ALL

RISE

FOR THE PLANET

INDICTMENT

The year is 2030. Scientists' warnings from 2019 went unheeded and the consequences of climate destruction are now apparent. Civilisation has been devastated by the effects of climate breakdown and you are summoned for jury duty, as the Citizens' Court holds a 'show trial' for the ultimate crime against life and humanity. Governments, industry, the media, academia, art institutions, and the citizenry are called to account and their actions assessed in light of what they knew in 2019. Part-theatre, part-art installation, partpeople's court, this groundbreaking event about climate justice and accountability presents evidence that with your participation brings this trial to life as an immersive experience. Overseen by a judge, it is up to you, the jury, to decide whether each party is guilty as charged. Join climate litigation charity Plan B, visual arts organisation 198 Contemporary Arts and Learning, People's Bureau and Extinction Rebellion, amongst others for the trial of our lives.

The four counts of the indictment (i.e. the different allegations) will be heard on 13-14 July 2030^{1} .

¹ An 'indictment' is the formal document setting out the details of the criminal charges. The different charges are referred to as 'counts' on the indictment.

13TH JULY 2019

COUNTONE

The Government abandoned its responsibility to protect its citizens.

12:00 - 12:10

Judge introduces the proceedings to the jury (the audience).

12:10 - 12:40

Evidence is presented in support of the charge.

12:40 - 13:30

Jurors self organise into groups to consider the evidence, and prepare short presentations to the assembly.

13:30 - 14:00

The submissions from the assembly are heard.

14:00 - 14:15

Votes are cast. In the event of a guilty verdict the judge will pass sentence.

COUNTTWO

Corporations prioritised profit over life.

15:00 - 15:10

Judge introduces the proceedings to the jury (the audience).

15:10 - 15:40

Evidence is presented in support of the charge.

15:40 - 16:30

Jurors self organise into groups to consider the evidence, and prepare short presentations to the assembly.

16:30 - 17:00

The submissions from the assembly are heard.

17:00 - 17:15

Votes are cast. In the event of a guilty verdict the judge will pass sentence.

14TH JULY 2019

COUNTTHREE

The Arts, Media & Academia failed to raise the alarm.

12:00 - 12:10

Judge introduces the proceedings to the jury (the audience).

12:10 - 12:40

12:40 - 13:30

Jurors self organise into groups to consider the evidence, and prepare

are heard.

14:00-14:15

Votes are cast. In the event of a guilty verdict the judge will pass sentence.

COUNTFOUR

We, the Citizens, were complicit in these crimes, and failed to prepare our children for what was to come.

Evidence is presented in support of the charge.

short presentations to the assembly.

13:30 - 14:00

The submissions from the assembly

15:00 - 15:10

Judge introduces the proceedings to the jury (the audience).

15:10 - 15:40

Evidence is presented in support of the charge.

15:40 - 16:30

Jurors self organise into groups to consider the evidence, and prepare short presentations to the assembly.

16:30 - 17:00

The submissions from the assembly are heard.

17:00 - 17:15

Votes are cast. In the event of a guilty verdict the judge will pass sentence.

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COUNT

ONE

WHAT THEY KNEW

THE GOVERNMENT
abandoned its responsibility
to protect its citizens

Citizens of a broken world, we present to you evidence that the Governments of the high-consuming world, which promised 'leadership' on climate change, abandoned their responsibilities to their people. Citizens, here is the evidence that the basic mechanism of the 'greenhouse effect' was already understood nearly 170 years ago, in the mid-nineteenth century. In a 1917 paper, Alexander Graham Bell wrote that the unrestricted burning of fossil fuels 'would have a sort of greenhouse effect.' The man who invented the telephone four decades earlier added, 'the net result is the greenhouse becomes a sort of hot-house.' He urged the development of new energy technologies, including solar.

ON RADIATION THROUGH THE EARTH'S ATMOSPHERE.

Nonory ever obtained the idea of a line from Euclid's definition. The idea is obtained from a real physical line drawn by a pen or pencil, and therefore possessing width, the notion of width being afterwards dropped by a process of abstraction. So also with regard to physical phenomena: we conceive the invisible by means of proper images derived from the visible, and purity our conceptions afterwards. Definiteness of conception, even though at some expense to delicacy, is of the greatest utility in dealing with physical phenomena. Indeed it may be questioned whether a mind trained in physical research can at all enjoy peace without having made clear to itself some possible way of imaging those operations which lie beyond the boundaries of sense, and in which sensible phenomena originate.

It is well known that our atmosphere is mainly composed of the two elements oxygen and nitrogen. These elementary atoms may be figured as small spheres scattered thickly in the space which immediately surrounds the earth. They constitute about 99½ per cent. of the atmosphere. Mixed with these atoms we have others of a totally different character; we have the molecules, or atomic groups, of carbonic acid, of ammonia, and of aqueous vapour. In these substances diverse atoms have coalesced to form little systems of atoms. The molecules of aqueous vapour, for example, consisteach of two atoms of hydrogen united to one of oxygen; and they mingle as little triads among the monads of oxygen and nitrogen, which constitute the great mass of the atmosphere.

A medium embraces our atoms; within our atmosphere exists a second and a finer atmosphere, in which the atoms of oxygen and nitrogen hang like suspended grains. This finer atmosphere unites not only atom with atom, but star with star; and the light of all suns, and of all stars, is in reality a kind of motion propagated through this interstellar medium. This image must be clearly seized, and then we have to advance a step. We must not only figure our atoms suspended in this medium, but we must figure them vibrating in it. In this motion of the atoms consists what we call their beat. 'What is heat in us,' as Locke has perfectly expressed it, 'is in the body heated nothing but motion.' We must figure this motion communicated to the medium in which the atoms swing, and sent through it with inconceivable velocity. Motion in this form, unconnected with ordinary matter, but speeding through the interstellar medium, receives the name of Radiant Heat; and if competent to excite the nerves of vision, we call it Light.

Aqueous vapour is an invisible gas. If vapour be permitted to issue horizon-

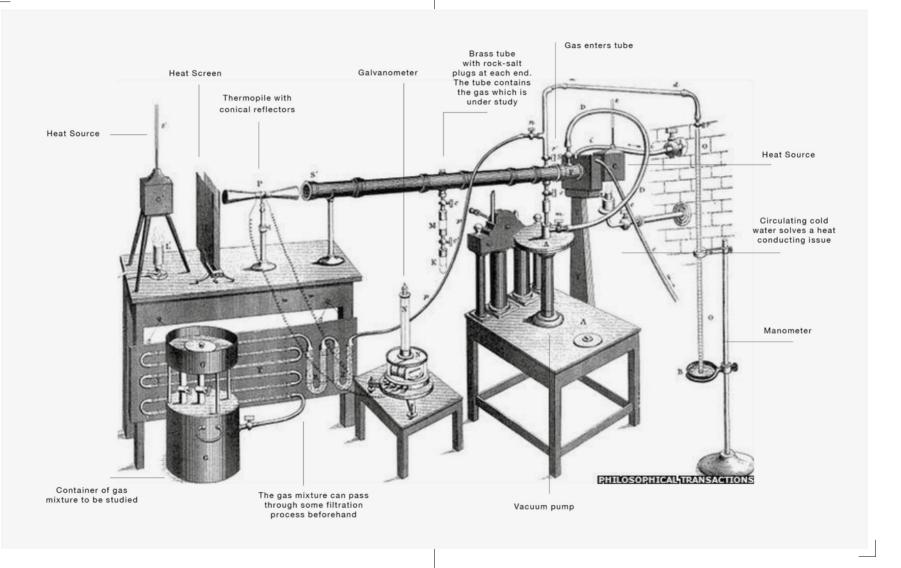
A public lecture, referred to at pp. 884 and 392; Proceedings of the Royal Institution, vol. iv. p. 4.

122 ON RADIATION THROUGH THE EARTH'S ATMOSPHERE.

tally with considerable force from a tube connected with a small boiler, the track of the cloud produced by the precipitation of the vapour is seen. What is seen, however, is not vapour, but vapour condensed to water. Beyond the visible end of the jet the cloud resolves itself again into true vapour. A lamp placed under the jet cuts the cloud sharply off, and when the flame is placed near the efflux orifice the cloud entirely disappears. The heat of the lamp completely prevents precipitation. This same vapour may be condensed and congealed on the surface of a vessel containing a freezing mixture, from which it may be scraped in quantities sufficient to form a small snowball. When a luminous beam is sent through a large receiver placed on an air-pump, a single stroke of the pump causes the precipitation of the aqueous vapour to a cloud within. This, illuminated by the beam, produces upon a screen behind a richly-coloured halo, due to diffraction by the little cloud.

The waves of heat pass from our earth through our atmosphere towards space. These waves meet in their passage the atoms of oxygen and nitrogen, and the molecules of aqueous vapour. Thinly scattered as these latter are, we might naturally think meanly of them as barriers to the waves of heat. We might imagine that the wide spaces between the vapour molecules would be an open door for the passage of the undulations; and that if those waves were at all intercepted, it would be by the substances which form 991 per cent, of the whole atmosphere. It had, however, been found that this small modicum of aqueous vapour intercepts fifteen times the quantity of heat stopped by the whole of the air in which it was diffused. It was afterwards found that the dry air then experimented with was not perfectly pure, and that the purer the air became the more it approached the character of a vacuum, and the greater, by comparison, became the action of the aqueous vapour. The vapour was found to act with 30, 40, 50, 60, 70 times the energy of the air in which it was diffused; and no doubt was entertained that the aqueous vapour of the air which filled the Royal Institution theatre, during the delivery of this discourse, quenched 90 or 100 times the quantity of radiant heat absorbed by the main body of the air of the room.

Looking at the single atoms, for every 200 of oxygen and nitrogen there is about 1 molecule of aqueous vapour. This 1, then, is 80 times more powerful than the 200; and hence, comparing a single atom of oxygen or nitrogen with a single molecule of aqueous vapour, we may infer that the action of the latter is 16,000 times that of the former. This is a very astonishing result, and it naturally excited opposition, based on the philosophic reluctance to accept a fact of such import before testing it to the uttermost. From such opposition a discovery, if it be worth the name, emerges with its fibre strengthened; as the human character gathers force from the healthy antagonisms of active life. It was urged that the result was on the face of it improbable; that there were, moreover, many ways of accounting for it, without ascribing so enormous a comparative action to aqueous vapour. For example, the cylinder which contained the air in which these experiments were made, was stopped at its ends by plates of rock-salt, on account of their transparency to radiant heat. Now rock-salt is hygroscopic; it attracts the moisture of the atmosphere. Thus, a layer of brine readily forms on the surface of a plate of rock-salt; and it is well known that brine is very impervious to the rays of heat. Breathing for a moment on a polished plate of rock-salt, the brilliant colours of thin plates (soap-bubble colours) flash forth, these being caused by the film of moisture which over-



SCIENCE IN REVIEW

Warmer Climate on the Earth May Be Due To More Carbon Dioxide in the Air

By WALDEMAR KAEMPFFERT

plained. Among the explanations and decay of plants and ammais. are fluctuations in the amount of Despite nature's way of mainthe continents.

can account for climatic change. The theory was generally dismissed as inadequate. Dr. Gilbert Plass re-examines it in a paper which he publishes in the American Scientist and in which he summarizes conclusions that he reached after a study made with the support of the Office of Naval Research, To him the carbon dioxide theory stands un though it may take another

The general warming of the cli- starches) causes a large loss of mate that has occurred in the last carbon dioxide, but the balance is sixty years has been variously ex- restored by processes of respiration

energy received from the sun, taining the balance of gases the changes in the amount of volcanic amount of carbon dioxide in the dust in the atmosphere and varia- atmosphere is being artificially intions in the average elevation of creased as we burn coal, oil and wood for industrial purposes. This According to a theory which was was first pointed out by Dr. G. S. held half a century ago, variation Callendar about seven years, ago, in the atmosphere's carbon dioxide Dr. Plass develops the implications.

Generated by Man

Today more carbon dioxide is being generated by man's technological processes than by volcanoes. geysers and hot springs. Every century man is increasing the carbon dioxide content of the atmosphere by 30 per cent-that is, at the rate of 1.1° C. in a century. It may be a chance coincidence that the

The Washington Post

SCIENTIST SAYS GREENHOUSE EFFECT IS SETTING IN

By Michael Weisskopf June 24, 1988

Man-made gases that trap solar heat, resulting in the so-called "greenhouse effect," have left the Earth warmer today than ever before and increase the likelihood of the type of drought now parching U.S. farmland, a NASA scientist told a congressional hearing yesterday.

James E. Hansen, chief of NASA's Goddard Institute for Space Studies, said it is impossible to blame a specific heat wave or drought on the "greenhouse effect." But he said the record-breaking, global warming of the 1980s, hitting hardest in the American Southeast and Midwest, is the first firm evidence that gases emitted by automobiles and coal-burning factories have accumulated in the atmosphere, shrouding the Earth and trapping its heat like a greenhouse.

"The greenhouse effect has been detected and it is changing our climate now," Hansen testified at a hearing of the Senate Committee on Energy and Natural Resources. "We already reached the point where the greenhouse effect is important."

Although scientists have previously theorized about the greenhouse effect and issued vague projections of rising temperatures sometime in the next century, Hansen is the first to concretely link warming and greenhouse gases and to 06

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE



UNITED NATIONS 1992

Article 2

OBJECTIVE

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.



Secretary of State
Department for Energy and Climate Change
Whitehall Place

7th October 2008

From Lord Turner of Ecchinswell

Dear Ed.

Interim advice by the Committee on Climate Change

Hilary Benn asked me, if I were able, to set out the Climate Change Committee's recommendations for the UK's 2050 target before the publication of our first report. Thanks to the hard work of the Committee and its Secretariat, I am in a position to do so. Our recommendations are that:

Given these uncertainties climate science cannot predict, with absolute certainty, how emissions paths will translate into temperature increases and how temperature increases will translate into damage. Deciding what level of temperature increase is harmful is therefore inherently judgemental. The Committee's judgement, on the basis of the IPCC AR4 report, is that adverse human welfare consequences are likely to increase significantly if global temperature rises more than 2°C relative to pre-industrial temperatures, and that if a 4°C rise were reached, extreme consequences potentially beyond our ability to adapt would arise. We therefore believe that global policy should seek to limit the central expectation of global temperature rise to, or close to, 2°C and that it should ensure that the probability of crossing the extreme danger threshold of 4°C is reduced to an extremely low level (e.g. less than 1%).

08



As business leaders we are optimistic that President Obama is attending Copenhagen with emissions targets. Additionally, we urge you, our government, to strengthen and pass United States legislation, and lead the world by example. We support your effort to ensure meaningful and effective measures to control climate change, an immediate challenge facing the United States and the world today. Please don't postpone the earth. If we fail to act now, it is scientifically irrefutable that there will be catastrophic and irreversible consequences for humanity and our planet.

We recognize the key role that American innovation and leadership play in stimulating the worldwide economy. Investing in a Clean Energy Economy will drive state-of-the-art technologies that will spur economic growth, create new energy jobs, and increase our energy security all while reducing the harmful emissions that are putting our planet at risk. We have the ability and the know-how to lead the world in clean energy technology to thrive in a global market and economy. But we must embrace the challenge today to ensure that future generations are left with a safe planet and a strong economy.

Please allow us, the United States of America, to serve in modeling the change necessary to protect humanity and our planet.

In partnership.

Oris Anchieso, Custo, TED Rohard Baler, Chairma, Lord & Typin Dan, David & Laurent Barber, Shu Hill Chris Blackwell, Founder, Island Outpool
Greych Clarks, Cdifor Yearly Fair Despit Crops, Advanced Proteinor, Allord Proteinor, Allord Proteinor, Callogg Schroor of Business and Management — Vice Chouland, Founder, Patagonia
Chris Color Christip Fair Despit Crops, Advanced Proteinor, Allord Proteinor, Allord Proteinor, Allord Christip, Carlor Chri

Synthesis Report, 3.2, p. 77:

Estimates of warming in 2100 without additional climate mitigation efforts are from 3.7°C to 4.8°C compared with pre-industrial levels (median climate response); the range is 2.5°C to 7.8°C when using the 5th to 95th percentile range of the median climate response.

Summary for Policy Makers, s.3.2, p.18:

In most scenarios without additional mitigation efforts... warming is more likely than not to exceed 4 degrees C above pre-industrial levels by 2100.

10

women and intergenerational equity, right to migrants, children, development, persons with disabilities and people in vulnerable gender equality, empowerment

Also acknowledging the specific needs and concerns of developing country arising from the impact of the implementation of response measures and, in this decisions 5/CP.7, 1/CP.10, 1/CP.16 and 8/CP.17,

aggregate effect of the urgent need to mitigation pledges o address the significant gap is in terms of global annual ion pathways consistent with

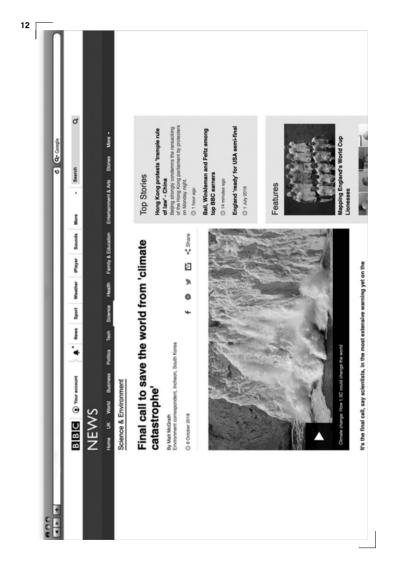
industrial levels,

emissions of greenhouse

gases by 2020 and

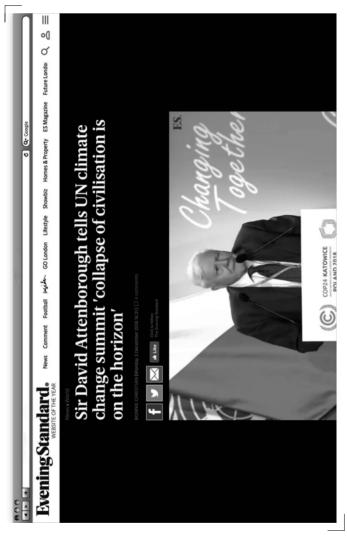
aggregate emission pathways

industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-



Final call to save the world from 'climate catastrophe', BBC, 8 Oct 2018, LINK

24



WHAT THEY DID

Citizens of a broken world, you've seen the evidence that Government understood the consequences of their policies of extraction and consumption. Now let us consider what they did. They planned to expand aviation, the most carbon intensive form of transport, invested in new sources of fossil fuels at home and overseas. By 2019 the net effect was already clear. Blueprint graphic, based on data from the Carbon Dioxide Information Analysis Centre (CDIAC) and the Intergovernmental Panel on Climate Change (IPCC) (p.31), shows how, as knowledge of the climate crisis increased, global emissions rose only faster.

'op climate scientist blasts

fracking plans as

James Hansen, 'father of climate science', accuses Britain of ignoring science



14 Heathrow Airport: Cabinet approves new Ø 0 runway plan

> Top climate scientists blasts UK's fracking plans as 'aping Trump', The Guardian, 13 Oct 2018, LINK

Fossil fuels

in fossil fuels overseas

Former UN secretary-general says country must live up to Theresa May's commitment Stop funding climate change, says Ban Ki-moon

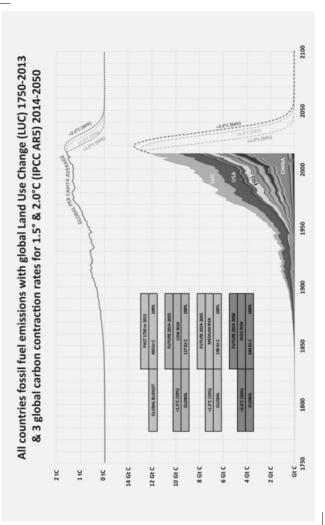
S17

@adamvaughan_uk 124 Feb 2019 13.01 GMT

Adam Vaughan



17



COUNT

TWO

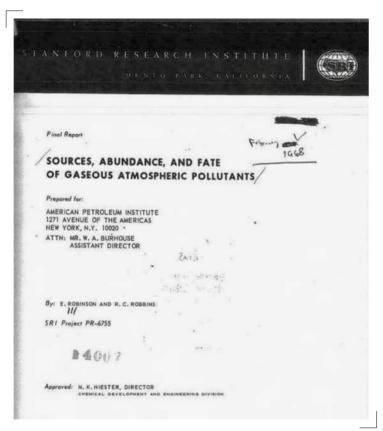
WHAT THEY KNEW

CORPORATIONS

prioritized

profit over life

Citizens of a broken world, we present to you evidence for your consideration, that some of the world's most powerful 'companies', those that specialised in energy supply, consciously took the decision (so far as such companies possessed consciousness) to prioritise short term profitability over life on earth. Citizens, the profits of the fossil fuels companies were so vast, they were able to conduct research, beyond the dreams of academia, into all potential threats to their profit lines, including the ultimate threat from their product. Let us see what they learned.



18 μ . As such CO₂ prevents the loss of considerable heat energy from the earth and radiates it back to the lower atmosphere, the so-called "green-house" effect. Thus the major changes which are speculated about as possibly resulting from a change in atmospheric CO₂ are related to a change in the earth's temperature.

The latest data available for estimating CO₂ temperature effects are those of Moller (1963). From Möller's data a CO₂ increase of 25% would result in an increase in temperature at the earth's surface of between 1.1 and 7°F, depending on the assumption made regarding the likely humidity changes accompanying this temperature change. If the amount of water vapor in the atmosphere remained unchanged, the smaller increase would occur, but if the relative humidity were to remain constant then the larger calculated increase would prevail. If, instead of a 25% increase, the CO₂ content were to double, the expected change would be about three times this figure. For atmospheric calculations, Möller's model is still a relatively simple one and has not included all of the possible major interactions occurring in the atmosphere. For this reason it is likely that Möller's calculations overestimate the effects on temperature of an increase in CO₂. More comprehensive models are under development and should be available shortly.

If the earth's temperature increases significantly, a number of events might be expected to occur, including the melting of the Antarctic ice cap, a rise in sea levels, warming of the oceans, and an increase in photosynthesis. The first two items are of course related since the increase in sea level would be mainly due to the added water from the ice cap. Estimates of the possible rate at which the Antarctic ice cap might melt have been made. If the poleward heat flux were increased 10%, the ice cap could disappear in about 4000 years. A shorter time, about 400 years,

With regard to sea level changes, if 1000 years were required to melt the Antarctic ice cap, the resulting 400 foot rise in sea level would occur at a rate of 4 feet per 10 years. This is 100 times greater than presently observed changes.

Changes in ocean temperature would change the distribution of fish and cause a retreat in the polar sea ice. This has happened in recent time on a very limited scale.

Changes in CO₂ might also bring about increased photosynthesis in areas where CO₂ might be a limiting factor in present growth patterns. Where temperature has been a limiting factor to growth and development, an increase in biological activity might be expected.

Although there are other possible sources for the additional ${\rm CO}_2$ now being observed in the atmosphere, none seems to fit the presently observed situation as well as the fossil fuel emanation theory.

C. Summary of Carbon Dioxide in the Atmosphere

In summary, Revelle makes the point that man is now engaged in a vast geophysical experiment with his environment, the earth. Significant temperature changes are almost certain to occur by the year 2000 and these could bring about climatic changes.

Since Revelle's report, McCormick and Ludwig (1966) have studied the possible world-wide change of atmospheric fine particles. An increase in fine particulate material will have the effect of increasing the reflectivity of the earth's atmosphere and reducing the amount of radiation received from the sun. Thus this effect would be the opposite of that caused by an increase in CO₂. The argument has been made that the large-scale cooling trend observed in the northern hemisphere since about 1955 is due to the disturbance of the radiation balance by fine particles and that this effect has already reversed any warming trend due to CO₂.

It is clear that we are unsure as to what our long-lived pollutants are doing to our environment; however, there seems to be no doubt that the potential damage to our environment could be severe. Whether one chooses the CO₂ warning theory as described in detail by Revelle and others or the newer cooling prospect indicated by McCormick and Ludwig, the prospect for the future must be of serious concern.

It seems ironic that in our view of air pollution technology we take such a serious concern with small-scale events such as the photochemical reactions of trace concentrations of hydrocarbons, the effect on vegetation of a fraction of a part per million of SO₂, when the abundant pollutants which we generally ignore because they have little local effect, CO₂ and submicron particles, may be the cause of serious world-wide environmental changes.

American Petroleum Institute 2101 L Street, Northwest Washington, D.C. 20037 202-457-7000 J. J. Nelson (202) 457-6381

March 18, 1980

To:

AO-9 Task Force

Attached please find a copy of the minutes of the February 9, 1980 AQ-9 Task Force meeting. Please inform me of any errors or omissions.

Cordially,

CO2 AND CLIMATE TASK FORCE (AQ-9)

Minutes of Meeting

9:15 a.m. Friday, February 29, 1980 Manhatten Room LaGuardia Airport New York City, New York

MEMBERS PRESENT

K. Blower, Chairman B. Bailey H. Shaw

Texaco Exxon R&E

OTHERS PRESENT

J. Laurman J. Nelson C. Showers Consultant API/EAD SOHIO

OPENING REMARKS

K. Blower, Chairman, opened the meeting by listing the following goals of this meeting:

Increase industry's understanding of the CO₂ and climate problem.

REASONS FOR INCREASED CONCERN WITH THE CO, PROBLEM

· DEVELOPMENT OF RELIABLE ATMOSPHERIC CO2 GROWTH RATE MEASUREMENTS

· ITS CORRELATION WITH GLOBAL INDUSTRIAL CO, EMISSIONS, MOSTLY FROM FOSSIL FUEL COMBUSTION

· SCIENTIFIC CONSENSUS ON THE POTENTIAL FOR LARGE FUTURE CLIMATIC RESPONSE TO INCREASED CO, LEVELS

· REALIZATION THAT REMEDIAL ACTIONS WOULD TAKE A LONG TIME TO BECOME EFFECTIVE

CLIMATE MODELING - CONCLUSIONS

· GLOBAL AVERAGED 2.5°C RISE EXPECTED BY 2038 AT A 3% p.a. GROWTH RATE OF ATMOSPHERIC CO, CONCENTRATION

* LARGE ERROR IN THIS ESTIMATE - 1 IN 10 CHANCE OF THIS CHANGE BY 2005

· NO REGIONAL CLIMATE CHANGE ESTIMATES YET POSSIBLE

· LIKELY IMPACTS:

I"C RISE (2005): BARELY NOTICEABLE 2.5°C RISE (2038): MAJOR ECONOMIC CONSEQUENCES, STRONG REGIONAL DEPENDENCE

5°C RISE (2067): GLOBALLY CATASTROPHIC EFFECTS

POLICY IMPLICATIONS

- · GLOBAL PROBLEM, BOTH IN SOURCE AND FOR REMEDIES
- . TIME SCALE FOR SIGNIFICANT IMPACT, VERY ROUGHLY 50 YRS
- · HIGH RISK, HIGH UNCERTAINTY SITUATION, RELATIVELY FAR AWAY
- TIME FOR ACTION ? MARKET PENETRATION TIME THEORY SAYS
 THERE IS NO LEEWAY

CONCLUSIONS

- AT A 3% PER ANNUM GROWTH RATE OF CO₂, A 2.5°C RISE BRINGS WORLD ECONOMIC GROWTH TO A HALT IN ABOUT 2025.
- Even if this estimate is grossly wrong it is still probable that
- WHETHER THERE ARE GROUNDS FOR IMMEDIATE RESPONSE TO THE THREAT DEPENDS ON THE VALIDITY OF THE LONG MARKET PENETRATION TIME CONCEPT.
- EVEN IF THE LATTER IS APPLICABLE, PRESENT DAY SIGNIFICANCE OF THE IMPACT DEPENDS STRONGLY ON CHOICE OF A FUTURE DISCOUNTING FACTOR.
- NEED FOR IMMEDIATE POLICY ACTION HINGES ON THESE LAST TWO FEATURES.

۳	
	ENERAL - 1801-18
	NTUR OFFICE CORRESPONDENCE

20

DATE August 18, 1981

W. Glass Subject R. W. Cohen

I have looked over the draft of the EED reply to the request from O'Loughlin. The only real problem I have is with the second clause of the last sentence in the first paragraph: "but changes of a magnitude well short of catastrophic..." I think that this statement may be too reassuring. Whereas I can agree with the statement that our best guess is that observable effects in the year 2030 are likely to be "well short of catastrophic", it is distinctly possible that the CFD scenario will later produce effects which will indeed be catastrophic (at least for a substantial fraction of the earth's population). This is because the global ecosystem in 2030 might still be in a transient, headed for much more significant effects after time lags perhaps of the order of decades. If this indeed turns out to be case, it is very likely that we will unambiguously recognize the threat by the year 2000 because of advances in climate modeling and the beginning of real experimental confirmation of the CO effect. The effects of such a recognition on subsequent fossil fuel combustion are unpredictable, but one can say that predictions based only on our knowledge of availability and economics become hazardous.

I would feel more comfortable if the first paragraph concluded with a statement to the effect that future developments in global data gathering and analysis, along with advances in climate modeling, may provide strong evidence for a delayed CO₂ effect of a truly substantial magnitude, a possibility which increases the uncertainty surrounding the post-2000 CDP scenario.

ROGER W. COHEN

RWC: tmw

Attachment

cc: H. N. Weinberg A. J. Callegari

RECEIVE

EXON RESEARCH AND ENGINEERING COMPANY

CORPORATE RESEARCH

P. O. Box 45, Linden, N. J. 07036

SCIENCE LABORATORIES

DUANE G. LEVINE, Director ROGER W.COHEN, Director Theoretical and Mathematical Sciences Leboratory

July 14, 1982

Mr. Peter Kimon Exxon International Tanker R&D Division PA 222/B320

Dear Peter:

This is to advise you that the ${\rm CO_2}$ Greenhouse Project on board the "5/s Esso Atlantic" has been terminated.

In order to finalize our sea-going operation, Bill Kobasz and Bob Schroeder of ER&E plan to board the Esso Atlantic in Lisbon, Portugal during the dry dock period. They will be responsible for the removal of all project related material and equipment. Completion of the equipment removal will be subject to the approval of the assigned dry dock superintendent.

We are grateful for the excellent cooperation your division has given us since this unique project began some three years ago.

ROGER W. COHEN

RWC:klm

- cc: R. Berner
 - A. Callegari E. A. Garvey

 - W. Kobasz S. R. Pingali H. N. Weinberg

22

AS GIVEN

DR. E. E. DAVID, JR. PRESIDENT, EXXON RESEARCH AND ENGINEERING COMPANY REMARKS AT THE FOURTH ANNUAL EWING SYMPOSIUM TENAFLY, NEW JERSEY

OCTOBER 26, 1982

INVENTING THE FUTURE: ENERGY AND THE CO2 "GREENHOUSE" EFFECT -2

BUT FAITH IN TECHNOLOGIES, MARKETS, AND CORRECTING FEEDBACK MECHANISMS IS LESS THAN SATISFYING FOR A SITUATION SUCH AS THE ONE YOU ARE STUDYING AT THIS YEAR'S EWING SYMPOSIUM. THE CRITICAL PROBLEM IS THAT THE ENVIRONMENTAL IMPACTS OF THE CO2 BUILDUP MAY BE SO LONG DELAYED. A LOOK AT THE THEORY OF FEEDBACK SYSTEMS SHOWS THAT WHERE THERE IS SUCH A LONG DELAY THE SYSTEM BREAKS DOWN UNLESS THERE IS ANTICIPATION BUILT INTO THE LOOP.

THE QUESTION THEN BECOMES HOW TO ANTICIPATE THE FUTURE SUFFICIENTLY FAR IN ADVANCE TO PREPARE FOR IT.

ONE ANSWER IS TO INVENT THE FUTURE IN ANOTHER WAY-THROUGH A SYSTEM OF CONTINGENCY PLANNING BASED ON AN ASSESSMENT
OF A NUMBER OF FUTURES. AS HARVEY BROOKS HAS NOTED, SCENARIOS
HAVE LIMITED USE IF THEY ARE MERELY "SURPRISE FREE" PROJECTIONS
OF CURRENT TRENDS; INSTEAD, THEY MUST SOMEHOW TAKE INTO ACCOUNT
THOSE CLOUDS ON THE HORIZON NO BIGGER THAN A MAN'S HAND THAT CAN
TURN OUT TO BE DOMINANT INFLUENCES IN TWENTY YEARS. INADEQUATE
SCENARIO-MAKING EXPLAINS THE POOR PERFORMANCE OF MOST SOCIAL
RESEARCH TO DATE--WHICH SO OFTEN GIVES THE SENSE OF TOO LITTLE
TOO LATE, WHETHER THE TOPIC IS TOXIC WASTE, FROST BELT AND SUN
BELT, OR THE SHIFT FROM MANUFACTURING TO INFORMATION SOCIETY.
THE KEY IS TO UNDERTAKE RESEARCH THAT WILL TEND TO BE INDEPENDENT
OF FUTURE EVENTS, OR, RATHER, RELEVANT ACROSS A BROAD SPECTRUM OF

RECENT ENERGY HISTORY

IT IS IRONIC THAT THE BIGGEST UNCERTAINTIES ABOUT THE CO_2 BUILDUP ARE NOT IN PREDICTING WHAT THE CLIMATE WILL DO, BUT IN PREDICTING WHAT PEOPLE WILL DO. THE SCIENTIFIC COMMUNITY IS APPARENTLY REACHING SOME CONSENSUS ABOUT THE GENERAL MECHANISMS OF THE GREENHOUSE EFFECT. IT IS CONSIDERABLY LESS AGREED ON HOW MUCH FOSSIL FUELS MANKIND WILL BURN; HOW FAST ECONOMIES WILL GROW; WHAT ENERGY TECHNOLOGIES SOCIETIES WILL FOSTER AND WHEN; AND SO HOW FAST THE BUILDUP WILL OCCUR.

BUT WE DO KNOW ABOUT THE RECENT PAST AND THE PRESENT.

IN THE AFTERMATH OF THE ENERGY PRICE INCREASES OF THE PAST

DECADE, CONSUMERS HAVE REACTED TO THE PRICE FEEDBACK MECHANISM

VERY MUCH AS CLASSIC ECONOMIC THEORY WOULD PREDICT. THEY HAVE

WHAT THEY DID

Citizens of a broken world, you've heard the evidence that the fossil fuel companies understood the 'globally catastrophic' consequences of their actions as early as the 1960s. Now let us consider what they did. They studied how the tobacco industry had dealt with evidence of lung cancer, and the threat that that evidence presented to the industry's profits. Learning from the tobacco industry's tactics, the fossil fuel industry began to plant doubt in the public imagination. Infiltrating governments, they sold us fantasies.

SMOKING AND HEALTH PROPOSAL

What we want to do this morning is to take a summary look at the

smoking and health question and then make a proposal to you for a B&W

project to counter the anti-cigarette forces.

This is a chronological table of smoking and health activities. Not all the activities by any means. We have been selective in making up this chart -- just picked those events that caused headlines to be made and probably left strong impressions with the public. As we look at it I believe we can see how we became an harassed and restricted industry and how we came to conflict with the awesome forces of the federal government.

In thinking over what we might do to improve the case for cigarettes, I have looked at the problem somewhat like the marketing of a new brand.

Here is a chart where I have defined the basic marketing elements which I see in the smoking and health problem. Our consumer I have defined

"as the mass public, our product as doubt, our message as truth -well_stated, and our competition as the body of anti-cigarette fact that
exists in the public mind.

Doubt is our product since it is the best means of competing with the "body of fact" that exists in the mind of the general public. It is also the means of establishing a controversy. Within the business we recognize that a controversy exists. However, with the general public the consensus is that cigarettes are in some way harmful to the health. If we are successful in establishing a controversy at the public level, then there is an opportunity to put across the real facts about smoking and health. Doubt is also the limit of our "product". Unfortunately,

FROM THE CHAIRMAN

Climate change: don't ignore the facts

The issue reaches into every home and pocketbook around the world.

by Lee R. Raymond Chairman, Exxon Corporation

In the debate over global climate change, one of the most critical facts has become one of the most ignored - the undeniable link between economic vitality and energy use.

Achieving economic growth remains one of the world's critical needs, and with good reason. It creates more and better jobs, improves our quality of life and enables us to safeguard the environment. When economies grow, their energy consumption rises. It's no accident that nations with the highest standard of living have the highest per-capita use of energy, about 85 percent of which comes from fossil fuels.

This would have profound implications since developing nations face real and immediate problems. The World Bank says one-third of the world's population lacks adequate sanitation and more than one billion people are without safe drinking water -- conditions that inevitably lead to disease and suffering.

Solving these problems as populations increase requires economic growth, which, in turn, requires rising energy use.

Politicization stirs fears

Proponents of the global warming theory say that higher levels of greenhouse gases -- especially carbon dioxide -- are causing world temperatures to rise and that burning fossil fuels is the reason. (See Global Warming -- What to Think? What to Do?) Yet scientific evidence remains inconclusive as to whether human activities affect global climate.

While the atmospheric concentration of greenhouse gases is increasing, 96 percent of the carbon dioxide entering the atmosphere is produced by nature and is beyond our control. Even a small increase

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Global climate change everyone's debate





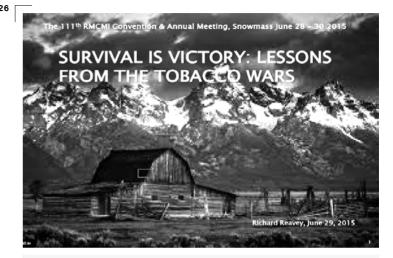
xxon shares with people around the world the goal of protecting Earth's environment. We take seriously our responsibility to conduct our operations in an environmentally sound way. For that reason, for many years, we've carefully studied and worked to increase understanding of the issue of global climate change — often referred to as "global warming." It's one of the knottiest and most contentious scientific subjects. Essentially, the question is whether the use of fossil fuels — oil, natural gas and coal — is causing Earth's temperature to rise beyond normal variation.

Our analysis indicates that the current state of climate science is too uncertain to provide clear answers to many key questions about global climate change. Even if global warming were a proven threat — which it is not — targets agreed on in Kyoto, Japan, fail to provide a fair, practical or cost-effective solution.

Because fossil fuels account for about 90 percent of the energy people use in the world today and form the basis for economic growth, everybody has a stake in the debate. Clearly, Exxon employees, shareholders and customers are especially affected.

This booklet will help inform you about the science, economics and other aspects of the issue. It will tell you about the many steps Exxon and others are taking — from research to reforestation.

We hope to gain your interest in this matter, and we encourage you to join the important debate about global climate change.



Why "Lessons from the Tobacco Wars"?

- > The parallels are remarkable and eerie:
- Well funded, well organized NGO opposition driving regulatory policy, media messaging, and shaping public opinion - often with poor/no science
- Multi-pronged attack: 1) diminish social acceptability; 2) drive up costs and cut profits through massive increase in regulation; 3) cut demand/market access; 4) drive down share prices
- Binary debate with little dialogue: scene from film <u>Independence Day</u>: President to Alien – "What is it you want from us?" Response: "Die".

Ehc New York Eimes Rex Tillerson, Exxon C.E.O., Chosen as Secretary of State



Rex W. Tillerson, the chief executive of Exxon Mobil, at a shareholders meet Dallas in 2014. LM Otero/Associated Press

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COUNT

THREE

WHAT THEY KNEW

THE ARTS, ACADEMIA, MEDIA
(The guardians of our children)
failed to raise the alarm

Citizens of a broken world, we present to you evidence for your consideration, that those we rely on to test and interrogate those in power, the arts, the media and academia, the guardians of our children, allowed themselves to be co-opted by the wealth and power of the fossil fuel industry, so that they were powerless to raise the alarm. Citizens, we will summarise for you the evidence of what our guardians knew or ought to have known. That is the evidence from counts 1 & 2 of this indictment – the evidence available to government and fossil fuel companies. By 2019 this evidence was well known.

WHAT THEY DID

And now, Citizens, let us consider how our guardians honoured their sacred duties. Let us consider whether they used their intellect and creativity to preserve beauty and tell the truth.

Support us > Your support > Success stories > Eisler BP Samsung Acceptance in lieu John $_{
m The}$ British Museum

Dr John H Rassweiler

John Lyon's Charity

a

Your support: success stories BP

BP is one of the British Museum's longest standing corporate partners, generously supporting the Museum's public programme on an annual basis since 1996. This longstanding partnership has allowed over 4.2 million visito to view BP-supported British Museum exhibitions, displays and activities in Bloomsbury and further afield.

For 22 years BP has supported numerous special exhibitions as title sponsor, most recently the successful Scythlans, warriors of ancient Siberia in 2017 and Sunken cities: Egypt's lost world 2016. Perviously they have supported Indigenous Australia: enduring civilisation, Ming: 50 yea

addition, BP has supported special public events at the British Museum such as Chinese New ar (2006), the Mexican Day of the Dead (2009), and most recently the Days of the Dead Festi 15), supported by BP and in association with the Government of Mexico as part of the 2015: Mexico in the UK. This four-day event attracted 80,000 visitors between 30 October and 2

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Kings' students suspended after divestment The National Student > Student

Laurie Presswood at Edinburgh, University
7th February 2017

protest

7th February 2017

arrested whilst

political campaigning. Hallam reports that on Thursday morning students entering the Tutu Building were emergency suspension being implemented for Hallam, who is a PhD candidate studying effective radical excluded by the rsity buildings to

asked to show their IDs, to ensure that he was not inside.

33

divestment protest News Social Movements Police disrupt student race boat Labour Movement Oxbridge eoo ✓►► Green Parties

BNY MELLON

Police disrupt student divestment protest at Oxbridge boat race, Bright Green, 7 Apr 2019, LINK

Image credit: Cambridge Zero Carbon (This image is of the 2018 boat race protest)



British Foreign Office's Secret Department and Intellectuals

Kenan Musa Igrek

In the Cold War era governments saw books as a powerful means to win hearts and minds, and therefore, they became involved in this production and distribution process. Britain's use of printed books in this battle was very real but is little known. In 1948, the British Foreign Office created a secret unit the 'Information Research Department' (IRD) tasked with promoting Western democracy, contesting Communism and promoting the 'British way of life', using all media, including printed books.

The IRD was an organisation whose existence and finance were hidden from the public even from members of Parliament. It was a front-line body, in a battle without bullets but with words, to demolish the 'Soviet myth' during the Cold War. Through British embassies, libraries, bookshops and 'special friends', IRD's small pocket-sized books were distributed all around the world. Within Britain more than 100 titles appeared across areas of politics, philosophy, economics, and current affairs, published by the seemingly independent Ampersand, Batchworth Press, Phoenix House, and Bodley Head all with the secret support of the IRD. The Department supported the publication, both in English and in translation, of works by such well-known writers and intellectuals as George Orwell, Bertrand Russell and Arthur Koestler.

The IRD managed to clear the copyright of Orwell's Animal Farm and 1984, they were published in translation in Eastern Europe and in the Middle East with the secret support of the IRD. Orwell's novels Animal Farm and 1984, with their anti-totalitarian messages, were widely read during the Cold War and with their direct messages, these books, were practiced as major tools against 'the evils of Communism'. Orwell's involvement with the IRD can be seen as one of the most controversial activities of his career. As the archival material shows, the IRD tried to employ him, and he permitted the department to circulate his current books, and he offered a list of intellectuals that were supposed to be crypto-Communists and therefore not appropriate for the IRD directives. By allowing the IRD to publish/circulate their works intellectuals including Orwell and other names were willing to be part of this large state's covert propaganda process and their cultural products, books, were some of the most effective weapons for winning the ideological battle in the Cold War.

The intellectuals hold a power that can influence broad masses, they have the ability to access media and have discursive strategies that allow them to manipulate or influence opinion and this privileged access to public discourse can serve the authority. As the official archival materials show, the IRD considered intellectuals as one of the active powers that could pass the state's message to mass audiences. The intellectuals' ability to capture the hearts and minds of the public was seen as very valuable. Therefore, the IRD put substantial effort into widening its intellectuals circle, as the Department was aware that to work closely with writers who had power to shape public opinion would help to maintain and reproduce state power.

Working closely with well-known prominent writers allowed the IRD to validate and spread its messages and gave to the state a secret but powerful voice in public discourse. The IRD's close relationship with the intellectuals served to maintain and reproduce the power that operated for the benefit of the dominant group. Intellectuals were part of a strategy that the authority wanted to control, and by being part of the discourse and political establishment they engaged with this political agenda and promoted the ideology of the authority. In other word, they were part of the political agenda to shape the public opinion. Does one group, writers, holding power and representing the message/ideology of the authority thereby damage their intellectual position or do they fit in this category anymore?

Intellectuals have a meaningful cultural, and political role in society and their overt or covert involvement with the authority brings up a question of the purposes of intellectual activity. Nevertheless, the covert relationship between these seemingly independent writers and the state characterises this kind of social practice as illegitimate in that it is a form of communication that is only in the interest of one party and against the best interest of the recipients. However, the true or real intellectual is always an outsider, who speaks to, as well as for, a public, necessarily.

Foreign Office,

17 Carlton House Terrs

London S.W.1.

30. 4. 49

Dear George,

Thank you so much for your helpful suggestions. My department were very interested to see them. They thought that Chollerton in particular was a good idea which they for some reason had failed to hit on themselves.

They have asked me to say that they would be very grateful if you could let us look at your list of fellow-travelling and crypto journalists: we would treat it with the utmost discretion.

George +Orweil Regever Celia. Cotswold Sanatorium, Cranham, Gloucestershire.

NAME	JOB. 1 1 135 11	REMARKS
	Carlotte and John or Carlotte	\$110y grapath tour
Anderson, John	Industrial Correspondent	Probably sympathiser
	(Manchester Guardian)	only. Good reporter. Stupid.
		Stupia.
Aldred	Novelist ("Of many Men" etc.)	Qy. whether open C.P.
(Christian name?)	7	member.
Besvan, John	Editor (Manchester Evening News	Sentimental sympathise:
	and other papers)	only. Not subjectively
		pro-C.P. May have chang
	S. C. I. Sections, Small disperse.	views.
Blackett, Pro-	Scientific populariser (physics)	
fessor P.M.S.	colonillic populariser (physics)	
Carr, Professor	The "Times". Aberystwith	Appeaser only.
Е.Н.	University. Books on Bakunin	Appearer only.
	eto.	
Chaplin, Chas.	Films	?
Crowther, J.G.	Scientific populariser	Qy. whether open C.P.
otomenet, o.u.	octending populariser	member.
Childe, Professor	Scientific populariser (anthro-	??
Gordon	pology and history of science)	
Calder-Marshall.	Novelist and journalist	Previously close fellow-
Arthur	Melaks on Special and Special	traveller. Has changed,
		but not reliably.
		Insincere person.
Deutscher, I.	Journalist (Observer, Economist	Sympathiser only. Is
	and other papers)	Polish Jew. Previously Trotskyist, and changed
		Trotskyist, and changed
		Jewish issue. Could
		change again.
Duranty, W.	Well-known foreign correspondent.	
(Anglo-U.S.)	Books on Russia etc.	Manager of the Participa
D. D	W.D. Con Walden and anliquete	
Driberg, Tom	M.P. for Malden, and columnist (Reynolds' News, previously	but in my opinion NOT
	Daily Express)	reliably pro-C.P.
Dover, Cedric	Writer ("Half Caste" etc.) and	Is Eurasian. Main emph-
20112	journalist. Trained as zoologist.	asis anti-white (esnec-
		ially anti-U.S.A.), but
		reliably pro-Puccion
		all major issues. Very dishonest, venal person.
Goldring, D.	Writer (mainly novels)	Disappointed careerist.
Hooper, Major	Military expert. Pamphlets,	
(initials?)	books on U.S.S.R.	
Jacob, Alaric	Foreign Correspondent (D. Empress	
	Portage Correspondent (D. Express	

Nr Sheridan Mr Matson Was . Yesterday I went to visit George Orwell, Mr Murray who is in a sanatorium in Gloucestershire. I discussed some aspects of our work with him in great confidence, and he was delighted to learn of them, and expressed his wholehearted and enthusiastic approval of our sims. He said that he could not agree to write an article himself at present, or even to re-write one, because he is too ill to undertake any literary work at all; also because he does not like to write 'on commission', as he feels he does not do his best work that way. However I left some naterial with him, and shall send him photostats of some of his articles on the theme of Soviet repression of the arts, in the hope that he may become inspired when he is better to take them up again. He suggested various names of writers who might be enlisted to write for us, and promised to think of more in due course and to communicate them to us. The ones he thought of while I was there were:-D'Arcy Gillie, the Manchester Guardian Paris correspondent, who he says is a serious opponent of Communism, and an expert on Folend as well as on French politics; C.D. Darlington, the scientist. Mr Orwell considers that the Lysenko case shoul be fully documented, and suggested that Darlington might undertake this; Franz Borkensu, the German professor, who wrote a History of the Comintern, and

COUNT

FOUR

WHAT THEY KNEW

WE, THE CITIZENS

were complicit in these crimes,
and failed to prepare our children
for what was to come

Citizens of a broken world, we present to you the evidence for your consideration, that we the citizens were complicit in these crimes, and failed to prepare our children for what was to come. Citizens, the evidence of what was known, as early as 2019, is set out under Count 1 & 2. This evidence was so well known, children were struck dumb. But from 2018, some of our children began to recover the power of speech.







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