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H. G. Wells: A Modern Primitive

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EXCEPT FOR HIS more fantastic short stories and novels, H. G. Wells is an almost forgotten literary figure. And with the possible exception of his "Outline of History" there is little to remind us that Wells was more than just a master story-teller; he was a serious essayist in the fields of economics and sociology. If we examine those studies (particularly the early ones, which he wrote as a social scientist), we can see in them the same spirit and consciousness that animates the contemporary scientific worker.

Within the sciences today there are two significant movements. The social scientist is turning to the work of his colleagues in the physical sciences with the aim of acquainting himself with the logic behind the constructs of those sciences. The fruitfulness of this procedure may be seen from the fact that the 'field theory' of the psychologists is borrowed from the logic of physics, and the structural-functional school in sociology owes much to the logic of the physiologist. Side by side with this development is the increasing awareness of the physical scientists that their work is involving them, as scientists, in the fields of social action. The committees of atomic scientists are symptomatic of this movement and of the fact that advances within the field of atomic energy have been a catalyst on this particular action.[1]

These distinctly contemporary trends may be found in simple and uncomplex form in the work of H. G. Wells. It is in this sense that he may be called a 'modern primitive'.

Background

WELLS' WORK must be seen against a background of four events. The first is the development of capitalism to the point of imperialist expansion. The era of the 'new imperialism' began just about the time he was born (1866), and by the time the twentieth century dawned one of its great consequences was apparent to him, if not to the statesmen of the time: the interdependence of all nations and peoples. In short, imperialism has resulted in, among other things, the growth of the idea that the world must be observed as a unity, and that the survival of any society is dependent upon its acting in relation to a functional whole. This idea

[1] In this connection see the letter of Dr. Norbert Weiner, "A Scientist Rebels," *Atlantic Monthly*, Vol. CLXXIX, (1947), p. 46.

of functional unity later became an important aspect of Wells' utopian State.[2]

Carlyle said that since God died in the eighteenth century we have been raising one idol after another in His place; the idol of the nineteenth century was the Biologist standing on the pedestal of Darwin's work. The lasting contribution that Darwin made to science was not this evolutionary theory as such, but the fact that he took the study of man out of the realm of religion and put it into the realm of science. From that time on the study of man and his society was dependent on the advances made in the social sciences rather than upon innovations in theology.

The interrelated growth of capitalism and scientific thinking led to the third great movement of the nineteenth century, the rise of socialist movements. The Marxians called their system *scientific* socialism; it was a proclamation that society develops in accordance with discoverable laws, and, hence, the social structure may be altered through human efforts. This philosophy is the *leif motif* of Wells' work.

But he did not catch this spirit from the Marxist movements; he received it from the Biologist. (In fact, Wells was never a Marxian, and he devoted much energy to endless and fruitless arguments with them.) In 1884 Wells, without the benefit of much formal schooling, won a scholarship to the Normal School of Science in London. There he studied physics, geology and biology under Thomas Huxley. It is the latter who is the greatest single influence on Wells; one cannot read his work without becoming aware of the great biologist looming in the background.[3]

Weltanschauung

IT IS ENTIRELY in keeping with Wells' character that the chief coin of his utopian society was engraved with the head of Newton. Wells' scientific ethos colored the whole of his thought; he was the prime exponent of what may be called a 'scientific way of life'.

His attitude toward science bore great resemblence to the mystic's attitude toward God: "The world of science and experiment is the region of origin of nearly all the great initiatives that characterise our times" ("The Open Conspiracy," New York, 1928, p. 147). And like the mystic who enters the world of action this sentiment is taken as the *raison d'etre* for that action. In outlining his plan for action he stated

[2] H. G. Wells, "A Modern Utopia," London, 1905. It might be pointed out that this idea has now become so prevalent that it is one of the basic philosophies behind the European Recovery Plan.

[3] For other idiosyncratic elements influencing his thought such as the influence of his mother and his unhappy marital experiences see his "Experiment in Autobiography," New York, 1934, p. 28ff.

that the "attempt to take possession of the . . . world must be made in the name and for the sake of science and creativity" (*Ibid.*, p. 34). Any other approach to social problems was inconceivable for him since he viewed the scientist as the man who "dissolves problem after problem in the solvent of clear knowledge" ("A Year of Prophyseying," New York, 1925, p. 290).

Wells is open to serious misinterpretation if this attitude toward science is not grasped and its implications perceived. In his model State he devised a system whereby a central office knew of the actions of each citizen each moment of the day ("A Modern Utopia," p. 114). Recent experiences make us look askance at schemes of this nature, and a superficial reading of Wells might lead to classifying him as a 'social fascist'.[4] Such a judgment overlooks the vital factor of *Weltanschauung:* science is based on order and organization. Wells' scheme is nothing more that a system of organization, a theme which recurs frequently in his work.

But the scientist's solvent of clear knowledge does not always protect him from serious philosophical dangers. Wells, like many of the nineteenth century thinkers influenced by the evolutionary scheme, was a strong believer in Progress. The modern mind, he said, sees the present life as but a preparation for the future and will unhesitatingly sacrifice the past to the future because it "sees the world as one great workshop, and the present is no more than material for the future, for the one thing that is yet destined to be" ("The Discovery of the Future," New York, 1914, p. 59). It may be that the belief in the inevitablity of Progress would make for this somewhat rosy view of the future. On the other hand, this viewpoint may also stem from his belief in the possibilities of science. The foundation of all scientific investigations is the belief that this is an orderly universe susceptible to human control. Recent advances in the physical sciences and even in the social sciences, have done nothing to make us suppose that this premise is incorrect. It is therefore just as valid to assume that the following vision was due as much to his scientific ethos as to his belief in the omnipotence of Progress:

I have always clung and still cling to the belief that the sprawling social and economic life in which I have grown up might be progressively organized into a secure, generous and scientific system without any abrupt and violent destructive change ("A Year of Prophyseying," p. 146).

While Wells received his training in the physical sciences he was not unaware of the need for a social science. This is implicit in his statement about reforming the "social and economic life." In his autobiography

[4] Indeed, André Maurois has done just this in his "Prophets and Poets," (London, 1935, trans. by Hamish Niles), p. xvii.

he made the statement more explicit by commenting that one of his aims in life was "to make a practically applicable science out of history and economics" ("Experiment in Autobiography," p. 11). Elsewhere in the same volume he made this more specific: "By adequate analysis of contemporary processes its conditions could be brought within the range of our knowledge and its form controlled" (*Ibid.*, p. 553).

This point is emphasized for two reasons. The idea propounded by Wells is the battle cry of all those interested in the problems of social reconstruction, and it is the motivating force behind present efforts to integrate the social sciences. Secondly, if one listen to those social scientists (so-called) who still speak, with academic precision, of the imponderables in the social sciences which are eternal obstacles to the sciences, it would seem that Wells is indeed a man of the future.

The Fabian Experience

TODAY THIS SCIENTIFIC ETHOS might seem commonplace and unworthy of comment. But at the turn of the century it set Wells off from other English intellectuals, and particularly from the other members of the Fabian Society. The Fabian philosophy was a lure to the young intellectuals of the time who thought this was not the best of all possible worlds, but whose middle class backgrounds made them duly appreciative of the doctrine of 'the inevitability of gradualness.'[5] But, unlike most of the Fabians, Wells soon found himself in conflict with most of the principles. Essentially it was a question of mentality. He was a man bred in the laboratory of Huxley while the Webbs, for example, were the products of the drawing rooms and cubby holes of Whitehall. The difference was fundamental and irreconcilable.

His primary complaint against the Fabians and other socialist movements was their visionary quality. The socialist philosophy lacked an "analytic and experimental spirit" and it was in a state of "exalted paralysis waiting for the world to come up to it while it marked time" ("Experiment in Autobiography," p. 204). This is an extraordinary statement since it is not only an adequate criticism of the Fabians but it can still serve as the best criticism that can be of the socialist movements in existence today. These movements are failures because their programs are based on faulty analyses of the nature of modern society. As Wells put it, socialism today is "pre-scientific and disposed to a finality of statement" (*Ibid.*).

To support his judgment Wells quoted from one of the tracts of the

[5] Wells' father was a shopkeeper and professional cricketeer. His brothers and he himself had been apprenticed as drapers. For the influence of his drapery experience see Van Wyck Brooks, "The World of H. G. Wells," New York, 1915, p. 29.

Society. In 1870 it published Tract 70, "Mission of the Fabians," in which the following appeared:

> The Fabian Society . . . has no distinctive opinions on the Marriage Question, Religion, Art, Abstract Economics, historic Evolution, Currency or any other subject than its own special business or practical Democracy and Socialism (*op. cit.*, p. 213).

For Wells this was mere "self-complacent stupidity." He conceived of socialism as the renucleation of society, and therefore the mission of the Fabians appeared as a mission of futility. The difference between the two conceptions is more than academic.

The history of the past twenty years proves that the most successful movements are those whose ideologies cover all phases of social life. Fascism and Communism, the only successful movements of this century, are more than just political or economic philosophies; they supply the means and ends for every type of social action. Wells saw the need for this type of ideology; for him the abstractions "Democracy and Socialism" became realities only when the Fabians made it their "special business" to have "distinctive opinions" on those elements which make up the very basis of society.

Wells may be compared in one way with disenchanted Marxians of our own era. The Fabian experience is as constant an element in his writings as is the Communist experience in an individual like Arthur Koestler.

Methodology

WELLS HAS THE DISTINCTION of lending his name to a whole genre of literature. Reference to a Wellsian novel or story conjures up visions of a strange future world inhabited by people who have made technology a fetish. But Wells is not a Wellsian. His future worlds cannot even be considered mere literary devices to carry the burden of his plot; they are an essential part of his methodology.

In his "Anticipations" (New York and London, 1901), Wells made his first serious attempt, in non-fictional form, to 'discover the future.' Thirty years later in the revised edition of "The Outline of History" (New York, 1931), he commented that it was an "attempt to argue out some possible consequences of current processes." This is the key to Wells' futuristic work. Much of his thinking was done on the level of problem solving. An integral part of this type of thought is the projection of a chosen procedure into the future in an attempt to foresee its possible consequences. This is part of the process of prediction and it lies at the heart of the scientific method.[6]

[6] In this connection see Morris R. Cohen and Ernest Nagel, "An Introduction to Logic and the Scientific Method," New York, 1934, pp. 208–12.

With this in mind it is now possible to see his essays in "Anticipations" as forecasts of what would happen if the policy of 'let nature take its course' were pursued. And when, as in "A Modern Utopia," he drew a picture of some future ideal society he was illustrating the possible consequences of altering the course of the social processes in some determinate manner. This viewpoint serves to put his work in a new light. It takes it out of the class of phantasy and adds it to the body of social, political and economic thought. It also shows that Wells was an early adherent of what we now call 'operationalism.'[7]

When Marx said that the rule of the bourgeoisie would be succeeded by the "dictatorship of the proleteriat" which in turn would be followed by a "withering away of the State," he was attempting to predict the consequences of interfering with the social processes in a certain manner. It is curious to observe that the very vagueness of these concepts has been the subject of praise by Marxians and non-Marxians alike on the grounds that Marx was too intelligent to make 'blueprints.' These events were so far in the future that it was best to leave them in their amorphous form. Today we are in a position to see the fallacies involved in this line of reasoning.

If by 'blueprints' we mean a detailed and itemized account of how the social processes will operate in a future society we can validly endorse Marx' astuteness. But if by 'blueprints' we mean definition, description of form and structure, exploration of possible value systems, *etc.*, then there is no recourse but to favor the making of 'blueprints.' Because Marx and Engels left their concepts vague we have the spectacle of the Politburo describing the Soviet State as the "dictatorship of the proleteriat." Only when such abstractions are defined operationally are they brought down to a level where they can be assessed in a meaningful manner.

In Wells' work there is always the attempt, perhaps an unconcious one, to avoid this pitfall. In his description of Utopia, for example, he translated the concept of an élite into terms which indicate how the élite operated. The importance of bringing down abstractions to the level of perceptual reality has been noted by John Dewey:

> Ability to frame hypotheses is . . . the positive phase of abstraction. But hypotheses are conditional; they have to be tested by the consequences of the operation they define or direct . . . their final value is not determined by their internal elaboration and consistency, but by the consequences

[7] For definition and use in the social sciences see P. W. Bridgeman, "The Logic of Modern Physics," New York, 1927; and Harry Alpert, "Operational Definitions in Sociology," *American Sociological Review*, Vol. III, (1938), pp. 855–61.

they effect in existence as that is perceptibly perceived. ("Intelligence in the Modern World," ed. by Joseph Ratner, New York, 1939, p. 882). Wells attempted to do just this within the obvious limitations. Under his treatment the term 'élite' took on flesh and blood, as it were, and became something that was recognizable as a possibility of human experience.

Yet there is no denying that many of Wells' hypotheses are outrageous and truly fantastic. But there may be a lesson in that for the contemporary social scientist. From one point of view there is nothing more absurd than the theory of evolution or relativity. Yet it is from absurdities like those that the greatest advancements in science develop. If the modern economist, for example, would imitate the courage of Wells and postulate absurdities, and pay less heed to the sterile voices of the footnotes whispering the name of Adam Smith, then perhaps the social sciences would advance at a faster pace. If nothing more, the economist would have the consolation of knowing that the absurdities of today are often the paths to salvation tomorrow.

The Functional Man

ONE OF THE FRUITS of Wells' method of trying to foresee the consequences of current social processes was the concept of the "engineer" as the dominant societal figure in the future. In a functional analysis of the class structure Wells saw three classes: one without function or property; a second with a type of property unrelated to function (*rentier*); and a third without property but with function (worker) ("Anticipations," p. 88*ff*).

Out of this structure a new class having none of the properties of the older one was rising. It was the class of mechanics and engineers, "a great inchoate mass of more or less capable people engaged more or less consciously in applying the growing body of scientific knowledge to the general needs" (*Ibid.*, p. 108). A member of this class differed from the ordinary worker in that he required a highly technical training; he differed from the *rentier* because his social function catered to the general needs of mankind while the *rentier* as such served no social function. When Wells referred to a member of this new class as a "mechanic" he did so quite literally, but this should not obscure the fact that the "mechanic" was still in the same class as the scientist who "dissolves problem after problem in the solvent of clear knowledge."[8]

Wells' emphasis on the importance of this new class may be a bit of egocentrism in view of his own background. But it also has a pragmatic basis: an industrial society having an overwhelming need for technically

[8] For a vivid portrait of this functional man see Bernard Shaw's "Man and Superman."

trained individuals. Since the engineers were the only individuals with the capacity to satisfy this need, they were to be the dominant class.

Its rise to power would be aided by the inherent weaknesses of the modern democratic State. In this State the functional man, the engineer, must give way in those fields requiring his expert knowledge to the politician who retains ultimate power in all fields. The nature of the State allows the politician to construct a "machine" which retains power by playing upon the chauvinistic sentiments of the people through continual invocation of an enemy in the shape of a foreign power. Eventually this process leads to a war which, in an industrial world, cannot be fought and won without the services of the engineer. The emergencies created by a war situation will create the opportunity for the functional man to seize power from the politician and enable him to extend his power to fields hitherto closed to him entirely. The war period will also allow the functional men to organize in much the same manner the bourgeoisie organized itself in the nineteenth century so that when the war is over they will be able to retain power. ("Anticipations," p. 164*ff*).

This analysis seems to be on its way to becoming a reality. While there is no "machine" of the proportions he envisaged in operation in any democratic country today there are indications that it can happen. In our own country, for example, the crisis of the thirties and the war situation forced a large concentration of power into the executive department. "Machines" have been a permanent part of the political landscape at lower levels of government for so long that they are taken as a matter of course. In short, we have all the preconditions necessary for the establishment of a Wellsian "machine": a predisposition for it; the 'know-how'; and the continuing concentration of power in the executive.

But this aspect of the forecast is relatively uninteresting. What is of more interest is Wells' correct diagnosis that it would be the engineer who would emerge as the dominant figure. The last war proved conclusively—almost too conclusively for comfort—that the key to victory in modern war is with the engineer and scientist. Not only is the engineer the dominant figure in a war situation, but he is retaining his dominance in the peace situation. In other words, the scientist is entering the fields of social action. This is an entirely new phenomenon.

It has not been at all unusual for the scientist to step outside of his specialty into others. Newton wrote an excellent treatise on the topography of Hell, and Eddington stepped from the experimental laboratory into cosmic philosophy. But when scientists *organize as scientists* and

campaign for world government and specific atomic energy control plans, that is unusual. When professional journals such as the *Bulletin of the Atomic Scientists* carry side by side papers on atomic physics and politics that is a development that has not been seen before.

It is hard to say what the possible consequences of this new phenomenon will be. For Wells the seizure of power by the scientists meant that a fully rationalized State would be set up, a modern utopia.

The Rationalized State

WELLS' UTOPIA has much in common with other Utopias in many details which are of no interest here. However, in two major respects his society differs from the others: instead of philosopher kings there are scientist kings; and the Utopians have a social science designed as an efficient tool.[9]

The motivation for the construction of this Utopia came from Wells' desire for a "*rationalized* social, political and economic effort" ("Experiment in Autobiography," p. 552. Italics mine). He wished to see a society where all the phenomena possible could be ordered, organized and brought under human control. It was to be a society where the value of planning was to be as highly regarded as *laissez faire* is at a convention of the National Association of Manufacturers. To accomplish this end it was necessary to organize the scientists into an élite. It was not a rigid élite, nor was it a Calvinist elect; it was a "voluntary nobility" ("A Modern Utopia," p. 193). Since he conceived of the élite as specialists in the art and science of government it is appropriate to view them not as a modern Politburo, the apex of a monolithic State, but members of a civil service system carried to its ultimate extreme. Wells was careful to make provision for the highest possible degree of social mobility.

It is hard to think of an élite today without thinking of the modern totalitarian State. However, Wells was not a totalitarian mind; his government was hedged about with many restrictions designed to protect the freedom of the individual. His élite is not an autonomous body but one which is "subjected to a free, open, watchful criticism, restrained from making spasmodic interruptions, but powerful enough to modify or supersede without haste or delay whatever is unsatisfactory in the general direction" ("The Open Conspiracy," p. 44). He was sensitive to the dangers arising out of a fully rationalized society for he comments that the citizens of Utopia "will have paid some attention to the psychology of the minor official" ("A Modern Utopia," p. 45).

[9] Wells' Utopia is mainly Platonic. But the construction of a society in which many of Plato's predjudices are maintained alongside Wells' own biases in favor of rationalistic procedures leads to many interesting results—not unlike casting Hamlet as an efficiency expert.

To function adequately the élite had to have the proper tools which had to fit the particular environment it was to function in, a rationalized environment. Rationalization in Wells' utopia is a good illustration of Karl Mannheim's definition of that concept:

A series of actions . . . organized in such a way that it leads to a previously defined goal, every element in this series of actions receiving a functional position and role. Such a functional organization of a series of actions will, moreover, be at its best when, in order to attain the given goal, it co-ordinates the means most efficiently. ("Man and Society in an Age of Reconstruction," New York, 1941, p. 53).

Rationalization on the societal level, rather than the industrial level we are accustomed to think of in this connection, calls for a different order of engineer and for a different order of techniques. In other words, once the shift is made from the level where the machine *per se* takes precedence over the human element to a level in which only the 'human element' can be considered, the industrial engineer becomes a social engineer. The engineer concerned with Taylorization of the factory floor has a set of techniques inapplicable on the societal level. Therefore, once a social engineer has been enthroned as the dominant power in the society the next step is to provide him with a social science capable of functioning within a rationalized environment. Wells tried to solve this problem by integrating the social sciences.[10] His general complaints about the social sciences may be seen from a few of his remarks on history and economics as disciplines. History, he maintained, is "a clotted mass of undigested or ill-digested fact . . . barbarically copious and classically fruitless."[11] His criticism of the science of economics shows the biases of the man bred in the laboratory:

The study of economics has been infertile and unhelpful because of the mass of unanalyzed and scarcely suspected assumption upon which it is based. . . . An edifice that aped the securities of material science, developed a technical jargon and professed the discoveries of 'laws'. . . . The old 'Political Economy' made many generalizations and they were mostly wrong; the new 'Economics' evades generalizations and seems to lack the intellectual power to make them. . . . Economics consists of a hopeless muddle of sociological assumptions and preposterous psychology. ("A Modern Utopia," pp. 58–9).

[10] The argument as presented above is inverted. Actually it is impossible to have a rationalized society without an adequate social science first. As presented above, however, it emphasizes the impossibility of talking of planning without also talking about the state of the social sciences.

[11] "Experiment in Autobiography," p. 552. When Wells wrote "The Outline of History" the professional historian had a chance to get a bit of his own back. See, for example, J. Salwyn Schapiro, "Mr. Wells Discovers the Past," *The Nation*, Vol. CXII, (1921), pp. 224–31.

The criticism is strong, perhaps too strong and not quite valid. The direction Wells thought the science of economics should take might be illustrated by his comment that in Utopia there was no separate science of economics; it fell within the sphere of psychology. Within this sphere it had two goals:

> A descriptive treatment of society as an organization for the conversion of energy in nature to the material ends of mankind . . . a study of problems as problems in the division of labor having regard to a social organization whose main ends are reproduction and education in an atmosphere of personal freedom (*Ibid.*, p. 59).

It would be fruitless to go into an extensive description of Wells' solution to the problem of integration. It is obvious from what little has been quoted here that he was heavily influenced by his training in the physical sciences. What is of prime importance is the implicit realization that the social sciences as they stand are not adequate tools. Writing in the first five years of the century on this problem, Wells understood the question the social scientist would soon be living with: How can we construct a science which can cope with the problems of an industrial society in an atomic age? In turning his attention to this problem Wells showed that he had a more rational conception of the world than do many present-day thinkers who are turning to the Vedas and to neo-Scholasticism.

Modern Primitive

AN EMINENT HISTORIAN once compared Wells with Locke, Comte, Mill and Marx, and found him sadly out of place in such august company (Schapiro, *op. cit.*, p. 231). It cannot be otherwise since they are on different levels. Those figures belong to a more complex level of thought; Wells belongs to a simpler, more primitive level. Wells was a type of thinker whose perception of the world was different from those of the great social theorists. For this reason he has left no great system behind as did Marx; and we cannot expect to find among his works a document like "On Liberty." But taken on his own level he is still an important figure.

Wells had a certain amount of insight into modern problems. He understood the role of science in the modern world; he was keen enough to see the sterility of the old socialist theories built on dogma and dreams; he foresaw the need of an adequate social science; and, above all, never sacrificed his own values. Yet his thought was but shadow compared to substance. A great deal of it was on a primitive level in the true sense of the words: hints, faint suggestions and the barebones of ideas. When approached on his own ground with the hints disentangled and the ideas

clothed in a meaningful modern context, there does appear something worthy of consideration.

We must not seek an integrated system from Wells, or ringing calls to action. Reading his work is like watching a primitive ceremonial dance: amidst all the seeming confusion there are hints of exquisite beauty and grace. In those hazy, half-formed ideas which he threw off like sparks there are catalysts which can activate the minds of those seeking an effective solution to the problems of survival in the modern world.

New York.

Voluntary Grading of Commodities

WHOLESALE BUYERS and sellers of fresh fruits and vegetables have the advantage of 100 grades and standards for 60 items. Consumer grades and standards have also been established for potatoes, tomatoes, packaged spinach leaves, and celery stalks, though not as yet for any fruits. That is mainly because it is far more difficult to display grades on a few pounds of apples or potatoes, a peck of spinach, or a head of cabbage than on carlots, 100-pound bags, crates, or bushel baskets of such products. But progress is being made.

Prepackaged green groceries are becoming common; they are practical for consumer, dealer, and grader, and the grade can easily and clearly be shown on consumer-size bags and bunches of fresh vegetables. The standards—such as U. S. Grade AA, A, or B, sometimes qualified by such adjectives as "small," "medium," or "large," like others established by the United States Department of Agriculture, are *permissive,* not *mandatory.* Any packer may ask to have his fruit and vegetables graded though no regulation requires him to do so.

But all packers now using the standards operate under continuous inspection. That means that a Federal or Federal-State inspector is in the packing plant at all times to analyze samples and work with management in maintaining quality control. Such plants must also meet certain rigid sanitary standards. To date continuous inspection based on consumer grades has been conducted largely in the Boston area, but many other sections of the country are manifesting interest. This work is carried on in the Fruit and Vegetable Branch, Production Marketing Administration.

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