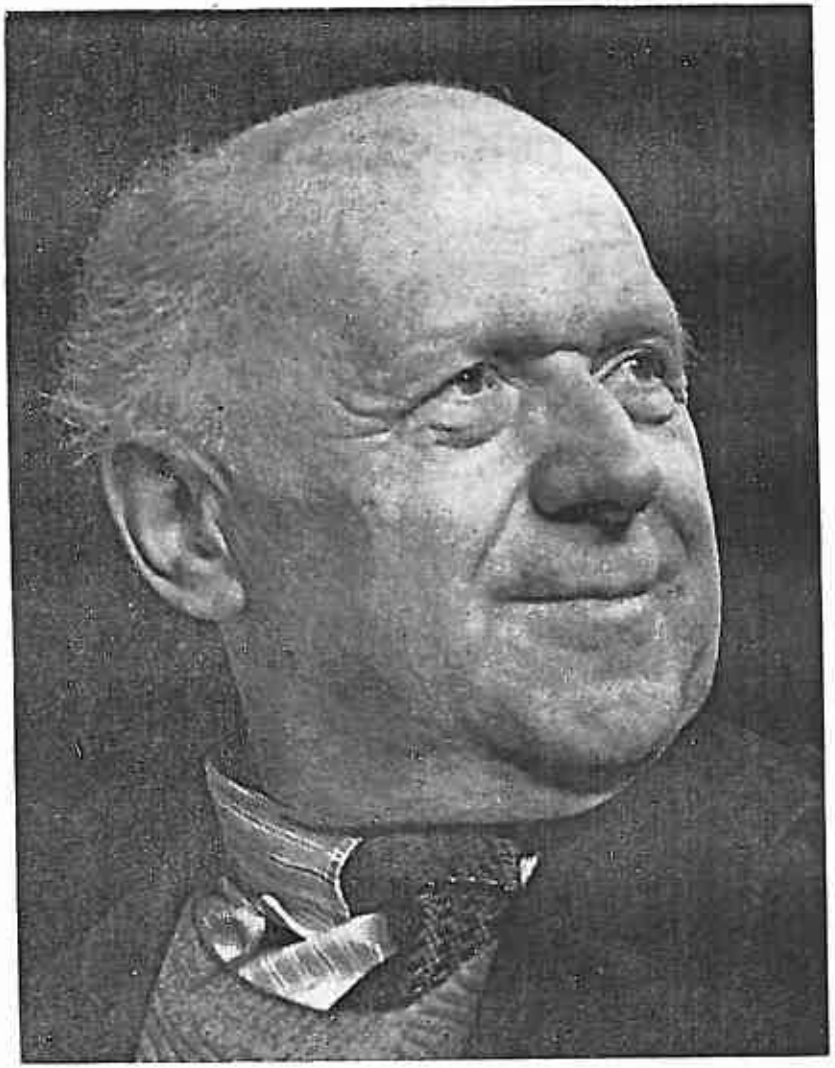

Otto Neurath on December 21, 1945.

OTTO NEURATH

EMPIRICISM AND SOCIOLOGY

Edited by

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With a Selection of Biographical and Autobiographical Sketches

D. REIDEL PUBLISHING COMPANY
DORDRECHT-HOLLAND / BOSTON-U.S.A.

CHAPTER 6

ANTI-SPENGLER[1]

Dedicated to the young and the future they shape

The Joy of the Fishes

Chuang-Tse and Hui-Tse were standing on the
bridge leading over the Hao.
Chuang-Tse said: "Look, how the fishes flick
about. That is the joy of the fishes."
"You are not a fish", said Hui-Tse, "how can
you know of what the joy of the fishes consists?"
"You are not me", replied Chuang-Tse, "how can
you know that I do not know of what consists the
joy of the fishes?"
"I am not you", confirmed Hui-Tse, "and cannot
know you. But this I know, that you are no fish;
so you cannot know the fishes."
Chuang-Tse replied: "Let us go back to your
question. You ask me: 'how can you know of what the
joy of the fishes consists?' After all, you did know
that I know, and still asked. I know it from my own
joy in the water."

From *Speeches and Parables of Chuang-Tse*

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1. Rejection of Spengler

The wish to found action on perfect insight means to nip it in the bud. Politics are action, always built on inadequate survey. But a world-view,

too, is action; embracing the manifold universe is an anticipation of unpredictable efforts. In the end all our thinking depends on such inadequacies. We must advance, even without certainty! The only question is whether we are aware of it or not.

Our pseudo-rationalists dare not face this fact. Frivolity! they cry, when it is found that even with the most developed insight more than one way remains open for important decisions and that casting lots can thus become meaningful. They will not admit, precisely when some great task is to be undertaken, that insight becomes awareness of its own limits. Insofar as kind and size of given conditions are hidden, lack of knowledge alone leaves open a multiplicity of possibilities; but even the fullest clarity reveals many goals of which only one can determine our actions. And so the pseudo-rationalists press reason until it shows only one. They put unambiguous sham insight, painfully reached or grasped in a facile manner, in place of augury and entrail-watching, which truly did more justice to human inadequacy and spiritual anguish. These last were based on God; without such a higher power and with full consciousness of imperfect insight, to act with force and coherence is a difficult task.

Whoever attempts this task is disinclined to overestimate insight in any way, as if it were to give wings to our action. As a man he comes to terms with the fact that comprehensive goals are deliberately defended on insufficient grounds, and indeed they must be so. He abhors self-deception about this. Can whole peoples adopt this attitude, like that lost wayfarer of whom Descartes speaks? Surrounded by dense forest without signposts and having vainly consulted reason, he chooses one direction which he follows unswervingly, because that is the only conceivable salvation. Or will peoples forever resemble the other lost wayfarer, who first advances in one direction, then returns to push forward in another, thereby losing time and strength? Once severed from faith and tradition which restricted possibilities from the start and gave extra-personal arguments to those who still wavered, must people fall victim to the eternal antitheses that insight alone cannot banish? To every well-founded theory today there are equally well-founded counter-theories. The necessary unity in action is undermined if insight by itself is to bring the final decision. Thus striving for clear and conscious mastery of life can lead to decline instead of to a new level of existence.

The burden of the ultimate decision may of course devolve upon individuals, on the leaders. They must decide between equally sensible possibilities, before they appear before the crowd. The approval of those who join their efforts, relying at first on feelings and insight, must in the end be based on confidence in the man who proclaims a goal and, with his companions, wants to build one reality. Confidence cannot be intellectualized. Of this, pseudo-rationalists are unaware: leaders and prophets have to appear with the guise of knowledge; forebodings, suppositions and demands have to appear as the results of conclusive proofs. Is it any wonder if those from prophetic schools stammer in an ambiguous tongue and raise heaps of pseudo-reasons, instead of revealing anything? Only a prophet can stand against a prophet, and history unmasks the false one; but whoever tries to convince by means of proofs, submits to the rules and the judgment of science.

Dion of Prusa cried woe over his epoch and compared Athens with the funeral pyre of Patroclus, which was merely waiting for the flames to light it; H. G. Wells, now in the style of past experience, now in grotesque exaggeration, painted pictures of our future; but Oswald Spengler, instructively diagnosing, conjures the traditional force of insight, instead of confronting men as a poet and visionary. Through method and proof he wants to compel our approval, wanting systematically to 'predetermine' history, to 'calculate' the future of the Occident and to settle from the outset what we might still successfully tackle in the way of art and science, technology and politics, in times to come. Urgent necessity may compel us to choose an insufficiently founded image of the future as the basis for our actions. Perhaps our pedagogy, our constitution, our law must express whether we are reckoning on 'decline' or on another forward step in our development. But let there be no mistake: a decision is no proof. One who as prophet, or as his pupil, steadily supports a prophecy may show the accuracy of his prophecy by influencing reality: the prophecy becomes the cause of its own realisation. But this has nothing to do with 'calculations' or 'proofs'. Spengler, in his attempt to calculate and prove everything, contradicts not only the nature of prophecy but even some of his own views concerning the problem! "Nature is to be handled scientifically, History poetically. Everything else is an impure solution." [96][2] Is his work poetry? No. Then what? In Spengler's own verdict: an impure solution.

From the start a work on the future of mankind is not subject to the criteria for specialized studies. Most questionable assumptions, bold fillings of gaps, even certain adequately founded changes in solidly coherent scientific doctrines, must on occasion be admitted, if a total structure is not to be prevented. Where several constructions are equally possible, human limitations can often carry out only one. Even in its singleness it is likely to be welcomed and thankfully, just as a picturesquely captivating description would as a substitute for a strict proof, a comprehensive picture instead of scattered unlinked isolated pieces. But step by step we demand a clearly recognisable character from such an account; we want to know where we deal with assumptions, where with thorough proof, whether the asserted facts are really secure, what is mere filling of gaps, what is a well-founded result of specialized and mature research.

In his discussions of principle concerning his method, Spengler seeks to attribute highest probative force to what often are unclear accounts and which moreover are internally inconsistent. Where a prophet or a leader might describe a future or a goal, Spengler must furnish this result with hastily carpentered methods and force the reader into submission, even if the complex interlinked web of our entire knowledge were torn to shreds in the process. Those who do not go along with this are dubbed devoid of understanding, in the well-tried manner. As in Andersen's fairy tale of the emperor's clothes, many will pretend to see splendid garments and heroic stature where nothing tangible exists.

It is not the individual wrong results, the wrong facts, the wrong proofs, that make Spengler's book so dangerous, but above all his method of conducting proofs, and his reflections on proof as such. Against this one must defend oneself. Anyone who wants to shape a happier future with hope and striving should know that none of Spengler's 'proofs' is enough to prevent him; and whoever wishes to come to terms with the idea of 'decline' should know that he does so on the basis of a resolution, and not a proof!

Few books make such great demands on the devoted confidence of the reader. Who can check all fields that Spengler touches on, especially since there are no references to sources? Yet there are many crude errors that can be corrected merely from reference works, errors that carry imposing chains of proofs. This sort of thing is not justified by the magnitude of the task. Old and established knowledge, well familiar to experts, is pre-

sented as world-shaking novelties of Spenglerian make but this everyone may judge according to taste! On what height does Spengler imagine he is when he dares utter statements like this: "I ask myself, when I pick up the book of a modern thinker, what – except for professorial or windy political party speeches on the level of an average journalist, as is found in Guyau, Bergson, Spencer, Dühring, Eucken – does he even suspect of real world politics, of the great problems of metropolitan cities, of capitalism, the future of the state, of the relation of technology to civilisation, of the Russian question, of the sciences?" Even the less informed reader can see through such immoderate pretensions; but not everyone sees so quickly the constant deprecatory remarks about historical and other research, nor the technique by which Spengler plays off one thinker against another while making exaggerated statements even more outrageous.

But all these objections should not delude us: Spengler has indeed succeeded in sketching a structure that encompasses the whole of mankind, in which aspects of knowledge coming from the most varied directions are united – unsatisfactorily, full of inconsistencies, often in senseless distortions, but still according to certain leading ideas. It is conceivable that some ideas in this book will give valuable stimuli; they certainly do stimulate by provocative contradiction that leads to self-examination; but this must not blunt our sense of the unheard of violence done to thought by this book. Against the dissolving influences on thought even those who may agree with certain views must protect themselves.

The book satisfies a strong contemporary yearning for a complete world view. Is it mere accident that this wish is satisfied in such an inadequate, uncritical, pretentious and disruptive manner? In the long run blame will not help, only doing better will. It would be tragic if those who could build such a structure more solidly were in fact to be inhibited by their more critical and circumspect ways from creating a work that presupposes a carefree striving forward and an acceptance of necessary imperfections.

Ever more frequently the exaggerated specialisation of recent decades takes vengeance in a conscious turning away from a total world view. As though it were not from the whole alone that individual research ultimately derives its stimulus and goal! The special sciences require a world picture, otherwise they become victims of scepticism or recklessness, which Spengler's work links into a quaint communion.

Many feel liberated by Spengler. We want to liberate *from* Spengler, from that kind of mind which, tempting and violating, clarity of judgment and precision of reasoning, and distorts feelings destroys and observations.

2. Phases of Culture

2.1. *Spengler's Doctrine*

"In this book for the first time, an attempt is made to predict history (p. 3). *Cultures are organisms.* Cultural history is biography (p. 152). We should have recognised long ago that the development in 'antiquity' is a perfect counterpart to our own in western Europe. We should have found an *alter ego* for our own reality, and indeed point for point: the Trojan war and the Crusades, Homer and the Nibelungen saga, Doric and Gothic, Dionysian movement and Renaissance, Polycletus and Bach, Athens and Paris, Aristotle and Kant, Alexander and Napoleon, up to the stage of world cities and imperialism in both cultures (p. 37). Civilisation is the ultimate and most artificial stage a higher kind of man can attain. It is final (p.44). We are beginning to see that the phenomenon of the 19th and 20th centuries is characteristic of any finally matured culture, that the future of the West is strictly limited in form and duration, an unavoidable definite phenomenon in history, which can be foreseen and calculated in its main aspects from known examples (p. 55). Up to now, there has been no specifically historical theory of knowledge. It has not previously been realized that, in addition to the necessity of cause and effect – I wish to call it the *logic of space* – there is another organic necessity of fate – the *logic of time*; a fact of deep inner certainty, and the essence and kernel of all history, (in contrast with nature), which has so far not reached the stage of intellectual formulation (p. 9). I am reminded of Goethe: what he has called living nature is precisely what is here called world history in its widest sense, the world as history. Empathy, contemplation, comparison, immediate inner certainty, exact sensuous imagination – these were his ways to get at the secrets of ever-changing appearances. In the way he followed the development of plant forms from the leaf, the evolution of the vertebrates, the growing of geological layers, so we shall here develop the formal language of human history and its periodical structure" (p. 36).

This is how Spengler characterises his theory of the phases of culture. Are his proofs sound and adequate?

2.2. *Culture* [slightly shortened – Ed.]

Spengler embarks on his daring comparative study of history with greater self-assurance than his forerunners. The first step in this kind of approach was made when similarities were noticed between peoples that were apart in space and time; the next, when certain recurring sequences were observed: it was found that commerce and trade had followed farming and stockraising, and that these had followed hunting and fishing. Science and scepticism have grown out of metaphysics, and metaphysics from myths. Generalisations were made. Many scholars found other phase sequences. The history of economics, of art and other branches of research provided much stimulation; one spoke of a baroque, comparable to ours, in Hellenism, and of medieval, renaissance, baroque and rococo stages in Japanese art. But it was hardly realized how great the difference is between ingenious remarks and systematic parallels, and strict definitions of phases and styles were often neglected.

To start with, traditionally formed sub-groups were used – art, religion, science, family life, government, politics, technology – and studied separately in their development. Language, weapons, cults were found far away from their creators, cultivated by other tribes; they had something like an existence of their own, independent of their 'hosts'.

The sub-groups of human creation, linked together and also linked with the feelings and attitudes that they express, are often called 'culture'. Not all of those who use this term assume that a culture is tied to a definite human group or to a definite area.

Cultures, as well as the single forms of creation, are given a kind of independent life by certain authors; L. Frobenius, for example, prepared Spengler's views in the field of anthropology. In his *Origin of Culture* (1898) he says: "I maintain that every culture develops like a living organism, lives through birth, childhood, manhood, old age, and dies. It is ruled by laws of growth.... In my investigations of culture I focus my attention on morphology, comparative anatomy and physiology."

Culture can be conceived as an organism, just as a society, a people, a state can be conceived as an organism. However, it should be clearly stated what 'organism' means in this context, which of its characteristics

are used and why. But neither Frobenius nor Spengler do this, nor do any of the others.

The concept 'culture' is used as if it were sufficiently clear. But is there anything at all that can be so defined? Perhaps languages, religions, technologies, scientific theories, costumes, feelings, etc., are spread over the earth like a loose cover, parts of which may be shifted about, only here and there more closely linked.... What does it mean if one speaks of 'the same culture' for a long stretch of time? Certain attributes have disappeared, new ones have appeared, the structure has changed. Does it make sense to speak of the same knife if we first replace the blade by a kettle and then the handle by a tripod?

Groups of people, formerly apart, may merge together, new groups may break off, contacts with distant peoples may be established in various ways. All this may have happened so long ago that it does not matter for historical investigations of Egyptian, Chinese or Negro cultures whether there was a primordial culture of humankind that could be connected with the theory of descent of man from a single stock, or whether they are mixtures that can undergo changes, suffer separation and dissolution. Strong relationships in feelings may point to a common origin but may also have been reached independently; there may have been earlier stages of common experiences, and mutual understanding may be a kind of recognition.

At times, research has stressed similarities, at times, differences; the adoption of foreign feelings and expressions, or independent novel creation. On the one hand, scholars tried to show connections: between Egyptian and Aztec, white Mediterranean and Japanese, Malaysian and Negro, Japanese and Malaysian, Atlantic Negro and Roman, Greek and Egyptian; on the other hand, scholars stressed the cleavages: 'cultures' grew up apart, on the Nile, on the Euphrates, on the Indus, lonely, shaped by their special environment, in the way of 'organisms'.

The endeavor carefully to characterise expressions and feelings as they are found at certain places and at certain times, before stating co-ordinations and giving wide surveys, is almost non-existent. Not only cultural history but also the history of art and other branches suffer from this. It cannot be denied that an aim is required in research; but the clarification of concepts should have an influence at an early stage.

Perhaps such clarification would lead to hundreds or thousands of

cultures instead of ten or twenty, a multiplicity like that of the chemical compounds? Perhaps, however, the theory of a few cultures may be confirmed – instead of being an anticipation as it is, at best, today.

The word 'culture' is emotionally loaded, and as ambiguous and vague as the word 'capital'.... Sometimes it denotes human creation in particular contrast to animal creations (song of the nightingale, constructions of the beavers, wedding buildings of the bower birds, keeping of aphids by the ants), because of man's ability in coordination and tradition; sometimes 'cultured' people are put against 'primitive' peoples, or the stage of 'culture' is put against the stage of 'civilisation'. According to Spengler (who, like H. S. Chamberlain, separates culture from civilisation) the culture of the West lasted from 900 to 1800, that of classical antiquity from 1100 B.C. to 350 B.C. Here, Spengler's 'culture' stands for a certain phase within a sequence. More of this later.

For Spengler, 'culture' can exist only in groups which are smaller than mankind. Mankind is incapable of culture. In vain we look for a proof of this claim. Spengler has decreed: "Mankind has no aim, no idea, no plan, in the same way as the species of butterflies, or that of orchids has no plan. 'Mankind' is an empty word. Remove this phantom from problems of historical form, and you will gain a surprising wealth of real forms. I see the phenomenon of a multiplicity of cultures, each of which has its own idea, its own death. There are budding cultures and aging cultures, but there is no aging mankind" (p. 28, 29). Why should there not be a culture of mankind, to be followed by a civilisation of mankind, perhaps ending in universal suicide from disgust of existence? Perhaps a new Spengler will soon knock at the door who, from comparative studies of the fates of various species, will pronounce in which millennium the predestined span of life of mankind will come to an end!

2.3. *Phase Sequences* [slightly shortened – Ed.]

To understand the unclarities in the concept of culture, let see us how phase sequences have been defined and compared. Basic concepts will have to be clarified; but some essential progress can be made in this field even before that.

Spengler claims that any form of existence which he calls culture manifests itself in sequences of phases with corresponding stages. Like many

other authors, he claims that the same phases occur more than once, and that they are linked to equal preceding and following phases.

Goethe tells in his *Autobiography* how his contemporaries were stimulated by the discovery that the Homeric heroes and their dealings could be better understood from the life of the nomadic Arabs, though great differences were also mentioned. Should any phase with a specific economic system correspond to any other with the same system? Or must there be additional characteristics, perhaps a specific social system? Often it is assumed that sequences of phases in science, art and family systems, though discovered independently, show a similar course (Müller-Lyer).

The concept 'equal phase' is used rather loosely however and is therefore vague; for example, with some tribes, stockraising, with others, farming is the phase that succeeds hunting. To call such phases equal is justified by pointing out that certain earlier and then again later phases, do correspond. It would help our understanding if several typical sequences of phases were shown which share certain characteristics only. Objects like types of houses, marriage arrangements, etc. can easily be defined, but types of poetry are much more evasive. There is a wide scope for arbitrary procedure if it has to be decided whether the poetry of a certain people corresponds more to the Edda or the Nibelungen saga, since characteristics of the most varied kind can be used. For a really useful theory of phases, characteristics are needed which are as precise as possible; but these cannot be found in Spengler's writings.

We must admit that there are more parallel sequences than mere coincidence would allow, if we restrict ourselves only to general similarities. To show such similarities and to establish connections is certainly useful but only if at the same time the differences are not overlooked....

Spengler claims that each sequence of phases is of the same structure, without any qualification, and maintains that phases occur in a definite manner, whatever else the conditions of the world may be.

Such an independence of cultures from all possible changes of the world in general can hardly be accepted. The courses of the planets depend on events in the universe; how a tree grows or is stunted cannot be found from phases of growth alone; from such phases we can only know which possibilities have to be taken into account.

At best one can speak of phase sequences under certain conditions. Spengler wavers; at certain decisive passages he declares phase sequences

to be fully unambiguous and definite in all details; at other passages he hints at the idea of a kind of standard sequence, i.e. with deviations from a mean or average in those phase sequences that are found in experience. But what the conditions for such a standard sequence are is nowhere mentioned.

If from a preceding phase a certain phase can be deduced, it does not follow that there will be a definite succeeding phase. The question is whether any new stages will be reached, when and where they will appear; new forms may appear, unknown before; certain phases may stay on....

Spengler's method excludes the appearance of anything new. Had he started from the knowledge of the phase sequences in the area of the Negroes and claimed the same phase sequences in Central Europe he would have been badly mistaken; we know that Central Europe has had more phases than the Negroes have.

A comparative approach fails where new formations appear. It is difficult to anticipate a future order of human life, its feelings and their changes. We must be grateful if men like Rathenau point to any new possibilities at all....

The question whether the future will bring new forms must remain unanswered. Müller-Lyer believed that we have gone beyond the phases of classical antiquity since the 18th century. As he saw it, in the way that Greeks and Romans lived through more phases than the Mayas, Egyptians and Chinese, we would live through further new phases in the future. According to Breysig we have not yet gone through more phases than antiquity, but whether we might do so in the future, he leaves undecided. There is no indicator for a termination of a phase sequence, and Spengler does not offer any hypothesis for this; this does not prevent him, however, from uttering very definite opinions about just such a point.

Whereas Spengler stresses frequently and with emphasis that 'form and duration' of all phases are finally determined and limited, he occasionally hints at a different view: that a dead culture can continue for an indefinite period: "I teach of imperialism that it leaves petrified empires behind, such as the Egyptian, Chinese, Roman, the Indian world, the world of Islam, which remain stagnant for centuries or millennia and can be transferred from one conqueror to the next, dead bodies, amorphous masses of soulless people, exhausted by great history – imperialism as a typical symbol of termination" (p. 52).

All Spengler's phases would, therefore, be limited in time except the last one. Spengler knows that the first stage of our 'civilisation', 'Money, economic complexes, dissolving forms of the state, socialism and imperialism', lasts from 1800 to 2000, that the second stage 'Caesarism, growing naturalism of political form, decay of organisms of people into amorphous masses of men, their absorption into an empire of gradually returning primitive despotic character' lasts from 2000 to 2200 – why? Because the eighteenth dynasty in Egypt lasted from 1580 to 1340 B.C., and the period from Sulla to Domitian from 100 B.C. to A.D. 100. Whereas, however, the last stage of Egyptian and Graeco-Roman civilisations lasted about 200 years, ours would be of indefinite duration.... Somewhere else Spengler declares that "the future of the West is a singular phenomenon of a few centuries' duration," (p. 55). What should be made of such contradictions?

If one starts to sketch some parallels within phases one has to find the beginnings and end-points of the phases, and then detect two events of equal position within a phase. Spengler simply declares: "I call two historical facts contemporary if, each in its own culture, they happen in exactly the same relative position and therefore have precisely corresponding significance. Polygnot and Rembrandt, Polycletus and Bach are contemporary. In all cultures at the same time, the moment appears when culture is transformed into civilisation. In antiquity this epoch bears the names of Phillip and Alexander, in the West, of the French Revolution and Napoleon. The fourth century with Alexander is the exact counterpart of the time from 1750 to 1850, in which with deep logic the *contrat social*, Robespierre, Napoleon, popular armies and socialism followed each other, while in the background Rome and Prussia prepared themselves for their world role. If we proceed another hundred years, the correspondence of two 'contemporary' epochs is repeated. One carries the name of Hannibal, the other 'world war'. That in the one case a man who was not part of ancient culture interfered decisively (but this is also the case of Russia in its relation to Europe) is accidental. With the battle of Zama the center of gravity moves from Hellenism to Rome. The corresponding meaning of the epoch in the West in which we live will be explained later." Leaving aside Spengler's dream of 1917 that Prussia's role corresponds to Rome's (to which the center of gravity moves), let us turn to the principle of the whole parallelism. Everything depends upon the

decision whether Greek and Roman development is considered to be one, as by Spengler, or to comprise two separate developments with a phase difference of 200 to 300 years, as by Breysig, Müller-Lyer and others. In the latter conception the age of Alexander in Greece corresponds to the age of Caesar in Rome. Spengler does not hesitate to throw the two together. Without giving any reason he attaches Rome from the third century B.C. to Greece; up to that time no Roman dates are mentioned, only Greek. In this way Caesar and Alexander fall into successive phases in the same sequence. The question of a shifting of phases within Greece, between Athens, Sparta, Macedonia or within the West between Italy, France, Germany and England, deserves serious consideration if one wishes to point out exact correspondences, not only certain general parallelisms.

What boundaries Spengler gives to his cultural areas remains dark. Sometimes he makes a start toward cultural geography and lets cultures burst into flower "with primeval force (!) from the womb of a motherly landscape to which each of them is firmly bound during their total duration" (p. 29). He declares solemnly: "Today we think in continents" (p. 30) without attempting to do so. A logical explanation for such behaviour cannot be found; we cannot help turning to a psychological one.

More than once we pointed out that Spengler tends to exaggerate; where a certain relationship under certain conditions can be stated, he sees "exact congruity". He also sees chronological regularities everywhere. Without any inhibitions he declares: "Every culture, each of its phases, has a definite, ever equal duration, always recurring with the emphasis of a symbol" (p. 160). Of the "mysterious relationships" of this kind, some are mentioned: "What does the fifty-year period mean in the rhythm of political, spiritual, artistic development in all countries? I only mention here the interval between the three Punic wars, the sequence of the Spanish wars of succession which can only be understood rhythmically, the wars of Frederick the Great, Napoleon, Bismarck and the (first) world war. What is the meaning of the 300-year periods of Gothic, Baroque, of Doric, Ionic, of the great mathematics, of Attic sculpture, of mosaics, of counterpoint, of Galilean mechanics? What does the ideal length of life of each culture, one millennium, mean in comparison with that of an individual whose life spans seventy years?"

What it means is that the author can pick out a few suitable dates from

thousands, neglecting others, for example the Arab development. Further it means that the author decides what should be considered as *one* phase; for example, he lets Gothic art start with A.D. 900, against general usage. Beginning and end of Gothic and Baroque are rather vague, and beginning and end of Doric and Ionic too (which as art styles in their usual meaning are in fact mainly side by side and only in a limited sense successive), so it is not too difficult to construct something of a duration of about 1000 years. But concerning the 300-year period mentioned above, look at Spengler's own table:

Doric time 1110–650 B.C. (460 years)
Ionic time 650–350 B.C. (300 years)
Gothic time A.D. 900–1500 (600 years)
Baroque time 1500–1800 (300 years)

Spengler's structures are brittle and shaky wherever we touch them. The only attempt at a systematic survey, in which he puts three tables of contemporary epochs in spiritual matters, in art, and in politics side by side, almost looks as if confusion was intended. Not only is the selection of cultures different for the three tables, but also the sub-divisions of epochs are not the same, and co-ordination is not always easy; even numberings differ. There are discrepancies everywhere, even in the names of the various periods....

The characterisation of the individual phases is unsurpassably vague, and even so the desired result does not always emerge. Marx is put under 'materialistic world-view', but socialism in the following section under 'ethical and social ideals of life';... an earlier group of mathematical thinkers, labelled 'culmination and purification', contains Lagrange, and a later, 'internal perfection and conclusion', Gauss: why?... What sort of guidance does Spengler give us when he puts the Minoan-Mycenean time under 'chaos of primitive art forms, mystic lines, symbolism and attempts at naive imitation'; any glance into a textbook would show him the stages of Minoan developments. Are slogans like 'completion of an early formal language, exhaustion of possibilities' for the time from Giotto to Donatello, from van Eyck to Holbein, sufficient for classification? and 'the great creative artist appears' for the time from Titian to Rembrandt? He goes on in this vague way. And there are people who let their decisions be influenced by this!

No reason is given why Indian, Egyptian and Arabic cultures are only occasionally mentioned. Perhaps the comparative treatment would have been disturbed. Spengler writes about the development of the Arab state: "The Arab soul has been denied its flourishing, a young tree stunted in its growth.... This explains the fantastic violence with which the Arabic culture, once liberated by Islam, exploded in all those countries which have actually belonged to it for centuries, the sign of a soul who realizes that no time must be lost, who fears old age before having enjoyed youth. This liberation of the magic of humanity is without its equal."[!]. For an explosion like this there are in fact examples in experience, but what about Spengler's doctrine of a development, biographically predestined, independent of all other events?....

The Arab example destroys Spengler's claim of parallelism. If once the soul of a culture has been deprived of its flourishing, if once an ideal has not developed but was only foreshadowed, if once liberation and explosion was possible – why not again? Those characteristics that Spengler claims to be inevitable and lawful are not characteristics of historically given cultures, but of his own idealized constructions. With this failure of parallelism and this unargued claim for uniqueness, the main tendency of the book falls down. And if the Arabic culture could be without an equal, why cannot our own?

2.4. *Morphology* [slightly shortened – Ed.]

For our actions we need predictions about future developments of culture. What we know is indefinite. Spengler recommends his new method of comparison which, he says, carries an unusual force of proof (p. 6). It could, he says, be the basis of a new 'morphology of world history'. "Culture is the basic phenomenon of all past and future world history. Here speaks not analytical understanding, but immediate world feeling and contemplation (p.153). In biology 'homology of organs' means resemblance in type of structure (morphology), as distinct from analogy of organs which refers to resemblance in function. I introduce this concept into history (p. 162). In this book it will be shown what immense perspectives open up to the historical view as soon as this deep-going method has been grasped, developed and applied to historical phenomena. To mention a few homologous formations: Greek sculpture and northern instrumental music, Indian Buddhism and Roman Stoicism (Buddhism and Christianity are not even analogous). For us, Wagner summarises modernity. It follows that something that corresponds to Wagner must have existed as an ancient modernity. It was the art of Pergamon" (p.163). This is how Spengler describes his method. How morphological equality can be defined does not worry him much, nor how analogous parts can be recognised as such. His vague indications do not even seem to be applied sensibly. According to his explanations Greek sculpture and northern instrumental music might be analogous, but are called homologous by him. Nowhere is there indicated what the method might be to show something as analogous or homologous.... Collecting parallels is not a morphological method. But again and again he claims "that without exception [!] all great creations and forms of religion, art, politics, society, economy and science grow, flourish and fade out at the 'same' time in all [!] cultures; that the inner structure of any of the creations corresponds fully [!] to inner structure of all others; that there is not one [!] manifestation of deep physiognomic significance within the representation of one form of creation that would not have an exact counterpart in the other, i.e. of strictly [!] defined form at a strictly fixed [!] place" (p. 165).

Comparative morphology in the widest sense should be our tool! But do we know of any? Chemistry has, in its periodic system, parallelisms which remind us in many ways of those in history.... But Spengler would probably reject any suggestion to apply what we have learned in our thinking about chemical elements to our thinking about human groups. For him, the forming of phases is a matter of growth and life. Therefore his examples for comparison are only in the field of biology. His methods in world history are like comparative anatomy, he says. But comparative anatomy cannot even conclude that a certain bone, found in one vertebrate, must also be found in all others! And what about the comparison of the anatomy of insects with that of vertebrates? They don't correspond – and perhaps Egypt and the West are not any closer to each other than vertebrates and insects; they both have youth, manhood, old age, death?

Spengler likes to speak of 'exact' where there is occasionally something approximate.... In his craze for comparative anatomy he follows Goethe; but precisely from Goethe he should have learned to be more careful in claims for exact correspondence. [In his *First Draft of a General Introduction to Comparative Osteology etc.*, *VII.A* and *VII.D.*], Goethe says: "Nature is inconsistent in the bone systems, for there are additions and

omissions"... [he mentions examples of additional bones, the absence of collar-bones in many animals, the different numbers of vertebrae, teeth, and bones in feet, hands and fingers.] Why can there be a missing or additional bone in anatomy, but no missing or additional Caesar in history?

Spengler thinks that comparative anatomy reaches its summit with Goethe's discovery of the intermaxillary bone. He decrees: "Goethe's great discovery of the *os intermaxillare* alone outweighs all of Darwin's achievement" (p. 154). Darwin, of course, made similar discoveries in impressive numbers, and Darwinism owes its great force to the fact that certain not-so-obvious characteristics were introduced to observation by a comprehensive approach which may be right or wrong. But Spengler can be expected to impress many of his readers who worship Goethe and like to hear scathing remarks about the Darwinists.

What does Goethe's discovery mean? He has shown that the human skull contains all the bones which are found in the skulls of other vertebrates. If this were the only case where a bone seemed to be missing and was then discovered to be there, it might be of considerable importance. But Goethe himself knew of numerous cases in comparative anatomy where the numbers are not complete. Spengler should have informed his readers about this. But then his claim for parallelism would have been greatly weakened.

Modern research casts doubt on certain assumptions of parallel development, for example in embryos.... But Spengler has fallen in love with the alleged fundamental law of biogenetics. "With deepest necessity each individual existence repeats every single phase of the culture to which it belongs. In each of us the soul awakens at that moment when it had awakened in the whole culture. Each child in the West lives through his Gothic era, with its domes, castles, sagas, the *Dieu le veut* of the crusades, in day dreams and child's play" (p. 162/163). In this 'deepest necessity" – Spengler cannot do without stages even in necessity – he joins forces with other authors who attempt to apply the law of biogenetics to the post-embryonic development of the soul, and this can be stimulating to a certain degree. But then Spengler makes a strange remark: "When Goethe wrote the *Urfaust* he was Parzival. When he finished *Faust*, Part One, he was Hamlet. When he wrote Part Two, he became the man of the world of the nineteenth century who understood Byron. Goethe's

Faust, Part Two, and Wagner's *Parsifal*, give the secret away as to what the character of our souls will be in the next, the last centuries" (p. 162). If this is taken seriously, we should learn much from Wolfram von Eschenbach's[3] old age about the character of the soul in the seventeenth, eighteenth and nineteenth centuries.

A comparative theory of phases may usefully be applied in many fields. Parallel sequences are frequent: stones fall to the earth and rivers flow to the oceans in regular ways; a plant grows up, a man ages. But it is wrong to draw further parallels from the ones observed.

Let us caution all those who reject every historical parallel offhand; no less let us caution those who recommend parallels without qualification as having the power of proof, who make an idol of comparative morphology and phaseology and claim that it could guarantee the fullness of knowledge to its worshippers.

3. The Character of Culture

3.1. *Spengler's Doctrine*

"The term 'habit' (Habitus) is used of a plant to signify the special way, proper to itself, in which it manifests itself, i.e., the character, course and duration of its appearance in the light-world where we can see it. By its habit each kind is distinguished, in respect of each part and each phase of its existence, from all examples of other species. We may apply this useful notion of 'habit' in our physiognomic of the grand organisms and speak of the habit of the Indian, Egyptian or Classical Culture, history or spirituality. Some vague inkling of it has always, for that matter, underlain the notion of *style*, and we shall not be forcing but merely clearing and deepening that word if we speak of the religious, intellectual, political, social or economic style of a Culture. This 'habit' of existence in space, which covers in the case of the individual man action and thought and conduct and disposition, embraces in the case or the existence of whole Cultures the totality of life-expressions of the higher order. The choice of particular branches of art (e.g., the round and fresco by the Hellenes, counterpoint and oil-painting by the West) and the out-and-out rejection of others (e.g., of plastic by the Arabs); inclination to the esoteric (India) or the popular (Greece and Rome); preference for oratory (Classical) or for writing (China, the West) as the form of spiritual communication

are all style manifestations (p. 160) [103]. In the stage of historico-psychological scepticism one notices directly from a feeling for life that the whole picture of the surroundings is a function of life itself, a mirror, expression or symbol of the living soul. Early thinking considers external reality as a product of knowledge and an incentive for ethical appraisals; late thinking considers it above all as a symbol. The morphology of world history necessarily becomes a universal symbolism (p. 66). Historical research as such need only examine the figurative concept of living reality, its fleeting image, and ascertain its typical forms (p. 229). It is the inexorable interpretation of the depth that governs wakeful consciousness with the impact of an elemental event, along with the awakening of the inner life of the individual that denotes the boundary between child and boy. It is the experience of depth that is lacking in the child who grasps for the moon. Not that the child lacks the simplest experience of extension; but the consciousness of the world is not there, the great unity of experience in one world. And this consciousness grows differently in a Hellenic child and in an Indian or a Western one. With it the child belongs to a certain culture, whose members possess a common feeling for the world and hence a common world form (p. 249). Think of a wrongly hung picture, which acts only as a coloured area and then, suddenly, on being turned round evokes the experience of depth. In that moment in which amorphous chaos becomes structured reality, could be revealed if it were completely understood the vast solitude of men each of whom possesses for himself this picture, this area which only now has turned into a picture. For here a man of classical antiquity senses with *a priori* certainty the corporeal, whereas we sense the infinitely spatial, and an Indian or Egyptian still other kinds of form as the ideal of what is extended. Words do not suffice to contain the whole vehemence of these differences, which forever separate the world feeling of the individual species of higher mankind, but in all cultures the pictorial arts, whose substance is the world form, reveal them (p. 248). A deep identity links the two acts: the awakening of the soul (man's inner life), its birth to bright existence in the name of culture, and the sudden comprehension of distance and depth, the birth of the outer world through the symbol of extensionality, a type of space belonging only to this one soul, which henceforth remains the arch-symbol of this life and gives it its style, the shape of its history as progressive and extensive realisation of intensive possibilities (p. 249). From now on the

type of extensionality will be called the 'arch-symbol' of a culture. The whole formal language of its reality, its physiognomy in contrast to that of every other culture and particularly of the faceless surroundings of primitive men, can be derived from the arch-symbol. There is something which as ideal form is at the basis of each individual symbol of a culture. It lies in the form of the state, in religious dogmas and cults, in the forms of painting, music and the plastic arts, in verse and in the basic concepts of physics and ethics, but it is not represented by them. Hence it cannot be represented exactly by words either, for language and forms of knowledge are themselves derived symbols (p. 250). Taking for granted physiognomic measure, it is quite possible, from scattered details of ornamental mode of building, from writing, from individual data of a political, economic or religious nature, to rediscover the main organic features of the historical picture of entire centuries, to rediscover from details of the language of artistic forms the contemporaneous form of the state, to read off from mathematical principles the character of the corresponding economic principles" (p. 166).

These are perhaps the main ideas of Spengler's cultural characterology, to use his expression. Are they fruitful? How do they agree with the facts?

3.2. *Arch-Symbol*

Of those who adhered to cultural characterology it was probably Lamprecht who went furthest, maintaining that "according to the law of psychic relations, which is valid for the entire past as much as for the present, the exploration of even one part of the process of universal and cultural history will fix the basic pattern of the total process. An extended and deepened science of universal history will find it easy to discover from the psychic structure of certain relics of pictorial art the total character of the human society which has produced these relics." (*On the Formation of Method in Universal History*, p. 38 [*Zur universalgeschichtlichen Methodenbildung*]). Beyond this Spengler maintains that from individual changes in a culture one can deduce other individual changes, because from each of them one can discover the characteristic spatial feeling of any culture and from this in turn all other individual features.

That any arbitrary facts, ornaments, ceremonies, customs and the like might be assigned unambiguously to a quite specific culture, could succeed in principle on the basis of marks that are in no way linked with

the character of this culture. Thus a vase might unambiguously be assigned to a certain culture on the basis of its material, of the paint sticking to it and the like. A good example for such merely 'external' characteristics are thumbprints, by means of which each man can be recognized. They are in a certain sense comparable with numbers carried by convicts. We might for instance regard the pattern of skin lines as an accidental combination whose recurrence in a second man is tremendously improbable. Men can be defined at least well enough by their traits of handwriting so that handwriting is used as a method of personal identification, for instance in banking, but penmanship cannot on this account be regarded as the mirror of individuality! One would therefore have to separate from among the traits used for identification those combinations that are accidental from those that are characteristic (without the former becoming any less appropriate for recognising a certain man).

With the help of general knowledge concerning the total structure of cultures one might deduce from single ornaments or customs the main outline of a culture, just as Cuvier, to whom Lamprecht also refers, was successful in reconstructing whole animals from single bones; but this does not require that the individual parts have common characteristics.

We encounter statues, books, pieces of music, forms of state of foreign peoples or past times; their tightly knit totality might suffice for us to determine an era unambiguously. What Goethe said of the character of the individual is probably true of the character of whole epochs and peoples (*Colour Theory*, didactic part, Preface to the 1st edition, 1810): "In vain do we endeavour to describe a man's character; but put together his actions and deeds, and a picture of his character will confront us". One is to "put together his actions and deeds"; precisely this Spengler will not do; according to him, from each individual action all others should follow!

For Spengler all parts of a culture are effects of the arch-symbol, which in a sense gives all things their characteristic hue. Each hue always belongs to one culture only. "This enigmatic symbol which the Greeks called nothingness and we call the universe, our world immerses into a colour which the classical, Indian or Egyptian soul did not have on its palette (p. 261)". In itself, this might be possible; but the demonstration is defective in more than one respect.

The proof that all manifestations of a culture can be derived from its arch-symbol is not attempted by Spengler in such a way that a random collection of cultural phenomena – not selected for this purpose – are examined in turn or by sampling (compare the selection of men of great talent to be examined for their kinship in Galton's *Hereditary Genius*). On the contrary Spengler selects as he wishes.

Then he does not show that the individual facts can be derived only from one culture, but he shows that they can be derived from the arch-symbol of the culture to which they belong if one uses certain, not precisely defined, modes of deduction with psychological and other hypotheses which sometimes are adduced for only one instance. Fear and yearning, contrast and similarity are on equal footing (pp. 114, 115).

At first it amazes one how Spengler traces everything back to his arch-symbols. Once we see through his method the amazement subsides.

If in antiquity we meet clearly ordered squares of houses and an endeavour to build straight roads, why of course the Euclidean world-feeling wins through, a liking for simple, clean geometrical relationships and well defined structures. Oddly enough Spengler does not exploit his method in this way because he simply gained quite a different impression of the towns of antiquity. In antiquity he meets crooked, confused and narrow streets, and of course, the Euclidean world-feeling demands this: "Every great ancient city, from Hiero's Syracuse to Imperial Rome must, as embodiment and symbol of one and the same feeling for life, be strictly distinguished from the species of Indian, Arabic or oriental cities. A high(!) symbolism lies in each distinguishing feature; consider the occidental tendency towards rectilinear perspectives and flights of streets, such as the mighty sweep of the Champs Elysées from the Louvre, or of the piazza in front of St. Peter's, and the opposite in the almost deliberate confusion and narrowness of the Via Sacra, the Roman Forum and the Acropolis with its unsymmetrical and unperspectival ordering of parts. Town building too repeats, whether from instinct as in the Gothic period, or consciously since Alexander and Napoleon, the principle of Leibnitzian mathematics of infinite space and Euclidean mathematics of individual bodies."

Spengler contrasts the confused and narrow streets and squares of antiquity, derived from the principle of the Euclidean mathematics of individual bodies with the rectilinear perspectives and flights of streets derived from "the principle of the Leibnitzian mathematics of infinite space"

(does he not confound this with Leibnitz's doctrine of the infinitely small?). That this, together with the "instinct of the Gothic period" enables him also to deduce the confused and narrow streets of older German towns if necessary, we may blindly believe after grasping his technique of proof, since the example of antiquity will show us precisely that by linking the principles of phase and character one can derive the most contradictory results.

Spengler obtains his contrast by setting later occidental cities over against earlier ones of antiquity. But it is the older cities of antiquity that are akin to the older of the West, and the later classical ones to the later western ones! Settlements arose here and there inside narrow walls, gradually and without rule. The Via Sacra of Rome belongs to the older development of the town and like the Roman Forum it owes its structural shape largely to the conditions of the terrain. The same is true of the Acropolis in Athens, on which according to Spengler "there is a tangled mess of buildings and sculptures as found in the sacred areas of Delphi and Olympia" (p. 293), whereas Sitte sees in it 'the perfect example' of a shrine, as exemplified in Eleusis, Olympia and Delphi, forming a 'symphony' with the entrance gate and the free steps, "a work of centuries that has matured into a work of art". Most precisely, the plan of the Acropolis is far removed from a 'tangled mess', as a perusal of its architectural history shows. If Spengler wishes to maintain his impression of confusion against such systematic accounts he would be obliged more or less to define the concept of 'tangled mess' and not leave it purely arbitrary.

From the 5th century, classical cities were more and more frequently built on a geometric pattern (perhaps after oriental examples), of which Hippodamus of Miletus was the first proponent. From there too comes Thales, who founded Greek mathematics under oriental influence; his geometric efforts were closely linked with architecture. The geometric urban pattern, which Aristotle deliberately contrasts with the 'archaic' one, already was lampooned by Aristophanes in the *Birds*. Many regard it as an "organic work of art full of spatial poetry" (Schreiber), because it makes it possible to have streets and squares in front of large buildings with corresponding effects at a distance (the Sarapeion in Alexandria, the Augusteum in Caesarea, the great temple in Gerasa). Elsewhere Spengler glosses over these facts with the statement that "urban Hellenism had a

taste for imitating oriental town plans that were ruled by an overall spirit" (p. 293). This presumably is a hint that such things were alien to classical antiquity, even though he sets the beginning of Hellenism one century after that of the geometric mode of construction. In this case of course he is looking for a difference in character, whereas the well-known comparison between classical and modern baroque (16th and 17th century) sees parallel phases here. Later antiquity goes over to straight streets with rectangular blocks of houses just as our modern development. The city of Mannheim might be compared with Priene with its few longitudinal streets and its cross streets at right angles. Many towns, like Pompeii, show a gradual development of "a clearly wanted but not yet quite achieved regularity" (Duhn, *Pompeii*, 1906) towards rectangular blocks of houses.

Spengler rejects this parallelism probably because it would, in conformity with Breysig's scheme of phases, set Hellenism alongside the 16th and 17th centuries, not the 19th and 20th as does Spengler's scheme. But he does not say why the other parallelism is to be sacrificed and his own preferred.

Spengler leaves it unclear what is the relation between a derivation of narrow crooked streets in older walled fortified settlements from a defensive purpose and spatial conditions, and his derivation from the arch-symbol and its gradual effects. In certain circumstances the two derivations can exist alongside one another. But if a state of affairs is explained by the arch-symbol and not from technical (or other) circumstances, one would have to show that under different technical conditions the same result would have occurred, or that from several technical possibilities only that one would be chosen which corresponds to the arch-symbol. Spengler seeks to show that the baroque outlook, in contrast with the Ionian, "stood aloof to the point of uncleanliness" from the cult of the body, and he stresses that "as late as the 15th century the bathing facilities of Gothic towns were flourishing greatly, in spite of all belief in a beyond" (p. 367), although he characteristically fails to mention the technical circumstance that bathing ceased when syphilis spread in Europe, this being particularly mentioned in official decrees as the reason for abolishing public baths. Many would find this explanation adequate and would think that special reasons must be given to justify an additional derivation from the arch-symbol. Such a special reason might for instance be given

by pointing out that individual cleaning also became inadequate, and this could not be influenced by syphilis. But in that case a comparative survey would have to show that individual cleansing was more thorough in the time of communal baths, or that in other cultures or times the abolition of communal baths led to a higher standard of individual cleanliness by way of compensation. Technical connections can in principle be combined with morphological and psychological considerations. One can allow syphilis a bearing on the decline of baths and also find this decline to be in character. One might be able to show how syphilis led to the disappearance of communal drinking vessels and spoons, which furthered 'individualism' and yet at the same time declare the rise of an individualist period also to be very likely in terms of cultural phases and their course. If someone breaks one engagement after another, although well motivated each time, we will easily suspect in him a characteristic cause which gives more play to these motivations.

Another example shows the same neglect of technical aspects. Red pigment in ancient painting is partly explained, when it occurs on vases, by the background of clay which often showed through and so helped to develop a certain style in colour. Spengler blandly derives the red from the Apollonian arch-symbol which favours the phallus: "Blue and green are transcendent, spiritual, non-sensuous colours. They are missing in the strict Attic fresco and *therefore dominant* in oil-painting. Yellow and red, the Classical colours, are the colours of the material, the near, the full-blooded. Red is the characteristic colour of sexuality – hence it is the only colour that works upon the beasts. It matches best the Phallus-symbol – and therefore the statue and the Doric column – but it is pure blue that etherealizes the Madonna's mantle. This relation of the colours has established itself in every great school as a deep-felt necessity. Violet, a red succumbing to blue, is the colour of women no longer fruitful and of priests living in celibacy." (p. 352) [246]. Spengler presents such often ingenious and often banal associations with a certainty admitting of no doubt. It is worth noting how his arch-symbols lead him onto paths which should lie closer to the Darwinians whom he roundly despises, when the task is to link the red of sunrise with the coloured backsides of baboons and sex life. Has Spengler noted whether red plays a decisive role with other peoples that have a strong phallic cult? The people of the Near East, with whom this cult was much more developed than with the Greeks, do

not show a predominance of red. Rather we meet pale green and blue very often.

Colour symbolism is no doubt attractive but must be used with care; if the violet of Catholic priests, which they wear at funeral services by the way, symbolises the celibate life, what does the red of cardinals symbolise? After all, many uses of colour have accidental historical causes; it is necessary to prove that in addition there was a colour symbolism and if so that it was not external but goes back to the feelings caused by colours. It must be especially emphasised that Spengler hardly ever enters into such considerations. Spengler's mode of selection need not be discussed in detail. Thus he says "all the genuinely transcendent cultures – that is all whose prime-symbol requires the overcoming of the apparent, the life of struggle and not of acceptance – have the same metaphysical inclination to space as to blues and blacks" (p. 352) [246]. That black is just as important a colour of Greek vases as red, Spengler does not mention or explain. That the Greek 'red' is mainly subdued and certainly does not correspond to the red that incites bulls may be mentioned by the way.

Similar to the layout of towns is that of parks in late antiquity, which correspond to those of the later occident, a fact stressed especially by writers who see in Hellenism a kind of ancient baroque; all sorts of parallels, pictorial effects of architecture and the like are shown; in particular 'garden architecture' and 'garden sculpture', originating above all under Alexandrian influence, are described, those "ornamental gardens, which are as it were a tectonic transition from stone buildings into free nature, with their perspectives and their whole regularity looking like living architecture turned green" (Schreiber). But Spengler has no use for this. Since he puts occidental baroque into a phase corresponding to Ionian culture, its garden architecture lacks a counterpart. The garden architecture of Hellenism is combined with the imperial era and just in passing it is announced that "neither in Athens nor in Rome proper was there a perspective garden-art: it was only the Imperial Age that gratified its taste with ground schemes of Eastern origin" (p. 343) [240].

If the classical statue or the vase figure is isolated – of course, the Euclidean world-feeling demands it.

If the classical actor is not alone, but is regularly accompanied by a chorus – of course, for "the Greek surrounded his life with all kinds of

symbols of nearness". "... this chorus, which is always there, the witness of every soliloquy, this chorus by which, in the stage-life as in the real life, fear before the boundless and the void is banished, is truly Apollonian" (p. 461) [324]. Thus we know what Spengler would have written if the ancient statues had always occurred in large groups and never alone: "The group, which dispels the fear of the boundless – that is Apollonian."

If the Greeks had known the monologue, we should probably read in Spengler that "the statue-like, Euclidean character was thus taken to its extreme even in drama; here too connections, what is between things, were to be loosened" (cf. p. 459). But since monologue is characteristic of occidental drama it is quite clear that it stems from the Faustian world-feeling which unites the actor with the infinite.

Theologians of all trends used to develop this technique of thinking to the limits of virtuosity when it was a question of deriving everything from God's goodness and from his purposes. When fleas and bugs bit too badly they had been created to encourage men to cleanliness. Since God's character was rather more precisely defined than that of antiquity, but still remained sufficiently vague – so that for instance it could be let pass if he created men who were not directly imbued with a love of cleanliness –, everything could be derived from him. What was punishment to one was a trial to another. When a young man marries without knowing what he will live on and things go well he calls it 'trusting in God'; if not, 'tempting God'. Since 'trust' and 'temptation' cannot be directly defined in kind and size, everything is always compatible with God.

Enough of this. We know the text and the tune. Was this not how the theory of environment has been run down? A painter from a foggy country, poor in vegetation, paints drab, monotonous pictures – of course, he has seen nothing else; he paints pictures with sunny glows and a wealth of flowers – of course, this is the yearning of one tied to darkness.

Is this then nonsense for fools? Or amusing tricks for the initiated? Not at all. It is a corrupting misuse of significant human strivings for general explanations of phenomena.

It will not do, after all, to link any fact with any other with the help of arbitrary means carelessly picked out of a giant pool without setting up any rules about their validity.

It will not do to link any marks thus found and denoted as Euclidean, Faustian or the like with a 'carrier of the type', which is then called 'arch-symbol' or 'culture-soul' – thrilling words, well loved for the fine shiver they send down the spine.

It will not do to demonstrate such most arbitrary connections by most arbitrary selections!

Whether or not there is such a thing as a cultural hue may remain undecided. Spengler's indications have hardly furthered the discussion but have caused all sorts of confusion.

3.3. *Differences and Independences*

However Spengler does not stop at deriving a few cultural phenomena from arch-symbols using ever many new auxiliary hypotheses; from the outset he tries to discover the biggest possible differences in the manifestations of different cultures, in order thereby to prop up the theory of arch-symbols. In this he often eliminates common features, as was shown above; moreover differences are immoderately exaggerated – one might almost say methodically so. Since not even Spengler can deny that occidental mathematicians took over almost all of ancient mathematics, he adds by way of completion "externally, not internally". He does not allow occidental innovations as continuations or amplifications: "they had to win their own science apparently by means of a change and improvement of the Euclidean, but in fact by its destruction" (p. 89). All this is playfully easy, since the concept 'destruction' was nowhere defined. If it suited Spengler he would let the theory of real numbers be 'destroyed' by that of imaginary numbers. If anywhere, it is in mathematics that scholars have incorporated the old into the new without essential change. If one needed a scale which began with the 'non-destruction' of scientific predecessors and ended with 'destruction', we should have to put the procedure in mathematics at the beginning of the scale, whereas in chemistry and in biology 'destruction' is already better known. Nor is it of any use to point to experience, since Spengler himself calmly observes that Euclid is an English school text even though one might infer from this much that speaks for Euclidean thinking in England. Spengler further finds a way out which can discredit the fact that until late into the 18th century geometry often was pursued with special fervour in the Euclidean manner, and that Euclid was being fairly elaborated and perfected. He simply speaks of a "semblance of existence of ancient mathematics in our terminology" (p. 93) without illuminating this with any examples.

The attempt to find differences can sharpen one's vision and so may produce valuable results, but must this lead, through exaggeration and distortion, to scurrility and sensation? Is it not enough to show that classical antiquity and we ourselves put the main weight on different thought processes and are more susceptible to different world views and moods? The habit of boundless exaggeration which marks many effective authors, such as Langbehn (*Rembrandt as Educator*), Houston Stewart Chamberlain, and Weininger, is characteristic of Spengler too. The 'Faustian' and 'Euclidean' conceptions of space may be very different; must one therefore connect the 'Faustian' one with the conception of 'absolute space'? "In fact the absolute space of physics is a form which has arisen solely from our soulfulness as its representation and expression, and is necessary and natural solely for our mode of wakeful existence. The whole of mathematics from Descartes onwards serves the interpretation of this great symbol fraught with religious content. Since Galilei physics demands nothing else. Ancient mathematics and physics do not even know this object" (p. 119, cf. p. 129). The conception of absolute space is in no way connected with our soulfulness. To the 'Faustian' Descartes, mentioned by Spengler, for instance, it is quite alien. 'A body moves', means for him not, as with Newton, that it changes its position in absolute space, but that it moves from the neighbourhood of one body to that of another, a view that approaches Einstein's. The surely 'Faustian' Einstein, like Mach, eliminates absolute space, which Newton had first introduced against Descartes. Rather one might speak of absolute space in antiquity, since it lets bodies seek 'their place'. Only the much narrower assertion would be right namely that space conceived as a structure, a web of force fields, was alien to antiquity, space as a wholly valid substitute for the 'aether'. But that space is not generally Faustian either (cf. p. 129).

A similar over-acuteness based on error and inaccuracy is found in the discussion of non-Euclidean geometry: "Classical geometry from Archytas to Euclid – like the school geometry of to-day which is still dominated by it – concerned itself with small, manageable figures and bodies, and therefore remained unaware of the difficulties that arise in establishing figures of astronomical dimensions, which in many cases are not amenable to Euclidean geometry. Otherwise the subtle Attic spirit would almost surely have arrived at some notion of the problems of non-Euclidean geometry,

for its criticism of the well-known "parallel" axiom, the doubtfulness of which soon aroused opposition yet could not in any way be elucidated, brought it very close indeed to the decisive discovery." (p. 122) [83–84]. Since antiquity knew astronomy they were familiar with figures of astronomical dimensions. That such figures do not allow the application of Euclidean geometry everywhere is wrong. On the contrary, Gauss's attempt to discover whether we live in a non-Euclidean space by measuring the angular sum of stellar triangles, has failed, but it did not depend on astronomical difficulties. Similar considerations hold of the most modern trains of thought in the theory of relativity, which, certainly not in regard to difficulties of astronomical observation, introduce a closed world space.

Incidentally Spengler confuses the logical question whether there could be more than one geometry with the question which can surely be described as physical, whether our space is Euclidean or non-Euclidean with small curvature. What Spengler otherwise says about the connection between the parallel axiom and the world-view of antiquity is plainly senseless: "The soul of classical antiquity formed what had become into an ordered world of magnitudes measurable by the senses. It has not hitherto been seen that this fact is implicit in Euclid's famous parallel axiom ('through a point only one parallel to a straight line is possible'). This was the only one of the Classical theorems which remained unproved, and as we know now, it is incapable of proof. But it was just that which made it into a dogma (as opposed to any experience) *and therefore the metaphysical centre* and main girder of that geometrical system. Everything else, axiom or postulate, is merely introductory or corollary to this." (p. 252) [176]. Since when is the parallel axiom the sole ancient mathematical statement that remained unproved? (In the editions of Euclid it appears as 5th postulate or 11th axiom.) After all it is of the nature of all axioms not to be proved! Since when are the other axioms and postulates only 'preparation or consequence'? They are quite independent of the parallel axiom. Precisely this provides the logical possibility that there can be more than one geometry. In short, since there are no deficiencies in expression we have concept-mongering – or even merely word-mongering – without basis. In the field of mathematics, this reveals its inadequate nakedness to everybody, whereas in other fields it can spook behind quivering swathes of mist, surrounded by mysterious whisperings, 'in-

tuitive' stammerings and 'fateful' ecstasies. One fairly hesitates, after such examples, to take the author's method seriously.

What is said elsewhere about geometry is also rich in other examples which characterise Spengler. He declares, for instance:

"And then, for the first time, those who thought deeply were obliged to see that the Euclidean geometry, which is the *true and only* geometry of the simple of all ages, is when regarded from the higher standpoint nothing but a *hypothesis*, the general validity of which, since Gauss, we know it to be quite impossible to prove in the face of other and perfectly non-perceptual geometries. The critical proposition of this geometry, Euclid's axiom of parallels, is an *assertion*, for which we are quite at liberty to substitute another assertion". (p. 129) [88]. As though 'reality', even only the layman's, were optical space and not optical-connective space which through all kinds of experiences were transformed into 'real space'. The parallels of connective space remain equally distant to the measuring observer. This favouring of 'optical' space as the space of past geometry is not attributable to an accidental oversight. On the contrary, elsewhere it is explicitly stated that "after the spatial element of a point had lost the still optical character of intersecting coordinates in a visually conceivable system.... Numerical measures no longer denote optical properties of a point" (p. 135).

To widen the gulf between the culture of antiquity and our own it is denied that there are 'un-Faustian' elements in our mathematics. "Our world feeling admits only an abstract analysis" (p. 109). And number theory? During the 19th century, was this not cultivated by many mathematicians precisely for its 'non-Faustian' characteristics, indeed positively protected from the approximating attempts of differential and integral calculus? Was it not investigations on prime numbers that made certain topological considerations (think of Oskar Simony) even more 'un-Faustian' than they already were?

We shall not discuss the old quarrel between the representatives of 'invention' and those of 'imitation', but it will not do blandly to assert that the mathematics of antiquity "was created out of nothing by an ahistoric mind" (p. 89), and simply to leave unmentioned the amply supported view that the Greeks owed their mathematics in significant measure to the orientals; or to leave unmentioned that Thales of Miletus, one of the co-founders of Greek mathematics, functioned in an area which was

subject to oriental influences, that it is said of Pythagoras himself that he had made journeys to the Orient, to say nothing of many other proofs. Our mathematics too is of course a 'completely new creation'. It is not said what a not quite new creation looks like. And all this because Spengler does not begin with a methodical account of the phases of development of mathematics, so that one could first note what is left of the old, what has vanished and what has been newly added.

According to Spengler we can never derive the same phenomena from different arch-symbols, even though in principle the same partial effects may owe their rise to different causes; just as little does he think it possible that several arch-symbols could operate in the same person simultaneously. And so all this culminates in the doctrine that there can be no transitions between different cultures, that each rises independently of all others. It culminates in the doctrine of the soul of a culture.

According to Spengler cultures are born suddenly. The souls of cultures remain unchanged from their birth until the civilisations which sprang from them have reached their end: "It is one and the same event if at a moment of early childhood the inner life awakens as by a magic stroke, and if in a countryside filled with formless (!) humanity a great culture comes into existence with puzzling (!) vehemence. From then on begins the perfection of a life in the higher (!) sense." For the rest we are not told very much about the soul of a culture, whose nature is perhaps somewhat illuminated when we hear that each people, or even each [social] estate has a soul (p. 232). For Spengler the soul of a culture is not only a totality of marks or their bearers, it "has forebodings", it "seeks expression" and "yearns forwards into the clarity of the later state" (p. 435). There is little point in giving a fuller account of Spengler's soul-mythology here, for it influences the further expositions of principle only through details; how far his analogies from individual psychology apply – for instance a sudden awakening of the inner life as "birth of the ego" (p. 115) – others may care to examine.

That Spengler without further evidence unhesitatingly lets all sorts of things arise 'suddenly' can therefore not make us wonder. He says for instance: "In Homeric times as well as in the Vedic period there supervened the sudden step from interment to cremation" (p. 17), even though an ample literature mentions that for a long time both methods of funeral continued side by side, 'part-cremation' alongside 'complete cremation'

and so on. Perhaps the development was similar to today's passage to cremation: this is not 'sudden'.

Where nothing specific is known, suddenness is assumed even more readily: for instance he supposes that "through a sudden mental creation about 3000 B.C., along with the new world feeling, the idea of a religion, the idea of the Pharaonic state and of its representative architectural concept of those tremendous temples of the dead arose as a whole (p. 280). The arch-symbol of the path sprang suddenly into life" (p. 286).

This doctrine of the sudden rise of the soul of a culture from a formless mass, and not from similar phenomena, leads to strange constructions, as mentioned earlier. Thus the late Cretan-Mycenaean period is lodged, in Spengler's table of spiritual epochs, under "prehistory, chaos of early human art forms, purely ethnographic type of peoples, tribes and chieftains. No politics of state yet"; this in spite of there being a long period of development:

> Early Minoan period (copper age) until 2000 B.C.;
> Middle Minoan period (Ist bronze age) from 2000 B.C. until after 1500 B.C.;
> Late Minoan period (IInd bronze age) until the middle of the 15th century B.C.

(cf. e.g. Ettore Ciccotti, *Greek History*, [Gotha 1920] p. 7 *et seq.*). But this is known to Spengler too (on p. 264): "The culture of classical antiquity therefore begins with a grandiose self-denial of an already existing rich, picturesque and very complicated art, which was not to be the expression of its new soul;" and yet a "chaos of early human art forms"? Who solves the contradiction?

If Spengler were right in his view that the soul of a culture is constant, then our own past should always have to be more familiar to us than other cultures, which is by no means generally so. One need think only of Grillparzer's uncomprehending utterances on the song of the Nibelungen and his sympathy with things of antiquity.

The constancy of the soul of a culture has as little and as much justification as the constancy of personal character in Schopenhauer's sense. But how can we reconcile sudden appearance with utterances like this: "Imperceptibly the Greek terms have lost their sense" (p. 105)? Or with the

comment that cultures overshadow and crush one another (p. 153), which surely means that they operate in the same place?

According to Spengler the appearance of a new culture had to be connected with the sudden appearance of the new arch-symbol in the newly born, since during his life nobody changes his attitude towards the arch-symbol. Whether Spengler has thought this through in all its consequences we leave undiscussed.

Natura non facit saltum – nature makes no jump – that dictum one must not raise against Spengler; if the jumplike mutation is recognised in the field of biology, why not in the field of human systems of utterances? In the field of physics, too, discontinuity in a different sense is today at the top, as in quantum theory. In sum it remains a question of fact whether all or only some cultures arise in a jumplike manner, or whether there are merely steeper slopes. We should have to analyse concepts like 'suddenness', 'constancy', 'soul of a culture' more accurately, in order even to formulate the question correctly.

It might be possible that certain widespread and clearly definable groups of characteristics determine cultures, but that nevertheless these individual characteristics exist in other combinations too and that cultures appear mixed up together. The cultures would then be conceptual schemes, like 'society' and 'community' in Tönnies, so that one might try to show of a given phenomenon how far it is the one or the other. In that case one could in a sense mix world-feelings. This notion imposed itself on Spengler too: "The rigid so-called Cartesian coordinate system, the ideal representative of measurable magnitudes in a half-Euclidean sense, was overcome by Descartes". If there can be half-Euclidean and therefore half-Faustian states of affairs, one can surely not object to other kinds of mixture? But how is one to attain clarity if one vacillates between the empirical and the ideal occidental mathematician and calls this mixture of the 'Euclidean' and 'Faustian' being "afflicted with prejudices": "The occidental mathematician, as soon as he is free from ancient prejudices and belongs to himself, betakes himself into the entirely abstract region of an infinite manifoldness of numbers" (p. 120). From what point of view does Spengler here speak of "prejudices"? And from which of "Euclidean-popular prejudices"? (p. 126).

This raises the significant and basic question which we touched upon in the first section: can 'styles', can 'cultures' be regarded as individuals

at all, to be treated as closed structures? Might not the fact be that there is a large connectedness of human existence which shows states of affairs and characteristics of the most varied kinds? The question is whether it makes sense to see in 'Gothic style' or in 'Baroque style' more than a sum of characteristics closely linked amongst themselves, but likewise in all transitional styles. Could one not arbitrarily and in different ways define types of styles as principal and make others transitional? If Spengler says of the young Gothic soul that it 'defends' itself (p. 105) he is evidently speaking of a transitional phenomenon which he divides into a Gothic and an un-Gothic part, one of which he calls 'soul'.

Spengler expounds little about spatial culture frontiers, but here too he seems to assume jumps as in the case of time sequence. In Dilthey's types of world-view, which might be adduced for comparison, transitions and intermediate forms do occur, but they are of minor effectiveness.

In one place Spengler says that Arabian culture comprises everything that "has sprung up since the beginning of our era in the area of Islam to come" (p. 104) and thus be determines a culture in a completely geographical delimitation, but then again he uses characteristics, as when he takes the Pantheon as mosque and the Ravenna mosaics (p. 105) as belonging to Arabian culture. But these kinds of inconsistency are nothing rare in Spengler. Many readers do not notice them because each assertion on its own makes sense of a sort and a check on the total structure seems not to be customary. Is one to assume that Spengler has racked his brain over the concept of a culture frontier, when we read (p. 339) of "Florence, the only (!) point where classical and occidental landscapes abut".

Men of the intellectual world of Dilthey, and Spengler among them, are intent on differences as characteristics of types; they are apt to neglect an examination of other conditions of difference. If from the start one assigns more difficult and easier solutions to different types or, even worse, correct and wrong ones, then the concept of type has lost its meaning. Originally it was after all thought that different types subjected to the same conditions would produce different effects, and if this could not be noted empirically, one could at least conceive these effects in a thought experiment. But where will it lead if the 'type' third form student engages in plane geometry, but the 'type' upper sixth form student in spherical geometry! This is evidently a case of difference in the stage of development, not in type. When Dilthey distinguishes different types of world-view, each type is meant to fulfil the same task, namely to grasp the whole world. In science the situation is different: many a new problem arises because one changes one's interests or because one has finished the preliminary work. In mathematics for instance we see above all how the field is broadened, more seldom how it is a case of different treatment of the 'same' object; therefore it is only by special analysis that differences can be based on type.

Precisely the history of mathematics shows that one may not dismiss other possibilities of 'morphological' order; thus it would correspond to Müller-Lyer's trains of thought that the development of all ancient mathematics corresponds to the development of occidental mathematics up to about Descartes, which Spengler does not mention in his tables at all, and in the text only in passing.

Spengler's doctrine of the soul does *not* start from the view that certain mental phenomena that are not significantly related to each other do belong together according to experience or in retrospect, but rather from the notion that phenomena of the soul that are connected into a whole are similar to one another. The 'magical idea of fate', 'Kismet', is to him something passive, and accordingly the arabesque is "the most passive of all ornaments... without positive expression" (p. 319). It is hard to perceive how far Spengler might be able strictly to prove these and other comparisons, for it is surely not enough to say: "ancient motifs like the meander or the Acanthus leaf are Euclidean, complete in themselves, bodily isolated and thus can only be repeated and arrayed additively. Arabian and Persian patterns can be continued on all sides to infinity. The Romanesque-Gothic ornament represents a maximum of expressive force, the dreamy arabesque negates the will". Would Spengler not have seen in this property of the arabesque (that it can be continued on all sides to infinity) something Faustian, had it arisen in German medieval times? Every state of affairs can be characterised according to countless points of view. Spengler would have first to enumerate the characteristics related to the classification, secondly the degrees and kinds that belong to each characteristic, and finally to indicate what peculiarities shall be sufficient in order to assign an ornament, a mathematical work, a piece of music to a certain type of soul. When Riegl notes of arabesques that because of their geometrical character and structure they can form areal ornaments

which are cut at the edges and in a sense are to be thought as continued beyond the border of the defined area, this far from entails that this is exclusively magical in nature. Ornaments that are suitable for covering whole areas are met with elsewhere too. They are so little confined to purely geometric structures that even in Arabian art, perhaps under Hellenistic influence, naturalistic elements appear in obliquely ruled ceilings, where the cut rhombi that stand on the vertex contain more narrow naturalistic representations.

Spengler attacks difficult problems. Who would deny their importance? But the attempts at solution are inadequate. It would be valuable if one could show that certain works of art, scientific achievements, and the like can, on the basis of a system of hypotheses and rules, be derived from a certain world-feeling, even if a second world-feeling were compatible with these states of affairs. But as it is Spengler plays with rather arbitrarily sifted facts and auxiliary hypotheses called in *ad hoc*.

Many of Spengler's statements create the impression of insight without being so. Let some work of art be given. If on the basis of 'geographical' or 'biographical' indications it were attributed to a culture and it was then noted that it stems from a certain world-feeling, this would be an insight that enriches us. But in Spengler belonging to a culture is read off from the arch-symbol, which expresses itself in the object examined. Why, for instance, is Diophantus considered as belonging to magic culture and not to that of antiquity? Because he created "algebra as the doctrine of indefinite magnitudes" (p. 103). Is it then any wonder that everything that belongs to magic culture has certain characteristics?

Since for Spengler the 'phase of culture' coincides with that of religion and of religious philosophy, it is inherent in this kind of demarcation that the mathematicians of the cultural era in which there are few really irreligious men – their time begins with 'civilisation' – are generally strongly moved by religious-theological matters, like all other significant intellects of that era. This fact is decisively behind the statement "that the greatest mathematical thinkers, creative artists in the field of numbers, have reached the decisive mathematical problems of their time from deeply (!) religious intuition" (p. 102). If one takes the assertion "from deeply religious intuition" in its whole extent then it can hardly be right. It may be fully valid perhaps for Pythagoras, but that Kepler, Newton and Descartes had religious temperaments does not mean by a long shot that

"they reached their decisive problems from deeply religious intuition". If one were to cite men like Lagrange, Laplace, Eudoxus, Euclid, Gauss and so on as counterexamples, Spengler would probably declare that they did not solve problems of "their culture" but of "their civilisation"; so that the statement that the great mathematicians of cultural epochs are strongly religious is revealed as analytic.

This is the sort of thing we meet continuously. Spengler calls everything of antiquity Euclidean and then observes in antiquity an ubiquitous Euclidean world-feeling. First an epoch is defined in terms of certain phenomena of the same kind, and then that in turn is shown as a new property of the epoch.

Even so this would not be worthless if it pretended to say no more than the following: We can order all human expression into sharply defined and firmly coherent groups on the basis of arch-symbols, into cultures.

The theory of cultural characteristics would then correspond perhaps to Dilthey's theory of types, which also assumes greatest distances between types.

3.4. *Physiognomics*

Spengler's tendency to explain something confused and indefinite by something else confused and indefinite leads him to emphasize again and again that the morphology of world history would become a physiognomics of everything human (p. 147). As though physiognomics were defined even in its aims, effects and content! We get no better insight into physiognomics if Spengler calls it "the art of portraiture translated into the spiritual" (p. 148), and then summarises, echoing Simmel whom he uses often: "a genuine portrait in the sense of Rembrandt is physiognomics, is history". Which closes the ring of vague analogies.

Perhaps Spengler's physiognomics is closer in content and historical time to that of Lavater than he would like. The whole history of physiognomics is wavering and torn; its indefinite nature, everything in it which is dazzling or deceptive, is already present in Lavater's physiognomic fragments. Lavater published his physiognomic reflections with an unheard of public success. With the assistance of excellent intellects, he presented a wealth of pictures and analyses. And the result? The physiognomic wave died down, as did the phrenological and others. Here and

there a physiognomist existed; nothing much went beyond attempts to determine gestures and the play of facial expression pathognomically rather than physiognomically, as expressions of certain momentary moods, not as expression of permanent character.

Which peculiarities of Lavater's individual physiognomics that helped to cause its failure are present again in Spengler's physiognomics of culture and history? Lavater interpreted not only facial formation but also gait and the like as expression of properties of character without possessing a method for observing these properties of character in other ways, even without ever envisaging the possibility of such a determination of character.

When Lavater analysed the heads of Christ by different masters he may at best have reached painting conventions, never physiognomic knowledge, Lavater too has his escape hatch: if a new physiognomic interpretation is quite untenable, one falls back on 'hidden' properties of character.

In spite of all deficiencies Lavater's untroubled way and his imagination gained great public success, which soon faded. Incidentally, in detail he proceeds with incomparably greater care and is far more reticent than Spengler. Spengler predicts with complete definiteness, engaging in physiognomics of history and demanding unconditional approval, and yet he allows himself the slip that in historiography "there has never yet been a question of a strict and clear physiognomics, whose exact methods are still to be found. This is the task of the 20th century" (p. 154). Does Spengler already possess this method? If so, why does he not apply it? If not, how does he reach his dictatorial manner and his boasting with proofs?

The theory of character and the doctrine of physiognomics are still in their infancy. To further them may be meritorious. This requires, beyond empathy, some careful account of characteristic marks and a strict formation of concepts. Attempts in the field of character-types by Carus, Weininger, Worringer, Dilthey, Nohl, Rutz, Sievers and other are a tentative beginning! Spengler, in introducing demarcations of character merely uses phrases like this: "I will henceforth call the soul of classical antiquity Appollonian. Since Nietzsche, this term is understood by all" (p. 262). What does it matter to Spengler that for Nietzsche and his precursors the Appollonian is contrasted with the Dionysian, and is no expression of classical antiquity as such!

4. Spengler's description of the world

We see how inadequately Spengler has mastered the characters and phases of culture, and yet, how great an effect on many! His technique of proofs for special cases which has now been explained, would not suffice to seduce too many readers. But this is achieved by Spengler's description of the world, which from the start seeks to undermine all means of criticism.

If one wants to check assertions about arch-symbols – at once he produces the hint that "it is quite impossible with the forces of one's own soul to penetrate the historical world-view of alien cultures and the picture of Becoming formed by quite differently constituted souls. Whatever is not discoverable directly from confessions we must take from the symbolism of the external culture" (p. 188). "It is only on the degree of closeness of relation between worlds as they are experienced by men of one culture or sphere that the degree of communicability of what is seen, felt or known depends" (p. 235).

But this expresses not only that moods which a Mexican connects with certain ornaments remain alien to us, that there are ecstasies in Indian penitents which we cannot match with anything, but also that the cognition is of quite a different kind and that the statements of one culture about any facts cannot be judged by another: "We find as many mathematics, logics, physics as there are great cultures. Each of them, to wit each picture of number, thought, nature is the expression of one individual culture" (p. 428). "What is true for us is false for another culture: this holds for the soul-picture of individual cultures as much as for any other result of scientific reflection. Truths exist only for a certain kind of men" (p. 66). "Each thought is transient, each dogma and science, as soon as the souls and spirits in whose worlds their 'eternal truths' were necessarily experienced as true, have died" (p.239).

"Each man has his world". This contains a contradiction, if by world is meant the assemblage of all that is, for then 'the world' according to this statement consists at least of all men and their experiences; we leave open the question how far these men themselves are considered as experiences. Spengler speaks violently and emphatically of the splits and hardly ever of the connections that we meet in the world and in men, while he mixes in many ways the splits between views and feelings with the splits in the world.

Let us try roughly to clarify the question of principle. Even if we wish to free ourselves as far as we can from assumptions and interpretations we cannot start from a *tabula rasa* as Descartes thought we could. We have to make do with words and concepts that we find when our reflections begin. Indeed all changes of concepts and names again require the help of concepts, names, definitions and connections that determine our thinking.

When we progress in our thinking, making new concepts and connections our own, the entire structure of concepts is shifted in its relations and in its centre of gravity, and each concept takes a smaller or greater part in this change. Since in the field of world-views our language, writing and thinking are, at least until now, arrayed one-dimensionally, one should after every progress of thought really repeat what has hitherto been said, but in a different sense – and this holds likewise of every account in books. One cannot complete a piece once and for all and then go on to the next. This kind of relationship is coped with in mathematics by indicating functional connections. Will we some day learn to present philosophic structure in this way too? There we are not always dealing with clearly outlined concepts as in mathematics, they are barely defined in their internal parts; hazy edges are essential to them; these concepts are partially to clear up an indefinite confusion which is tangled up in the most varied ways. Not infrequently our experiene in this is like that of a miner who at some spot of the mine raises his lamp and spreads light, while all the rest lies in total darkness. If an adjacent part is illuminated those parts vanish in the dark that were lit only just now. Just as the miner tried to grasp this manifoldness in a more restricted space by plans, sketches and similar means, so we too endeavour by means of conceptually shaped results to gain some yield from immediate observation and to link it up with other yields. What we set down as conceptual relations is however, not merely a means for understanding, as Mach holds, but also itself cognition as such. Even a god would 'look at' the logical connections to cope with the remaining plenitude, even if, unlike men, he did not need them.

That we always have to do with a whole network of concepts and not with concepts that can be isolated, puts any thinker into the difficult position of having unceasing regard for the whole mass of concepts that he cannot even survey all at once, and to let the new grow out of the old.

Duhem has shown with special emphasis that every statement about any happening is saturated with hypotheses of all sorts and that these in the end are derived from our whole world-view. We are like sailors who on the open sea must reconstruct their ship but are never able to start afresh from the bottom. Where a beam is taken away a new one must at once be put there, and for this the rest of the ship is used as support. In this way, by using the old beams and driftwood, the ship can be shaped entirely anew, but only by gradual reconstruction.

Let us start, with Spengler, from the fact that there are many men who communicate with each other. In that we recognize them as men there already lies the assumption that they have something in common with us. To overestimate these common features damages our action, which includes our thinking, and equally so if we underestimate them. Spengler exaggerates and distorts trains of thought of recent decades, which themselves can look back on a long history, in order to regard the differences between men's world-views as more decisive in certain cases than in others. He does so without justification, thus splitting up the whole of existence. He declares: "Truths exist only relatively to a definite kind of men" (p. 66). Men of the same arch-symbol he connects into one truth community. Why not men of the same type of world-view in Dilthey's sense? Why not men with other common basic tendencies? Indeed, why does Spengler not say even more generally: "Truths only exist relative to one definite individual" or more generally still: "relative to a moment"? This would require discussions in the sense of systematic philosophy, which of course should be infinitely remote from us according to Spengler (p. 64). And so in his book Spengler sticks to this dogma, now weakening, now bending it, now elaborating, now exaggerating, but never giving a foundation.

How, roughly, can we represent to ourselves in detail the relation of man to man on the basis of our normal behaviour?

Two men tell each other of the temple they are just entering. Pictures, statues, columns, ceremonies, colours, sounds, smells, awe, fear, boredom, love and hate come up. Spengler will be ready to assume with us that there is a difference in experience when one speaks of the awe that he feels and which shows itself in all his gestures, and the other of boredom; but does the one who feels awe know what that boredom is that the other speaks of? And if both speak of awe, does each know what is the char-

acter of the other's awe? Is it different with 'red' and 'green', 'square' and 'round', 'up' and 'down'?

In order that two people might talk to each other at all, they require certain things in common. If these were lacking, the two 'men' would confront each other as two quite alien creatures; words and gestures would not even be 'meaningless signs', they would be mere changes. If now one of them speaks of the temple's square ornaments and the other likewise, and both speak about the square's diagonals and their intersection and the like, and always manage to coordinate their statements unambiguously, then so long as not everything existing is described, it is thinkable that in spite of the one-one coordination of the two sets of statements the two men speak of totally different things. There could be a far-reaching parallelism or 'dualism' such as in projective geometry, where we can enunciate two sets of statements that have quite the same structure and can be represented by one single notation and yet describe totally different facts, depending on how the symbols are interpreted. For instance: a line is determined by two points, a point is determined by two lines, both expressed as: an *A* is determined by two *B*'s.

If one of the two speakers always takes *A*'s as lines and the other as points, and *B*'s as points and lines respectively, then one would use the same words in speaking of a line through two points that the other would use in speaking of two lines through a point. A third point off the line would determine a three-sided figure for the one, a third line off the point a three-cornered figure for the other, and they might each call the new figure by the name *C*. There would be many statements, namely those of projective geometry, whose coincidence would not reveal the difference between the objects of which each is speaking. But there are statements that go beyond projective geometry where this difference would show up at once.

The more groups of statements two men can put into one-one correspondence, the more unlikely will it seem to most thinkers that they are dealing with different objects of experience; of course one cannot exclude this possibility. But even should the objects finally be different, there are still those things in common that were revealed by the one-one correspondence.

If the 'colour' statements of both men correspond in every respect, both about order and mixture, one could be thinking of a particular manifold

of sounds, provided it was grouped exactly like the manifold of colours. For instance the sounds must be arrangeable in a closed ring like the colours. Corresponding to darkness which makes all colours vanish there must be a 'darkness of sound' with corresponding effects.

Before making this very improbable assumption one ordinarily assumes that a one-one correspondence of two sets of statements is based on the same or very similar facts. Difficulties of quite a different order begin where there are manifest differences and one man wishes to inform another about them.

Here we must distinguish between different cases. If in a given case one sees red where the other sees green whereas otherwise they have always been unanimous, then the first knows what the second means by 'green', and the second knows what the first means by 'red'.

If one can see all colours but the other sees everything merely grey in grey, the first can imagine the splendidly coloured temple in the grey shades that the second sees, but the second in turn, however, cannot imagine the colours of the first. Finally we may conceive that each sees a different manifold of colours and therefore they cannot make each other understand about the colours they see. One who is blind to red and green might perhaps try to clarify his relation to one who sees all colours, by imagining a man who sees everything grey in grey.

Discussions about certain colours are made much easier in that the colour atlas (of Wilhelm Ostwald) gives us the possibility to recognise colours again, and always to reproduce such colours by means of material objects (pigments laid on paper). This leaves open the possibility that in the course of time all men's colours simultaneously shift in the same way, without changing the order, so that the colour atlas would provide only such relative colours and not fix absolute ones.

It is different if we wish to determine what pains or smells another person experiences. We do not know precisely whether he has the same as we do or other ones. But while we can conceive of the creation of a smell-atlas and smell-order, by means of which one could determine this, there seems at first no possibility to find out about the elation, awe, love, desire, fear of another person. For we cannot quite say of our own love or desire whether they are greater or smaller than similar feelings a year ago, whether they are more comprehensive or more narrow, more excited or calmer; indeed we do not even know how many characteristics mark a

feeling of love or desire unambiguously. Whereas smells and pains are more or less definable objects, desire and love are, in a sense, of indefinite character, penetrating our whole being.

And yet we also always endeavor to tell another about our love, desire, fear and joy; or perhaps about the confused feeling or the total mood that are linked with the temple we enter, while we try to sympathise when the other tells us of the boredom that overcomes him. So long as two men command the same colours, sounds, feelings and moods, but have them on different occasions, mutual understanding is in principle secured. If we can be bored at all, the interlocutor need only indicate that in the temple he feels the sort of boredom that both he and we ourselves feel when listening to a school examination about multiplication tables. We can link the feeling with the view of the temple without having it through that view.

We can put ourselves into the frame of mind of Africans at a mourning ceremony which on the face of it strikes us as grotesque or ludicrous, by thinking of some such ceremony that directly impresses us. One might try also to let the Africans' feelings arise within oneself directly. How far one succeeds in this and how far success can be tested, is another question.

The problem of somehow putting oneself into other people's frame of mind always starts from the existence of some common features to which the rest is tied. For this purpose, poets take details familiar from life, intensifying, diminishing and mixing them in all sorts of ways, in order thus to create transitional feelings and pictures which then are more akin to what is alien, and which, beyond mere combination, can be heightened to further connections. Goethe's 'Divan of East and West' may bring Persian feeling and thinking closer to many. Sometimes there may be a magic formula, a few main feelings or thoughts which forcefully grasped may open up vast areas of foreign ways to us. The feeling for and conception of space are certainly among these, even if hardly to the extent supposed by Spengler. To derive everything from one single principle is a widespread tendency of young disciplines, as witness for instance the doctrine of the universal cause of illness.

In Spengler we see over-refinements and distortions of trains of thought which in recent times have been put forward mainly by Dilthey. World-views stand over against world-views. Might one eliminate the differences between them if one were confronted by the same 'facts' and

always avoided errors in argument? Many thinkers reply "yes", others "no".

In the much more transparent field of physics, Poincaré, Duhem and others have amply shown that more than one self-consistent system of hypotheses can satisfy a given set of facts. If one physicist decides to adopt one system of hypotheses, and another a second, then a quarrel between them cannot be settled on the basis of the known facts. Certain inclinations and dispositions may have influenced the choices. If contradictions arise between physicists, then if the facts are the same we must ask whether these contradictions are due to logical mistakes or due to differences which cannot be eliminated by logic. Each of the two can say: "My hypothesis is self-consistent, compatible with the facts, and more pleasing to me."

What is true of physical hypotheses is likewise so of world-views. These can conflict with one another because of logical or factual errors. But even if errors were removed, contradictions could remain. Dilthey looked for typical attitudes of philosophers which were the cause of unresolvable contradiction. He distinguished between the naturalist type, the objective idealist and the idealist of freedom. His accounts aim so strongly at a demarcation of these typical attitudes that the question how far errors of fact and logical mistakes cause contradictions and how far they are irrelevant for the enquiry did not receive adequate consideration. This led to many unclarities in Dilthey's important work. Thus he speaks of the "universal transcience and the will within us towards stability" as a "contradiction" ('Die Typen der Weltanschauung', in *Weltanschauung*, 1911, p. 10). But this is hardly even a contrast! His account is not of 'contradictions'. Dilthey's writings easily lead one, prior to analysis of logical links and factual knowledge, to refer differences between thinkers too quickly to questions exclusively or predominantly concerning differences in their world-views. This further strengthens the tendency to break off explanations prematurely as hopeless, on the grounds that one world-feeling stands opposed to another world-feeling, instead of carefully examining whether everything has been done that can be settled independent of world-feeling.

The contrasts of world-view that remain when we consider all logical mistakes and factual errors as eliminated would stand beyond true and false. What area these contrasts might encompass we shall not here dis-

cuss. Spengler's uncritical exaggeration of titillating chains of thought here becomes especially evident. Whereas with Dilthey's disciple Nohl (*The World-view of Painting*) we find the careful phrase that "the concept that is valid here has become meaningless elsewhere", Spengler goes further: "What is true for us is false for another culture: this holds of every result of scientific thought." Are ancient mechanics and geometry false for us? Were they false for the Arabs? Would our physiology be false for Aristotle? Is it false for the Chinese?

Spengler's reckless way must be rejected, not only in matters of mathematics and physics, but also where most far-reaching differences are readily recognised, in the field of art; there it is not only a question of true and false, but of enjoying and not-enjoying. "All art is mortal, not only the individual works but the art forms themselves. One day the last picture of Rembrandt and the last bar of Mozart's music will have to have ceased (even if a canvas and a sheet of music will remain), because the last eye and ear vanished to which their language of forms was accessible" (p. 329). Spengler cannot make the gap between us and other cultures wide and deep enough. And yet we see today how the extraordinarily lovely and unique prehistoric cave paintings in Spain and France give us pleasure, how we can find enjoyment in Japanese, Indian and even African art. To be sure much in these things we see differently from those who created them and experienced them within their own culture, but surely much too we see in similar ways. And if the differences have to be stressed, must those between men of different cultures be the greatest? Might there not be much greater differences within one culture? Spengler who is so strongly influenced by modern tendencies in art history could have learnt from them how one confronts 'tendencies of periods and peoples' with 'personal temperament' (Wölfflin, *Kunstgeschichtliche Grundbegriffe* (*Basic Concepts of Art History*) 2nd edition 1917, p. 10), especially since Dilthey's doctrine of types was at his disposal too. And if we are shut off from one another, how does Spengler know so precisely that we do not feel as others do, that we "delude ourselves"? (p. 236). If Spengler knows that we always misunderstand, he must at least think himself free from such misunderstanding, since he does not merely remain silent about other cultures but also talks. Does not what Chuang-Tse finds it appropriate to say to Hui-Tse also apply to him?

Above all Spengler distinguishes too little between the world that belongs to a person and the art that he fashions. Let us disregard the fact that the statement "Each artist has represented nature in colour and line" (p. 241) belongs to the usual Spenglerian exaggerations, since part of pictorial art does not aim at representing any natural objects; besides we know that quite a few artists consciously painted differently from the way they saw. Wölfflin points out with emphasis that Leonardo knew about complementary colours in shadows, and Alberti about the green hues on persons walking over meadows, without making use of this knowledge (*loc. cit.* p. 55). The work of art often shows what the artist wanted to see, not what he did see; sometimes this comes out as a conscious contrast and probably extends to the conception of space as well. Did the artists who painted distorted perspectives see reality 'distorted' as well? Errors of fact and weak elaboration play a similar part with artists as with physicists, of whom Spengler wishes to assert that all their differences are derivable from their character (p. 241).

Far be it from me to contest that a person might have feelings of whose existence another will never know and that he could never feel for himself even if he knew that they did exist. Fairy tales of nymphs who wished to become human already pursue such trains of thought. The difficulties of giving vital shape to alien languages, religions, works of art and forms of family life are tremendous, and perhaps in some cases it is precisely Spengler who has the merit of successfully inspiring an attempt at overcoming them. But such problems require careful analysis before one makes the most general statements about them.

The vacillation in Spengler's total view becomes evident if one compares different parts of his book. In one case there is hardly anything in common between the world pictures of two cultures, even their mathematics are quite different, but then again we read: "Even the field of numbers has its personal side. There are very general traits in these purely mechanical worlds of forms; they can dominate the picture to the point of complete delusion and one can and wants to forget the particular and thus symbolical in favour of the general, yet it is always there" (p. 235). What is important is to draw the boundary between the general and the symbolic somewhat more closely, not merely to mention it and shift it about as required!

The idea of considering physical systems like tragedies and symphonies (p. 174) and world-views like works of art, an idea that Spengler pursues

in agreement with Poincaré and Dilthey, is certainly capable of further elaboration; we might fairly undertake an aesthetic of the cosmos and show how certain sides of the cosmos shed clarity and others a kind of dusk. But every cosmos comprises facts that are quite unambiguously connected with facts of other cosmoi, and alongside the changing aspects there arises something lasting and common. The facts that the seasons follow each other, that fire burns and wine makes you drunk, are common to all world-views. To determine the upper limit of what is in common is a task that many assign to science. But of course it remains uncertain where one should draw the boundary between such a determination and world poetry. We see this clearly enough in a thinker like Richard Avenarius who was honestly endeavouring to show this common area as starting point for the most general basis of all models of the cosmos as a 'natural world concept'.

Spengler is a treasure chest for anyone who seeks excuses for unscientific behaviour. If one points to one of his logical mistakes – that must be understood 'morphologically', not 'logically'; if one shows that a historical argument is not admissible with the help of an example from chemistry – "the animate cannot be compared with the inanimate."

By the manner in which Spengler expounds his philosophy and in particular his doctrine of causality and fate, everyone who rejects it is declared to be in principle defective, and who wants to be that? Who will let it be said of himself that "as a later man of the large cities with his sense for facts and the power of his mechanising intellect he loses sight of the idea of fate, until in a deep (!) moment it stands before him with frightening clarity that crushes all the causality of the world's surface" (p. 168)? Here and elsewhere many readers will declare that they can see fate, in order not to be publicly shamed. And when Spengler calls out to us (p. 172): "The morphological element of causality is a principle, but that of fate is an idea – which cannot be 'cognised', described or defined, but only felt and internally experienced; either one never grasps it or one is completely certain of it, as was early man and, among later men all truly significant men, the believer, the lover, the artist, the poet", why then many must simply reply that they must forego the 'significance' accorded by him; perhaps they will gain all the more recognition before some other court.

Although Spengler the sceptic has destroyed all means of criticism and

all foundations of common conceptual analysis, he speaks with the greatest definiteness about any cultural phenomenon. On the one side, alien souls are shut off from us, on the other, he reports without inhibition about alien feeling, outlook and thought where the most comprehensive proofs would furnish no more than uncertain results. There is no doubt that mathematical thought can manifest itself in buildings as well as in calculations. But what entitles Spengler to put the mathematics of Doric temples on the same level with that of the boomerang? It is of course possible that the boomerang is linked with mathematical instinct, but it is possible also that it is merely a case of empirical use of curved pieces of wood. He surely goes somewhat too far in bringing boomerang and ceremony together without further ado: "The Australian natives possess a mathematical instinct, or, what comes to the same, a fund of numbers, not so far conscious through words and symbols, which as regards its spatial interpretation is vastly superior to that of the Greeks. As weapon they have invented the boomerang whose action allows us to infer (!) an affective familiarity (!) with kinds of numbers that we should assign to higher geometric analysis. Accordingly (!) they possess a very complex set of ceremonies and a linguistic gradation of degrees of kinship so refined as has never been observed even (!) in high cultures" (p. 85). That complex names for degrees of kinship occur precisely at low levels of development, that the 'even' thus is quite misplaced, we mention in passing. 'Baroque' certainly has a complicated mathematics, but, to be sure, no 'correspondingly' fine gradation of degrees of kinship, or is the "system of states resting on dynastic kinship" (p. 85) to be a substitute? Our mathematics becomes ever more complicated and our ceremonials ever simpler; perhaps complication has fled elsewhere. It becomes difficult not to write a satire. If Spengler has isolated valuable ideas and inklings, that does not justify the chaos of inadequacy in which they appear.

The definiteness of his assertions sometimes appears with austere matter-of-factness, sometimes it is based on 'intuition' or 'tact'. He who has both, to him a knowledge of the world is open. Spengler gives witness that Spengler partakes of intuition.

Intuition can be something quite sober, a clear and comprehensive view which lacks proof or even provability; but it exercises a spell on many when it is surrounded by all kinds of mystery. With Spengler the pseudo-rationalist who nowhere tries to overcome reason internally, the

mystery is created by words. A mystical euphoria arises beloved by the philistine; if enveloped in a remnant of 'magic' and 'Apollonian' culture he suffers 'Faustian fate', proud to belong to so 'fine' a culture whose name gives him a bond with 'his' Faust and 'his' Goethe. Facts arise "with the emphasis of a symbol" (p. 160). "In this book we must forego exploring this world of mysterious (!) connections" (p. 160). Spengler never finds it worth his trouble to indicate the marks that distinguish a 'mysterious connection' from an ordinary one. Does not Spengler characterise himself when he speaks of that 'definite euphoria' with which, in Romanticism, one felt certain trains of thought 'as dark, as deep'? With Spengler even the oft-despised logic, with which things follow one another, can be 'deep' (p. 165).

He who strives for clarity should avoid phrases that suggestively influence himself and others too easily. An *Index verborum prohibitorum* might not be a bad educational measure for forcing oneself to clarity. What for others is 'connection of a comprehensive kind' Spengler calls 'metaphysical structure' (p. 3). But of course for one who asserts with Spengler that there are "expressions about whose significance (!) an inner feeling leaves no doubts" (p. 79) there can be no help from an *Index*.

Spengler always speaks of symbols that have to be interpreted, but restricts himself to accounts which derive a factual situation either from a world-feeling or from an arrangement. In a certain century Spengler sets the appearance of a certain kind of mathematics, because this is said to follow from general morphological or psychological experience; but where is the 'interpretation'?

Spengler always gives an inadequate definition of concepts and meanings of words. It sounds ironical when he declares: "First, it is necessary to determine some basic concepts that are here used in a strict (!) and partly novel sense" (p. 77).

Although Spengler over-expands his exposition and is full of repetition he becomes incomprehensibly brief in the decisive determinations. Thus for example he declares without any explanation (p. 4): "The means for grasping dead forms is the mathematical law. The means for understanding living forms is analogy. In this way the world's polarity and periodicity differ." What does he call 'dead' and what 'living'? By 'mathematical law' does he mean every law which is as such mathematical, or a special kind? Is there not a kind of analogy in questions of chemistry? What does he mean by polarity and periodicity? Why do they differ 'in this way'? Is polarity subject to mathematical law and periodicity not? Does polarity figure in the inanimate and periodicity in the living field? None of this is answered here or later. But then Spengler is an opponent of systematic procedure which is supposed not to do justice to life.

It does not help the reader that he is told (p. 7): "I separate, according to form, not substance, very sharply (!) the organic from the mechanical world-impression, the basic concept of forms from that of laws" if this separation is not made clear. Laws are properties of the world, just as forms are. The arrangement of bones in vertebrates I can call a 'form' as easily as a 'law'; the same holds e.g. of the periodic system of elements. And so a tissue of statements becomes full of dictatorial intuition and comfortable mystery. One often requires most careful attention to reach the conclusion that these modes of expression owe their origin above all to a will to mystery, since mystery itself cannot be found in Spengler.

Mystics of all times use phrases that give expression to almost ungraspable feeling, that one may or may not have, that one accepts as a source of knowledge or not, but always there is something that is meant by such expressions. This we miss in Spengler. He uses mystical and metaphysical phrases without freely acknowledging a mystical or metaphysical object, the super-conscious deity or the unconscious world soul; he prays but says not to whom, he venerates but says not what, he bows down but says not why.

Intuition is contrasted with all other knowing, history with nature, life with death. Contrasts! They are the why and wherefore of this book.

The sharp setting up of life over against death, much loved by Spengler, is nowhere given closer foundation and seems rather to spring from the author's urge to exaggerate everything that separates. He must surely not cite Goethe, who says of mineral bodies "to which we wish in no way to deny the tender regard that they deserve within the general living breath of nature" (Goethe, *Osteology*, talks etc., 1796, III, "On the laws of organization as such", etc.).

In this an already over-contrasted notion of Rickert is further distorted. "To set out as sharply as possible the contrast between the contents of concepts on the one hand and given reality on the other, is precisely the point and aim of natural science. The creating of such a gap is the necessary result of any consideration of reality as nature. Every scientific grasp

of the immediate contains some transformation and with it some 'killing' of life" (Rickert, *Die Grenzen der naturwissenschaftlichen Begriffsbildung* (*Limits of Concept Formation in Science*) 2nd ed. 1913, p. IX). In Spengler we fairly feel how an idea of this kind becomes blown up more and more, and filled with associations; how the intensified becomes over-intensified until finally love and world are set in motion: "There is always a streak of hate in the intellectual act by which something is forced into the area and form-world of measure and law. The animate is killed by being drawn into space which is and renders lifeless. Within birth lies death. Something dies in a woman when she conceives. The eternal hate of the sexes, born of fear of the world, here has its basis. In a very deep sense man destroys in begetting: by bodily begetting in the world of the senses, by 'cognition' in that of the intellect. As late as Luther the word 'know' has the secondary meaning of sexual begetting. To call something by name means to gain control over it. An enemy was weakened or killed if his name was subjected to certain magic procedures. Something of this pristine expression of fear of the world has survived in the addiction of all systematic philosophy to dismiss the ungraspable that is too powerful for the intellect by means of concepts or, if it could not be done otherwise, by mere names. Whatever has been named, grasped or measured has been overpowered and has become rigid and 'taboo'" (p. 178). In the end the contrast between life and death becomes that between time and space: "The approaching future became resting past. It became space and thus fell to the inorganic principle of causality. Fate and causality, time and space, direction and extension, are related like life and death" (p. 237).

This sort of flat pathos collapses under any analysis. Spengler's pronouncement could be taken as an exaggerated description of the fact that one usually imagines the future less clearly in spatial terms than one does the past. How little this lies in the nature of the case is clear from the attempt at imagining the course of the world as a four-dimensional tube consisting of a series of adjacent three-dimensional spaces, of which at any moment we grasp the part entering a certain space as the present. Present, future and past appear quite the same in this representation, according to which a four-dimensional creature would see the whole course of our world as 'simultaneous' in front of him.

Not enough with polarities. Experience and cognition have to perform as well: illumination, artistic contemplation, "Goethe's exact phantasy of the senses" are set over against intelligent experience and experimental technique. "There it is comparison, picture and symbol that serve communication, here it is formula, law and schema" (p. 81). Spengler's own behaviour makes it clear that he envisages indirect contemplation, contemplation by detours, partial contemplation, derivation from direct contemplation on the one hand, and direct contemplation on the other. 'Cognition' too, ultimately leans on contemplation, it merely shows how these contemplations when connected lead to new ones that are directly accessible to some persons and indirectly to others. The derivation of the composite from the more simple does not even always succeed where we are convinced of the compositeness. Are hate, fear and love dissectable? Can they be viewed and experienced only undissected, and if so, can we indicate their marks in such a way that we can recognise them again even in ourselves as well as in others as being in every respect of the same kind? Or is every hate comparable to a smell which we cannot describe in such a way that we can re-experience it at will? The man who describes by means of word and picture often is not clear how another can be led to the same experience through descriptions, attendant circumstances, gestures and words.

In so far as we wish to describe such facts we are far removed from method. To evoke even for a few moments and in abbreviated form, Napoleon's feelings, thoughts, the connection of his characteristics, his world, is a most difficult task. And how can we ascertain success? We can agree with Spengler when he says: "to understand history means to know human nature in the highest sense" (p. 81). But what of his further point: "The purer a picture of history, the more exclusively accessible it is to this not properly earthly gaze" (p. 81)? What gaze is earthly, and what is not? Time and again such comments are to replace mysticism and awe for many readers. Far be it from us to deny the possibility of mysticism. But what does it avail to assign any particular facts to mysticism? What did the mystics understand by mysticism? The union of men with God. Assume there is a God, free from all material barriers; for him the past, present, future, 'here' and 'there' are the same. The splitting up of the world into things and egos is abolished, which mysticism expresses by saying that God 'is' everything or 'becomes timeless'. This re-experiencing is no longer to be a man, but to be God. Quite consistently, mysticism teaches that man can recognise God only if he becomes God. The mys-

tics rightly say that the content of this experience of God, this being transformed into God cannot be put into words. This mystical turning into God, this 'union of men with God', which has nothing in common with what the believers in heaven mean by 'getting into paradise', since that preserves the earthly separateness, one cannot prove to be possible. It may appear without our assistance as 'grace', or perhaps by means of certain ways of life, turning away from all manifoldness, by means of 'seclusion', connected not only with abstention from pleasure and enjoyment of all kinds but with a proper technique of one's whole behaviour.

To whom such an existence is barred it can in principle not be described. This is even less possible than describing colours to the blind which can at least be indicated as related to sounds. With one who says that he was united with God or who believes that he can be, one cannot argue, but neither does he with us. That is mysticism. One may give oneself over to it, yearn for it, or view it dispassionately. It is concerned with totality, and the person turned into God is God, devil, man, beast, plant, and pebble wholly and essentially. But spare us that talk that must appear as ludicrous nonsense to the non-mystic and as outrageous misunderstanding to the mystic.

The mystic contemplation in Spengler's style lacks the basis just described. The word 'mysticism' appears in this verbose book in all kinds of contexts without the concept ever being characterised. We are told that there are degrees of mysticism, in statements like: "Does not the language of forms in mechanics contain the symbolism of the half-mystical (!) archwords that govern experience, instead of emerging from it, precisely in their sharpest formulation? What is force? What is cause? What is process?" (p. 55). Likewise there are degrees of metaphysics, for instance "wholly metaphysical grounds" (p. 92) of metamathematics, whose penetration presupposes "a kind of visionary illumination" (p. 92).

This mystical garb used by Spengler, the inclination to assign 'morphological' and 'fateful' phenomena to special spheres of being and thought, mislead many into re-interpreting the trivial defects of Spenglerian exposition into necessary contradictions of a tremendous world-view. Of that there is no question in Spengler, since he is far removed from the mysticism which assumes in divine existence an overcoming of contradictions, and believes that the individual person could participate in deification. One who adheres to such thinking may indeed contradictorily

describe the divine through human means. Contradictions can also flow from a world-view which sees antinomies where the divine or the totality of the world is in question. One can understand when someone like Karl Camillo Schneider maintains the view that the world can be grasped only by means of whole groups of mutually antagonistic theories. In this sense it becomes doubly understandable that one who, like Spinoza, sets out to describe the world as a whole, will not forego ordinary contradictions, impatiently anticipating the cognition of the future. But Spengler? The contradictions we find in him are trivial in kind, they can be overcome within individual sciences.

Everyone in his innermost soul must come to terms with mysticism and antinomies; but the struggle against the mystic euphoria that attaches to trivial contradictions can be fought independently of that. Young people who take life seriously must quickly settle this in order to advance to strong constructive activity, but also to old and difficult questions of existence and world-views, which are spared no one, be he as logical and acute as a man can possibly be. To these young people who today often toil with Spengler and waste much effort on him, this critical essay is dedicated. It has been set out in such detail not because of Spengler's significance, but in order to do justice to the significance of the young whom it wants to help.

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