

Naval War College Review

Volume 29
Number 1 *Winter*

Article 5

1976

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Recommended Citation

Preston, Richard A. (1976) "War, Peace, and Society in the 1980's a Historian;s View," *Naval War College Review*: Vol. 29 : No. 1 , Article 5.

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WAR, PEACE, AND SOCIETY IN THE 1980'S

A HISTORIAN'S VIEW

Within a generation the world will enter a new millennium. While many predictions about life in the 21st century have little basis, there are many serious attempts to study the future in order to aid and to promote technological, economic, and social planning by posing "conjectures" about life in the coming century. Professor Preston discusses these attempts, and by using the logic of historians he evaluates the validity of conjecturing about the future. Long-term trends which are already beginning to affect human society and unanticipated factors may subsequently turn out to have been decisive.

by

Professor Richard A. Preston

History, it is said, stops with the present. Because historical methodology depends on the use of written records and related evidence, and because there are no records of the future, the historical process was long considered only as one in which an infinite variety of factors, some of them unmeasurable and others unforeseeable, and all liable to be affected by human free-will intervention or by chance, created a future that was inevitably unique and discrete, and therefore unpredictable. From time to time a scholar claimed to discern patterns in history that projected the past through the present to the future. But those who attempted in various ways to analyze or describe what would come, for instance Karl Marx, Oswald Spengler, Vladimir Lenin, H.G. Wells, and Arnold Toynbee, all talked in terms of centuries, of epochs, or of unstated far-off periods. Today they would be called macrohistorians. Macrohistorians

were usually held in low esteem by colleagues. The study of the future has, in fact, only very recently become more academically respectable than the classical practice of examining the entrails of birds or the Victorian interest in the dregs in tea cups. Hence, not so very long ago, a proposal to discuss the shape of events and society in a coming decade would have been frowned upon as educated guessing or even as mere speculation.

The rapid march of technological progress in the recent past has worked a revolution in thought about the future. The technical developments that are a dominant feature of modern life require thorough, detailed planning; and the close relation between technology and science, with its strict laws, makes such planning possible. Furthermore, the implementation and application of technological planning calls for economic planning that is now facilitated by

statistical methodology, by models and simulation, and by the computer. Prediction has become a normal tool of economists, and economic planning is a regular practice of modern states, even of those that still express continuing faith in free enterprise.

Because technological development affects not only the economy, but also most other aspects of life, other social sciences have followed suit and have developed similar techniques to promote planning. From these there has grown up a new social science which aims at outlining as nearly as possible the course of events and the changing structure of society in years yet to come. The basic premise on which this new science operates is an assumption that trends established by the collation and analysis of known facts about the past and present offer a reasonable possibility of anticipating future development. But the most convincing of those who specialize in this new academic field usually do not claim to forecast or predict. Rather they present conjectures. Where there is uncertainty about the facts or where chance may intervene, various conjectures can be offered to indicate the degree of possibility of one or more possible courses of development.¹

No satisfactory name has yet been coined for this new field of scholarly endeavor. Its detractors sometimes call it "futurology"; but this smacks too much of another much abused attempt to forecast the future, astrology; and it also presupposes that students of the future claim to draft laws as in other sciences, which is not so. Some call it "futuristics" because of its reliance on mathematical techniques. A distinguished French social scientist, Bernard de Jouvenal, has suggested *futuribles*,² which seems to recognize that it is an art rather than a science. For our present purpose it may best be described simply as "the study of the future."

By definition the study of the future is the province of social scientists, and not of historians; but it bases much of its logic on the findings of historians. Here, as with the use of history in more traditional social sciences, a historian must offer *caveats*. He must point to the danger of oversimplifying conclusions about the past and to the inevitability of subjectivity in them. He must warn against the use of specific interpretations which are not universally accepted. In the case of this new science he must also remember that history shows that, because of the intervention of the unforeseen, forecasting in the past has been notoriously unreliable.

As I am by training and inclination only a historian, I cannot attempt to make an original contribution about the course of events in the coming decade. If I attempted to do so, I could only report what other specialists have concluded. I can, however, attempt to evaluate those conclusions by the application of some experience of historical scholarship, in particular by discussing discernible trends in the study of the future. This may help evaluation of the validity of conjecturing about the future.

So, before considering major developments possible in the coming decade, let us first look at certain features of the development of the science of studying the future. Serious academic interest in producing something more systematic than the work of the macrohistorians, and of utopians or pessimists like Thomas More, H.G. Wells, Aldous Huxley, Edward Bellamy, and George Orwell, seems to have been stimulated by the approaching new millennium with the year 2000 A.D. There may have seemed to be a precedent in what is popularly believed to have been the widespread concern shown in Western Europe as the year 1000 A.D. drew nigh about entry into another millennium. The masses in the Dark Ages are supposed to have thought that the new

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millennium would bring the end of the world; and some early historians asserted that the proliferation of Romanesque churches in the following centuries, which led to a flowering of civilization, was an expression of gratitude for escape from disaster.

Unfortunately for the validity of this precedent for an interest in the future, there is no truth in the myths about the year 1000. There is no written record of widespread panic. The calendars used at the time reckoned in regnal years rather than from the birth of Christ. The year 1000 A.D. was in any case only a round number in a calendar used by the Christian church. It was a little used artificial date rather than a turning point in history. Many of the same circumstances apply to the year 2000 A.D. That year also has no particular significance as the introduction of a new stage in man's development. In all probability the reason why 2000 A.D. became the focus in the early stages of the study of the future was merely that it was then about two generations ahead; and a span of two generations is about as far as men ordinarily care to think about, or plan, for the future of their families. However, whatever the reason, the idea of studying the 21st century was taken seriously in the early 1960's. A commission on the year 2000 was established in the United States under Daniel Bell, a Columbia sociologist and a labor editor of *Fortune* magazine. It is still extant.³

Bell's conclusions about life in the 21st century followed the lines of a forecast made over 30 years earlier by Bertrand Russell. More optimistic than he became later, Russell assumed that the future would bring a world in which a 4-hour workday would lead to "happiness and a joy of life instead of frayed nerves and dyspepsia. . . . Since men will not be tired in their spare time they will not demand only such amusements as are passive and vapid."⁴ In 1964 Bell envisioned the eventual

emergence of a new Jerusalem in which the dominant position in society would have passed from businessmen to productive researchers and in which technical competence would be the criterion for status and influence. Hesitant to publish tentative conclusions, he complained that these were reported "without authority" in several periodicals.⁵ However, shortly afterwards he published a theory that in the 21st century there would be what he called a "post-industrial society" in which services rather than industrial production, would be preeminent. Whereas the industrial society of today is based on the coordination of men and machines for production, so Bell's "post-industrial society" would be based on knowledge. Theory would replace empiricism, and the proportion of professional and technical workers would increase. But Bell realized that in such a society groups presently dispossessed would be in danger of being left even further behind by the progress of technological advance. Therefore he stressed the importance of gearing education to social change by making it more practical.⁶

It is noticeable that Bell's optimistic assumptions about the future coincided with signs of an end to the cold war and with a concurrent hope that the phenomenal technical advances made since the Second World War could now be adapted to the general benefit of mankind. His underlying assumption was that man is educable and that society can be transformed by education. The march of science did indeed seem to indicate the possibility of progress in that direction. In 1963 Derek J. De Solla Price computed the increased rate of development of scientific papers as a means of measuring scientific advance and suggested that "the new state of scientific maturity that will burst upon us within the next few years can make or break our civilization, mature or destroy us."⁷ Bell's approach to the future was strongly subjective. It

expressed the point of view of intellectuals and educators and their faith in their crafts.

This utopian belief that science and technology would bring a bright future still continues in some quarters and must be taken into consideration when other very different forecasts are examined. In his *Uses of the Future* published in 1974, Herbert Muller states that some scholars believe that by 2000 A.D. technology will have reduced the workweek to one-half, that the Protestant work ethic will be no more, and that Americans will have learned not to regard people on welfare as loafers and cheaters.⁸ Summarizing Herman Kahn's *Things to Come; Thinking about the 70's and 80's*, Muller pointed to suggestions there of "an increasingly sensate culture, empirical, pragmatic, rational, and utilitarian," but also "hedonistic and epicurean."⁹ In 1970 an Iranian scholar who heads the New School of Social Research in Washington, D.C., chided the West for its pessimism and lack of confidence in social progress and pointed to the moral as well as the material gains that the West had made ahead of any other society. He claimed that wars and violence are less today than in any other civilization, and that Western society has brought happiness to the masses, which no other society ever succeeded in doing. Fereidoun M. Esfandiary attacked Western radicals for their resort to violence and declared the humanization of mankind to be a "most noteworthy breakthrough taking place in human nature." Stealing a slogan from the radicals, Esfandiary wrote, "We shall overcome—that is the supreme optimism," and he urged that it be nourished. He acclaimed "the growing belief in the greatness and ultimate triumph of mankind."¹⁰

Expressions of faith in the virtues of Western civilization and in hope for the future have persisted despite the disastrous impact of Vietnam and internal

instability in the United States and elsewhere. Not surprisingly, however, the continuing optimism of these scholars has provoked considerable criticism. Herman Kahn, one of the leading scholarly practitioners of the new science of the future, has questioned Bell's use of the phrase "post-industrial society." He noted that one does not speak of a "post-classical" or a "post-renaissance" society because we have positive ideas about those periods. He said that Bell talked of "post-industrial society" merely because he was unsure what the future would be like. Nonetheless, Kahn agreed that it was possible that there might eventually be less emphasis on materialism, on earning a living, and on work, and that there would be more time for leisure, culture, religion, learning, and gentlemanly behavior.¹¹

About the same time, a skeptical critic of Esfandiary's views said that they appeared to have been derived from Eastern mysticism rather than from Western pragmatism. "Esfandiary seems to be calling for Project immortality in the same way that Wernher von Braun once called for Project Apollo." Victor Cohn, formerly science editor of the *Washington Post*, added sarcastically,

It is outrageous that such a beautiful phenomenon as sentient life should be encased in fleeting vulnerable bodies. We who in the late twentieth century send spacecraft into inter-stellar space and decode light coming from the presumed edges of the universe sixteen billion light years away can now also marshal our genius to achieve the most transcendental liberating freedom of all, physical immortality.¹²

It may be noted in passing that if the gift of eternal life does become available, it will be expensive, will increase rather than diminish privilege in society, and will therefore encourage conflict

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and instability or discrimination and privilege.

More fundamental criticism of these utopian dreams of the 21st century came from those who doubted whether, or when, human nature could adjust to the circumstances of the New Jerusalem. The labor leader, Walter Reuther, was once asked what workers would do if they had more leisure. He replied, "Have time for more kids."¹³ Neotopians describe a society in which their own kind would be comfortable and prosper, but they have ignored the difficulty in bringing the rest of mankind up to their own intellectual and cultural level. Alvin Toffler and Denis Gabor have shown that it will be difficult, perhaps impossible, for man to adjust sufficiently and quickly to the technological changes taking place in present society.¹⁴ Gabor, it is true, thinks that in 40 years a generation could be educated to be fit to live in the Age of Leisure;¹⁵ but he may be grossly optimistic. The new technology may eventually make it possible for the work of a very small minority to keep the great majority in idle luxury, a direct opposite of the situation in most ancient civilizations in which a small elite lived well on the sweat of the masses. The basic question is how people can be induced to accept such a revolutionary arrangement and how society will be organized to put it into effect. What rewards and sanctions could make it work? And what upheavals and struggles would be needed to bring those new functions and relationships into being? The coming decade may experience some of the initial stages of a great social conflict arising from implicit or explicit moves toward such a revolutionary change in society if human nature permits.

Doubt about the belief that technology will usher in a new age of comfort and harmony comes also from demographers, environmentalists, biologists, geologists, and some economists.

These are sometimes known collectively as "doomsayers." Contemporary with Bell's first utopian pronouncements, doomsayers were already warning that the supply of the world's natural resources, including energy, is limited and that at the present rate of consumption and of population increase, man may soon outgrow the means of his subsistence on earth.¹⁶ Estimates of known and potential reserves of food, materials, and energy on which these warnings were, and are, based are not easy to confirm or refute; and there is considerable disagreement among supposed authorities about the degree and imminence of the danger. Furthermore, it is pointed out in contradiction that scarcity and exhaustion of some materials will be offset by the discovery of substitutes. Finally, population growth is showing signs of slowing in some countries and may eventually be held in check everywhere. Some economists argue that the price mechanism, if left free, would stimulate a search for alternatives; and some talk in Malthusian terms of natural checks on population growth. Economists tend to blame political interference for present and possible future ills. They base their reasoning on the fact that history shows that new sources of material, foods, and energy have been developed from time to time in the past and assume that this will happen also in the future.¹⁷

But it is a false use of history to state, as some of the critics of the doomsayers do, that there will always be new alternatives. Historical events are unique. There could be a terminal disaster without a precedent. Furthermore, in modern states the demands of the masses cannot be easily diverted. Competition arising from the unequal distribution and consumption of the world's resources and rewards is already occurring and is certain to increase. Political considerations cannot simply be ignored.

In all these problems the time factor is becoming ever more important. It operates to precipitate crises earlier than has hitherto been expected. As long ago as 1905, Henry Adams commented on a phenomenon which can be described as the "acceleration of history." Adams noted that the output of coal, in his time the chief source of energy, had doubled every decade since 1840, and he reasoned that if this geometric progression were maintained it would approach infinity by the middle of the 20th century. Adams was aware of the possibility of turning to other sources of energy. But he assumed that man's capacity to absorb these advances in technology would increase proportionately. He suggested that every American would be able to control unlimited power by 2000 A.D., but also that well before that time man would have come to be able to think in terms of complexities unimaginable to earlier minds.¹⁸

Adams' principle of the acceleration of history was illustrated by Gerard Piel, editor of *Popular Science*, on graphs that portrayed such developments as the discovery of natural forces, the isolation of the elements, the sources of inanimate energy, and the accumulation of experience. Piel's graphs demonstrate that until about a century ago man's command over nature rose only imperceptibly. All Piel's curves then begin to rise exponentially and all approach the vertical somewhere in the 1980's, that is to say toward the end of the time frame of present-day reasonable technical forecasting. Piel wrote, "The tempo of the common experience of our species is racing ahead of the biological clock. Events all out of scale with the rate and dimensions of life processes have transpired and impend." He said, "The acceleration of history has brought the human species to the fork in the road. One road from here leads to a dead end. On the other, less plainly marked, our species may yet

find the way to realization of its humanity."¹⁹ In other words, human adjustment to cope with exponential rates of growth will be difficult or impossible and may not be achieved by parallel expansion of the human mind.

It has been said that, at the present rate of population growth, within 600 years there will be a person for every square yard of earth, including deserts.²⁰ Obviously this cannot happen. But how will it be averted? Known reserves of important minerals like lead, zinc, and tin may be exhausted before 2000 A.D.²¹ In 1969 it was reported in *The New York Times* that many scientists believe that the human race has 35 to 100 years left on earth;²² and in 1971 an academic study said that "there are signs that it is already too late to save much of the world from catastrophic famine somewhere in the next decade," i.e., in the 1980's.²³ A group of social scientists has warned that "for the first time in history man may not be able to overcome the macroproblems mainly through technology, for technology up to now has been able to wield its power primarily by bleeding natural resources and the environment."²⁴

Clearly problems of this magnitude, even if they are only partly as serious as postulated, will probably begin to place great strains on international and domestic stability in the immediate future. The oil crisis of 1973, whatever may have been its cause, is a sign of what we may expect in other fields too. When considered along with growing urban problems, with a decline of public order in once stable countries, especially in those with apparently insoluble political problems, with global inflation that is strangely associated with economic depression and for which economists seem to have no effective remedy, with gaps between rich and poor classes and between advanced and underprivileged states that are increasing, not diminishing, the prospects for stability in the 1980's are dim.

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The Club of Rome, an informal group of leading citizens from many countries, has set itself the task of impressing world leaders with the urgency of the need for radical reform throughout the global village in order to prevent catastrophe.²⁵ But if remedies can be suggested, their advocates will have to convince the political leaders to act, always a difficult problem, and to act in an unorthodox way on behalf of humanity as a whole rather than of national interests. Opposition from privileged classes and states determined to defend supposedly vital interests will have to be overcome. Finally, planning to avoid catastrophe has intrinsic dangers. Planning may confirm trends and entrench them or prepare men to plan away from them rather than attempt to tackle them at the source.²⁶ Through misunderstanding the problems, planning may offer mistaken remedies and even exacerbate evils. Finally, there may be more immediate dangers that should be looked to first.

Even though it may be assumed that political leaders will not give them all the attention they appear to deserve, the implications of these macro-problems must obviously be taken into consideration when considering the possibilities for the 1980's. But some students of the future take just as myopic a view as political leaders.

Whereas macrohistorians, neoutopians, and doomsayers often forecast for a period somewhat remote in time, the science of the study of the future attracts scholars who have hitherto been concerned with current political international problems, who have been led to peer into the future by the fact that rapid technical advance makes it both possible and necessary, and who seek to avoid mere speculation. Moreover, as changes in technology are so rapid and so revolutionary that a horizon of about one decade is imposed on them, these new students of the future are restricted in their range thereby, as well as by

their own previous experience and practice.

Herman Kahn's Hudson Institute is the most important group of scholars to turn attention to the study of the future. Talking about what he calls "surprise-free projections," Kahn avoids predictions of the vague, general kind that often marked earlier study of the future.²⁷ Kahn's projections therefore relate mainly to the development of the military relations among the powers in the light of the technical changes that arise out of his earlier studies and that can be confidently expected within the next 10 years. Kahn believes that the cold war is over, at least in Europe;²⁸ that the United States has abandoned its one-time belief that superiority in weaponry over the Soviet Union is the key to stability;²⁹ and that the arms race is being brought under control and is therefore less dangerous. He expects no important technological innovation in weapons before the mid-1980's, and he states that the allegation that the United States is dropping behind the U.S.S.R. in research and development depends on how one does the calculation.³⁰ He suggests that the alleged research and development gap of the 1970's may turn out to be as spurious as was the missile gap of the late 1950's. (But we are painfully aware that belief in the missile gap was a continuing source of instability in the 1960's. Misconceptions about an R. & D. gap are therefore not comforting.) Finally, Kahn believes that there may be a long-term trend toward increase of military capability despite efforts to limit armaments. These are now slowing. "The total weight of power of military hardware in 1985 is certain to be much more deadly than today."³¹ Kahn nevertheless assumes that multipolarity may provide a degree of stability. So, just as he said in *On Thermonuclear War* that total war could be survived (a forecast that fortunately has not yet been tested), he is now saying the same kind of thing about a

continued arms race and the further development and proliferation of nuclear weapons.

Current propaganda in the United States about the danger of an R. & D. gap suggests that there may be limits to American acceptance of the abandonment of a military superiority over the U.S.S.R. whatever the cost. The transference of wealth to the Arab States as a result of the oil squeeze might mean that instead the United States would have to accept a policy of now being second to the Communist world plus the Arabs. But would Americans accept this? And might a transitory monopoly of oil not lead the Arabs to seek to get more while their advantage lasts, with serious consequences? A British scholar, Alastair Buchan, has said that the breakdown of bipolarity in the international system and its replacement by a "multiple balance" of five or more major power centers, e.g., United States, U.S.S.R., China, Japan, and possibly West Europe, could bring greater stability, but only if the United States will refrain from attempting to retain a position of superiority by maintaining a community of interest with either Japan or Western Europe.³² Clearly, however, the continuance of great power rivalry within any kind of power system, whether bipolar or multipolar, will serve to obstruct the development of the international cooperation needed to solve the macroproblems that face the world; and continued efforts to balance power among the great powers would increase the leverage exerted by the underprivileged states, especially those which have a monopoly of any kind of essential natural resource. On the other hand, efforts to solve these problems through the United Nations will continue to be frustrated by the growing capacity of the underprivileged majority to pass resolutions for purposes of political propaganda and against the interests of the powers that provide most of the United Nation's finances.

The end of the cold war confrontations and an increase of small power influence might lead to anarchy in the international system.

Richard Brody has suggested that multipolarity, by which he means something more than the domination of the world by a small group of advanced states, is gaining ground in the economic sphere as well as the political and military. He coined the phrase "polyarchical multi-polarity" to describe this but thinks it may increase rather than diminish stability.³³ Although it is an attractive idea for middle and small powers, the consequences of "polyarchical multi-polarity" may, however, not contribute to stability. For great powers will probably find it hard to accept. Furthermore, as Herman Kahn shows in *Things to Come*, the world economic system is now so complex that it is much more sensitive to disruption. Modern technology provides greater means for resort to violence and the "faceless anonymity of great megalopolis makes crime and other forms of anti-barbarism more difficult to prevent and punish." Kahn also argues that lawyers and judges have "an educated incapacity to deal with it rationally" and a "learned inability to understand, or even see, the problem." "By 1980 there may be a serious world-wide spread problem of authorized or semi-authorized violence."³⁴ The current increase of assassinations, kidnappings, bombings and hijackings, which is directly related to, or associated with, the existence of aspirations of formerly oppressed groups that are often legitimate but yet cannot be satisfied without depriving others of equally legitimate rights or interests, serves to support this assertion.

For the 1980's two potential developments seem to present special threats to stability. Both arise from the proliferation of nuclear weapons which are developing faster than Kahn anticipated and which may therefore come sooner

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to disturb the "balance of terror" which the United States and the U.S.S.R. still seem to respect. Great powers have been restricted in using their full military and economic potential in international confrontations because resort to nuclear war might prove counterproductive by threatening the user with annihilation. It has even been suggested that in a hydrogen bomb exchange the armed forces of nuclear powers would disintegrate.³⁵ The great nuclear powers have therefore demonstrated a commendable restraint. But it is likely that within the next 10 years a number of states will go nuclear in addition to the five already so armed. And it is not clear that smaller and less experienced powers would be as inhibited as have been the great powers in the use of nuclear weapons.

Take, for instance, the case of India. India has now developed nuclear bomb capacity despite previous expressions of a pacifist philosophy. India's problems in the macrosphere are so enormous that there were some at the World Food Conference who seemed to think they were insoluble and that effort should be diverted to places where success in relieving famine was more possible. Furthermore, India, once the great hope of constitutional democracy among emergent states in Asia and Africa, is now turning away from that practice. Desperation may make India's possession of nuclear weapons a serious danger.

Other powers that may soon also have nuclear weapons have problems that are almost as great as India's. The danger of one or more of them attempting nuclear blackmail within the next decade and a half is very real.

Finally, if terrorist groups gain access to nuclear devices, the threat to world stability will become even more alarming. In the event of a local nuclear war, the great powers could attempt to isolate the contestants. They might even be willing to strengthen international

cooperation in order to avoid being drawn in. But if small nuclear powers or terrorist groups resort to blackmail against one of the great powers, isolation would be more difficult to achieve. The second publication of the Club of Rome argues that the attempt at world universality may collapse in face of macroproblems that cannot be settled and that resort may then be made to regional solutions, leaving large areas of the world to fend for themselves.³⁶ It may be that George Orwell will be proved to have been right about 1984.

This broad survey of the future has shown that the utopians, the doom-sayers, and their critics who first took steps in the subject were concerned with

BIOGRAPHIC SUMMARY



Richard A. Preston was born in Middleborough, England. He received his B.A. and M.A. degrees in history from Leeds University and his Ph.D. from Yale University. He was a lecturer in history at the University of Toronto from 1936 until 1938 and served as an assistant lecturer in history at the University College of South Wales, Cardiff, from 1938 until 1945. He then returned to the University of Toronto as an assistant professor, remaining there until 1948 when he went to the Royal Military College of Canada as a professor of history. Since 1956 Dr. Preston has been Boyd Professor of History at Duke University, specializing in Commonwealth History and, since 1973, the Director of Canadian Studies. He was elected a Fellow of the Royal Historical Society in 1938, received the City of Kingston Award for achievement in 1957 and the Canada Confederation Medal in 1967. He has served as president of the Canadian Historical Association, has been vice-president of the Ontario and Kingston Historical Societies, and was founding president of the Association for Canadian Studies in the United States. Dr. Preston is the author of several books and numerous articles and chapters in collaborative works.

the next millennium rather than with the next decade and that their views were strongly influenced by their own backgrounds, the evidence which they selected, and their own temperaments. Their greatest omission was that they did not look at the immediate future to explore the means by which society would develop toward the goals that they anticipated. On the other hand, more recent schools of future study, striving to base their conclusions on what can be predicted or conjectured with reasonable confidence, have failed to pay sufficient attention to the long-term trends which are already beginning to affect human society. Finally, it seems to a historian that both groups are inevitably unable to reckon with factors that cannot be anticipated, with

turns of events that may come by chance or by the intervention of a leader or of a group whose influence cannot at present be foreseen. For instance, the possibilities that could arise from the proliferation of nuclear weapons could render all present conjectures about both the long-term and short-term future completely inoperable. These weapons might either precipitate total destruction on the one hand or, on the other, compel the noninvolved states to cooperate for the common good instead of continuing international practices that have hitherto been halfhearted or relatively ineffective. The decade of the 1980's could easily see developments in either one of these quite different directions for good or for ill.³⁷

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29. *Ibid.*, p. 332.

30. *Ibid.*, p. 204.

31. *Ibid.*, p. 17.

32. Alastair Buchan, "The Emerging International System: A European Perspective," *International Interactions*, vol. I, No. 4, 1974, pp. 195-196.

33. Richard Brody, "The Emerging International System: Policy Implications," *International Interactions*, vol. I, No. 4, pp. 217-222.

34. Kahn, *Things to Come*, p. 69.

35. Paul Crosser, *War Is Obsolete: The Dialectics of Military Technology and Its Consequences* (Amsterdam: Gruner, 1972).

36. Mihajlo Mesarovic and Eduard Pestel, *Mankind at the Turning Point: The Second Report to the Club of Rome* (New York: Dutton, 1974).

37. *The Journal of International Affairs* devoted a whole issue to the consideration of prediction, vol. XXV, No. 2, 1971. It includes an essay on prediction and its validity by Bernard Brodie, "The Impact of Technological Change on the International System: Reflections on Predictions," pp. 208-223, which argues that prediction is necessary but can be reliable only for a very short period ahead and that the impact of technology on war has not been matched by developments in the fields of political and military analysis.

Ψ