

Steering our course through the greatest convulsions in history a dimly perceived but passionately longed for vision of equality and dignity for every human being

THE HOME OF MAN

A Book by Barbara Ward
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The Home of Man by Barbara Ward (Lady Jackson) will be published early in 1976. The well-known environmentalist and author elaborated some of the major human settlements issues in many of her previous publications. The Bulletin is now pleased to present the prologue to her forthcoming book.

There are two reasons why it is exceedingly difficult to get a coherent grip on the issue of the human habitat — the settlement where all the world's peoples, save for dwindling groups of nomads, are born, live out their lives and go to their death.

The first reason is that this habitat includes everything. A Roman philosopher once said: "nothing human is alien to me". How much more true is this of the inescapable context within which the whole of existence is carried out. What can we leave out when we are talking of the complete life cycle of mankind? Yet to try to grasp everything is to risk grasping nothing. The entirety of the human condition certainly escapes the statistician. It probably escapes the poet. So whatever is written about our habitat must submit to being incomplete. Perhaps, as a result, it will leave out vital clues to coherence and understanding.

The second reason is even more daunting. At no time in human history has the man-made environment of life been in such a state of convulsed and complete crisis. This is not to suggest that great upheavals have not repeatedly overtaken humanity. Great civilizations have perished. Empires have fallen like skittles in a bowling alley. On the very threshold of the so-called Age of Progress, in the seventeenth century, a perturbed observer like Sir Thomas Browne could observe: "The world's great mutations are ended". Throughout history, in the dark aftermath of plague or war, folk songs and ballads are full of the loss and collapse of human hopes. Compare this Elizabethan verse:

"Brightness falls from the air
Queens have died young
and fair"

with the lament made for the destruction of man's earliest city, Ur, about the year 2000 B.C.:

Verily all my birds and winged
creatures have flown away —
"Alas! for my city" I will say.

My daughters and my sons have
been carried off

"Alas! for my men" I will say,
O my city which exists no longer,
my city attacked without cause,
O my city attacked and destroyed!

Few lives, indeed, have escaped all echo of the mourning cry in Ecclesiastes: "Man is born to trouble as the spark flyeth upwards".

But if the intensity of crisis is not new, sheer scale undoubtedly is. The figures are becoming so well known that it is hard to remind ourselves how phenomenal they are. Yet they must be repeated. On any recognizable definition of what is a human being, it took at least half a million years for the first 100 million people to appear on the face of the Earth — at about the year 1000 B.C. In the wake of improvements in agriculture and increase in food supplies brought about first by Neolithic man and then by the great valley civilizations — in Egypt and Mesopotamia, in North India and China. Farming, handicrafts and commerce continued to develop irregularly but expansively for the next 2,500 years. By about 1500 A.D., there were perhaps 500 million human beings on Earth.

Then the great accelerations began — in knowledge, in power, in resources and technology, in mobility, in conquest. The first thousand million mark for humanity was passed about 1830. The next thousand million took only a hundred years, the next only thirty,

Today, with just over four thousand million beings on the planet the added thousand million has taken only fifteen years. This rate of growth means that in the first decade of the next century, a whole new world, equivalent in numbers to this one, will be piled on top of the present level of population.

Further ahead, the predictions become even more fantastic. In fact, unchecked, they could be adding well over 250 million people a year by 2034, the bicentenary of the death of Thomas Malthus — the first man to postulate the theorem that population would always grow to exhaust the available food supplies. But such predictions belong to the world of dream — or rather of nightmare. Before such increases could take place, the old destroyers, hunger, war, plague, "death on a pale horse", would have wiped out the surplus. What we are concerned with today is the imminent doubling of our planetary numbers in less than forty years.

Scale is not the end of the cataclysmic nature of modern change. Once again, the figures are known and repetition can stale their impact. Yet we have to make the effort of imagination needed to realize that after some fifteen thousand years of organized human existence in recognizable settlements, the world of today is a world in which this habitat is being radically transformed in less than a hundred years. If we take "urban" as the adjective to qualify settlements of more than 20,000 inhabitants, throughout most of human history at least ninety per cent of the people have lived not in cities but in hamlets, villages or at most in small towns. At the time of the American Revolution, for instance, this was the percentage of Americans living in centres of no more than 2,500.

Now compare with this the sudden explosive acceleration of change in the twentieth century. After a hundred years or so of industrialization, the number of people in urban areas at the end of the nineteenth century was about 250 million. In a world population of 1650 million — the urban population accounting for fifteen per cent of the world total, a little higher than the earlier urban figure of ten per cent but still leaving the world's rural peoples in overwhelming predominance. And now in just a century, this millennial relationship is being overturned with almost inconceivable speed. By 1960, urban populations had grown to a thousand million in a world of three thousand million — only a two to one rural ratio. Today, urban peoples are racing towards the 1500 million mark out of a total world population of four thousand million. Ten years from now, they will pass the two thousand million level. By the year 2000, there will actually be more urban dwellers than rural people in a world population which will have risen to between six and seven thousand million.

We also have to realize what an astonishingly new phenomenon is the city of a million people. Probably neither Rome nor Byzantium reached that peak even at their greatest extent. True, if Marco Polo's impressions can be trusted, Kinsai in China — on the site of today's Hankow — may have had 3 million inhabitants in the 13th Century and Edo — as Tokyo was first called — seems to have reached a million by the 18th Century. But the concept of a "big city" did not go much beyond 100,000 until the beginnings of the 19th Century — it is almost comical to recall that at the time of the American Revolution, only two cities, Boston and Philadelphia, had even reached 50,000.

Then with the spread of industrialization and of world wide trade, the city of a million begins to race ahead. London reached the mark in the 1820s. By 1900, there were eleven "million-cities", six of them in Europe, still the imperial and commercial dominant of the world. But the jump from two to eleven in the 19th Century has been followed by an infinitely more formidable acceleration in our own time. By 1950, there were 75 "million-cities" of them in developed regions, 24 in the developing world. Today, the developing nations have pulled ahead. They contain 101 such cities, out of a world total of 191. By 1985, the million-city will have jumped from 11 to 273 in less than

a century — and 147 of them will be in the less developed lands.

And even this vast multiplication does not fully measure the contemporary upheaval in human settlements. The million-city begins to explode into the ten-million city. There were two of them in 1950 — New York and London. By 1970 there were four. But by 1985, there will be at least 17 of these gigantic agglomerations, ten of them in developing areas — with Mexico City, at nearly 18 million, only a step behind New York. And at the head of the list Edo's successor, Tokyo, will recover its earlier primacy with the dubious distinction of bringing 25 million people together in a single conurbation.

We may, of course, question whether some of the more surrealistic predictions — for instance, a Calcutta of over 30 millions — will ever be reached. Various degrees of urban collapse may well have intervened, and the projections are so valuable as indicators of the sheer avalanche-like scale with which the world's peoples are increasing, heaving themselves out of the millennial framework of village and small town and descending in deluges of mixed hope and despair on the world's larger settlements.

To seek analogies for change on this scale, one is struck by the obscure feeling that only the distant billions of geological time can provide any adequate concept of the scale of upheaval. The Indian subcontinent detaching itself from Antarctica and sweeping across the Indian Ocean to its violent collision with Asia's land mass along the Himalayas, the sea pouring in to change the Caribbean or the South China Seas into a chain of islands, the grinding of continental plates against each other, heaving up the Andes and leaving volcanic chains where Asia and Europe collide — these are surely the images that are appropriate to the scale of the 20th Century's urban deluge. We are in the full tide of this great sweep. Its final consequences lie ahead. But already the ground shakes. We should hear if we were listening, the mutter of the approaching storm. And the upheaval is not simply a physical upheaval — the largest increase and "wandering of the peoples" in human history. It is taking place within two wider but equally unstable contexts, one social, the other ecological. They, too, are unique in the experience of mankind.

The social context is the deepening conquest of the human imagination by a dimly perceived but passionately longed for vision of equality and dignity for every human being. This dream has, no doubt, many roots — archetypal memories of the unself-conscious equality of the tribal society, the millenium. Neolithic experience of shared tasks and modest returns in early agriculture, passionate revulsion against arrogance and greed in the wake of man's first expletions in "high" civilization — in Babylon or Mohenjo-Daro, in Ch'Ang An or Rome. But for modern society, the Biblical strain is unmistakable. The great Hebrew prophet from Israel, Karl Marx — have called on man "to undo the thongs of the yoke, to let the enslaved go free... sharing your bread with the hungry and bringing the homeless into your house". The rights of the downtrodden, the duties of the fortunate, the value and dignity of the poor, the harsh condemnation of irresponsible wealth, these are judgements and energies shared by the Western man's Biblical tradition — inherited even when betrayed — and in our own day, this tradition either colours the imagination, troubles the conscience or at least perturbs the complacency of all mankind. And, as our world prepares to add another world equal in numbers to itself in no more than four decades, the cry for greater justice and dignity for all these thousands of millions will not be stilled. On the contrary, it will be raised all the more insistently as numbers and pressures increase.

* *Isaiah Chapter 58 verses 6-7*

But it is one thing to underline the fact that people's growing sense of their dignity and equality — both individually and collectively — is a near-universal phenomenon, an "inner limit" to the development of planetary society which can be transgressed only at the risk of the severest social disorder and breakdown. It is quite another to

achieve even minimum agreement upon the content of this new perception of the human condition.

As a rough first definition we can start by recognizing that any valid concept of dignity and equality includes a number of non-material "goods" — responsibility, security and participation, the free exchange of thought and experience, a degree of human respect that is independent of monetary rewards or bureaucratic hierarchies, and a realization that this respect is lacking where rewards and hierarchies are too restrictive or too skewed. All these goods of culture, of man's mind and spirit, need not be costly in terms of material resources. Indeed, they belong to the sphere of life where growth is truly exponential — in knowledge, in beauty, in neighbourliness and human concern.

But they require physical underpinning. And here the pressures bring us to a further context of great uncertainty and risk. When we try to establish even the minimum physical conditions of a worthy human existence, we confront the widest possible spectrum of uncertainty. For one thing, there are inescapable differences of climate and culture — Arctic housing tells us nothing about Tropical standards, or Mediterranean rural radiance about the midnight sun. Diet, uses of energy, patterns of worship, work and play partly and rightly reflect a vast and precious variety of cultures and social purposes. But we can perhaps accept an irreducible minimum — another "inner limit": this time the limit of physical well-being, which human society transgresses at its peril and which must include food, energy, shelter and the training and work required to secure them.

It is all too easy to see that even on this exceedingly modest standard, the task of achieving minimum conditions of human dignity for between six and seven thousand million people by the year 2000 constitutes a tremendous physical task, raises wholly new questions about the use, abuse and exhaustion of resources and begins, for the first time in human history, to hint at risks to the integrity of the entire life support systems of the planet's biosphere. These, if you like, are the "outer limits" beyond which the human race cannot march — or stray — without risking its own survival.

To take these high abstractions down to a more homey level, we can note that in the crucial area of food, the average North American eats some 1900 pounds of grain a year, all but 150 pounds of it in high protein food such as the products of cattle and poultry. It is perfectly possible that, for a largely sedentary people, this diet is as dangerously over-generous as the 400 pounds of grain eaten by the Sotho in the highlands of Lesotho. A biological norm may lie somewhere between the two — an intake of 1000 to 1200 pounds of grain and grain equivalents, the level general in North America in the 1950s and in parts of Europe today, neither region at either time betraying, it must be admitted, any severe signs of general under-nourishment. But to bring up to this level two thousand million or so people in developing lands who are now below a decent norm and to ensure that the next two thousand million born there achieve it requires little short of a new agricultural revolution with vast increases in supply — for fertilizer, for improved seed, for farm machinery — and an equally vast impact on the world's reserves of soil and water, both in using and possibly in polluting them.

Nor will the fertilizer and machinery be produced or used without a corresponding leap forward in the demand for energy. Once again, an energy "norm" per person is a difficult concept. In spite of some of the follies of prestigious air conditioning, temperate climates do seem, of their nature, to require less lavish energy-use for man's domestic purposes. Only a really determined rejection of the ideal of thrift can explain why a citizen of the United States uses more than twice as much energy as an equally prosperous — and chilly — citizen of Sweden. But again there must be some half way house between extravagance and the direct need. Between 1900 and 1970 — another of those giant accelerations —

world energy consumption rose from about 650 million metric tons of coal equivalent to 6600 million metric tons — more than a ten-fold increase and the bulk of it, from 2550 up to 6600 million, occurred in the highly Filices and Sixties with oil coming out of the sands at a dollar a barrel. Rising costs may, perhaps, check the rate of acceleration, but estimates as high as 21,800 million tons of consumption for the year 2000 have been made in United Nations' surveys.

We should notice that these extrapolations have been based on present use. Yet today the two-thirds of the world's peoples who live in developing countries consume fifteen times less energy, on the average, than do the citizens of developed societies. Given the vast attractiveness of substituting mechanical and muscular energy — the man on the tractor for the man with the hoe, not to speak of the driver alone in the four seater car — future energy use may be grossly under-estimated unless it assumes at least a doubling and trebling of demand among the present poor. Add that to existing extrapolations and the limit of safe exploitation may be fixed not by the availability, cost or risk of new energy sources but by the "outer limits" of thermal pollution on a planetary scale.

Nor should we forget the part played by energy in a further dimension of basic physical need — the need for shelter. In constructing houses, in using them, in creating in them the warmth for cold winters, the coolness for torrid summers and all the services of the household, from cooking to piped water to sewage, from the meter building into a treasured home, energy, usually in its cleanest and apparently most trouble-free form — electricity — has come to dominate the houses of the developed world. In fact, the 4,740 thousand sub-standard houses of the United States are largely defined by the absence of services — water closets, baths, heating appliances — all of which require energy to provide them. The enormous gap between energy use in developed and developing countries is in part explained by the degree to which such services are simply unavailable to the poorest groups. Nearly half the municipalities of Latin America have neither sewage systems nor piped water. The proportion in the Indian sub-continent and parts of Africa is higher still. The open drain down the main street, the contaminated well at the corner crossing — these can be ugly symbols of man's habitat in energy-poor societies.

Of course, they are not the only symbols. The degradations continue down to the degree of squalor — from a family to each room (the figure for 80 percent of the people in Calcutta), to four families to a room, to tar paper shacks, to shift-sleeping in literally makeshift beds, to no rooms or roofs at all and thousands sleeping on the pavement. Various U.N. surveys put the number of houses that need to be built to keep up with growing numbers and repair the worst evils of the past at over 47 million units every year. The figure can only be an estimate and tells us not too much about the resources required. Rural housing in reasonable climates makes far less claim on materials or energy than the dense tenements of great urban conglomeration. But if the figures are not absolutely precise, they are precise enough to suggest that perhaps a quarter of mankind has barely attained the dignity of a roof and there are 70 million more humans to accommodate every year.

Add to this trend of inadequate food, energy and shelter the basic needs of training in a world where illiteracy is actually increasing and of work in areas where half the labour force may be under-employed or completely without employment for part of every year and we can see how near the human race is coming to the point at which the "inner limit" of human dignity is finally transgressed and the most rapidly eroding of all resources — the patience of the poor — will compound the vast material strains entailed in acting in time, on an adequate scale and without irreversible environmental disruption, to meet humanity's basic needs. Mankind is in fact

engaged in a kind of race for survival between the inner and outer boundaries of social pressure and physical constraint while the doubling of the world's peoples and emergence of a half-urban world takes place in only four decades.

These overlapping contexts of violent demographic, social and environmental change all meet, one could say, collide in human settlements. These places must carry the vast weight of the migrations — overcrowding at the terminus, decay and blight in the deserted areas. They are also the meeting place of all the aspirations and demands of mankind's enlarged sense of its human dignity. In village or town, in suburb or slum, men and women experience in their daily environment the fulfillment or frustration of all the drives and demands of aspiring modernity. Above all, it is in settlements that the physical consequences of the vast upheavals will reach their climax. Millions upon millions crowded in the exploding cities, all too often without the minimal provisions for urban cleanliness, offer man's most concentrated insult to the support systems of air, water and soil upon whose integrity the survival of life itself depends. If it seems difficult, almost beyond definition, to grasp the full scale and implications of the problems raised by the human habitat, it seems virtually impossible to do so if they are caught in these changing contexts, this whirling kaleidoscope of interlocking and contradictory forces, needs, aspirations and risks.

But, remarkably enough, the vast and uncertain contexts of explosive growth, explosive aspirations and potential biophysical catastrophes do not compound the problem of devising some sense of meaning and strategy in our approach to human settlements. On the contrary, the three contexts, rightly placed and judged, can provide clues for analysis and priorities for action. The demographic flood is potentially so damaging precisely because it is a flood — in other words, an unmanaged, unintended, disorganized rush, pell mell, into the new urban order. But what this suggests is not further confusion but the opposite intention — a fully human one — to grasp the meaning of the phenomenon and produce urban settlements not by chance but by some measure of design. The first pointer is thus away from building the city by chance and over to the city built for human purposes.

Then the other two contexts fall better into place. For the first purpose of any settlement must be to end inhuman deprivation. There are a great many other needs, no doubt. And some of the aspirations of the fortunate citizens may, consciously or unconsciously, contribute to degradation elsewhere. But this does not change the priority. Before the problem of, say, the highly rewarded but often culturally deprived life-styles of wealthy single-class suburbs is dealt with, families in settlements must be able to satisfy the minimum needs — food, energy, climate, shelter, and work. Often there are no contradictions. Nothing, for instance, so reduced the death rate of the 19th Century poor as the sewage systems built at the instance of the 19th Century rich. But cities must be built not for economics alone — to build up the property market — not for politics alone — to glorify the Prince (in whatever form of government). They must be built for people and for the poorest first.

And in this new intended order, the limits on material resources and on the environment must, for the first time, be recognized as fundamental challenges and constraints. The settlement by design, the settlement for people, the conserving and enhancing settlement — these are the priorities suggested by the convoluted and interdependent revolutions of our time. For these three priorities may, as strategic guidelines, the tactics of the business — land use, shelter, utilities, traffic, work, recreation, convenience, beauty — can be rationally considered and some decisions for policy arrived at. We do not need to repeat the pessimism of Clemenceau in 1919. As he said, we do indeed have chaos. But, unlike him, we can realize that we have enough "to make a world".