

Cosmic Persons and Human Universes in Indian Philosophy.

By George P. Conger.

There is hardly any philosophical doctrine which is more widespread among all peoples and throughout all periods than the theory that the universe is like a man and that man is a microcosm, or little universe, exhibiting in miniature what is found in the macrocosm around him. In the philosophies of India such theories are numerous and sometimes of basic importance. So far as I am able to find, there has been no book or article concerning them; such an investigation should be undertaken, not merely for its historical interest, but in order to bring out points of relationship with other Oriental and Western philosophies.¹

The following statements are offered as a brief summary of results of some explorations in this field.2 The conclusions are somewhat tentative and may need to be modified as more of the immense literature becomes available or as others take up such investigations, but I think the outstanding points can now

be indicated with some confidence.

The material is difficult to interpret because of (i) the use of similes and metaphors as well as microcosmic theories. The universe is compared, for instance, not merely with man, but with the ocean, a tree, a city, a lute, and some of these comparisons offer little in the way of a metaphysical principle. It is sometimes a question whether the comparisons between the universe and man are meant to be taken more seriously than the others. On the whole, however, our material is plain, and, although the distinction cannot be made with complete precision, we are concerned with more or less detailed correlations,

of scholars in India, to whom my thanks are due. The full list of them would be a long one; I must especially mention the valuable aid of Principal S. N. Dasgupta of the Sanskrit College, Calcutt

van Manen, Secretary of the Asiatic Society of Bengal.

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¹ For microcosmic theories in Chinese philosophy, see, e.g., J. J. M. De Groot, Universismus, 1918, p. 10: K. C. Wong and L. T. Wu, History of Chinese Medicine, 1932, pp. 11f: W. Eberhard, in Baessler Archiv, 16, 1933, p. 3. For Persian and Greek philosophy, A. Götze, in Zeitschr. für Ind. u. Iran., 2, 1923, pp. 60–98, 167–177. For Western philosophy, G. P. Conger, Theories of Macrocosms and Microcosms in the History of Philosophy, 1922. For Islam, the last named, and D. M. Donaldson, The Shi'ite Religion, 1933, pp. 313f.

2 In the preparation of this paper I have been helped by a number of scholars in India, to whom my thanks are due. The full list of them.

usually analogies, between essential structures and processes in the universe, or conspicuous parts of it, and in man.

Again, (ii) there is a difficulty as to whether passages are to be interpreted allegorically or literally. Does 'agni', for instance, mean 'fire' or 'the god of fire'? Sometimes this does not greatly matter, because natural processes and objects are deified, and both processes and deities are regarded as belonging to the macrocosm. In other cases, where such questions of interpretation are important, one must depend chiefly upon the context, understood however in accordance

with a third difficulty still more subtle.

This is (iii) the fondness, in ages innocent of logic, for mystical identifications of objects which are thought to correspond to one another in any prominent way. The lines of analogy here never run quite parallel to one another; they either converge in an identity or are capable of thus converging if they are followed out to some of their more remote implications. This suggests the fourth and most general difficulty,—(iv) that which is due to the immense distance in time and culture, the incommensurabilities and surds of different psychologies and ontologies which render the meanings of many passages impossible to discern with clearness.

Finally there is a difficulty familiar to every student of Indian philosophy, (v) the difficulty of chronology. The tracing of developments involves some fixing of dates, or at least of chronological sequences. But the Indians have a way of writing without leaving indications of these things, as if their thoughts were destined to be timeless. About all that can be done in the way of tracing developments is to distinguish certain major classes of literature, which seem to indicate certain major periods, but which are so interrelated that at least some parts

of almost any assigned sequence may be wrong.

The classification and sequence here adopted is that of (I) the Vedas; (II) the Brāhmaṇas; (III) the principal Upanishads; (IV) the Vedānta and Sāmkhya systems; (V) the Bhagavad Gītā; (VI) the Caraka Samhitā; (VII) the Purāṇas, Tantras, and other sectarian literature; (VIII) the writings of mediæval mystics; (IX) the religions derived from Hinduism; (X) the more recent Indian philosophy developed in contact with the West. It will be noted that this sequence is only partially chronological.

I. THE VEDAS.

If the Black Yajur Veda (as the matrix of a Brāhmana, but hardly a Brāhmana as yet) is assigned to the first of our divisions, we have already in the Vedic literature five basic types of theories of macrocosm and microcosm. We shall indicate them by letters and discuss them briefly.

The universe is regarded as constituted like a person. The Rig Vedic hymns to Heaven as Father and Earth as Mother 1 show that something of this sort is very early. It requires even less poetic imagination to call the wind the breath of the allencompassing Varuna.² The tendency to interpret the world in human terms appears most clearly in the cosmogonies of the later Rig, the Black Yajur, and the Atharva Veda, where the universe is said to have originated from the body of a World-Person (Purusha, 3 Prajāpati, 4 Brahman 5), usually the victim of a cosmic sacrifice. Sometimes the derivation is traced from a World-Animal, the sacrificial horse.⁶ By common consent the prototype of all Indian macrocosmic, if not microcosmic, theories is seen in the cyclopean Purusha-Sūkta, one of the great monuments in the literature of the world.

B. Parts of man's body are correlated directly with parts of the universe in one of the Rig Veda's funeral hymns, where the eye of the dead man is bidden to go to the sun and his breath to the wind.⁷ These correlations, again, require only a little imagination and are somewhat more obvious than others used by later writers.⁸ Alternative procedures are also suggested in the Vedic passage, so the microcosmic theory here is only

rudimentary.

A-B. Our first two types are combined when in the Atharva Veda it is said that the gods performed a sacrifice and arranged the body of man in correlation with parts of the universe.9

In the Black Yajur Veda there is pronounced ritualistic emphasis. There are a number of correlations (shading into, and difficult to distinguish from identifications) of (1) features of the prescribed sacrifices—altar, 10 litany, 11 etc.—and (2) parts of the universe, often regarded as deities. 12 The passages are characteristically brief and apparently loosely strung together, like those of the earlier Brahmanas. They do not go much beyond isolated and seemingly somewhat casual, fluid observations; plays upon words; traces of numerology; and imitative or sympathetic magic.

¹ RV, i. 112. 1; i. 185; ii. 32. 1; iv. 56; etc. ² Ibid., vii. 87. 2.

³ Ibid., x. 90: AV, xix. 6.
4 RV, x. 121: Bl. YV (Keith, HOS), vii. 1. 1. 4f. The latter is infused with ritualistic elements.

 ⁵ AV, x. 2. 21ff; x. 7. 32ff.
 6 Bl. YV, vii. 5. 25. M. Bloomfield, Atharva Veda, 1899, p. 87, notes that every animal offered was magnified to cosmic proportions. 7 RV, x. 16. 3.

¹⁰ Bl. YV, v. 2, 3, 5; v. 3, 6; v. 4, 12; v. 4, 2, 2; v. 6, 7, 1f. 1bid., v. 2, 5, 2; v. 2, 5, 5; v. 2, 6, 1. 12 Ibid., v. 4. 1. 1; v. 4. 3, end.

D. We find also a few correlations between (1) features of the prescribed sacrifices—altar,¹ utensils,² etc.—and (2) parts or processes of the human body. These may have been extended, if not suggested, by the use of parts of the body in measurements.3 The notion that man is a microcosm appears clearly when, after a ninefold correlation of the parts of the sling and of the human body, the priestly writer concludes 'Verily, in himself he bears it '.4 But comparisons with the universe are more frequent; apparently in the Vedic period the macrocosmic interest predominates.5

There are a few correlations which may be said to combine C and D, and which compare (1) features of the sacrifice, (2) parts of the universe, and (3) parts or processes of the human body. Even in the White Yajur Veda, various layers of bricks are associated, if not identified, with bodily functions or organs (breath, mind, eye, ear, thought), with seasons, and with various meters.6 But the bodily functions here may well be superhuman; the next verse shows, again, that macrocosmic interests are more prominent. In a passage of the prose portion, bricks are associated with the earth, which is said to be speech; the atmosphere, said to be breath; and the sky, said to be the eve. Not alone the seasons, but also the four castes, are associated with parts of the ritual.8

II. THE BRAHMANAS.

A. In the Brāhmaṇas, the universe is regarded as having arisen from the body or activity of a World-Person, usually called Prajāpati, but also Agni, 10 Indra, 11 or Om. 12 The cosmogonic process begins to be regarded as emanational.¹³ The Person is not always the victim of a cosmic sacrifice, but some

¹ Ibid., v. 2. 4. 3; v. 3. 2. 3.

² Ibid., v. 6, 2.

³ Ibid., v. 2. 5. 1.

⁴ Ibid., v. 6, 9b.
5 Keith, HOS, 18, p. exxvii, notices a passage (v. 3, 9, 1), which says that just as a man is held together by his sinews, so the fire is held together by certain bricks.

⁶ Ibid., iv. 3. 2. 7 Ibid., v. 6. 8f.

⁸ Ibid., v. 6. 10. 1. 9 Ait. Br., v. 32: Kaush. Br., v. 1-10: Pañc. Br., vii. 10. 15; xx. 14. 2: JUB, i. 46. 1ff; iv. 25. 1f: Sat. Br., vii. 1. 2. 7: JUB, ii. 1. 1ff mentions 'the gods'.

⁽JUB=The Jāiminīya or Talavakāra Upaniṣad Brāhmana: Text, Translation, and Notes, by H. Oertel, Journal of the American Oriental Society, Sixteenth Volume, New Haven, 1894.)

Pañc. Br., xxiv. 3. 5.

¹¹ JUB, i. 28. 2.

¹² tlop. Br. See M. Bloomfield, op. cit., p. 109. 13 Kaush. Br., vi. 10: JUB, i. 23. i; iii. 15. 4; iv. 22. 1.

features of the ritual, etc., are usually included in the accounts.1 Of all the Brāhmaṇas, the Satapatha in its cosmogony exhibits probably the greatest spread; it retains archaic features, such as Purusha,2 the golden egg,3 and the sacrificial horse,4 but shows its late date when it maintains that parts of the Cosmic Person are themselves persons,⁵ and still more when it traces the beginnings of things to a Mind which performed sacrifices mentally, with 'fires which in truth are knowledge-built'.6

There are comparatively few correlations between parts of the universe and parts of man, independently of the ritual 7; of course the ritual is never far from any Brahmanic teaching. Some of the passages seem more like Upanishadic than earlier Brahmanic thought, as when the Taittiriya Brahmana says that various gods, plants, trees, etc., are in various parts of man, and emphasizes the indwelling of man's ātman in Brahman.8

The Jaiminīya Upanishad Brāhmaṇa portrays the immortal Cosmic Person as of threefold nature ('white, black, person'),

corresponding to the threefold eve of man.9

C. Eggeling thinks that the purport of Brahmanic sacrifice was the restoration of the once dismembered Lord of Creatures and reconstruction of the universe, and that this stimulated comparisons between the parts of the two. 10 The Brāhmaṇas contain almost countless instances of such correlations, based on the numbers of verses, syllables, days, etc., in the ritual, and corresponding numbers ascribed to various cosmological facts and events. 11 Sometimes recourse is had to even more dubious etymologies and plays upon words. The old cosmogony is reflected when the Kaushitakī Brāhmana correlates seventeen verses with 'the seventeenfold Prajāpati'; the fact that microcosmic relationships are definitely in mind is shown by the statement that 'that rite is beneficial which is commensurate with Prajāpati'. 12

According to Eggeling, the construction of the fire altar offered a most conspicuous opportunity for the Satapatha's

Pañc. Br., vi. 1. 6ff; JUB, i. 11. 1ff; iv. 9. 1ff; iv. 10. 1.
 S'at. Br., x. 6. 1. 4ff.
 Ibid., x. 1. 6. 13.

⁴ Ibid., x. 6. 4. 1.

⁵ Ibid., vi. 1. 1. 3; x. 2. 2. 5.

⁶ Ibid., x. 5. 3. 1ff (Eggeling).
7 JUB, ii. 11. 2ff. Sat. Br., x. 3. 3. 8 continues the RV view that various parts of the dead man pass to various parts of the universe.

⁸ A. B. Keith, Religion and Philosophy of the Veda and Upanishads (HOS), 1925, p. 441.

⁹ JUB, i. 25. 7ff; i. 26. 1ff.

¹⁰ SBE, 43, p. xix. 10 SBE, 43, p. XIX.
11 Ait. Br., ii. 41: Kaush. Br., vii. 5, viii. 8f: Pañc. Br., iv. 1. 10ff, and passim: Taitt. Br., iii. 2. 10: JUB. i. 19. 1; i. 31. 2ff; iv. 22. 9: Sat. Br., iv. 5. 5. 12, and passim: Gop. Br., i. 4. 11f (Bloomfield, op. cit., p. 115). At least once (Sat. Br., iii. 2. 1. 1ff), the parallelism is not rigid, 12 Kaush. Br., viii. 2. Cf. Pañc. Br., ii. 10. 5.

correlations between its ritual and the universe,1 and perusal of the Satapatha shows that the opportunity was by no means lost.

D. It appears that the Brāhmaņas were more interested in correlating the sacrifice with the universe, or with the universe and man together, than in correlating the sacrifice with man alone. In the Kaushitakī and Jaiminīya Upanishad Brāhmaņas, the last-named correlation is almost or quite absent.2 Pañcavimsa Brāhmana it occurs quite frequently; sometimes the sacrifice is correlated with the order of social classes rather than with man's body.3 The Aitareya correlates features of the sacrifice with some of man's mental functions.4 Satapatha declares that the fire altar, which was built in the form of a bird, exhibits numerous correspondences with parts of man's body,5 and there are other wearisome accounts of correspondences in terms of meters,6 offerings,7 syllables,8 The Gopatha Brāhmana correlates a certain sequence of ritualistic acts with the development of the human body.9

In spite of these and other instances of correlations between the ritual and man, other correlations remain more prominent, and the data of microcosmic theories agree with other data, that in the Brahmanic period interest in human personality was still for the most part submerged in the overwhelming universe and the almost equally overwhelming ritual.

E. When man does appear in the Brāhmanas, it is usually in the framework afforded by the universe and the ritual. The Kaushitakī and Pancavimsa Brāhmanas offer few if any correlations of the three, 10 but elsewhere we begin to meet, more or less completely expressed, the 'adhidaivata, adhyātma' formula— so with regard to the deities; now with regard to the self'. In the Brahmanic and Upanishadic periods, this comes to be one of the clearest marks of the microcosmic theories. In the Brāhmaņas it is frequently some feature of the ritual which is thus doubly correlated.11 In the Jaiminiya Upanishad and the Satapatha, various chants, meters, etc., are elaborately

³ Pañc. Br., ii. 8. 2; vi. 6. 1; xv. 4. 8ff; xviii. 10. 8f. Cf. Sat. Br., x. 4. 3. 22.

⁴ Ait. Br., v. 25.

⁵ Sat. Br., x. 1. 1. 9; x. 5. 4. 12, etc. Perhaps measurements in finger lengths (x. 2. 1. 2) suggested some of the comparisons.

⁶ Ibid., iii. 1. 4. 23.

⁷ Ibid., iii. 8. 1. 3; iii. 8. 4. 1.

⁸ Ibid., x. 4, 1, 16f.

⁹ Gop. Br., i. 3. 6ff (Bloomfield, op. cit., p. 113).

¹⁰ See Kaush. Br., ix. 3: Pañc. Br., xxii. 4. 3f; xxv. 18. 4.
11 Ait. Br., ii. 40. See Kaush. Br., ix. 3: JUB, i. 26. 1: i. 33. 5;
i. 34. 1: i. 57. 7f; iii. 1. 14; iii. 4. 2f, 12: Sat. Br., x. 1. 2. 2f; x. 3. 3. 6ff; x. 3. 5. 7ff.

identified both with parts of the universe and of man. 1 Gopatha, with its interest in strengthening the position of the fourth Veda, seizes upon tetrads supposed to be characteristic both of the universe and of man.2

We must not trace the Indian microcosmic theories entirely to the sacrifice and its supposed significance: too many other elements, common to both Indian and non-Indian thought, are involved. But certainly nowhere in the world was sacrifice so prominent in the microcosmic theories. There seems to have been a reciprocal influence. On the one hand, attempts to order and explain the ritual laid hold, in almost haphazard fashion, on the materials furnished by primitive microcosmic theories. But, on the other hand, the appalling mass of detailed instructions about the various bricks, layers, utensils, chants, meters, etc., can hardly have been set up arbitrarily or in a process of trial and error. They must indicate that man's increasing concern with the universe and with himself was leading, in accordance with microcosmic ideas, to elaborations of the ritual in these peculiar ways.

This is not to say that any one understands the Brāhmanas 3 : they are as foreign to our world (at least, to the Western world) as are the Magellanic Clouds. But the microcosmic theories offer one of the important ways of studying them.

THE ĀRAŅYAKAS AND UPANISHADS.

The Aitareya Āraṇyaka and the Śānkhāyana Āraṇyaka are matrices of Upanishads and in their microcosmic theories exhibit characteristic transitions to the later Upanishadic thought.

The universe is regarded as having originated in the activity of a World-Person (Prajāpati, 4 Ātman 5). A secondary World-Person, the Virāj, is introduced.6 Ātman gains in importance and is increasingly recognized as intelligence.7

Once Prajāpati is said to have caused the deities to

dwell in man in microcosmic fashion.8

B. The period is characterized by the lessened importance of Brahmanic sacrifices, which tend to be interpreted metaphorically or to be replaced by substitution meditations.9

JUB, i. 2. 1; i. 9. 2; i. 33-36; i. 57. 7; iii. 1. 12ff; iii. 4. 1ff;
 iv. 9. 1; iv. 10. 1: Sat. Br., vi. 2. 2. 3ff; x. 2. 4. 1ff; x. 2. 6ff; x. 3. 3.
 1ff; x. 5. 2. 1ff; x. 5. 4. 2ff; xi. 1. 6. 25ff; xi. 2. 7. 1ff.
 2 Gop. Br., i. 2. 11; i. 3. 14 (Bloomfield, op. cit., p. 105).
 3 Sec. H. Oldenburg, Die Welterscheiter, der Breiberge (Texts. 1919).

<sup>See H. Oldenburg, Die Weltanschauung der Brahmana Texte, 1919.
Ait. Ar. (Keith, 1909), iii. 2. 6; Sänkh. Ar. (Keith, 1908), viii. 1.</sup>

⁵ Ait. Ar., ii. 4. 1.

⁶ Ibid., ii. 4. 1.

⁷ Ait. Ar., ii. 1ff (Keith, p. 226, n. 1); v. 3. 2.

⁸ Sankh. Ar., xi. 1. 9 Ibid., x. 1. 8.

With the weakening of the older ritual, the universe and man come to be compared with one another more directly, without regard for the ritual. The adhidaivata-adhyātma formula is explicitly used 1-repeatedly in the Śānkhāyana, where several different opinions are canvassed as to the details of a recognized teaching concerning the union of two entities in a third, the union occurring both with regard to the deities and with regard to man.2 In these Āranyakas there are also said to be certain correspondences between the senses of man and their objects in the Virāj,3 or in the unity of the self4; such epistemological versions of microcosmic theories later become widely current, in India and elsewhere. Once the incorporeal conscious self is declared to be the same as the sun.5

C, D, E. What has been said concerning the lessened importance of the older ritual does not mean that the older correlations between sacrifice and universe entirely disappear.6 They are, however, less frequent than correlations between the sacrifice and the human body 7-a fact which testifies to the increasing interest in man, although this is somewhat offset by the large number of correlations between the ritual, the universe, and man which still persist.8 There is a trace of increasing emphasis upon the psychological.9

The remarks just made apply with minor qualifications to the great Brihadāranyaka Upanishad. It retains rather more of the traditional cosmogony, or cosmogonies, but it also emphasizes the importance of prana and atman, 10 and shows traces of psychologizing tendencies, subjectivism, and the identifica-

tion of the self and the Absolute.11

1 Ait. Ar., iii. 1. 1.

The Chandogya Upanishad (A) describes the Universal Atman in makanthropic terms, 12 and (A-B) interprets Brahman with reference both to the self and to the divinities. 13 There are (B) a few direct correlations between the universe and man, but along with emphasis upon the inner aspect. 14 Although the Upanishad declares that what people call sacrifice is really the chaste life of a student of sacred knowledge, 15 it is close

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<sup>2</sup> Sankh. Ar., iii. 2-6, 20.
         <sup>3</sup> Ait. Ar., ii. 4. 1.
         <sup>4</sup> Sānkh. Ar., v. 5.

<sup>5</sup> Ait. Ar., iii. 2. 4.
         6 See Ait. Ar., i. 2. 3; i. 3. 8: Sānkh. Ar., i. 1.
         <sup>7</sup> See Ait. Ar., ii. 3. 5ff; iii. 2. 1.
         8 Ait. Ar., ii, iii, iv : Sankh. Ar., viii. 1. 2.
        9 Sankh. Ar., viii. 3.
** Sankn. Ar., viii. 3.

10 Brih. Up. (Hume, Thirteen Principal Upanishads), i. 3: i. 5.

3-13, 22: ii. 5. 1-15.

11 Ibid., iii. 7; iii. 9. 10-25.

12 Chand. Up. (Hume), v. 18. 2.

13 Ibid., iii. 18. 1.

14 Ibid., iii. 18. 7; iii. 14. 4: viii. 1. 2.

15 Ibid., viii. 5. 1. (If iii. 16.17; v. 10-23.
       15 Ibid., viii. 5. 1. Cf. iii. 16-17; v. 19-23.
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enough to the ritual of the Sāma Veda to preserve (C) correlations between the sacrifice and the universe.1 On the other hand, (D) correlations between the sacrifice and man hardly occur at all, except as parts of (E) correlations between all three classes of data, which again are numerous. Among the last named is a systematic arrangement of ten sets of parallels for the fivefold chant.2

In the other principal Upanishads are scores of passages which exhibit microcosmic views similar to those just mentioned. Occasionally there is a notable isolated passage, such as that in the Taittiriya concerning the process of unification or synthesis with regard to the material world, the luminaries, the process of knowledge, the process of generation, and the individual self.3 In the main, the trend of the Upanishads is unmistakeable: the sacrifice as the epitome of the universe gives way to the self and the self is conceived in ways which anticipate the later Vedantic doctrines. Thus the Maitri Upanishad, though it contains several makanthropic cosmogonies,4 avers that the world is a mass of thought,5 that the person in the sun is identical with the person within,6 and that the man who knows the truth of some of these things meditates only in himself and sacrifices only in himself.7 Mundaka derives the world from the dismembered limbs of a sacrificial victim, but declares this to be the inner soul of all.8

Doubtless many microcosmic passages in the Upanishads are there as mere survivals, the result of cultural inertia, but others seem to have been ascribed some positive use. As the older forms of sacrifice declined, theories of the correlation between man and the universe were retained as valuable aids to the seeker after knowledge of Brahman. The aid was not merely theoretical, but practical; over and over again it is declared that salvation or some attractive material benefit secondary to it, accrues to the man who knows the microcosmic relationship between parts of himself and parts of the universe. So the microcosmic theories served as a kind of scaffolding in man's first attempts to scale the absolute. But presently those who thought that they discerned more direct ways to the high goal tended to dispense with the scaffolding, and others who were more interested in the empirical world began to detect flaws in the scaffolding's construction. The result is, in the developing Vedanta philosophy, a gradual shifting of emphasis

¹ Ibid., i. 11. 5-9; ii. 2. 1f; ii. 22. 1; iv. 11-13.

² *Ibid.*, ii. 11–20. *Cf.* ii. 2–7. ³ Taitt. Up. (Hume), i. 3. 1-3.

⁴ Mait. Up. (Hume), ii. 6; iii. 2; v. 2; vi. 3, 6, 15, 32.

⁵ Ibid., vi. 16.

⁶ *Ibid.*, vi. 1; vi. 35. 7 *Ibid.*, vi. 9.

⁸ Mund. Up. (Hume), ii. 1. 4.

elsewhere and, in the developing Sāmkhya philosophy, a transformation of the older theories until they are hardly recognizable.

This is not the place for a discussion of the relationships between Indian and Greek philosophies, but it is possible that investigations of microcosmic theories may sometime add a line on this intriguing subject. Any of the great philosophical concepts may spring up indigenously in any one of the great cultures, and there is certainly no clear evidence that the Greeks borrowed any of their doctrines from the Indians. In the absence of clear evidence, however, two or three minor observations appear to be in place. First, the earliest known micro-cosmic theories of India were older by centuries than those of Greece. Second, in such matters it is easier to infer borrowing from similarities in small and curious details than in great generalizations and major principles. Third, the earliest known expression interpretable as a microcosmic theory in Greek thought, the fragment of Anaximenes which says that just as our soul which is air holds the body together, so air encompasses the whole world, is easier to understand against an Indian background of prāṇa, vāyu, and ātman 1 than in its Greek context This, together with some features of or lack of context. Pythagoreanism and the myth of the charioteer in the Phaedrus² (rather, I think, than with the four elements of Empedocles, or the monism of Parmenides) would suggest that we might at least search for evidences of Preplatonic borrowings from the literature of late Upanishadic times.

For the purposes of this survey, the sources subsequent to

the great Upanishads may be treated more briefly.

IV. THE VEDĀNTA AND SĀMKHYA SYSTEMS.

In the Vedānta system the view that man is a microcosm finds a kind of tacit acceptance, such as it does, thousands of years later, in Western idealism. Whenever the Supreme Reality is regarded as Mind, it is taken for granted that the mind of man is like it, but on a limited scale. The Vedānta Sūtras criticize some of the cruder forms of the old microcosmic theories, declaring that the notion that parts of the human body go at death to corresponding parts of the universe is only metaphorical.³ But the Sūtras use without hesitation the old formula about the deities and the self in a discussion of the material and the immaterial parts of Brahman.⁴ Sankara, too, uses the formula to explain the all-pervadingness and the minuteness of the prāna, and some of his commentators,

Cf., e.g., Kaush. Up., ii. 12, 13.
 Cf. Kath. Up., iii. 3-9.

Vedānta Sūtras (SBH, 5, pt. 1), iii. 1. 1. 4.
 Ibid., iii. 2. 11. 21.

⁵ Śańkara's Commentary on Vedānta Sūtras, ii. 4. 13 (SBE, 38, p. 91).

if not the master himself, are explicit and even elaborate in their microcosmic views.¹ The chief interest, however, is elsewhere. The advaitist is anxious not so much to correlate the soul and the universe as to identify them. For Sankara, the sort of knowledge afforded by cosmic analogies helps self-knowledge, but when the nature of the self has been thoroughly perceived, no more desire is left for any other kind of knowledge.²

Vastly more interest in theories about the cosmos is shown in the Sāmkhya philosophy. In its empiricism it is more chastened and responsible than the old priestly speculations, but in its development of Upanishadic materials it retains a few characteristics in which microcosmic theories are implicit. Interest in the sacrifice has so completely disappeared that we may dispense with several of the divisions used above and

consider only the first two.

A. In the Sāmkhya the old cosmogonies give way to that of Purusha and Prakriti, with elaborate and subtle theories concerning a complicated series of emanations from the latter.

B. In the course of this series of emanations, the senses and the objects of sense are said to originate in a correlated process,³ which affords a kind of organic realism, with such basic and essential relationships between man's mind and the objective

world that the former is a microcosm of the latter.

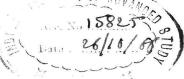
Furthermore, the presence in all things of the three gunas, sattva, rajas, and tamas, may at least be interpreted to afford a microcosmic ontology, although the difficulty here, as in other highly abstract ontologies, is to show how man in his possession of these qualities is to be singled out as a microcosm distinguished from other microcosms present everywhere. We have said that in the Sāmkhya microcosmic theories are hardly recognizable. The low estate into which the old explicit theories now fall is reflected in the fact that the terms adhyātmika and adhidaivaka are used in Vijñāna Bhikshu's commentary to indicate two of the three sources of those human pains which it is the avowed object of Sāmkhya to allay.⁴

V. THE BHAGAVAD GITĀ.

Microcosmic conceptions are involved in the philosophical basis of the Gītā, in its emphasis on the three qualities familiar in the Sāmkhya system, and in the theophany where the quasi-

3 S. N. Dasgupta, Yoga Philosophy in Relation to other Systems,

1930, p. 182. ⁴ Vijūāna Bhikshu, Commentary on Kapila's Sūtras. i. 1 (SBH, 11, pt. 1).



<sup>See A. M. Sastri's translation of Sankara, Dakshināmūrti Stotra,
etc., Calcutta, 1885 and Madras, 1899, pp. 121f. 143.
Ātmabodha, tr. A. Basu, 1885, pp. 7, 36, 45.</sup>

human form of the Supreme Being is declared to contain the Such conceptions also may be inferred from the belief that Vishnu as the World-all becomes incarnate in human avatars; if this is the case, then even ordinary men must be in some respects like the universe. But on the whole, the Gitā is concerned with questions more immediately practical, and microcosmic theories, because of the very vastness of the considerations they require, tend to be left implicit in the larger framework within which the more practical issues have to be The traditional terms are used with modified meanings: 'adhyātma' is now a name for the Supreme Spirit, who as adhidaiva is the supreme deity.2

VI CARAKA.

Another source of microcosmic theories, in India as in Greece and China, is afforded by the ancient medical works. Such theories are basic for Caraka, who says that the evolution and nature of man resembles the evolution of the universe. The courses of production, growth, decay, and destruction of the universe and of man are the same. The human body must be understood in terms of nature, and medicines are to be selected and used in accordance with microcosmic correlations.³

VII. THE PURANAS, TANTRAS, ETC.

From the point of view of microcosmic theories, a vast number of writings can here be grouped together which in other respects would have to be considered separately. They spread through a long period of time-perhaps fifteen hundred yearsbut they overlap so much, both in supposed dates and in contents, that there is little opportunity to trace sequences of development. For our purposes, a number of minor Upanishads and much that comes to us under the name of Yoga can be included along with the Purānas, Tantras, Āgamas, and other sectarian writings. They all agree in working out in more or less popular form doctrines which are treated more critically in the classical systems. Sāmkhya conceptions predominate, but not without admixture of Vedanta elements.4

The Puranic and some of the other cosmogonies retain

¹ BG., xi. 7.

See J. Davies, translation, 1907. p. 3.
 S. N. Dasgupta, General Introduction to Tantra Philosophy, in
 Mukerjee Silver Jubilee Volumes, 3, 1922, p. 267; History of Indian Philosophy, 2, pp. 302ff.

⁴ For some of the Shaivites, the universe develops by a process similar to that of our own experience (J. C. Chatterji, Kashmir Shaivism, 1914, p. 53: Cf. Sir J. Woodroffe, Shakti and Shākta, 1918, pp. 68f).

archaic elements, like the cosmic egg 1 and the articulation of the Cosmic Person,² but, especially in the sectarian writings, the Sāmkhya Purusha and Prakriti tend to yield the fundamental place to the more highly personified Shiva and Shakti, or Vishnu and Lakshmi, the divine pair whose relationships account for the world. Throughout this literature there are numerous sound- and letter-mysticisms, purporting to reveal occult solutions to the riddle of the cosmos.4

B. The chief key to the cosmos (sometimes called brahmāṇḍa) is man (sometimes called pindāṇḍa, or pinda), composed of the five elements,5 having senses corresponding to the objects of sense,6 and reproducing the structure of the macrocosm in a series of nervous centers, ganglia, or plexuses.7 Especially in the Tantric literature, the seeker is instructed to awaken the Shakti, or energy, which is conceived in the form of Kundalini, the serpent or spiral power, asleep in a center of the pelvic generative region. The power, thus awakened, is

3 Vishnu Purāna, i. 2; ii. 7; Agni (Dutt, 1903), exxiii: Sir J. Woodroffe, op. cit., passim: F. O. Schrader, op. cit., pp. 29ff, 37, 68: K. S. Chatterji, op. cit., pp. 43, 47, 65, 87, 92, 147: R. C. Temple, The Word of Lalla the Prophetess . . . 1924, pp. 67, 159.

4 Mārkandeya Purāna, xlii, 9ff: Agni, exxiii: Yogatattva Up., (Thirty Minor Upanishads, p. 201): Nādabindu Up. (ibid., pp. 254ff): Sir J. Woodroffe, op. cit., p. 173; The Garland of Letters, 1922, pp. ix, 205ff, 223, 255: R. C. Temple, op. cit., p. 161. A remarkable example of letter-mysticism is recorded by Bhagavan Das, The Science of the

Sacred Word, 3 vols., 1910-3.

5 Garuda Purāṇa, xv. 25-30: Mahānirvāṇa Tantra (Dutt, 1900), xxxi: various minor Upanishads in Thirty Minor Upanishads, pp. 45f; 113; 116; 197f; 237f. Ramdas, in his Dasabodha, concludes that this i the best way of understanding the microcosmic relationships of man

1 the best way of understanding the microcosmic remaining and the universe (Prof. R. D. Ranade, conversation).

6 Mārkandeya Purāna, xlv: Matsya [SBH, 17(1)]. iii. Sir J. Woodroffe, Garland of Letters, p. 205: Yogavāšishļa, xviii. 5, 22; lxxiii, 49: J. C. Chatterji, op. cit., pp. 121ff.

7 Vishņu Purāṇa, ii. 7: Agni, exxiii: Garuḍa, xv. 54-75: A. Avalon (pseud. Sir J. Woodroffe) The Tantra of the Great Liberation. 1913, pp. xxxvi, xlv: Sir J. Woodroffe, Shakti and Shākta, pp. 170f, where the doctrine of the wingraemy (Kaladardarda) is said to be fundamental doctrine of the microcosm (Kshudrabrahmānda) is said to be fundamental ucetrine of the microcosm (Kshudrabrahmānda) is said to be fundamental for Tantric doctrines: R. C. Temple, op. cit., pp. 152ff. See also Aurobindo Ghose, Yogic Sadhan, 1923, and Brahm Sankar Misra, Discourses on Radhasoami Faith, 1929. For various opinions concerning anatomical localization of the centers, see V. G. Rele, The Mysterious Kundalinī, 1931, pp. 47, 80: R. C. Temple, op. cit., pp. 152, 161: A. Ghose, op. cit., pp. 4, 41: Sir J. Woodroffe, Shakti and Shākta, p. 172. Another microcosmic view is apparently that concerning the external and internal lingus of the Linga Purāna. lingus of the Linga Purana.

¹ Garuda Purāna (SBH, 9), xv. 3f: Mārkandeya (Pargiter, 1904), ci, 21ff: Vishnu (Dutt, 1894), i. 2. 7: Subala Up. (K. N. Aiyar, Thirty Minor Upanishads, 1914), ii: F. O. Schrader, Introduction to the Pañca-Tribor Opanistaus, 1314), 11: F. O. Schrader, Introduction to the Pancarătra and the Ahirbudhnya Samhitā, 1916, pp. 28, 79ff: Yogavāśishta (V. L. Mitra, 1891, etc.), 1xxiv, 3ff.

2 Bhāgavata Purāna (Rau, 1928), i. 3. 3: Mārkandeya, xlii. 2: Vishnu, i. 2. 5f: Subala Up., i-ii: F. O. Schrader, op. cit., p. 86: Yogavāśishta, 1xxiii. 57f; 1xxiv. 6f.

by further processes of Yogic concentration and exercises caused to mount upward through the various centers, until in the highest center it becomes united with the Supreme, and the man in this way wins control over the universe and identity This brief statement hardly reflects the wide prevalence and elaborate development of these views.

THE MEDIEVAL MYSTICS. VIII.

A vast amount of material on Indian microcosmic theories is scattered through the works of the mediæval saints and mystics. Kabir, Nanak, Ravidas, Dadu, and their followers accepted the view that man's body is a microcosm, and in this period there were scores of other writers for whom such an idea was basic.2

RELIGIONS DERIVED FROM HINDUISM.

Among the religions which have sprung from the parent stock of Hinduism, the microcosmic idea is least used by the Buddhists. Their interest, if not actually too nihilistic to retain either the world or the self, is primarily psychological and ethical rather than cosmological. Still, it can be said that according to Buddhist thought the universe is a psychocosm, and that man as a microcosm has in him everything that there is in the universe, precisely in order that he may overcome it.3

The Jains have compared the universe to an enormous man or woman. but they have remained aloof from Shaktism and have not let their beliefs about man as a microcosm become prominent.⁵ The doctrine is still less conspicuous in Sikhism.⁶

CONTEMPORARY THOUGHT.

A cross-section of contemporary Indian thought would reveal as still potent many of the later views above mentioned. especially those implied or expressed in the Gītā, the Purānas, and the sectarian writings. The microcosmic views are potent, but they tend also to be latent, while the emphasis, in Indian

¹ Garuda Purāna, xv. 76, 84ff: various minor Upanishads in Thirty Minor Upanishads, pp. 176; 197ff; 208; 238ff; 244; 260ff: Sir J. Woodroffe, Shakti and Shākta, pp. 180ff: R. C. Temple, op. cit., pp. 67,

¹⁵²ff.
2 K. M. Sen, Appendix I to R. Tagore, The Religion of Man, 1931, pp. 210ff, and in conversation.

³ See F. Hoffman (Govinda Brahmacarya), Abnidhammata Sangaha,

^{1933,} pp. 30, 38.

⁴ H. Glasenapp, *Der Jainismus*, 1925, p. 223.

⁵ R. C. Temple, *op. cit.*, p. 73.

⁶ There is a casual allusion in the *Granth*, Dhanaseri, Pipā, 1.

am indebted for this reference to Professor Jodh Singh.

metaphysics as in the West, goes in the direction of supernatural-

isms and of idealisms.

There is occasional recognition of the widespread occurrence and importance of microcosmic theories for both Indian and non-Indian thought.1 The theosophists have adopted at least some phases of the idea that man is a microcosm, as if it were their own.² Rabindranath Tagore and Bhagavan Das have recently emphasized social interpretations which regard the individual man somewhat as a microcosm of society. Here and there in philosophical writings the terms 'microcosm' and 'macrocosm' are encountered.3 As in the West, they are often used loosely, with little regard for their historical meanings.

Conclusion.

Indian religions and philosophies reveal the oldest sources of detailed and systematic microcosmic theories yet investigated. The development appears to have been quite indigenous and, especially as regards the Brahmanic sacrificial ritual, unique. If there is any question of root-connections elsewhere, it belongs to a period antedating the Vedic hymns in their present form. It is possible that Greek theories of man as a microcosm were influenced from Indian sources. In India, as in the West, the theories have a long and varied history; they flourish in ancient times, but more recent developments make them less prominent. On the whole, the Indian microcosmic theories are probably closer to present day Indian thought than the Western theories are to Western thought.

This suggests a word concerning the importance of such conceptions. Historically, in India as in the West, they carry along with them so much that is bizarre and impossible that the first impulse, for any present-day thinking, is to ignore their strange statements and laborious constructions. exhibit an astonishing persistence; in all the world they are perennial and protean. In India, when a myth is shaken, they appear in a ritual; when a ritual is abandoned, they become a part of an idealistic metaphysics; when an idealistic metaphysics submerges them, they become implicit or latent there and at the same time help in the development of rival theories of nature and of knowledge. In India as elsewhere, they constitute one of the great basic ways of attempting to under-

¹ See Bhagavan Das, The Essential Unity of All Religions, 1932, p. 105: P. D. Sastri, Essentials of Eastern Philosophy, 1928, p. 3.

p. 105: F. D. Sastri, Essentiats of Eastern Futuosophy, 1328, p. 3.

2 See A. Besant, Introduction to Yoga, 1913, p. 4: H. P. Blavatsky, Isis Unveiled, 1910, 1, pp. 28, 62, 212: C. Jinarajadasa, First Principles of Theosophy, 1921, p. 129.

3 See Swami Vivekananda, Jñāna Yoga, 1923, Chapters 8 and 9: S. Radhakrishnan, The Reign of Religion in Contemporary Philosophy,

^{1920,} pp. 446f.

stand man's place in the universe. Of all the great avenues, this one is perhaps most often regarded as so completely filled with rubbish as to be not worth attempting to use. And yet, as the outcomes of other philosophies become apparent, the bewilderment grows-while all the time man still lives in the same old universe, which he must investigate, if not on the fire altar, then on the laboratory table, and if not by meditation, then by mathematics. Perhaps the great difficulty is that the newer investigations tend to lose a cosmic quality which after all is preserved in some of the surviving fragments of the old. The Brahmanic ritual and the Upanishadic speculations may be hopeless, and the Tantric rites and Yogic practices may be crude and revolting, but at any rate their aim is to make something cosmic out of man. When the sciences, instead of the superstitions, are comprehensively enlisted in this high endeavour, then the microcosmic theories may come into their own. They may furnish to our views of the world an empirical body and substance which the more ephemeral idealisms lack, and a measure of unity and consistency which other philosophies have so long failed to find that they pretend to disdain to seek it.

University of Minnesota, Minneapolis.

¹ I have developed some microcosmic theories more constructively in A World of Epitomizations, 1931.

A few types of Sedentary Games of Lower Bengal.

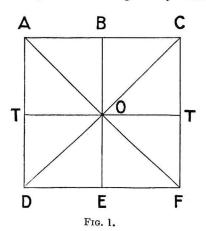
By JATINDRA MOHAN DATTA.

(Communicated by Dr. S. L. Hora.)

The types of sedentary games described below are played by the local people of the districts of 24-Parganas, Howrah, and Hooghly. There is an erroneous impression that these games are not indigenous but have been imported from upcountry. The author (an inhabitant of Panihati, about 10 miles north of Calcutta on the Ganges) learnt these games about 35 years ago. It has been ascertained from old men of 70 and over that the games were prevalent in their boyhood. The author has noticed them being played by the Bengalees at Asansol, Burdwan, Midnapore, Ranaghat, Santipur, Khulna, and Barisal.

Tant-fant.

The diagram used for the game of Tant-fant is shown in figure 1. It is generally drawn on floor with a piece of



charcoal or broken brick. Two persons play game. At the commencement of the game each player places three distinctive pieces on the three cross-points (ABC or DEF) of his side of the square. In the first move, a piece is shifted to the central line The game is won, when all the three pieces belonging to a player lie in a anywhere line straight (horizontally, vertically, or obliquely) with the exception of the starting line.

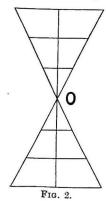
[B. Das-Gupta has described this type of game from

Vikrampore (Quart. Journ. Bangiya Sahitya Parishad, XIV, pp. 242, 243, 1314 B.S.) under the local name of Tin-guti pait pait, but unfortunately his description is very meagre. In the game described above no piece of the adversary is to be removed from the board, but in the Vikrampore game as soon as three pieces are arranged in a straight line, a piece of the adversary is removed from the board. In this way the winner of the game

will be one who removes from the board all the three pieces of his opponent without losing any one of his piece. According to Das-Gupta the popularity of the game is on the wane. S. L. H.]

Lau-kata-kati.

The diagram used in playing the game of Lau-kata-kati is shown in figure 2. The game is played by two persons



2. The game is played by two persons with 18 pieces; each player places his nine distinctive pieces on the nine crosspoints of his triangle leaving the apex vacant. In the first move, a piece is shifted to the central point O and then the usual rules of draughts are followed, with the exception that only one piece can be captured at a time. One, who captures all the nine pieces of his adversary, is the winner.

[Humphries (Journ. Proc. Asiat. Soc. Bengal, II, p. 123, 1906) refers to an identical game played at Bargarh in the United Provinces. Reference may also be made to a similar game played in the Central Provinces (H. C. Das-Gupta, Journ. Proc. Asiat. Soc. Bengal, XXII, p. 212, 1926),

though the board is somewhat different and 22 ballets are needed to play the game. S. L. H.]

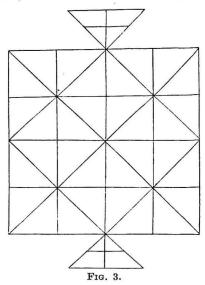
Mughal-Pathān.

The diagram used in playing the game of Mughal-Pathān (in the vernacular name reference is made to the well-known wars between the Moghuls and the Pathāns in Bengal) is shown in figure 3. Two players are necessary to play the game, and each player has 16 distinctive pieces. At the commencement of the game, each player arranges his pieces in his half of the board and in this way the central line is left vacant. The game is played like draughts and two or more pieces of the opponent can be removed at a time.

In some localities, another horizontal line is drawn in each triangle and then each player has 19 pieces to play with.

[This game has been described by B. Das-Gupta (Quart. Journ. Bangiya Sahitya Parishad, XIV, pp. 239, 240, 1314 B.S.) under the title of Sola-guti Mangal Pata, in which reference is made to 16 pieces used by each player as well as to the Moghul-Pathān wars in Bengal. The board is used in playing several types of games and reference may here be made to the Bornean game Rimoe described by Jacobson (Tijdsch. Ind. Taal-, Landen Volkenkunde, LVIII, pp. 8-10, 1919), the Ahtarah Gutti of U.P. described by Humphery (Journ. Proc. Asiat. Soc.

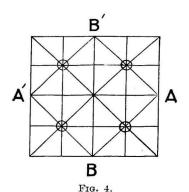
Bengal, II, p. 121, 1906), Atharagutiala teora of C.P. described by H. C. Das-Gupta (Journ. Proc. Asiat. Soc. Bengal, XX, 166, 1924),



Lam Pusri or Sipahi Kat of the Teesta Valley (Journ. Proc. Asiat. Soc. Bengal, XXIX, p. 10, 1933), etc. etc. S. L. H.]

Bagh-bandi.

The diagram used in playing the game of Bagh-bandi is shown in figure 4. As its name indicates, it is a kind of tiger-



said to be on the wane.

[The game has already play. been described by Humphries (Journ. Proc. Asiat. Soc. Bengal, II, pp. 123, 124, 1906) under the local name Bagh Gutti from the Karwi Subdivision in the United Provinces, and by H. C. Das-Gupta from British Garhwal as Bāgh-Batti (Journ. Proc. Asiat. Soc. Bengal, XXIII, p. 297, 1927). Chabbis-guti Bagh-chal described by B. Das-Gupta from Vikram-(Quart. Journ. Bangiya pore Sahitya Parishad, XIV, pp. 240, 241, 1314 B.S.) is a similar game, but is played with 26 instead of 22 pieces. Its popularity is Attention may also be directed to a

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Punjab game called Sher-bakar (H. C. Das-Gupta, ibid., XXII, p. 145, 1926) played on an identical board but with 19 pieces as 'goats' instead of 20. In playing Sher-bakar, 15 pieces are distributed equally in 3 circles, whereas the remaining 4 pieces are placed in the 4th circle at the commencement of the game. S. L. H.

The author has seen the diagram of Bagh-bandi on the lid of an old-fashioned wooden chest, which from the traditions of the family of the owner must be 125 years old.

