

Stu's Notes #11

Stu's Notes provide selected passages from books that are of interest to Stu. They are primarily direct quotes, though some longer passages are summarized. They do not generally provide a thorough synopsis of the book. Rather, they capture individual facts or opinions of interest, which may or may not be reflective of the overall text.

Title: **A Short History of Progress**

Author: Ronald Wright

Publisher: House of Anansi Press

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Summary: *This book comprises the 2004 CBC Massey Lectures. A colourful history of our species, and what we have done to our home. Well researched, strongly worded. Makes a very strong case that we need to modify our society to live within the natural limits of our planet. Now. Or face collapse.*

Highlights: Mass extinctions [p.30-31]

We are the heirs of many ruthless victories [p.31]

Humans have built a civilization adapted to the climate we have [p.52]

Not only did Adam and Eve drive themselves from Eden, but the eroded landscape they left behind set the stage for Noah's flood: the first eyewitness account of a man-made environmental catastrophe [p.75]

For the ancient cities of Sumer, the desert in which they stand is a desert of their making [p.79]

Civilizations gather wealth to the centre from an expanding periphery: the frontier of a political and trading empire; a colonization of nature through intensified use of resources; or both [p.83-84]

Such a civilization is therefore most unstable at its peak: once nature starts to foreclose, the social contract breaks down [p.84]

After impoverishing local soils, Rome exported its environmental load to colonies: its breadbaskets are now filled with sand and dust [p.93-94]

The problem is deeper than mistakes at any particular time or place: population grows to the limit of the food supply, and hierarchical concentration of wealth ensures that there's never enough for all [p.108]

Our age was bankrolled by the seizing of half a planet, taking over most of the remaining half, and spending down new forms of natural capital, especially fossil fuels [p.117]

The conceit of laissez-faire economics – that if the horses eat enough oats, something will go through for the sparrows – has been tried many times and has failed many times, leaving ruin and social wreckage [p.126-127]

We must live on the interest, not the capital, of nature [p.129]

The idea that the world must be run by the stock market is as mad as any other fundamentalist delusion, Islamic, Christian, or Marxist [p.129]

The 10,000-year experiment of the settled life will stand or fall by what we do, and don't do, now. The reform that is needed is simply the transition from short-term to long-term thinking. From recklessness and excess to moderation and the precautionary principle. Now is our last chance to get the future right. [p.131-132]

Chapter 2: The Great Experiment

“Our main difference from chimps and gorillas is that over the last 3 million years or so, we have been shaped less and less by nature, and more and more by culture. We have become experimental creatures of our own making.

“This experiment has never been tried before. And we, its unwitting authors, have never controlled it. Since the early 1900s, the world's population has multiplied by four and its economy – a rough measure of the human load on nature – by more than forty. We have reached a stage where we must bring the experiment under rational control, and guard against present and potential dangers. It's entirely up to us. If we fail – if we blow up or degrade the biosphere so it can no longer sustain us – nature will merely shrug and conclude that letting apes run the laboratory was fun for a while but in the end a bad idea.

“We have already caused so many extinctions that our dominion over the earth will appear in the fossil record like the impact of an asteroid. So far, we are only a small asteroid compared with the one that clobbered the dinosaurs.” [p.30-31]

“I suggested in the previous chapter that prehistory, like history, tells us that the nice folk didn't win, that we are at best the heirs of many ruthless victories and at worst the heirs of genocide. We may well be descended from humans who repeatedly exterminated rival humans – culminating in the suspicious death of our Neanderthal cousins some 30,000 years ago.” [p.31]

“The Old Stone Age began nearly 3 million years ago, with the first rough tools made by the first rough beasts slouching towards humanity, and ended only 12,000 years ago, when the great ice sheets withdrew for the last time to the poles and ranges where they await further climate change. Geologically speaking, 3 million years is only a wink, one minute of earth’s day. But in human terms, the Old Stone Age is a deep abyss of time – more than 99.5 per cent of our existence – from which we crawled into the soft beds of civilization only yesterday.” [p.32]

“Archaeologists generally agree that the first civilizations were those of Sumer – in southern Mesopotamia, or what is now Iraq – and Egypt, both emerging about 3000 B.C. By 1000 B.C., civilization ringed the world, notably in India, China, Mexico, Peru, and parts of Europe.” [p.33]

“The Old Stone Age now seems so remote that we seldom give it a thought, except perhaps to chuckle at a ‘Farside’ cartoon. Yet it ended so recently – only six times further back than the birth of Christ and the Roman Empire – that the big changes since we left the cave have all been cultural, not physical. A long-lived species like ours can’t evolve significantly over so short an interval. This means that while culture and technology are cumulative, innate intelligence is not.” [p.34-35]

“Like the butt of Dr. Johnson’s joke that much may be made of a Scotsman if he be caught young, a late-Palaeolithic child snatched from a campfire and raised among us now would have an even chance at earning a degree in astrophysics or computer science. To use a computer analogy, we are running twenty-first-century software on hardware last upgraded 50,000 years ago or more. This may explain quite a lot of what we see in the news” [p.35]

“So among the things we need to know about ourselves is that the Upper Palaeolithic period, which may well have begun in genocide, ended with an all-you-can-kill wildlife barbecue. The *perfection* of hunting spelled the *end* of hunting as a way of life.” [p.39]

“In the magnitude of its consequences, no other invention rivals farming (except, since 1940, the invention of weapons that can kill us all). ... The Farming Revolution produced an entirely new mode of subsistence, which remains the basis of the world economy to this day. The food technology of the late Stone Age is the one technology we can’t live without. The crops of about a dozen ancient peoples feed the 6 billion on earth today. Despite more than two centuries of scientific crop-breeding, the so-called green revolution of the 1960s, and the genetic engineering of the 1990s, not one new staple has been added to our repertoire of crops since prehistoric times.” [p.45-46]

“... the world’s climate has been unusually stable for the past 10,000 years – exactly the lifetime of agriculture and civilization. It seems we couldn’t have developed farming earlier, even if we’d tried. The studies also show that the earth’s climate has sometimes fluctuated wildly, breaking from an ice age – or plunging into one – not over centuries but in *decades*.” [p.51-52]

“Richard Alley points out what should be obvious: ‘humans have built a civilization adapted to the climate we have. Increasingly, humanity is using everything this climate provides ... [and] the climate of the last few thousand years is about as good as it gets.’

“Change is not in our interest. Our only rational policy is not to risk provoking it. Yet we face abundant evidence that civilization itself, through fossil-fuel emissions and other disturbances, is upsetting the long calm in which it grew.” [p.52]

Chapter 3: Fool's Paradise

“Having invented irrigation, the city, the corporation, and writing, Sumer added professional soldiers and hereditary kings.” [p.70]

“By 2500 B.C., the days of collective landholding by city and corporation were gone; the fields now belonged to lords and great families. The Sumerian populace became serfs and sharecroppers, and beneath them was a permanent underclass of slaves – a feature of Western civilization that would last until the nineteenth century after Christ.” [p.71]

“Throughout the ancient world, rulers performed the ultimate political theatre: public sacrifice of captives. As a nineteenth-century Ashanti king candidly told the British: “If I were to abolish human sacrifice, I should deprive myself of one of the most effectual means of keeping the people in subjection.” The British, who at that time were tying Indian mutineers across the mouths of cannon and blowing them in half, scarcely needed such advice.” [p.72]

“Not only did Adam and Eve drive themselves from Eden, but the eroded landscape they left behind set the stage for Noah's flood. ... The Sumerian version of the legend, told in the first person by a man named Utnapishtim, has the ring of real events, with vivid detail on freak weather and broken dams. In it we may see not only the forerunner of the biblical story but the first eyewitness account of a man-made environmental catastrophe.” [p.75]

“The short-lived Empire of Ur exhibits the same behaviour we saw on Easter Island: sticking to entrenched beliefs and practices, robbing the future to pay the present, spending the last reserves of natural capital on a reckless binge of excessive wealth and glory.” [p.79]

“As for the ancient cities of Sumer, a few struggled on as villages, but most were utterly abandoned. Even after 4,000 years, the land around them remains sour and barren, still white with the dust of progress. The desert in which Ur and Uruk stand is a desert of their making.” [p.79]

Chapter 4: Pyramid Schemes

“The careers of Rome and the Maya also show, I think, that civilizations often behave like ‘pyramid’ sales schemes, thriving only while they grow. They gather wealth to the centre from an expanding periphery, which may be the frontier of a political and trading empire or a colonization of nature through intensified use of resources, often both.” [p.83-84]

“Such a civilization is therefore most unstable at its peak, when it has reached maximum demand on the ecology. Unless a new source of wealth or energy appears, it has no room left to raise production or absorb the shock of natural fluctuations. The only way onward is to keep wringing new loans from nature and humanity.” [p.84]

“Once nature starts to foreclose – with erosion, crop failure, famine, disease – the social contract breaks down. People may suffer stoically for a while, but sooner or later the ruler’s relationship with heaven is exposed as a delusion or a lie. Then the temples are looted, the statues thrown down, the barbarians welcomed, and the emperor’s naked rump is last seen fleeing through a palace window.” [p.84]

“Cities of millions are a recent phenomenon, dependent on mechanized transport. In the time of Henry VIII, the largest towns in western Europe – Paris, London, Seville – held about 50,000 people each, the same as Uruk in the days of Gilgamesh.” [p.91]

“All pre-industrial cities were constrained by the difficulty of getting supplies in and wastes out every day, a problem not always eased by horses and carts. The best solution was water transport by a network of canals, as in Venice and Aztec Mexico City.” [p.92]

“The unsavoury truth is that until the mid-nineteenth century, most cities were death traps, seething with disease, vermin, and parasites. Average life expectancy in ancient Rome was only nineteen or twenty years ...” [p.92]

“As the empire impoverished the soils of southern Europe, Rome exported its environmental load to colonies, becoming dependent on grain from North Africa and the Middle East. The consequences can be seen in those regions today. Antioch, capital of Roman Syria, lies under some thirty feet of silt washed down from deforested hills, and the great Libyan ruins of Leptis Magna now stand in a desert. Rome’s ancient breadbaskets are filled with sand and dust.” [p.93-94]

“The Maya understood their soils and conserved them better than today’s chainsaw settlers do, but eventually demand overtook supply. David Webster, who has excavated at several major sites and written a recent book on the Maya fall, says this about the greatest of the city-states: ‘The most convincing collapse explanation we have for the Tikal kingdom is overpopulation and agrarian failure, with all of their attendant political consequences.’” [p.100]

“As the crisis gathered, the response of the rulers was not to seek a new course, to cut back on royal and military expenditures, to put effort into land reclamation through terracing, or to encourage birth control (means of which the Maya may have known). No, they dug in their heels and carried on doing what they had always done, only more so. Their solution was higher pyramids, more power to the kings, harder work for the masses, more foreign wars. In modern terms, the Maya elite became extremists, or ultra-conservatives, squeezing the last drops of profit from nature and humanity.” [p.102]

“‘A culture,’ said W. H. Auden, ‘is no better than its woods.’ Civilizations have developed many techniques for making the earth produce more food – some sustainable, others not. The lesson I read in the past is this: that the health of land and water – and of woods, which are the keepers of water – can be the only lasting basis for any civilization’s survival and success.” [p.105]

Chapter 5: The Rebellion of the Tools

“We are faced by something deeper than mistakes at any particular time or place. The invention of agriculture is itself a runaway train, leading to vastly expanded populations but seldom solving the food problem because of two inevitable (or nearly inevitable) consequences. The first is biological: the population grows until it hits the bound of the food supply. The second is social: all civilizations become hierarchical; the upward concentration of wealth ensures that there can never be enough to go around.” [p.108]

“... steady improvements in farming methods can explain a steady rise in population, but not the great boom of the past few centuries. Mechanization and sanitation may account for later stages of the boom, but not its beginning, which pre-date farm machinery and public health. The take-off point was about a century after Columbus. This was when the strange fruits of the Spanish conquest began to be digested. Europe received the greatest subsidy of all when half a planet, fully developed but almost unprotected, fell suddenly into its hands.” [p.110-111]

“... the New World’s true conquerors were germs: mass killers such as smallpox, bubonic plague, influenza, and measles. These arrived for the first time with the Europeans (who had resistance to them) and acted like biological weapons, killing the rulers and at least half the populations of Mexico and Peru in the first wave.” [p.112]

“We in the lucky countries of the West now regard our two-century bubble of freedom and affluence as normal and inevitable; it has been called the ‘end’ of history, in both a temporal and teleological sense. Yet this new order is an anomaly: the opposite of what usually happens as civilizations grow. Our age was bankrolled by the seizing of half a planet, extended by taking over most of the remaining half, and has been sustained by spending down new forms of natural capital, especially fossil fuels. In the New World, the West hit the biggest bonanza of all time. And there won’t be another like it ...” [p.117]

“Capitalism lures us onward like the mechanical hare before the greyhounds, insisting that the economy is infinite and sharing therefore irrelevant. Just enough greyhounds catch a real hare now and then to keep the others running till they drop. In the past it was only the poor who lost this game; now it is the planet.” [p.124]

“We still have differing cultures and political systems, but at the economic level there is now only one big civilization, feeding on the whole planet’s natural capital. We’re logging everywhere, building everywhere, and no corner of the biosphere escapes our haemorrhage of waste. The twentyfold growth in world trade since the 1970s has meant that hardly anywhere is self-sufficient. Every Eldorado has been looted, every Shangri-La equipped with a Holiday Inn. Joseph Tainter notes this interdependence, warning that ‘collapse, if and when it comes again, will this time be global. ... World civilization will disintegrate as a whole.’” [p.125]

“Experts in a range of fields have begun to see the same closing door of opportunity, begun to warn that these years may be the last when civilization still has the wealth and political cohesion to steer itself towards caution, conservation, and social justice.” [p.125]

“And in his 2003 book, *Our Final Century*, Martin Rees of Cambridge University, Astronomer Royal and former president of the British Association for the Advancement

of Science, concludes: 'The odds are no better than fifty-fifty that our present civilization ... will survive to the end of the present century ... unless all nations adopt low-risk and sustainable policies based on present technology.'" [p.125-6]

"Two things need to be said here [about terrorism].

"First, terrorism is a small threat compared with hunger, disease, or climate change. Three thousand died in the United States that day; 25,000 die *every* day in the world from contaminated water alone. Each year, 20 million children are mentally impaired by malnourishment. Each year, an area of farmland greater than Scotland is lost to erosion and urban sprawl, much of it in Asia.

"Second, terrorism cannot be stopped by addressing symptoms and not the cause. Violence is bred by injustice, poverty, inequality, and other violence. This lesson was learnt very painfully in the first half of the twentieth century, at a cost of some 80 million lives. Of course, a full belly and a fair hearing won't stop a fanatic; but they can greatly reduce the number who *become* fanatics." [p.126]

"After the Second World War, a consensus emerged to deal with the roots of violence by creating international institutions and democratically managed forms of capitalism based on Keynesian economics and America's New Deal. This policy, though far from perfect, succeeded in Europe, Japan, and some parts of the Third World. (Remember when we spoke not of a 'war on terror' but of a 'war on want'?)

"To undermine that post-war consensus and return to archaic political patterns is to walk back into the bloody past. Yet that is what the New Right has achieved since the late 1970s, rewrapping old ideas as new and using them to transfer the levers of power from elected governments to unelected corporations – a project sold as "tax-cutting" and "deregulation" by the right's courtiers in the media, of which Canada certainly has its share. The conceit of laissez-faire economics – that if you let the horses guzzle enough oats, something will go through for the sparrows – has been tried many times and has failed many times, leaving ruin and social wreckage. [p.126-127]

"The revolt against redistribution is killing civilization from ghetto to rainforest. Taxes in most countries have not, in fact, been lowered; they were merely shifted down the income pyramid, and diverted from aid and social programs towards military and corporate ones. ... Public confidence in a basic social safety net is essential for lowering birth rates in poor nations, and for a decent society in all nations. The removal of that confidence has set off a free-for-all that is stripping the earth." [p.127]

"Population growth is slowing, but by 2050 there will still be 3 billion more on earth. We may be able to feed that many in the short run, but we'll have to raise less meat (which takes ten pounds of food to make one pound of food), and we'll have to spread that food around. What we can't do is keep consuming as we are. Or polluting as we are. We could help countries such as India and China industrialize without repeating our mistakes. But instead we have excluded environmental standards from trade agreements. Like sex tourists with unlawful lusts, we do our dirtiest work among the poor." [p.128-9]

"If civilization is to survive, it must live on the interest, not the capital, of nature. Ecological markers suggest that in the early 1960s, humans were using about 70 per

cent of nature's yearly output; by the early 1980s, we'd reached 100 per cent; and in 1999, we were at 125 per cent. Such numbers may be imprecise, but their trend is clear – they mark the road to bankruptcy.” [p.129]

“None of this should surprise us after reading the flight recorders in the wreckage of crashed civilizations; our present behaviour is typical of failed societies at the zenith of their greed and arrogance. This is the dinosaur factor: hostility to change from vested interests, and inertia at all social levels. George Soros, the reformed currency speculator, calls the economic dinosaurs ‘market fundamentalists.’ I’m uneasy with this term because so few of them *are* true believers in free markets – preferring monopolies, cartels, and government contracts. But his point is well taken. The idea that the world must be run by the stock market is as mad as any other fundamentalist delusion, Islamic, Christian, or Marxist.” [p.129]

“The most compelling reason for reforming our system is that the system is in no one’s interest. It is a suicide machine. All of us have some dinosaur inertia within us, but I honestly don’t know what the activist ‘dinosaurs’ – the hard men and women of Big Oil and the far right – think they’re doing. They have children and grand-children who will need safe food and clean air and water, and who may wish to see living oceans and forests. Wealth can buy no refuge from pollution; pesticides sprayed in China condense in Antarctic glaciers and Rocky Mountain tarns. And wealth is no shield from chaos, as the surprise on each haughty face that rolled from the guillotine made clear.” [p.131]

“Things are moving so fast that inaction itself is one of the biggest mistakes. The 10,000-year experiment of the settled life will stand or fall by what we do, and don’t do, now. The reform that is needed is not anti-capitalist, anti-American, or even deep environmentalist; it is simply the transition from short-term to long-term thinking. From recklessness and excess to moderation and the precautionary principle.

“The great advantage we have, our best chance for avoiding the fate of past societies, is that we know about those past societies. We can see how and why they went wrong. *Homo sapiens* has the information to know itself for what it is: an Ice Age hunter only half-evolved towards intelligence; clever but seldom wise.

“We are now at the stage when the Easter Islanders could still have halted the senseless cutting and carving, could have gathered the last trees’ seeds to plant out of reach of the rats. We have the tools and the means to share resources, clean up pollution, dispense basic health care and birth control, set economic limits in line with natural ones. If we don’t do these things now, while we prosper, we will never be able to do them when times get hard. Our fate will twist out of our hands. And this new century will not grow very old before we enter an age of chaos and collapse that will dwarf all the dark ages in our past.

“Now is our last chance to get the future right.” [p.131-132]