

# Futurewatch

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An information service of current international commentary about our futures, prepared by futures scanner *Jennifer Coote, New Zealand Futures Trust*. Annual dates in final two digits.

## Peace/War /World Affairs

### The Future of Australian Security Relationships

*R. Lyon, W. T. Tow, Strategic Studies Institute, US Army War College, paper Dec 03*, assess the shift in the Australia-US security relationship, from Australian self-reliance to an ever deepening co-operation, despite economic, political and international constraints. The alliance will remain crucial for Australia because of: the emerging asymmetric, global security threat; the evolution of Western technology towards network-centric warfare; and the inability of autonomous security policies and "orphan" capital equipment to provide a competent defense for continental Australia. The challenge will be to sustain political support for this relationship.

Australian international affairs experts examine the national role in transition to a new world order, *Australian Journal of International Affairs, Vol 57/3, 03*. *J. A. Camilleri*, La Trobe Univ, examines "national interest", the central principle of Australian foreign policy. Key questions:- what is meant by "national"? And by "interest"? Who has the competence and authority to define these? how can these be performed in way conducive to intelligent policy debate and formulation? The Howard government defines national interest as state interest, emphasizing military security, embellished by "the Australian way" and growth/competitiveness. There is a tension between self-centred behaviour and altruism, usually sidestepped. Is national interest subjective

or objective? Can Australian citizens come to an agreement about these? what influence does the government have in this debate? Australian official policy statements appear to oscillate between very generalized propositions, and highly specific, apparently unconnected policies. Coded references are used to the "white Australian" heritage, and psychological comfort sought from US power, reflecting an elite approach operating in its own comfort zone.

*A. Dupont*, Strategic/Defence expert ANU, *Australian Journal of International Affairs, Vol 57/1, 03*, urges a rethink of national defence strategy, which has shaped the Defence Force for the wrong wars. While high-end warfare still requires modern, capable armed forces, the Defence Force is increasingly likely to be deployed beyond the region. It needs to be capable of responding to a broad spectrum of non-rational challenges, including winning peace, and to be appropriately structured and equipped.

Political scientist *W. Maley*, Univ. NSW, *same issue*, explores the role of asylum-seekers in Australia's international relations. He refers to the role of a middle power, the soft-power resources of such a state, the influence of crude populism in recent policy and implications for Australia's reputation, inflexible border control preoccupations and failures of the foreign policy elites. He suggests where the tensions need to be resolved.

*Asia Pacific Viewpoint, Vol 44/3, 03* provides research studies on aspects of post colonial Oceania, particularly Melanesia, including external intervention, economic inequality, race, gender relations and conflict, urban transformation, conflict causes and indigenous cultural conflict forms. Development Studies academics,

W. E. Murray, D. Storey (NZ), introduce the themes, noting that the region has many damaging colonial legacies upon which new challenges are being superimposed, creating an unprecedented fragility.

### Human Security

Political scientist J. Mueller considers that there is a reasonable prospect, over the longer term, for the kinds of wars which are essentially predations by thuggish elements to decline. The experience of Western Europe over the last few centuries shows that competent domestic military and policing forces could develop as civil unrest gives way to competent government. *Journal of Peace Research*, Vol 40/5, 03.

The UN Commission on Human Security (2001) grew out of the Millennium Summit. It reported on the concept as an operational tool in policy formation and implementation, Sept 03. Human security connects different types of freedoms: from want and from fear, and freedom to take action on one's own behalf. Two general strategies are protection and empowerment: in conflict, on the move, after conflicts, in economic choice and for health, knowledge, skills and values. ([www.humansecurity-chs.org](http://www.humansecurity-chs.org)).

Fellow of US Council of Foreign Relations J. Bhagwati recommends that a treaty-defined World Migration Organization be established, as concerns mount together with the massive cross border flows of people. Current international institutions deal with fragmented aspects, and a new system is needed to consolidate the existing norms and protocols which then could be formulated into conventions *Financial Times*, 24 Oct 03, p13.

Studies on the Balkan developments illuminate current experience of nation building, with lessons for wider application. R. D. Pedersen, *Understanding Ethnic Violence: Fear, Hatred and Resentment in Twentieth Century Eastern Europe*, Camb. Univ. Press, 02, offers a more theoretical examination of the assumptions that ethnic nationalism is product of corrupt politicians rather than mass based; that constitutional engineering and democratic elections can rebuild failed states and foster harmonious ethnic relations, and that economic con-

siderations are the determining force in human affairs.

The backlash against globalization is producing strange alliances and developments, as conspiracy theorists revive and reshape the old anti-Semitism. M. Strauss, *Foreign Policy*, Nov/Dec 03, notes that while economic downturns have usually fuelled anti-Semitism, the hostility to Israel aggravates it, while the effects of globalization itself have undermined old confidence in nationality and identity. A wide spectrum of political views, "brown, green and red," are united against a common enemy, despite the presence of many Jews in the antiglobalisation movement.

### The Hegemon

*Lessons of the 20<sup>th</sup> Century for the 21<sup>st</sup> Century*, B. Emmott, Allen Lane/Farrar, Strauss & Giroux, 03. The Editor of *The Economist* raises two longer term questions. Will the US continue to lead the world and keep the peace? Will capitalism's strengths sufficiently outweigh its weaknesses for most peoples to accept it? The answers to both are affirmative but well considered, though with a limited understanding of the effects of self-interested US peacekeeping in some regions.

J. S. Nye, Harvard Government policy specialist, *Foreign Affairs*, July/August, 03, warns against misunderstanding the nature of present US power and extrapolating it into the future. The military imbalance is misleading, the world is changing in profound ways while US policy is still groping. Developments in distant, poor countries can profoundly reshape US possibilities. While the Bush administration is right to confront this, it has yet to develop policy to cope. The present unilateralist focus assumes that the threats are so dire that the multilateral structures of the later 20<sup>th</sup> century are too constraining. But if pure multilateralism is impossible, unilateralism must not rest on military power alone.

World politics has become like a three dimensional chess board on which players must operate vertically as well as horizontally. Power at the bottom transnational board is shared amongst a chaotic mix of state and non state

actors. Softpower, used to foster the global humanitarian agenda and strengthening international institutions, can legitimate US power and acceptance of its new strategy. There are doubts as to the tolerance the US public has for the pure unilateralist or imperial role.

Yale's *H. Hongju Koh*, international law professor, critiques the current US response to human rights after 11/9/02. Never has a superpower seemed so powerful and yet so vulnerable. Freedom from fear has become obsessive as US human rights policy measures include: closed government and invasions of privacy, scapegoating immigrants and refugees, extra-legal zones, creating extra-legal persons, especially the called "enemy combatants" and a reduction in thus protecting many foreign governments seeking to justify their own crack-down on human rights. Since such responses are counter to the US national character, domestic resistance is growing. Cases are finally making their way to the US Supreme Court. Here US human rights lawyers can argue from a recent case, for policies to be evaluated by "values we (Americans) share with a wider civilization." *B. Franklin* wrote (1759) "They that can give up essential liberty to obtain a little temporary safety deserve neither." *The Economist*, 1 Nov, 03, pp 23-24.

*N. Confessore*, *Washington Monthly*, July-Aug 03, examines the role of the lobbyists from K Street, Washington, in the policies and political influence of the Republican Party. This Street is to influence peddling as Wall St is to finance, and reflects a shift from the machine of federal bureaucratic power built under F. D. Roosevelt, to the private sector, in turn bedding -in Republican Party power long-term.

## Other Regions

*P. Hain*, UK representative in the negotiations on developing an EU constitution, sees major achievements:- greater democratic accountability through the national parliaments and a full-time Council President which ensures better strategic direction. Also proposed is a foreign representative responsible for big diplomacy in the high foreign and security issues, which at present Europe does not do well.

These two major officials could facilitate greater European consensus on important policy developments and better partnership aboard. The European vision for the world is progressive internationalism based on respect for international law, regulated by multilateral agreements, such as the Kyoto protocol, the Comprehensive Test Ban Treaty, etc, with a commitment to human rights, democracy, social justice and conquest of world poverty. *International Affairs*, Vol 79/5, 03 on *The Future of the European Union and the Transatlantic Partnership*.

US foreign affairs expert *R. Menon*, *Survival*, Vol 45/2, 03 examines the likely longterm, heavy involvement of the US in Central Asia, hitherto of marginal interest. It provides fertile ground for radical variants of Islam as well as havens for terrorists. Local autocrats are eager to involve the US, while for the US to withdraw communicates weakness to rival Powers. The best strategy should think, not in terms of a few small weak states, but 'greater Central Asia' where impacts in one part of the region ripple onwards with major effects in other parts. The chaotic environments require a clear mission for involvements, an exit strategy, and support from western partners.

*The New Chinese Empire and What it Means for the United States*, *R. Terrill*, Basic Books, 03. A Sinologist's exploration of the Chinese imperial tradition, as a state mandated by Heaven. Though powerful, it is still globally weak, overstretched, deeply corrupt, politically unstable, highly ambitious, with an ageing population, major health problems, no proper banking system and massive environmental pollution. Seven scenarios of political developments are discussed; in one, China as a democratic federation could be a leading force in the world for decades.

## Communications/Transport

### The Digital Promise or Divide

Specialists in ICT for Development, *C. A. Primo Bragga et al*, Development Gateway Foundation, paper, May 03, provide a two-decade-long view from a base line of possibly

two billion people digitally networked by 2005, with embedded devices enabling "machine conversations" for a fully ubiquitous networked society. They doubt that it could only be matter of time for developing countries to catch up. This ignores the complexities of systemic interactions, and the institutional constraints for their societies. Stepping stones in the next five years could help: specially and locally adapted low cost devices; low cost software (FOSS, Free/Open Source Software); wireless solutions to leapfrog bottlenecks since this is especially suitable for rural areas; content localization/ relevance and search technologies which enable wider take-up, utilizing local knowledge and culture. Needed developments: creating widespread computer literacy, some of it to a high level; revised policies and regulations for telecoms; greater availability of investment finance, and increased trust in, and acceptance of change, built up by transparency and accountability. Leadership is required from a wide range of parties for the necessary policies to meet the challenges; from governments, corporations, technological and academic communities, civil society including multinational and international agencies.

Using India as a case study, C.P. Chandrasekhar considers the development potential of IT, *Third World Resurgence*, No159/160, 03. There are three major expectations: for growth and diversification of the ICT sector itself; for its widespread, beneficial application to, and even transformation of, sectors such as agriculture; and lastly for a wider societal and workplace transformation. It is also presumed that ICT transfuses countrywide, that it spreads to other sectors than its own and penetrates vertically. Where, as in India, communications infrastructure is limited in size and spread, the expectations are much diminished. India also lags far behind other developing countries in bandwidth. ICT development has been limited to a small, though very rapidly growing enclave, largely focused on the export market, is dependent on private sector investment with profit, not service provision, as the prime consideration, while software dominates the IT revenue stream. This is confined to the low-value end of the market because of limited supplies

of advanced level workers.

Education, technology and development expert M. Warschauer, *Technology and Social Inclusion: Rethinking the Digital Divide*, MIT Press, 03, argues that merely adding the technology to bridge the so-called "digital divide" is simplistic. Access, but also disparate inclinations and understanding of how people use the technology and finding ways to further the social inclusion process are paramount. See also *Scientific American*, August 03.

*Development, (Society for International Development)*, March 03, on *Mediating Citizenship in the Global Network Society*, includes warnings that the commons of cyberspace is not enhancing the world's social capital as was originally imagined. Not only info overload and digital divides, but also the power elites can and have provides checks to political freedoms. A large and valuable part of the Internet is privately owned, search engines are private companies favouring their business partners, it takes money and skills to build sites to hold an audience, big companies through their portals can steer users, and the sophisticated use of sound and pictures give big entertainment companies a major competitive advantage. Trend studies of this still young medium can provide better strategies to build community-based participation.

### Does My Robot Love Me?

Sherry Turkle's studies of the sociology and psychology of human and machine interaction is now focused on everyday relationships and how this is changing our human identities. We are making objects that are emotionally powerful (a robot is being programmed to express "love") but we also consider the machines as "just tools". It is not just a matter of what will the machines be like? but what we become by interacting with them? The programmed machine offers the illusion of intimacy, allowing us to be loners, but never alone. If the machine is better than a real human because it is totally reliable and even immortal, what emotional relationships and development do humans develop? *Harvard Business Review*, Sept, 03.

*Turkle's* research raises important questions for the contributors to a forum of futurist academics, *Futures*, Sept, 03, N. Bostrom, J. Ravetz, G.T.T. Molitor, A. Jenkins and R. Kapoor, on the potential of artificial intelligence, technologically, and sociologically.

### Media Miscellany

P. Baudoin, e-journal consultant, *The Serials Librarian*, Vol43/4, 03, considers that not only is the challenge of archiving the journals themselves a major hurdle, but that there needs to be recognition that these journals are dynamic entities; they are web-sites in their own right and archivists must attempt to do justice to innovative web scholarship.

H. Varmus pioneered the open access, online, biomedical research journal, *PLoS Biology*, which shifts the cost of publishing from subscribing libraries to research organizations. Scientific researchers have subsidized the publishing industry, which in the case of for-profit publishers, ultimately benefits shareholders. Scientific societies are like guilds to serve members, and they are going to have to adapt to the opportunities for much more efficient and useful science publications via the Internet. *New Scientist*, 1 Nov, 03, pp 46-49. Further issues and international initiatives, *Nature*, 9 Oct, 03, pp 554-555.

"Blogging" is a new media phenomenon especially strong in USA, *CJR*, Sept/Oct, 03, where non-tech Internet users can access a Weblog, pick a template, register for password and create their own journal. 11/9/02 stimulated demand. This alternative media is contributing to journalism by giving the ordinary citizen a voice:- of personality, which is diverse and iconoclastic; eyewitness testimony, with unique viewpoints; in reader interaction which is very intense and personal, yet forces the creators to act like real journalists, filtering and editing. Finally they provide uncounted gigabytes of new knowledge.

### Futures of Transport

*International Social Science Journal*, No 176, June 03 provides a range of social scientists' views and research on *Sustainable*

*Mobility*, a new paradigm of thinking. Included are studies on indicators, design and development of appropriate systems, relationship to land-use planning, noise, lifestyle and housing and much more. *Transport Policy*, July 03, features *Urban Transport Policy: Instruments*, with contributions from Australia, Europe, UK, with topics covering:- walking and buses, walking and cycling, voluntary behaviour change, land use, indicators and the UK "Civilising Cities" initiative which seeks through pilot projects to identify how packages of transport measures help improve local quality of life.

*Towards Sustainable Aviation*, Ed P. Upham et al, Earthscan, 03. Global air passenger traffic is expected to rise from an average of 4.6% to 4.9 %, 1999-2020, representing a trebling of passenger numbers, particularly from Asia. How will industry cope? the congestion at airport ease or intensify? and how technology will change is explored. *The Economist*, 13 Dec 03, pp 75-77, outlines developments in aviation, with pilotless planes (unmanned aerial vehicles, UAVs); intensifying measures to limit pollution (offset by the rise in volume of traffic); and the use of fuel cells in small personal planes.

*Personal Cars and China*, Chinese Academy of Engineering and National Research Council, National Academies Press, 03. Since 1991, the vehicle industry has been a key aspect of recent Five Year plans. The latest requires a radical restructuring and reduction of companies and suppliers. This study, a US-Chinese collaboration, examines the industry in China and globally:- structures, technologies, environment and health impacts, fuel economy standards, etc.

### Economic/Business

#### Debating Globalisation

J. R. Saul claims that globalism has collapsed and nationalism is being reborn, *Harper's*, March, 04, The almost-religious certainty which launched globalisation emerged in the kind of transitional fog found as civilizations begin to change. It provided some with power to maximise their influence on the direction. The system peaked in 1995 with the World



Trade Organisation, which reconceptualised civilisation through the prism of economics, eliminating the precautionary principle and citizen's opinions. A far broader, popular, concerned reaction focused on agriculture, which was being redefined as an industry, not a food source. Contradictions in the globalisation experience became obvious: the way by which its exponents were in fact reducing competition, and that natural resources are not "virtual" but fixed inside real entities, nation states, whose governments had real power. The final paradox, the confusion of ethics and morality produced the "crucifixion theory of economics", with the IMF as the disciplinarian.

Meanwhile Yugoslavia's fragmentation and the Rwanda holocaust showed the irrelevance of the globalisation leadership. Experience has negated Latin American faith, as has the massive ineptitude of the corporate model and the success of Malaysia's capital controls. Even globalised model New Zealand elected an interventionist government and the USA prepared if necessary for unilateral action in Iraq. Nationalism of the best and worst sort has recovered, choice has returned, but the fog remains.

A. Chua, *World on Fire: How Exporting Free Market Democracy Breeds Ethnic Hatred and Global Instability*, Doubleday, 03. A Yale Law Professor examines issues of underdevelopment, free market democracy and prevailing global instability. She affirms the compatibility of capitalism and democracy but highlights the role of market dominant ethnic minorities in the developing world as the root cause of the resulting violence and ethnic hatred when these Western mechanisms are applied in the developing world.

*Real World Economic Outlook: The Legacy of Globalisation: Debt and Deflation*. Ed A. Pettifor, Palgrave/Macmillan 03. The first edition of a planned series which aims to review the world economy for the professional and the general reader from the perspective of social and environmental justice. Short chapters from regional economists on the chosen theme elaborate on the critical impacts of financial instability, terrorism and war. A crisis may occur in the

USA, in response to which its government may change course, adopting some of the recommended measures, rather than continue to free-ride on the rest of the world. It may also become the world's first "localized" economy.

R. Rajan, L. Zingales, (*Chicago Business School*), *Saving Capitalism from the Capitalists*, Crown Business, 03. Capitalist environments require external rules for market functioning but too much stifles the system's vitality. Financial markets provide the balancing influence to spur change, new business and growth. National systems of finance and protectionism may be beneficial short-term but long term the hopes of many more are blighted. Four ways to promote free markets: promote competition to undermine entrenched incumbents; provide better safety nets to facilitate change; continue openness of economies, and ensure better public education on the benefits of markets.

*Modern Welfare States: Scandinavian Politics and Policy in the Global Age*, (2<sup>nd</sup> Ed), E. S. Eindhorn, J. Logue, Praeger, 03, find that while globalisation has changed much in these states, the seventy-year-old welfare edifice remains. It is an open question as to whether the Nordic countries can afford their generous welfare states. No party advocates roll back but there is debate about reform. Three significant challenges: impacts of immigration and multiculturalism; division between materialist and post-materialist values; and state decision making v. market choice.

### Financial Flows

According to D. Kapur, J. McHale, *Foreign Policy*, Nov/Dec 03, many poor countries are receiving more in remittances from nationals working abroad than they receive from foreign aid. A few hundred dollars from one add up to eighty billion from many, and the flow has swelled markedly since 1997 as migration has increased, the IMF has encouraged relaxation of foreign exchange controls and financial infrastructure has developed to ease the money flow. Recipients countries benefit: in their financial infrastructure, in new local enterprises and public works which stimulate more rapid growth and poverty reduction.

*C. M. Zoakos, International Economy, Fall 03*, examines the conventional economic arguments for a decline of the US dollar as the international reserve currency. Stock market collapses, massive current account and budget deficits, the Twin Towers tragedy, recessions and wars are offset by the unique character of the US economy. Its drivers are entrepreneurship and high tech, while other economies are driven by export demand. This provides high rates of return on capital, resulting in American capital account surpluses that cause American current account deficits.

### Rethinking Business

Management guru *H. Mintzberg* considers that business schools are taking the wrong approach to training. Management is not promoting visionary strategies, but brevity, variety and fragmentation. Good companies are led by people who understand that employees know their jobs best. Corporations are social institutions, and if they don't serve society they should not exist. The shareholder focus is an Anglo-Saxon phenomenon. See also his *Managers, Not MBAs*, forthcoming 04. *Financial Times*, 16 Sept, 03, p8.

Creative industries expert, Queensland Univ. *Tech*, *S. Cunningham*, examines this concept which can cover some thirteen sectors. It originated six years ago, in UK, as a form of national branding for established industries, but has extended to regions. Europe puts more emphasis on creativity as input into innovation. Korea is using a creative city concept in Seoul to link government and large private sector infrastructure development, and is leading in broadband development. Taiwan has a humanistic and sustainable development focus with small and medium business in culturally creative industries, featuring R & D in design, and digital content. Singapore and Hong Kong also have variations on the creative focus. *NZ Education Review*, June 23-29, 03, p 7.

### Energy/Minerals

#### Policies and Prospects

*Energy at the Crossroads: Global*

*Perspectives and Uncertainties*, *V. Smil*, MIT Press, 03 from an expert energy researcher and commentator. He examines the historic trends on energy production, economics and prospects. Analysis of major energy sources and minor ones provides accessible comparisons, commentary on economic energy models, the perils of forecasting energy futures, and the need to re-evaluate our present consumption patterns.

*e.nz*, March/April, 04, explores the energy debate and the need for a paradigm shift. It highlights issues from a paper from the *Centre for Advanced Engineering*, Sept 03, which raised public awareness of the urgency of looming shortfall. Complacency based on electricity and gas supply is facing the limits of productive investment in one and the dwindling supply of the latter. Oil is crucial for transport, but the present uncertainty shows the need for secure indigenous supply. Fundamental to the paradigm shift is public awareness of, and response to, the need for change in consumer behaviour; for a shift to other renewable sources, direct rather than centralized, generation, and from exploration to efficiency.

A national policy is urgently needed to set objectives and define the roles and responsibilities of the various stakeholders. Further articles outline the engineering angle in policy and power generation and supply. Primary energy resources of oil and condensates, gas and coal, including reserves, challenges and potential are outlined. A further section looks at renewables: large scale hydro, its capacity, challenges and potential (and also small-scale hydro), similarly for solar, hydrogen fuel cells, (just starting), tidal (possible). Bioenergy from wood waste in back in favour, with 5% of current energy from this source. The raw material is abundant, the technology proven (though radiata pine is a low density, high moisture tree), and it reduces the carbon count.

*Trends in Australian Energy Intensity*, *ABARE (Australian Bureau of Agricultural and Resource Economics)*, June 03, documents what is happening in the community. A significant change is beginning though it is long way behind other industrialized nations. It also

undermines the economic modeling reports from the same organisation which extrapolate present growth, levels of efficiency and assumptions of little change, *I. Lowe, New Scientist, 12 July, p 47.*

*New Scientist, 2, 9, 16 August, 03,* examines the turning point in global energy use reflected in three key visions for major resources and their associated regions. Canada is becoming a major oil producing state, because its enormous tar sands yield heavy oil. Previously they were too expensive to utilise, but better technology, lower costs and rising demand have caused a revision. This also applies to Venezuela's similar reserves. While not sufficient to eliminate dependence on Middle East oil, the W. Hemisphere heavy oil would bolster security of supply. USA is readying to take the nuclear power plunge again, as the Bush administration plans subsidies for a new, safer generation of such power plants. Security of energy supply, improvement of air quality and amelioration of climate change are supposedly the reasons. W. Europe is backing hydrogen as the future renewable energy resource, with Japan, Iceland and Argentina waking up to its potential. While hydrogen based fuel cells may be two decades away for cars, they are close to market for use in equipments such as laptops, mobile phones, and especially in "premium power" for businesses such as banks. Should fuel cells appear in cars, workers and customers can recharge batteries from the premium source.

*US Dept of Energy's Renewable Energy Laboratory and DuPont* have agreed to a joint venture in the development of the world's first integrated bio-refinery that uses corn or other resources, not petrochemicals, to produce a variety of fuels and value-added chemicals. Existing plants use more specific resources such as biomass or vegetable oils. Metabolic engineering is the key process for these refineries. *Press release NREL/DuPont, 6 Oct, by private e.mail 9 Oct 03. e.nz. July/Aug, 03, R. & R. Gapes* report on techniques and economics of converting oils and fats to biodiesel, which could utilise NZ's waste streams. Wave based energy technologies are ready to move from

design to practical application, including performance in deep, rough marine environments, *New Scientist, 20 Sept, 03, pp 33-35.*

## Hydrogen Futures

*The Futurist, July-August, 03, R. Olson,* outlines the promise and pitfalls of Hydrogen which requires long time perspectives and planning on a fifty year horizon. It promises a secure, reliable, renewable energy supply, environmental benefits, cost-effective electricity generation and sustainable global development.

There are three negative scenarios:- Faltering support, unless the environmental benefits are designed in early on to overcome the initial dependence on coal, or gas and gasoline sources. Premature lock-in, with commitment to technologies which could soon be supplanted by better ones. Undesirable hydrogen infrastructures are a third negative, especially ones designed for scenarios one and two.

Four positive scenarios: - A focus on fuel cells for generating electricity rather than in cars, to allow the costs to become more economic and more sources such as biomass to be developed commercially; Solar hydrogen, but with government spurring demand and innovation, especially for developing countries; A US Major scale project for Hydrogen, to pull together the exiting technologies and spur them to fruition: Technology transformation technologies outside of those being developed for hydrogen could emerge to spur undreamt-of possible hydrogen futures.

*Technological Forecasting and Social change, Vol 70, May 03, J. Winebrake, P. Creswick* examine *The Future of Hydrogen Fueling Systems for Transportation: an Application of Perspective-based Scenario Analysis Using the Analytic Hierarchy Process.*

*Nature, 15 Nov, 03, Editorial, p 3,* warns that recent reports of possible damage to the ozone layer from a hydrogen-rich atmosphere and our lack of information about other environmental impacts such as on soil microbes make more such research necessary.

## Listings

*On Borrowed Time? Assessing the Threat*



of Mineral Depletion, J. E. Tilton, Resources for the Future, 03. We do not know beyond the next fifty years what the supply will be, without more research into this question.

*Breaking New Ground: Mining, Minerals and Sustainable development, Report of the MMSD Project*, Earthscan, 02, from a major consortium of expert groups and companies. Highlights nine key challenges and four major action categories for a Vision of the Minerals Sector.

## Futures Thinking

### Thinkers On and Of Our Times

Educational policy academic (Glasgow/Auckland Univs.) M. Peters examines the meaning of identity and citizenship in globalisation, *N.Z Sociology*, Vol 18/2, 03, through two recent conceptions. UK politician R. Cooper (02) proposed a new imperialism, exemplified by a post-modern European state system based on transparency, interdependence and mutual surveillance, upholding human rights values. M. Hardt, A. Negri (00) draw on Marx and Deleuze for a new sovereignty called "Empire", a postmodern, single, but decentralized system of global rule. Both globalisation and citizenship are crucial to the free movement of peoples, from skilled workers to refugees, in a world both fragmenting and integrating, with increasing inequalities between nations and regions. Most debates on citizenship accept the nation state boundaries, but at some UN levels it is being used as a metaphor for social protection and reconstruction of solidarity.

Cooper's approach is Eurocentric, dividing the international system into Premodern or almost non-existent state power; Modern; and Post modern, where a new governance system is evolving which dissolves the domestic and foreign affairs boundaries, permits mutual interference in domestic affairs and mutual surveillance, and uses codified rules of behaviour as alternatives to forceful dispute resolution. While Japan and Canada also accept this position the US operates in a form of defensive modernism. For the post modern states, external methods to cope with militant rogue states may require

acceptance of double standards. Citizenship in this system is understood still in the national framework.

"Empire" has no boundaries, it rules the entire "civilized" world. It has no history but is eternally fixed, and it operates at all levels of the social world. It is dedicated to peace, though the practice may be violent and it is embodied in networks of institutions, states, military forces and corporate powers. Participants in this system are called "multitude", whose political programme is based on global citizenship, where workers and capital migrate freely. The battle for global democracy is underway though it has no democratic institutional mechanisms for representation, no elections. But it is not anti-globalisation. Both forms retain the traditional sense of citizenship based on the nation state. The left's concern for both nation building and fostering a sense of community and local identity is necessary to sustain social rights and to counter the impacts of globalisation of social and welfare policy.

### The Twelve

Ed J Cowley, *New Statesman and Society*, 14 July, 03 presents short introductions by independent writers on *Twelve Great Thinkers of Our Times*. J. Lovelock reconceptualised Earth as a self-sustaining system. E. O. Wilson's research highlighted the animal roots of human societies. M. Nussbaum, a multidisciplinary academic, is a lawyer for the powerless everywhere. Li Hongzhi founded the Falun Gong. P. Singer expounds the utilitarian philosophy that actions should aim to maximise the greatest happiness for the greatest number of individuals, including animals. N. Chomsky is the master thinker of the origins of language and cognitive science, and is also a major social critic. M. S. Abul-Ala Maududi, expounded an Islamic vision of social reform based on cells of pious individuals, which led to the Jamaat-e-Islami (Islamic organization). J. Derrida conceived deconstructionism, a critique of text and systems which examines the forces contributing to their making. K. Millet researched and publicized the politics of sex. J. Baudrillard expounded ideas of simulation and hyper reality, where images

replace or distort objective truth. *A. Negri* practiced a the theory of constituent power, where the democratic forces of revolutionary innovation, workers , rebels, the poor, demand response from capital and central authority. *J. Maynard Smith* researched and expounded evolutionary biology and other insights into complexities of life.

### Listings

*Futures of the Social Sciences, Futures, August, 03* , *B. Tonn* edits contributions on risk communication, psychology and longevity, the end of neo-liberal history, need for the social sciences? the structures of knowledge, the future in social sciences, a vision of the future of science, the future of futures decision making.

*Inevitable Surprises; Thinking Ahead in a Time of Turbulence, P. Schwartz*, Gotham Books, 03. For the corporate leaders and thinkers, a futures guru provides balanced perspectives, and informative insights which challenge assumptions. He offers basic tools for being prepared.

*Creativity Inc. Building an Inventive Organisation, J. Mauzy, R. A. Harriman*, Harvard Business School Press, 03. Systemic creativity encourages this quality throughout an organization but how to create it? Six essential understandings and plenty of practical advice.

*Advocacy for Social Justice: A Global Action and Reflection Guide. D. Cohen et al*, Kumarian Press, 01 offer lessons from the Advocacy Institute (Washington), on capacity building to influence and change public policy. What about the necessary independent research?

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