore in India. As can be seen Geddes's scheme is a sixth of the cost of the Council's proposal and requires



demolition of very few (the worst) houses compared with the initial straight line approach, bulldozing through many homes. Geddes conserved and renovated as much as he could in his schemes rather than pursue often commercially motivated mass demolition.

Rural Planning - Cyprus

In 1897 the massacre of 6,000 Armenians on Turkish territory and the subsequent flood of Armenians to Cyprus made, as befits their radicalism, Patrick and Anna Geddes determined to do something to help the lot of the refugees. They sailed for Cyprus and surveyed the Island for three months looking for solutions to coping with and resettling the refugees.

"Solve the agricultural question and you solve the Near-East Question!' P.G. not only said and wrote this in 1897; he and Anna proved it in farm after farm, village after village in Cyprus. There is no permanent reason for men to kill each other.... Give them hope of better land, of enough food for their families, and you remove a main cause of bloodshed." This sounds familiar today - particularly over land and water questions.

'Geddes made plain in actual deed as well as words what should and could be accomplished. Near the port of Larnaca he established several Armenian families on small farms rented for a number of years, providing them with the necessary seed and implements and a small cash loan without interest.' He went on to establish more and larger farms, an agricultural school, houses, repaired irrigation and planned for crops that would give steady employment to many workers. 'During their three month sojourn in Cyprus, Geddes and Anna invested some $\pounds 2,000$ in 'productive relief'. "Instead of dissipating the funds in outright and short-



climatic conditions of the site,

giving a particular character to the buildings and to the

ensemble as a whole."

TP

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Darwin on Geddes Mumford on



Geddes



"There are a few people, whose judgments have the right to be respected, who regard Patrick Geddes as one of the truly seminal minds the last century produced: a philosopher whose knowledge and wisdom put him on the level of an Aristotle or a Leibnitz."...."Patrick Geddes is a man to reckon with. If our generation manages to live down its automatisms and

mechanisms and sadisms, its debilitating financial para-

sitism and its fatal moral complacency, if it actually es-

capes the Necropolis it has prepared for itself, in short

if the forces of life once more become dominant, the

figure of Geddes will stand forth as perhaps the cen-

tral prophet of the new age. There could be no better

symbol of Life Insurgent and Humanity Resurgent than

DESCRIPTION OF PROCESSION KINGS OF SCOTLAND

This book was found in the archives of the local estate to Ballater - Invercauld. (see Panel 9).

DESCRIPTION OF PROCESSION KINGS OF SCOTLAND

DOWN, 27th March 1882

DEAR SIR,-I have read several of your biological apers with very great interest, and I have formed, if you vill permit me to say so, a high opinion of your abilities. can entertain no doubt that you will continue to do scellent service in advancing our knowledge in several ranches of science. Therefore I believe that you are well itted to occupy any chair of natural history, for 1 am onvinced that example is fully as important as precept for tudents.-I remain, dear Sir, yours faithfully,

CHARLES DARWIN.

document is most likely from Geddes's application for the Chair of Botany at Edinburgh University.

Gandhi, 1940 (left). (Below) Gandhi with Charlie Chaplin



Amenia New York, November 1943 Lewis Mumford - from his introduction to the book 'Patrick Geddes: Maker of the Rabindranath Tagore and Mahatma Future" by Philip Boardman.

Touched by Tragedy

"In the Field 29/6/17

Patrick Geddes himself.

Dear Professor Geddes,

Thank you for your letter. I have written to you some time back and hope you may have received it before now. Your son from the first took everything seriously and it was easy for me to see that he was sure to make a name for himself as an observer. There is no doubt that his training with you before the war enabled him to become so proficient in so short a time. Map reading and accurately placing on the map what is seen from the air is our chief work and you will understand that came readily to him with his knowledge of maps. His devotion to duty and care of his officers and men made me put his name forward for promotion at an early date. He was invaluable to me and I miss him every day, as we did so many things together. I was simply devoted to him and I hope and think he liked me both as a friend and his commanding officer. Although he quickly rose to being made a Major, I am certain there was no one who but said he richly deserved it, he was loved by all his men and officers, but at the same time, there was no lack of discipline among them. I fear I may not write about the work he did, (because of censorship) but sincerely hope I may one day be able to tell you in full of all his doings, how he was rewarded with the M.C. etc. was proud to see he has also been awarded a French decoration which he would have been so pleased and honoured to have got. (The Cross of the Legion of Honour for his liaison work with the French). Did I tell you that we buried him very simply as I knew he would have liked. Mears, (Alasdair's brother in law) another officer and myself, were present a Scotch Clergyman read a very nice service and then as if they knew, the guns, that had been ranged so well, boomed out on all sides, as if to pay him a last tribute. The dear boy lies there now, and the guns are all about him until, we move forward again.



will hardly allow me to do so. I must, however, thank our Lion King-at-Arms for the assistance of his special The useal is not in owkened so handle so it at first appears. It checkly be or left. Processed at full length on a well, it can be reast easily even; it can has be divided into two, or three, parts and framed.

Boardman on

Geddes



...Geddes was in modern times-although in different fields-what Leonardo (Da Vinci) had been four hundred years before: a prodigy in physical endurance, range of interests, and imaginative powers." ...what few persons in any field now know is that Patrick Geddes achieved one of his earliest ambitions: he became, in a sense, a second Darwin. Not by reason of an epoch-making pronouncement as spectacular as "The Origin of Species"; that is self evident. It was in his feeling for nature, in his understanding and interpretation of the evolutionary drama of life that Geddes equalled, even surpassed, Charles Darwin. And Darwin was a naturalist with few peers." From 'Patrick Geddes: Maker of the Future" by Philip Boardman.

Words of the Mahatma

Woman is the companion of man, gifted with equal mental capacities. She has the right to participate in the minutest details in the activities of man, and she has an equal right of freedom and liberty with him."

'Hatred ever kills, love never dies such is the vast difference between the two. What is obtained by love is retained for all time. What is obtained by hatred proves a burden in reality for it increases hatred."

Words of Geddes

'We do not clearly think, much less clearly idealise, until we visualise: that is until we dramatise. The War-world has long best known this, as its training in Kriegspiel' (war games) before the war (World War One) has shown. So why not also be thinking out our aims and purposes as clearly, and learning also, as here for trial, to play the games of Peace? And even as something towards War's 'moral substitute'?"

P.G. from his publication 'Dramatisations of History'

'Though he seemingly lived and worked in many different worlds his purpose was to show that they are all one. This one world of nature and man, of labour and art, of science and religion is guided by Love as Creation's final law', affirmed Patrick Geddes. But it is up to today's men, women, and children to make and keep it 'Good, True and Beautiful'."

Philip Boardman quoting Geddes in the introduction to his biography 'The Worlds of Patrick Geddes''.

Words of Tagore

He who wants to do good knocks at the gate; he who loves finds the door open." [Stray Birds']



'The butterfly counts not months but moments, and has time enough." [Fireflies?] Penguin Hutchinson Reference Suite.

Rabindranath Tagore (1861–1941)

Bengali Indian poet and philosopher: the leading literary figure of modern India writing in Bengali; encouraged the reconciliation of western and eastern ideologies and made several worldwide lecture tours on Indian philosophy and religion. He translated into English his own verse Gitanjali/Song Offerings (1912) and his verse play Chitra (1896) he was awarded the 1913 Nobel prize for literature for his collected poems Gitanjali. An ardent nationalist and advocate of social reform, he resigned his knighthood as a gesture of protest against British repression in India.

Forgive me not writing more, and I only hope that some day I may have the honour of meeting the parents of my great friend.

> Yours very sincerely A. Schomberg Byng.

(Boardman)

(Patrick's wife Anna was gravely ill and Patrick could not bring himself to tell her of Alasdair's death and continued to read her the last letters that Alasdair had sent from the front. A little over two months later Anna died as well.)"

Einstein on Geddes



highly""

"In January of 1926 Geddes, to use his own words, "at last screwed up courage to ask the great and terrible Einstein" to visit him at the Mediterranean Scots College and talk over questions of university education. At the time

P.G. wrote his friend Sir Thomas Barclay in Versailles urging him to help persuade the scientist to accept the invitation. According to Sir Thomas, Einstein had to decline because of pressure of work but did write these words about the Scot: "I have heard much praise from my Jewish friends concerning Mr. Geddes's work and personality. All who know him admire and honor him

From Philip Boardmans' biography 'Patrick Geddes: Maker of the Future'

www.ballaterscotland.com/geddes





Thanks Due, People, References

Thanks Due

Ballater Geddes Project 2004 would like to thank the following organisations, companies and individuals who have kindly assisted the core group over the lifetime of this Project. To see what they have to offer please visit their web sites (where listed).

Aberdeenshire Council www.aberdeenshire.gov.uk

Scottish Natural Heritage www.snh.org.uk

People

As memory serves Ballater Geddes Project 2004 has consisted of the following people (apologies to anyone missed out):

Core Group

Mindy Grewar, Arts Development, Aberdeenshire Council.

Cllr. Marcus Humphrey, Aberdeenshire Council.



Ian Kinniburgh, Saltire Society.

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Cairngorms National Park www.cairngorms.co.uk

Ballater and Crathie Community Council www.ballaterscotland.com/councils

Ballater (RD) Ltd. www.ballaterscotland.com/brd

The Patrick Geddes Trust www.patrickgeddestrust.co.uk

Marr Area Partnership www.aberdeenshirebusiness.net/html/ details.asp?ID=915

Quantum CCTV North East www.cctv4all.co.uk

The Forestry Commission www.forestry.gov.uk/scotland

Grampian Police www.grampian.police.uk

The Saltire Society www.saltiresociety.org.uk

Aberdeen & Grampian Tourist Board www.agtb.org



Bell Macaulay, Ballater Environmental Education Centre and Ballater (RD) Ltd.

Graham MacDonald, Ballater Environmental Education Centre.

Ian Mitchell, Artist & Teacher, Aberdeenshire Council. BALLATER

Kenny Munro, Artist & Educator.



Tom Potter, Communications, Design, Web. (royaldeeside.org.uk & ballaterscotland.com).





Gavin Smith, Artist and Teacher, Aberdeen College.

Scottish Natural Heritage: Martin Faulkner, Miranda Whitcombe, Catriona Reid, Marysia Stamm, Isla Martın.

Ballater School: Phil Benzie, June MacKay, Bob Montgomery, Louise Duckworth.

"Visiting Members"

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Penguin Hutchinson Reference Suite ©.

"Grieve on Geddes" by Professor Sir Robert Grieve. Pub. The Sir Patrick Geddes Memorial Trust ISBN 0 9518273 0 8

Further Reading and links to useful websites about Patrick Geddes:

www.ballaterscotland.com/geddes





Aberdeen & ampian Highland

EDINBURGH ·

The Scottish Parliament

🗙 Pàrlamaid na h-Alba

GRAMPIAN

Ballater Victoria Week www.ballaterscotland.com/victoriaweek

Ballater Library www.ballaterscotland.com/education

City of Edinburgh Council www.edinburgh.gov.uk

Mike Small www.patrickgeddes.co.uk

The Scottish Parliament www.scottish.parliament.uk

Upper Deeside Access Trust www.deeside.info

Royal Town Planning Institute in Scotland RTPI 🕣 www.scotland.rtpi.org.uk

Robin MacPherson, Asylum Pictures www.asylumpictures.co.uk asylum Pictures

Ballater School www.ballaterscotland.com/education







Leslie Allan, Marr Area Manager, Aberdeenshire Council.

Stuart Robertson, Planning Gain Officer, Aberdeenshire Council.

John Shinnie, Roads Dept., Aberdeenshire Council.

Annie Scott, Artist, Aberdeenshire Council.

Tandra Chanda, Artist, School of Art and Craft, Kolkata, India.

Bill Houston, Chair, Ballater (RD) Ltd.

Judith Aylett, Marr Area Partnership.



...And finally...The Alternative Geddes Sir Patrick Geddes was a famous parrot who was very good at sums.

Not only a polymath, but a great ecologist, Sir Patrick is credited with the e-coli virus which has been responsible for some of the worst evacuations in the history of man.

As a noted Town Planner, he was often to be found in an urban environment – planning. Menus were said to take up a great deal of his time.

One of his favourite projects, the Camera Obscura was so successful in its obscurity it has yet to be found. Many school children daily scour Princes Street Gardens looking for the Box Brownie the great man was said to have misplaced whilst on his ramblings in 1923. He founded the Scottish School in Montpellier but this was not the success initially hoped for. Parents found the round trip from Ballater to France a little problematic.

He was responsible for designing Ramsay Gardens in Edinburgh. This did not meet with the approval of Mr Ramsay who had wanted to create an allotment on the site.

In death as in life! Plans to build a Geddes Garden in Ballater met with similar hostility from the residents, Sir Patrick's famous mantra being revised to proclaim "Leave where we live!"

To conclude. Patrick Geddes was a great "Renaissance" man, I always preferred the "Rolling Stones" myself....

Ian Mitchell, designer of the BGP2004 logo >>>

Back Row (L-R): Sheila Potter, Mindy Grewar, Marysia Stamm, Kenny Munro, Ian Mitchell Sheila Sedgwick. Front Row (L-R): Sasha, Tandra Chanda, Elizabeth, Tom Potter.



www.ballaterscotland.com/geddes

