Author's note
I would like to express my gratitude to a number of people involved in this project. First of all, to Hans Dirk Köhler of VCH who supported the realisation of this paperback edition, my office staff for their work and Jeffrey Hunter for translating. Warm thanks are also due to the staff at Academy Editions, Maggie Toy and Natasha Robertson.

Back Cover: Kisho Kurokawa. Photograph from The Kensetsu Tsushin Shinbun

Many new theories have been added to this text, originally published in Kisho Kurokawa's Intercultural Architecture: The Philosophy of Symbiosis, Academy Editions, 1991, to create this accessible version of Kurokawa's provocative thesis.

Published in Great Britain in 1994 by ACADEMY EDITIONS
An imprint of the Academy Group Ltd

ACADEMY GROUP LTD
Editorial Offices
42 Leinster Gardens London W2 3AN

ERNST & SOHN
Hohenzollerndamm 170, 10713 Berlin
Members of the VCH Publishing Group

ISBN 1 85490 304 7

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Distributed to the trade in the United States of America by ST MARTIN'S PRESS
175 Fifth Avenue, New York, NY 10010
Printed in Italy by Tipografia Umbra

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INTRODUCTION

The world is changing rapidly. Some think of the end of the Cold War, the defeat of socialism and the triumph of capitalism, as the greatest changes of today. But it is my belief that the change we are witnessing is not simply change in the political sphere but a broad wave of change sweeping simultaneously through every field of human activity: economy, government, society, science, philosophy, art and culture. And it is a change not in volume but in essence, a structural change rather than a fluctuating rate of growth and decline.

The world is moving towards a new order for the twenty-first century. In this book I discuss this paradigm shift to the evolving new world order from several perspectives: 1) the shift from Eurocentricism to the symbiosis of diverse cultures, from Logoscentrism and dualism towards pluralism, towards a symbiosis of plurality of values; 2) from anthropocentrism to ecology, the symbiosis of diverse species; 3) a shift from industrial society to information society; 4) a shift from universalism to an age of the symbiosis of diverse elements; 5) a shift from the age of the machine to the age of life principle.

The ambition of this book is to suggest that symbiosis is the keyword for predicting and interpreting, from these various perspectives, the new world order that will appear in the twenty-first century.

The subjects of architecture and urban planning are raised from time to time in the book to make the discussion easier to follow. Yet I did not write the book for architects or urban planners; my intent was to stimulate ideas and debate among all who have an interest in the new world order and the new world that is fast approaching.

The 'philosophy of symbiosis' that I have articulated has had a wide influence in Japan, and it has become a keyword of the new age in many areas, including government, business, art and culture, science and philosophy. Since the publication of the English translation of the work, symbiosis has also received much attention from abroad.

President Hirakawa of Keidanren, which leads the Japanese business world, has formed a Committee on Symbiosis and is investigating symbiosis as major economic policy; a Japan-Great Britain Symbiosis Committee has also been formed. Symbiosis was also discussed in the Japan-US Trade Structural Impediments Initiative. An increasing number of private organisations are also now calling for the symbiosis of people and nature, development and preservation, men and women.

The new parties that have split from the Liberal Democratic Party also call for symbiosis, and a growing number of prefectural governors are sympathetic to the philosophy of symbiosis.

More and more people overseas are also offering new ideas sympathetic to symbiosis in such fields as biology, chemistry, philosophy and physics.

Another important point is the fact that the roots of the concept of symbiosis are to be found in Buddhist philosophy and traditional Japanese culture. We can identify a strong current of tradition in the history of Japanese culture for seeing people and nature, past and future, the part and the whole, art and science, different cultures, economics and culture as existing in symbiosis.

In that sense, symbiosis is a key concept in understanding Japanese culture.

It is my hope that this paperback edition will bring these ideas to a wider audience of readers and provoke thought and discussion among many, in Japan and elsewhere.
WHY THE PHILOSOPHY OF SYMBIOSIS?

A great conceptual revolution is under way across the world, but is taking place so quietly that it has gone largely undetected. It is not the birth of a new ideology, like capitalism or communism; nor is it the advent of a new philosophy to replace that of Kant or Descartes. Yet the new currents of thought that are arising around the world will have a greater effect on us than any ideology or systematic philosophy. They are unarguably changing our way of life and our ideas of what it is to be human. This great, invisible change I identify as the philosophy of symbiosis.

Criticism of Japan – ‘Japan bashing’ – has been popular recently. American congressmen and representatives smashing a Toyota product with sledge-hammers is perhaps the quintessential image of Japan bashing. But the same impulse can be easily observed in Japan itself, where, as the proverb states, ‘The nail that sticks out is hammered down’. Japanese society inherited a long tradition of human relations cast in a feudal mode, which dictates that those with special talents, with unique personalities, or those who achieve sudden success are attacked and ostracised by their peers. In an isolationist or protectionist era, when it is sufficient to guard the status quo and shun all external influences, individuality and achievement are despised as destabilising factors, and they are feared for the bad effects they may have on the established order. The fact that most Americans engaged in Japan bashing are protectionists further testifies to the truth of this claim.

The elimination of the spirit of protectionism, both in trade and in the form of group loyalties that exclude all outsiders, is a universal struggle and a universal goal. But to pursue that goal also means that we are plunging into an age of confrontation: between benefit and harm, between personalities and between cultures. It will no longer do to simply hammer down the nail that sticks out. We can no longer solve anything by attacking those who are unique or extraordinary. We are living at the start of an age of symbiosis, in which we will recognise each other’s differing personalities and cultures while competing, and in which we will co-operate while we oppose and criticise each other.

Will the traditional Japanese reverence for harmony, the emotional and spiritual commitment to consensus, function effectively in this age of symbiosis? If we define harmony and consensus as undercutting all individuality and exceptional ability, as forcing all to bend to the will of the group, then that tradition will find itself at sea in the age of symbiosis. Nor is there much hope for a harmony that is served by cowering before the strong and failing to put forth one’s own position forcefully.

When the positions or standards of cultural value are in disagreement, it is not necessary for one side to defeat the other and force his values on his opponent. They can instead search for common ground, even while remaining in mutual opposition. The success of this approach depends upon whether one has any desire to understand one’s opponent. Even two cultures so different from each other that understanding is impossible will find that the sincere desire to understand the other makes co-operation possible.

The intermediate space and sacred zones that I will discuss here are necessary conditions for the establishment of symbiosis.

Whether it be the relationships between federations and peoples, nations and their minorities, or the EC and the individual countries that make it up, the symbiosis of part and whole, the issue of the individual and common rules, will become major themes of discussion and great changes will
take place around the world.

The age when strong countries made all the rules, when they forced their ideologies on all other nations, is coming to an end. The nation and the city will gradually achieve an equal status, and cities will become increasingly autonomous, engaging in their own foreign relations, trade and cultural exchange. The minority peoples will also become equal in status to nations and federations, and parallel to such federations, they, too, will engage in their own foreign relations, trade and cultural exchanges.

This is the tide of the age of symbiosis.

This type of symbiosis, which includes opposition and competition, is often seen in the world of living things. This is one reason that I selected the term 'symbiosis' rather than coexistence, harmony, or peace.

The Age of the 'Death of God' and the Icon

One of the great revolutions of the modern age has been the 'death of God'. Up to now, society has taught us that all humankind is equal before God. For those with religious faith, God was the absolute and, at the same time, the one who instructed humanity in its proper course. Even after the masses ceased to believe in an absolute God, mass society created substitutes for the deity: heroes and ideal human beings, or 'superstars'.

There comes a time when each of us notices that his life has not proceeded exactly as he had wished. To compensate for this disappointment, he may transfer unrealised dreams to a hero, an athlete, a superstar or an idol of some sort. At the same time, this ideal image, or icon, becomes his goal. Society until now has been composed of this God, this ideal, this icon, on the one hand and, on the other, the great body of humankind – Heidegger's das Mann. But in the present age, God, the ideal and the icon are dead. We have lost the icon as our goal, we have lost our heroes and our superstars. Though stars may still be born, they soon fall to earth, and they are consumed in the blink of an eye.

A society that still has a goal, still has an icon, is a society supported by the concept of progress. Progress is defined as approaching closer to that society's goals, to the human ideal, the social ideal, to the heroes and the stars. For most of the nations of the world, Western society and Western culture have continued to be the ideal and goal. As a result, developing countries have made every effort to approach, even if little by little, the ideal that the West represents. Progress has been identified with Westernisation.

Societies that cherish this ideal refuse utterly to recognise the value or meaning of other cultures. For them, modernisation is Westernisation. It is the conquest of one culture by another.

Japan, in particular, from the time of the Meiji Restoration in 1868, consciously chose this path. With progress as its rallying cry, the nation has spared no pains in its grinding efforts to modernise. Years ago, Tokyo, and especially the Ginza area, was regarded as a major symbol of this belief. Enraptured by the icon of the Ginza, towns across the archipelago dubbed the main streets of their shopping arcades as the local Ginza, and little Ginzas sprouted all over Japan as quickly and thickly as bamboo shoots after rain.

And so, is it that Japan set out in pursuit of Western society and, eventually, surpassed it? This would be a ridiculous point to argue as it is impossible for a society to either overtake or not overtake another society of a completely different nature. We cannot speak of superiority or inferiority among cultures. Each of the different cultural spheres in the world treads a different path; it is not as if they were all on one large athletic field, racing against each other.

Recently in Japan we often hear the claim that it has overtaken the West and no longer has any goal to aim for. This is a great mistake. True, the philosophy of society up to now, with its faith in the ideal, the icon, has crumbled. Without an ideal, the concept of progress becomes meaningless; but now
that superstars have faded, it has become possible for each of us to play the role of hero.

A Mirror Society
The film stars of the old days, whose names were synonyms for the ideals of female and male beauty, have passed from the scene and today’s stars are on an ordinary human scale. When we see everyday-acting entertainers on our living-room television screens, we might believe we are stars too. Since an absolute and other God, a star as an image of human perfection, no longer exists, we must provide a dwelling for God and for stars within ourselves. This is the beginning of a mirror society in which we define ourselves through the activity of observing others, where others are a mirror in which we see ourselves. Since we cannot find peace of mind in God, we are forced to find it in looking at others. The present is an age when we are all greatly concerned with those around us.

Modern society offers great opportunities for each of us to emphasise our individuality and create a unique identity. We have taken the first step into an age of discrimination which values signs and symbols; the possibility that many unique individuals may flourish in symbiosis, that we may see the birth of a symbiotic society that respects every different cultural sphere is on the horizon.

I have purposefully used the word ‘possibility’ because the road is not an easy one. A mirror society easily degenerates into a conformist, absolutist society. This danger is particularly strong in Japan, where the strictures of the feudal village - which rejected nonconformists and those of exceptional talent - remain strongly entrenched in people’s minds. A mirror society is in danger of becoming conformist to avoid being ostracised.

When one corporation succeeds in a certain venture, the rest follow in a thundering herd. Many Japanese businessmen, on the pretext of socialising, go out drinking night after night with their colleagues to communicate the message: ‘I am just like you. We’re the same sort. No need to worry that I have any special talent, any real individuality’. They are preserving the peace of the village. And by the same token, they are jealous and spiteful of anyone who does show special talent, anyone who succeeds.

The danger of a backward-looking mirror society spans the world of the university, business, government and the arts. Those who dare to violate the strictures of conformity are denounced by their colleagues and have the value of their achievements challenged. This is the accepted practice in Japan.

The age of heroes and superstars is finished. Recognising and evaluating the individual worth of others is a fundamentally different activity from the process of creating heroes and superstars. From the fair and proper evaluation of different cultures, different talents and different personalities is born the critical spirit, and a society of symbiosis is created.

The End of Universality
In the age of symbiosis the ideals of universality and equality, which have passed unchallenged, will cease to apply. Until now, the most widely accepted form of universality has been technology. It was widely believed that technology, which brought wealth and happiness to the masses, would unify and homogenise the entire world, regardless of the differences in development or culture among nations. Cars, nuclear power plants, and the glass and steel of modern architecture were supposed to make people in the deserts of the Middle East, the tropical cities of Southeast Asia and the loess plains of China happy, and make them the same.

We no longer believe this is true: technology does not take root when it is cut off from culture and tradition. The transfer of technology requires sophistication: adaptation to region, to unique situations and to custom. When the technology of one culture is introduced into another with a different
lifestyle, it is often difficult to ensure that the technology will take root. Even if in the future, atomic fusion is perfected and becomes economically viable, is it necessarily a good idea for such power plants to spread across the globe as the universal means of power generation? Probably not. If the per capita income of the Chinese were to reach the level of the Japanese, would it be a good idea for China to become a mass automobile society? Probably not. Each cultural sphere should cultivate its unique technological systems to create its own distinctive lifestyle.

The twenty-first century will be one in which fusion, fission, steam and water-generated electrical plants will exist in symbiosis. This will not be because some regions are too poor to introduce nuclear fusion generators, but because different people will select different technologies to create their own distinctive lifestyles.

The Mix-and-Match Age: Jekyll and Hyde
In contrast to the first half of the twentieth century, during which the concept of progress implied improvements in the quality of materials and standard of living, in the future, creativity will be the concept that expresses the richness of our standard of living. Though we will no longer have a unified goal towards which we progress, people will make the discovery of fluid, mix-and-match goals their aim. While Paris fashion reigns as the model of style, other designers need merely imitate it to create their own fashions. But in an age of mix-and-match, fashions from different periods, sexes and uses are combined and juxtaposed. Unlike an age fond of hierarchy, when conventions of time, place and occasion reign, in the mix-and-match age we can find delight in reading the sensibility that has dictated the choices in each new combination.

This will be an age where people can pursue many different activities at the same time. It will be a time of a broad and flexible 'Jekyll and Hyde' sensibility that can freely juxtapose the sacred with the profane, a Paris mode with farmer's overalls; a creativity that can, through subtle combinations, bring us novelty. It will, in other words, be the age when a richly-creative, schizophrenic personality reigns supreme. Sincerity and insincerity will live side by side, the distinction between work and play will fade, formal and casual will lose their meaning in fashion – such will be the lifestyle.

Whether it will be more enjoyable to live in this new age of symbiosis remains to be seen. The world will be a harder place, though it will be 'hard' in a way different from our interpretation of that word. The age of the individual, an age of pluralism and diversification, during which each person will express his individuality and be responsible for making his own choices, will bring the joy of discovering what is different and unique. Each of us will need to make continual efforts to acquire the skills that will allow us that pleasure. Unless we cultivate our sensibilities, it will be difficult to make new discoveries or to be creative. Compared to an age of conformism when we could be lazy, we have no choice but to take the first steps on a path that may be difficult but which leads to a richly creative life.
FROM THE AGE OF MACHINE PRINCIPLE TO THE AGE OF LIFE PRINCIPLE

The Twentieth Century as the Age of the Machine

Thirty-three years have passed since I began my creative work as an architect. My work over those thirty-three years has consistently raised a challenge to the age of the machine and heralded the arrival of the architecture of the age of life.

Industrial society was the ideal of modern architecture. The steam engine, the train, the automobile and the aeroplane freed humanity from labour and permitted it to begin its journey into the realm of unknown. The Model T Ford made the possession of an automobile, until then the privilege of the rich, available to the masses. The main supporters of industrial society were the members of the middle class, who benefited the most from the age of the machine.

Le Corbusier declared that the home was a machine for living, and Sergi Eisenstein called the cinema a machine. Marinetti, the Italian Futurist, said that a poem is a machine.

Le Corbusier was fond of placing the latest-model automobile in front of his completed works, and the Futurist city of Antonio Sant'Elia was an expression of the dynamism of the machine. Not only for artists and the architects but for the general public as well, the machine was a longed for saviour that would blaze the trail for humanity's future.

The age of the machine valued models, norms and ideals. The success of the Model T offers abundant proof of this. By mass-producing a selected model of a product, the masses could be provided with a homogeneous satisfaction, an equally distributed happiness, and as the machine seemed to promise the rosiest of futures, no one thought to doubt it. In this manner, the middle class shaped itself into the ideal market for the machines it mass produced. As a natural result of this evolution, architects saw their clients gradually change from royalty and the extremely wealthy to the growing middle class.

The international architecture that became the prototype of modern architecture was also an expression of the models and norms of the age of the machine. The International Style of modern architecture was created by the capitalists who manufactured those products and the middle class that used them.

We must not allow ourselves to forget that the models, norms and ideals of the age of the machine were supported by the universality that represents the spirit of European civilisation; from Greece and Rome these standards have been fundamental concepts of Western thought. The 'Catholic' of the Roman Catholic Church means, in fact, 'universal'.

The age of the machine was the age of the European spirit, the age of universality. We can say, then, that the twentieth century, the age of the machine, has been an age of Eurocentrism and Logoscentrism. Logoscentrism posits that there is one ultimate truth for the whole world, and that it can be demonstrated with human intelligence. This attitude results in a society that honours science and technology, over art, religion, and culture (fields to which feelings and sensitivities contribute) to an inferior position.

The extraordinary strides we have made in science and technology, in economic development and increased productivity, are the results of this emphasis on our powers of reason. The twentieth century, the age of the machine gave birth to Eurocentrism and two great ideologies of the century, communism and capitalism. There can be no doubt that the twentieth century has been a struggle of European civilisation and the spirit that created it to dominate the world. If there were indeed a single truth, it would only be right for it to be spread throughout the globe, and that assumption, the rivalry of capitalism and communism and the pattern of thought that identifies becoming Europeanised with progress, must also be recognised as true and right.
The great reform that took place in Japan from the end of the Edo period (1600-1868) through the Meiji period (1868-1912) as we modernised and internationalised was modelled on Western civilisation. It was an attempt to absorb that civilisation and to approach it as closely and as quickly as possible. It had no other goal than to measure progress by degrees of Europeanisation. Japanese architects of the time debated ardently about which style of Western style to adopt. The well-known Western-style buildings of the period that survive today: Tokyo Station, the Bank of Japan, the old Supreme Court and the Yokohama Seikin Bank, were all products of the policy of modernisation in nineteenth-century Japan. Western food and Western clothing enjoyed a vogue.

Modernisation was pursued in every field by adopting Western modes and models in the educational system, the economy, government policies, the constitution, and in the legal system.

This worship of the West, and the inferiority complex that is the other side of the same coin, persists in large measure in postwar Japan, and for the architects of the generations of Togo Murano, Seiichi Shirai, Kunio Maekawa and Kenzo Tange, Western architecture was an absolute, almost sacred ideal. When Murano received a new commission, he always began working by travelling to Europe and sketching design details of the works of famous Western architects. This tendency continues today with Arata Isozaki and a younger generation of architects, who, in a truly strange and inexplicable twist of fate, prize knowledge of Western architecture yet have an aversion to discussion of their own architectural tradition.

Rostow, an American economist whose ideas were influential during the period of Japan's high growth in the 1960s, advocated a theory of stages of economic development. He argued that the economies of the developing countries would pass through stages of maturity and offshore economic activity to a period of high-level mass consumption. Rostow's economic theories are comparable to Darwin's theory of the evolution of species. In the age of the machine, when economic achievement is valued most highly, the cultures of nations with developing economies come to be looked on as developing cultures, as archaic impediments to modernisation. Architects from Japan or other non-Western countries who wish to be on the cutting edge distance themselves from their own history and tradition, or else reject them altogether.

The architecture of the twentieth century, the age of the machine, was based on this view of progress. Yet this architecture was also the architecture of the age of humanism. This same Logoscentrism that so values the existence of reason regarded human beings as the sole possessors of that faculty. It ranked human beings next to divinity and it discounted the value of the lives of other animals, plants and living things. The world revolved around human existence, as the expression, 'A human life is more valuable than the entire world' clearly reveals. Based on this anthropocentrism and Logoscentrism, the pollution of the air, rivers and seas, the destruction of forests, and the extinction of animals and plants were regarded as unavoidable events in the development of the technology and the economic activity necessary to support human society and its cities and buildings, which were regarded as eternal.

The idea of 'architecture for architecture's sake' that we hear from Hans Hollein and Arata Isozaki has much in common with this Logoscentrism. The architecture with a capital 'A' that Isozaki advocates, architecture as form and Noam Chomsky's deep linguistic structure and universal grammar are all examples of Logoscentrism and the universality that characterises the age of the machine.

Humanism played an important role in the medieval period when it liberated humankind from the age of God. But in the age of the machine, the human race has allowed itself to succumb to the delusion that, with machines in its employ, it has attained the role of God and can now rule both the world and the entire universe. Today, humanism has become
identical with human superiority and Logoscentrism. This human superiority in the age of the machine is counterproductive in the age of life, with its emphasis on the environment and ecology.

Aesthetically speaking, the ideals of the age of the machine were economy, simplicity, precision, purity, multiplicity of function, abstraction and clarity. The architecture of the machine as envisioned by Le Corbusier required the purity that we can see in his paintings. It had to exemplify a norm, just as the Parthenon did. And it had to possess the clarity of the harsh Mediterranean sun, which divides all into light and shade. The Parthenon is the definitive and eternal monument to the European spirit.

When Bruno Taut and Walter Gropius visited Japan and praised the Ise Shrine and Katsura Detached Palace as exemplifications of the norms of modern architecture, they were praising the simplicity of straight lines, the abstraction free of ornament that they saw there. (Of course, they focused only on those aspects of these works that reflected their own modernist convictions.)

Some argue that the formal aspects of modern architecture should be regarded as high-tech architecture (analogical, formal quotations from the machine as high technology). The forms of Russian Constructivism, the Pompidou Centre of Richard Rogers and Renzo Piano, and Norman Foster's Hong Kong Shanghai Bank all seem at first glance to be representative works of the age of machine, but in fact they are not old. While the architecture of the twentieth century has multiple functions, is simple, economically efficient and expresses the Logoscentrism of the European spirit, the works mentioned above are not defined by structural rationality and efficiency to economic demands. In them, the image of the machine exists as the building’s surface; it is autonomous, and it constitutes decoration and represents an experiment in the transition period from the age of the machine to the future.5

I have said that abstraction was one of the characteristics of the aesthetic of the age of the machine. Abstraction is common to all the arts of the period: modern architecture, modern painting, modern sculpture, modern literature and modern philosophy.

When Le Corbusier discusses purism in art, he says that the world is composed of such abstract forms as cones, cylinders and cubes. The simplicity so favoured by modern architecture was also a method for achieving this abstraction. The goal of industrialism – increasing production by simplification of the process – and the simplicity and clarity aimed for in modern architecture were regarded as the triumph of reason, in contrast to the plurality and variety of life. Modern architecture purposely sought to banish all historical expressions, decoration, topos and regionalism because it was believed that abstraction was perfect expression of the spirit of the age of the machine.

Yet geometrical forms are not the exclusive possessions of modern architecture. In ancient cultures, geometrical forms – the pyramids of Egypt, the circle and square of the ancient Chinese Huanazi, the keyhole-shaped tomb mounds of China and Japan, and the conical Tower of Babel – were thought of as mystical forms that expressed the ultimate being of the universe. The French architect Claude-Nicolas Ledoux frequently employed geometrical forms in his works. Yet the circles and orbs that he used were more expressions of symbolism and mysticism than 'pure' abstractions. Abstraction certainly is one of the products of modern architecture and the modern spirit, but modern architecture does not enjoy exclusive possession of the cone, the circle, the sphere, or the cube. I would like to develop this idea further, in the section on architecture of the age of life.6

I have said that the age of machine is the age of the European spirit, and I would now like to enlarge on this. Edmund Husserl, in his 'Die Krisis der Europaischen Wissenschaften und die Transcendentale Phanomenologie', Philosophia, i (1936), defines the twentieth century as the
age of objective rationality. The fundamental nature of the natural science, geometry, physics and psychology in the age of modern rationality, is to seek to objectivise the world, based on the conviction that a single truth underlies all reality. These sciences seek to reduce (or analyse) reality to the measurable, thereby creating a world norm based on a unified world view. This is remarkably similar to the process through which a machine is reduced to its parts and standardised products are distributed universally throughout the world.

This view of the world, this objective rationality and modern rationalism was created and perpetuated by Galileo and his theories, Newton and Lavoisier's physics, Euclid's geometry and Darwin's biology. Common to all of these rational sciences is what is called the Bourbakian system or the axiomatic method, based on the assumption that an ultimate existence and objective methods of measurement exist. This objective rationalism represents the orthodox current of European thought. It is the main current of thought in which we find Plato, Aristotle, Descartes, Hegel and the Cartesian linguists Chomsky and Habermas. The universalism of the Catholic Church, which is the backbone of European Christianity, operates in a similar fashion. At the start of all is a single ideal existence: God. The dualism that lies at the base of this stream of thought is the principle of the machine that makes reductionism and analysis possible. The entire world is perceived as sets of opposites: the part and the whole, the flesh and the spirit, science and art, good and evil, life and death, humanity and nature, and finally intellect and feeling. The principle of majority rule, one of the basic tenets of democracy, is also a dualistic choice between yes and no. The most advanced technology of dualism is the computer. The principle by which thought can be simulated through the repeated choice between 1 and 0 at superhuman speeds must surely be the apogee of the fruits of dualism. In this dualistic world, ambiguous existences, vague zones and multivalent zones are rejected. Contradictory elements, the symbiosis of opposing existences and mixed states have been treated as chaotic or irrational.

The architecture and arts of the age of the machine have employed analysis, structuring and organisation to achieve a universal synthesis. This closely resembles the process of creating a machine, in which parts are assembled to perform a certain function. Ambiguity, the intervention of foreign elements, accident and multivalent elements cannot be permitted in a machine. Instructions must not be literary or poetic, they must be denotation. Indeed introduction, connection, clarification and co-ordination are important. The finished products are precisely defined, syntagmatic; in other words, linear connections are the norm.

Schools must be school-like, hospitals like hospitals, offices like offices and homes like homes. But is there really any objective standard for a school that defines what is school like? In fact, the differences among hospitals – hospitals for the aged, psychiatric hospitals, emergency facilities, examination and diagnostic facilities – may be more marked than the difference between a hospital and a school. In the real world, there is no abstract 'humanity' with a capital 'H', humanity includes men, women, adults, children, Mr A and Mrs B.

The twentieth-century age of Modernism, is wrestling with these many contradictions as it nears its end. The fact that the end of the age of the machine is approaching simultaneously with the end of Eurocentrism, of Logoscentrism, and of industrial society, has aroused unrest throughout the world. Will the curtain on the twenty-first century be raised by revolutions in all of these realms? Will the new age begin with the rejection of all of the machine, the age of the European spirit? I don't think so. The new century will carry with it the burden of the previous century, which will exist in symbiosis with a new philosophy, a new technology.

The Architecture of the Age of Life
In contrast to the age of the machine, I call the twenty-first
century the age of life. As I said earlier, my work over those thirty-three years has consistently raised a challenge to the age of the machine and heralded the arrival of architecture of the age of life. I founded the Metabolism movement in 1959. I consciously selected the terms and key concepts of metabolism and metamorphosis because they were the vocabulary of life principles.

Machines do not grow, change, or metabolise of their own accord. 'Metabolism' was indeed an excellent choice for a key word to announce the beginning of the age of life.

The astonishing plurality of life stands in sharp contrast to machine-age concepts such as homogeneity and universality. As a result of the combination of individual cells and the genetic information transmitted by the spiral configurations of DNA, each individual life is unique.

We are now questioning Darwin's theory of evolution. We must challenge the claim that the human species exists at the peak of an evolutionary climb and that the economic prosperity and technological culture fashioned by our reason may rightly serve as the means of natural selection for other living beings. Labelling stages of development, such as undeveloped nations, semi-developed nations and developed nations, represents a notion of progress that is similar to Darwin's theory of evolution. As I mentioned previously, the American economist Rostow's theory of stages of economic development was supported by the concept of progress in the age of the machine. The economic and technological advancements of this age, when universality prevailed, are now the subjects of intense reflection and revision.

In the age of life, it is the very plurality of life that possesses a superior and rich value. The rising interest in the environment and the new importance given to ecology aim at preserving the diversity of life.

Life is the creation of meaning. The life of the individual and the diversity each species possesses is linked to the diversity of all of the various human cultures, languages, traditions and arts that exist on the earth. In the coming age, the machine-age ideal of universality will be exchanged for a symbiosis of different cultures.

A new response to diversity is being demanded of the economic and technological sectors of society as well. We must make the creation of a new multipurpose culture, of a symbiosis of heterogeneous cultures, the goal of our economies and technologies. We must move from an age of economic assistance offered by the developed countries to the developing countries, and of the forced introduction of the cultures of the advanced nations to the 'less developed nations' to aid aimed at the creation of a 'developing'. The idea of technology transfer, too, is another manifestation of the domination of the advanced countries, an extension of the 'universalism' of the age of the machine. In the age of life it will be necessary to transform the technologies of the advanced nations and discover ways for them to exist in symbiosis historically existing traditional technologies of other regions. Instead of nuclear fission and fusion reactors becoming universal power sources, technology will have to be adapted in ways appropriate to each region.

In India, even today, dried cow dung supplies most of the energy for cooking fires. The Indians regard cows as sacred beasts, and the use of cow dung for fuel is an inseparable part of Indian culture and life. As Indian energy policy, would it not be best to combine the use of atomic energy, hydroelectric power, and cow dung in the most efficient combination? This type of transformation of technology so that it exists in symbiosis with the traditional technologies and culture is necessary. Such multifaceted responses from the economy and form technology are what we must expect in the age of life.

The intercultural architecture that I advocate is the architecture of this type of the age of life. Intercultural architecture is a hybrid architecture, in which elements of different cultures exist in symbiosis, an architecture that exists in symbiosis with the environment through the symbiosis of
tradition and the most advanced technology. Eisenman's concept of 'softness' is intriguing in this context. If the architecture of the age of the machine expressed function, the architecture of the age of life expresses meaning. The plurality of life is the plurality of genes. Differences are precisely the proof of life's existence; and it is these differences which create meaning.

The operation of the human organism is fundamentally the same for each individual, despite minor differences in capabilities. But the exterior of the body – in other words, our external appearance – is autonomous with these operations. All the feelings that we experience – love, passion, trust, friendship, refinement, dignity, hate, like and dislike – are greatly influenced by external attributions such as appearances, skin colour (white, black, brown or yellow), baldness, height and many other physical traits.

The age of the machine had come into existence with the background of the industrial society while the age of life was brought in with the background of the informationalised society.

In Japan, non-manufacturing industries already account for more than seventy per cent of the GNP. Such non-manufacturing industries as banking, broadcasting, publishing, computer software research, education, design, art, and the service and distribution sectors do not produce goods per se; they produce added value.

Information society and the information industries are based on the production of distinctions and of meaning. People buy clothes based on the added value of their design. A fair percentage of the pianos manufactured are never played; they sit in the living room, keyboards untouched. Such pianos are not purchased to express their function as musical instruments but as symbols that communicate that the purchaser enjoys music, or has the wealth to buy a piano and put it in his living room. In industrial society, this phenomenon is regarded negatively. But in information society these untouched pianos have every reason to exist, since they produce a meaning of their own. This is what Baudrillard advocated of the simulacrum.

Post-modern architecture grasps acutely the transition from industrial society to informational society. The post-modern is now regarded with importance in the fields of physics, science, mathematics and philosophy. It is unfortunate that in architecture the post-modern has been defined in an extremely narrow fashion, as a particular historical style. If the age of the post-modern has gone back to the past age of the historicism, not proceeding into the age of civilisation, there will be no future for the post-modern architecture. The failure of post-modern architecture in this narrow sense also demonstrates that any attempt to return to the modern architecture of the age of the machine will also be without a future.

Just as the plurality of life is created by heredity, architecture acquires plurality through the inheritance of its historical tradition. This inheritance takes place on many levels, and there is no single common method by which it occurs. The Japanese style of architecture called Sukiyu employs a method in which historical forms are followed but new techniques and materials are introduced to produce gradual change. The Sukiyu architecture of Sen no Rikyu, Furuta Oribe, Kobori Enshu, and, in more recent times, Isoya Yoshida and Togo Murano are all examples of this method. My Sukiyu architecture, which I call Hanasuki, is another example of this symbiosis of past and present. In Europe, Palladio's architecture is, like Japan's Sukiyu, another example of the inheritance of tradition.

A second method of inheriting tradition is to dissect fragments of historical forms and place them freely throughout works of contemporary architecture, the method of recombining. Following this method, the meaning that the historical forms once held is lost, and in their recombination they acquire a new, multivalent significance. This method is
fundamentally different from that of recreating historical architecture.

Yet another method of inheriting the architectural past is to express the invisible ideas, aesthetics, lifestyles and historical mind-sets that lay behind historical symbols and forms. Following this method, the visible historical symbols and forms are manipulated intellectually, creating a mode of expression characterised by abstraction, irony, wit, twists, gaps, sophistication and metaphor. To read these historical mind-sets in the midst of contemporary architecture requires broad knowledge and a sharp sense of humour. Which method of inheriting the historical tradition is selected depends upon the situation in which the work is set. One important point of focus in the transformation from the age of the machine to the age of life is the conversion from standpoints of Eurocentrism and Logoscentrism to the symbiosis of different cultures and to ecology.

What Robert Venturi, the father of Post-Modernism, Michael Graves, and Arata Isozaki all have in common is that they not only lean too far in the direction of the historical, but their work exists as an extension of Eurocentrism. Nor should we ignore that all are subtly influenced by the inferiority complex towards Europe that is common to Japan and the United States alike.

The prejudices of the humanism which was born from Logoscentrism, by which human beings look down on all other forms of life, prescribe that human beings are not more than a part of the plurality of life on the planet; they are a separate form of existence. This means there is a close relationship between the age of life and the ecology. The architecture of the age of life will be an architecture open to regional contexts, urban contexts, and nature and the environment. It will move towards a symbiosis of nature and human beings, of the environment and architecture.

In the age of life, the movement will be from dualism to the philosophy of symbiosis. Symbiosis is essentially different from harmony, compromise, amalgamation, or eclecticism. Symbiosis is made possible by recognising reverence for the sacred zone between different cultures, opposing factors, different elements, between the extremes of dualistic opposition. The sacred zone of another's individuality, or a region's cultural tradition is an unknown region, though we respect that sacred zone. If our respective sacred zones are too all-encompassing, efforts must be made to achieve extended dialogue, mutual exchange, and to discover other positive contributing factors. The belief that all aspects of a particular people's lives are an inviolable sacred zone, an exclusive type of nationalism or a closed regionalism, is not conducive to achieving symbiosis.

The second condition necessary to achieve symbiosis is the presence of intermediary space. Intermediary space is important because it allows the two opposing elements of a dualism to abide by common rules, to reach a common understanding. I call this a tentative understanding. Intermediary space does not exist as a definite thing. It is extremely tentative and dynamic. The presence of intermediate space makes possible a vibrant symbiosis that incorporates opposition.

As the mutual penetration and mutual understanding of two opposing elements proceeds, the bounds of the intermediate space are always in motion. This process, because of the presence of intermediate space reveals the life principle itself, in all its ambivalence, multivalence and vagueness. Tolerance, the lack of clear cut boundaries, and the interpenetration of interior and exterior are special features of Japanese art, culture and architecture. The many essays I have written over three decades on such aspects of Japanese culture as: Ma (interval in time or space); Engawa (verandah); the concept of Senu bima, the moment of silence between thinking and acting as described by Zeami in his treatises on the Noh drama; street space; Rikyu grey; permeability equals transparency; lattices; and Hanasuki have all been attempts to pursue this idea of intermediary space. The Buddhist thought that
runs through the base of all Japanese culture is also a philosophy of symbiosis, with the result that there is a strong natural connection between the architecture of the age of life and Japanese culture. That is why my works have run on a parallel course, with the simultaneous pursuit of the principle of life and Japanese culture.

Intermediate space can occasionally act as a stimulus for metamorphosis. Metamorphosis is one of the special features of the life process. A larva is transformed into a butterfly, an egg into a bird, or a fish. There is no life principle more sudden or extreme. Architecturally speaking, gates, atriums, large-scale and other extraordinary spaces move people because they make them perceive some sort of leap into the extraordinary, a sudden drama that cannot be explained by the function of the space alone. Such intermediary spaces as street space, plazas, parks, waterfronts, street scenes, city walls, city gates, rivers, landmark towers and the urban infrastructures of highways and freeways play a role as stimuli that make possible the existence of individual buildings.

I think it is now clear why, in the thirty-three years since I began my architectural career in 1959, I have chosen metabolism, metamorphosis and symbiosis as key terms and concepts to express the principle of life.

Philosophies to support the establishment of an architecture of the age of life can indeed be found in the history of Western society, but in the face of the tradition of dualism and objective rationalism they are in the extremely small minority. Unlike Plato and Aristotle, who represent the mainstream of ancient Greek thought, Democritus, Critias and Epicurus taught an atomic naturalism of atoms in the world order. Leibniz, Spinoza and Wittgenstein expounded a natural science in which nature is inside us and possesses the power to create us. Heidegger advocated an ontology of a 'culture of hearing' as opposed to the mainstream Western 'culture of sight'. Merleau-Ponty posited an ambivalence of the human body as opposed to Descartes' mind-body dualism. Lévi- Strauss exposed the relativity of cultural values with his theory of structuralism. Deleuze and Guattari proposed the rhizome as a model for a new order of multiplicity and variety. Baudrillard spoke of autonomy of the facade and the death of the economy. Derrida advocated the deconstruction of Eurocentrism and Logocentrism. Julia Kristeva imagined a plural 'I' which she called a polylogue. The mathematician David Boehm discovered 'implicated order', which explains phenomena of the natural world previously thought to be random in terms of a non-linear analysis. Mandel invented a fractal geometry. Arthur Koestler conceived of the Holon, a symbiosis of part and whole. There was Prigogine's Dissipative Structure. Haken's Synergetics and Adorno's non-identity, which rejects the whole. Foucault urged the deconstruction of modern rationality and departure from the centre. Umberto Eco wrote the exciting The Name of the Rose and Foucault's Pendulum. Post-Webern serial music composers such as Stockhausen and Boulez, who recently died, made their contribution as well. While the philosophy and science of the age of the machine were based on axioms of a Bourbakian system, the philosophy, science, literature and music of the age of life will all be problematic, and linked to the philosophy of symbiosis that I have advocated these past three decades.

Not only science and philosophy but technology as well is facing a major transformation as the age of life dawns. While the technology of the machine age, of the age modern architecture was a visible technology represented by the steam engine and the automobile, the main players in the technology of the age of life will be communications, biotechnology, genetic engineering, and other invisible technologies. As opposed to the high-tech architecture of the age of the machine, created as a metaphor for the machine, the high-tech architecture of the age of life will be faced with the extremely difficult problem of expressing invisible technologies. The autonomy of the facade will allow for the birth of a
new symbolic architecture. The expression of technology will proceed on a parallel course with the autonomy of the facade in architecture of the age of life, while the spirit of the invisible technologies of the age of life will be abstractly or symbolically expressed.

My own architecture will continue to pursue the architecture of the age of life, based on the three key concepts of metabolism, metamorphosis and symbiosis.

SYMBIOSIS IN ECONOMY

It was towards the end of 1978, I remember, that I received a telephone call from my friend Lou Dorfsman, a graphic designer and vice-president of CBS. 'Would you agree to be the chairman of the 1979 Aspen International Design Conference?' he asked.

Aspen, Colorado was originally a silver-mining town, and after the mines were closed, it was redeveloped as a resort. Three famous events are held each year in Aspen: the Aspen Music Festival, the Seminar of the Aspen Research Institute and the Aspen International Design Conference.

The Aspen International Design Conference is not only a meeting of architects and designers; philosophers, business people, government officials, and political figures also participate. This extremely unique conference is held each summer in Aspen.

Six months later, the busy days of preparing for the up-and-coming conference were upon me. I also had devised, by this time, a secret plan of my own. It was to make several of the aspects of Japanese culture, that were usually identified as unique, the themes of the discussion. Among the aspects of life that the Japanese believe are unique to Japan, there are some that are very well understood by the American people, and, on the other hand, aspects that Americans think are precisely the same as their own culture but are, in fact, quite different. Even if there were truly unique aspects of Japanese culture, I thought that by discussing them from a common point of view they would be transformed from an incomprehensible uniqueness to a uniqueness that can be understood for what it is.

After discussing my ideas with Lou Dorfsman, I decided to