## SERAPIS IN THE MITHRAIC

CIRCLE

HUSSEIN ABDEL - AZIZ Department of Archaeology and Classical Studies, Faculty of Arts, University of Alexandria .

## Serapis in the Mithraic Circle

Though plenty of studies have spanned Serapis and his cult in detail and depth owing to the significant role he played in the mythology and the art of the Graeco - Roman world, the scope of the research is still ample and apt to discussion.

Among the vast and diverse representations of Serapis a few examples have attracted my attention to a certain connection with the Mithraic circle. This connection is difinitely demonstrated by two figures.

The first (fig. 1) is a statue of the god depicted in an irregular form. He had been described as Jupiter - Sol - Serapis. <sup>(1)</sup> The god is represented bearded and wearing the calathos on his head from which six rays are protruding. He is bare - footed and clad in a long mantle . A snake encircles his body in six coils with the signs of the zodiac appearing between them. His left hand holds the tail of the snake and his right one is covered under the garment.

The second monument (fig. 2) is a relief depicting the tauroctonia in which Serapis appears among the seven planets.<sup>(2)</sup> The central figure is showing Mithra slaying the bull. Mithra wears the Phrygian hood on his head and an oriental garment with sleeves. He holds the head of the bull backwards by means of inserting his left hand fingers in the

bull's nostrils. The mouth of the bull is open and his tongue projects suspending from the right corner. The body of the bull is encircled by a decorated sacrificial band and his tail is raised. The god is stabbing the bull with a dagger in his right hand. He kneels with his left leg on the bull. The violent movement of the god is best illustrated through his flying mantle. Three of the attributes of Mithra are shown beside the bull, the dog, the snake and the scorpion. The dog licks the blood of the bull and the scorpion catches his genitals with its pincers. To the left Cautopates is standing with his torch lowered. Between Cautopates and the raised tail of the bull is a tree with a scorpion. To the right Cautes is standing with his torch pointing upwards and there is a tree with a skull of a bull in front of him. The aforementioned representation is surmounted by a curved brim symbolizing the sky with the seven figures of the planets. In the left extreme Sol appears with the raven and in the other extreme appears Luna. The central figure of Serapis is depicted in a frontal pose while the other six figures are depicted in a profile pose looking inwards. The lower brim is bearing reclining figures to the left and the right and Eros riding a biga drawn by horses in the centre.

Regarding the first example (fig. 1), we know that the only divinty to assume this attitude is Mithraic Aion. Though Serapis has been associated with the snake in numerous representations,  $^{(3)}$  his appearance under such

form has been of rare occurrence. As far as I know, there is another similar example <sup>(4)</sup> which is lost.

In an example with which this statue is identical, Aion is figured wearing a mantle with sleeves. <sup>(5)</sup> His head and feet are lost. The statue is thought to have been leontocephalic. The body is encircled with a snake in three coils. Between the spiral coils, the signs of the zodiac arc carved. There are nine signs, three in every space. They begin from up to down in their normal arrangement : Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio and Sagittaurus. The other three signs of the zodiac i. e. Capricorn, Aquarius and Pisces must have been on the lost part downwards.

The Graeco - Roman Aion, who is of Greek origin is different in some features from Mithraic Aion who is called Aion - Chronos or Mithraic Saturn. <sup>(6)</sup> He is shown in various forms which signifies his traits. He is usually represented as a beardless youth, sometimes winged, accompanied by a serpent <sup>(7)</sup> and often by the zodiacal circle and the seasons. <sup>(8)</sup> Occasionally he has the cornucopia <sup>(9)</sup> as an attribute or a globe surmounted by the phoenix. <sup>(10)</sup> In other examples he occurs as a bearded aged man who is called, at Alexandria, Aion Plutonius and in the Occident as Saeculum Aureum. <sup>(11)</sup> Often he is shown with his head adorned with flowers and fruits and accompanied by the zodiacal circle and the seasons. <sup>(12)</sup> So his images reflect the multiplicity of his conceptions which he symbolized from the Hellenistic period until the end of antiquity. His original concept was "the life" which evolved to become " the boundless life and eternity ". He was considered as the great cosmic deity and the eternal spirit of the world in contrast to Chronos the relative and actual time. <sup>(13)</sup>

From the end of the Republic and the beginning of the Empire Aion was conceived and depicted as the governer of the world and the creator of the natural phenomena. From Augustus to Philip the god and his Latin equivalents Sacculum and Aeternitas occupied a very important place in the imperial propaganda and religion. <sup>(14)</sup>

His representations in the second century A.D. as a youth accompanied by the zodiac, the seasons or the phoenix stressed the idea of the universality of the empire and expressed the eternal time which was renovated periodically and so announced the return of the Golden Age, an idea originated in Alexandria. <sup>(15)</sup>

When Aion came to be associated with the Mithraic mythology he succumbed to some changes. New features and attributes were added to his images. Sometimes he is leontocephalic, having two pairs of wings and hoofs for feet, wrapped by a snake or holding a key. <sup>(16)</sup> The deity in this character denoted time and sovereignity and hence he became a cosmocrator. <sup>(17)</sup>

Y9 1%

In respect of the second monument (fig. 2), the bull slaying or the tauroctonia is one of the commonest and most important figures of Mithra.

Mithra was originally an Indo - Iranian deity who symbolized truth, justice, light and fertility. When his cult had been transplanted to the Graeco - Roman world, it ceased to be fully Persian in essence and lost much of its originality. Nevertheless, it retained some aspects of the Persian and Chaldean astrology. In the first century B.C. Mithra was venerated in Commagene as a sun god and assimilated to Helios.<sup>(18)</sup>

From the end of the first century A.D. his cult spread throughout the Roman Empire and became one of the principal mystery religions. <sup>(19)</sup> The deluge of slaves, merchants and soldiers in addition to the ease of transportation increased the mingling of various races and ethnic elements and resulted in the dissemination of Mithraism. <sup>(20)</sup> Mithra became a creator and a savoir of the world and the Roman people. He was the generator of light and the master of the universe. <sup>(21)</sup>

With the recognition of Christianity as the state religion, Mithraism began to wane gradually until it vanished in the beginning of the fifth century A.D.<sup>(22)</sup>

The monuments which illustrate Mithra Tauroctone contain diverse elements and motives which, for the most

part, have astronomical significance. The two genii flanking the bull - slaying i. e. Cautes and Cautopates have a clear allegoric value. Cautes, with the raised torch, is the personification of the morning sun or the vernal equinox and ipso facto fecundity. Cautopates, with the lowered torch, is the personification of the setting sun or the autumn equinox and ipso facto sterility. <sup>(23)</sup>

The seven figures that appear in the vaulted ceiling which symbolizes the sky are the seven planets : Mercury, Venus, Mars, Jupiter (Serapis), Luna, Sol and Saturn who are shown hear in a different order. The number seven has a mystical significance in the mysteries of Mithra. In the Mithraeum of Felicissimus the seven grades which the prosolyte must pass in his initiation to the mysteries are connected with the seven planets in the next ascending order : Corax (the Raven), Cryphius (the Occult), Miles (the Soldier), Leo (the Lion), Perses (the Persian), Heliodromus (the Courier of the Sun) and Pater (the Father). In other examples the seven planets are sometimes replaced by seven stars, seven burning alters, seven daggers planted in the ground or less frequently seven Phrygian hoods. To the interpretation of Cumont, these attributes express the elements of which the planets are composed. <sup>(24)</sup>

The inquiry into the two monuments discloses an obvious relationship between Serapis and the Mithraic circle. In the first case (fig. 1) the figuration of Serapis is

identical with that of Aion who is a member of the Mithraic pantheon and whose monuments were largely found in the Mithraea scattered in the Roman world. It is not surprising in my view. - to find Serapis in such form and attitude because his identification with Aion has been attested by the archaeological evidence. In several monuments the image of Serapis is accompanied by the inscription "AIWN" or "CEPA IIICAIWN". <sup>(25)</sup> Besides, in some literary sources, Serapis is identified with Aion Plutonius. <sup>(26)</sup>

Serapis was a cosmocrator and had a pantheistic nature, <sup>(27)</sup> therefore his assimilation to Aion and his connection with Mithra were justifiable. This nature was proved and recommended by his identification with other major deities inside and outside Egypt. In his course of universality, it was not extraordinary for him to be identified with the other gods with universal and comprehensive nature like Jupiter <sup>(28)</sup> and to indigenous gods of the Roman provinces like Moritasgus of Gallia.<sup>(29)</sup>

The cult of Serapis spread throughout the world. Minucius Felix from the second-third century A.D. pointed out that the Romans had embraced the cult of Serapis. <sup>(31)</sup> The premises of the palace of Hadrian comprised a temple dedicated to Serapis. <sup>(32)</sup> In the reigns of Commodus and the Serveri he bacame a protector of the Roman emperors and a guarantor of the prosperity of the empire and the victory of its armies, <sup>(33)</sup> for he had been already Jupiter-Serapis.

A considerable number of the monuments of Serapis were uncarthed in the various provinces of the Roman (34)Several of his statues that came from Empire. provenances outside Egypt had been found within Mithraea situated in London (35) (England), Merida (36) (Spain), Ostia <sup>(37)</sup> and Rome <sup>(38)</sup> (Italy). Many others were found in the (39)vicinity of Mithraea located in Haddem-heim (Germany), Lambasis <sup>(40)</sup> (Algeria ) and Ostia <sup>(41)</sup> (Italy). In addition to the second example (fig: 2), This evidence is a matter of great significance and points out to a direct link between Serapis and Mithra.

The incorporation of Serapis into the Mithraic pantheon might be attributed to a common factor which led to their juxtaposition. This factor is the practice of mystical rituals. We have no evidence that the cult of Serapis included mystical traditions in the Ptolemaic period. <sup>(42)</sup> The papyri of the Roman period have provided us with references to some rites. Ceremonial meals were held in the honour of Serapis and Isis. <sup>(43)</sup> An eath formula was taken by the recruits of the mysteries of Serapis.

It seems that a fusion of the two mystery cults together took place sometime in the Imperial period. But while the occult practices of Serapis were limited and relatively late, the mysteries of Mithra were already well established a long time before that. Furthermore his cult had exercised some influence on the esoteric cults of the Hellenistic and Roman periods. <sup>(45)</sup> Nevertheless, it seems that Serapis reversed the situation and made his way into the Mithraic pantheon. The cults of Serapis and Isis had already consolidated their positions and practised great influences on the Roman people and the rulers as well <sup>(46)</sup> before the remarkable diffusion of the Mithraic cult with the beginning of the second century A.D. of the Imperial period. As a result, the introduction of Serapis to the Mithraic pantheon - I suppose - might gravitate his devotees or at least a large segment of them to the Mithraic cult and hence gave an impetus to it and contributed to its dissemination.

Finally, we may ask, in view of the relationship between Serapis and Mithra, about the presence of Mithraism in Egypt proper.

The evidence which indicates the existence of Mithraism in Egypt before the Roman era is extremely rare. An allusion to a Mithraeum in Fayyoum came in the papyri of the third century B.C.  $^{(47)}$  But it is supposed that the cult was confined to some Iranian groups who represented the offspring of the old Persian troops which entered Egypt during the Persian invasion.  $^{(48)}$ 

From the Roman period, we have more evidence concerning the Mithraic presence, nevertheless, it remains meagre and can not afford a concrete evidence on a firm footing for a wide circulation of the cult in Egypt. There are a few unclear and brief allusions to Mithraea of the Roman period. We have an account of an abandoned Mithraeum which had been delapidated and replaced by a church at the hand of George of Cappadocia, the patriarch of Alexandria, about 360 A.D. <sup>(49)</sup> During the compaign of the destruction of the pagan temples which occured in 391 A.D., Theophilus, the patriach of Alexandria, destroyed a Mithraeum before advancing towards the Serapeum for the same purpose.<sup>(50)</sup>

Besides, the Mithraic monuments yielded by the Egyptian soil are few and numbered. They include some repesentations on the magical gems and individual instances of reliefs and works of sculpture. <sup>(51)</sup>

If the view point of Bonner,  $^{(52)}$  the magical tradition commonly accepted the obscure and foreign names of deities and demons to give power to the incantations and spells. In this regard, the representation and name of Mithra which occurred in the magical gems and papyri were used for the same effect.  $^{(53)}$ 

In respect of the other Mithraic monuments, I'm bound to comment here on the torso of Mithraic Aion which was found on the acropolis of Alexandria in the precinct of the Serapeum. This torso gave some scholars the impression that the precinct of the Serapeum contained a Mithraic temple<sup>(54)</sup></sup>

The torso of Aion can not be taken safely as a conclusive evidence for the presence of a Mithraeum incorporated into the Serapeum area. It is an individual Mithraic monument which does not necessarily mean that there had been a Mithraeum where it was discovered.

The significance of its presence in the site can be explained in the light of the existence of several other monuments <sup>(55)</sup> which belong to different ages of the Pharaonic period which were moved to the spot from other places for some reason or another. It is probable that the image of Aion was transported to the Serapeum when the Mithraeum faced the danger of destruction during the compaigns of George of Cappadocia or Theophilus.

Regarding the suggestion of Rowe<sup>(56)</sup> that the subterranean passages in the vicinty of the Serapeum acted as a Mithraic grotto, I think that this is a remote assumption which stands on no solid basis. These passages do not possess the essential elements of the Mithraic grotto whether natural or artificial. First, there must be a source of water to supply the grotto permanantly because of its importance to the rites of purification in Mithraic liturgy. Second, the plan of the grotto consists of spelaeum, pronaos and apparatorium in addition to various details of decorations.<sup>(57)</sup> Both elements, namely the water source and temple design do not prove to be in the passages of the Serapeum area and consequently, we can not accept Rowe's

opinion.

The temple of Mithra might have been somewhere near the area of the Serapeum, for we know that the only temples that existed in the precincts of the Serapeum were confined to the members of the triad. <sup>(58)</sup> Mithra had never been connected with the members of the triad whether in group or jugate fgures in the artistic works nor had he occurred in the literary sources associated with them. Therefore, there is no reason for Mithra to have a temple in this particular area.

As a sun god, Mithra had never attained a foothold parallel to that of the Egyptian sun deities who were powerful enough to prevent him from gaining a considerable approach throughout Egypt, in Alexandria or the chora. He could not even penetrate the local cults of the country and the role he played remained very limited.<sup>(59)</sup>

## **Recapitulation**:

Serapis was evidently a deity who possessed a universal and pantheistic nature. On the basis of the archaeological evidence, he was identified with Mithraic Aion (fig. 1) and associated with Mithra (fig. 2). Besides, the presence of his statues inside or in the vicinity of the Mithraea provided us with more evidence to support the link between both divinities. Thus, Serapis gained an access to the Mithraic pantheon. The universal and pantheistic nature of Serapis in addition to the mystical phase which he assumed in the Roman period might cause a certain fusion between his cult and the cult of Mithra. Since the cult of Serapis had already been consolidated and favoured even by the emperors, it is probable that the association of the two deities brought the devotees of Serapis to the Mithraic religion and so took part in its extention. On the other hand, in Egypt, the stronghold of Serapis, Mithraism was limited and could not achieve a considerable progress among the indigenous cults.

Figures :

- i- Serapis-Aion, found in Arles in south France now lost. Roman Imperial period.
- 2- Mithra Tauroctone, found in Bologne in Italy.
  - Bologne, Museo Civico, Roman Imperial period.

## FOOTNOTES

- G.J. Kater Sibbes, prelimenary Catalogue of Sarapis Monuments, Etudes priliminaires aux religions orientales dans l'empire romaine (EPRO), 36, Leiden, 1973, p. 150, no. 802m pl. XXVII.
- Vermaseren, M.J. 2 Corpus Inscriptorum et Monumentorum Religionis Mithriacae (CIMRM), I, 1956, pp. 252-253, no. 693, fig. 195; M. Malaise, Inventaire préliminaire des documents égyptiens retrouvés en Italie, EPRO, 21, Leiden, 1972, p. 26, no. 8.; Kater - Sibbes, op. cit. no. 529; Gisele Clerc & Jean "Sarapis", Lexicon Leclant. 'n Iconographicum Mithologiae classicae (LIMC), VII, 1994, vol. 1, p. 686. no. 197; vol. 2, p. 515, no. 197.
- 3 Francoise Dunand, "Agathodaimon", in (LIMC), I, 1981, vol. 1, pp. 278-280.
- 4 Kater Sibbes, op. cit., no. 1050a.
- 5 D. Levi, "Aion", in Hesperia, 13, 1944, p. 292, fig. 17; Vermaseren, op. cit., pp. 305-306, no. 879, fig. 277.
  Found in Arles, in south France, and dated to the end of the second century A.D.
- 6 Marcel Le Glay, "Aion" in (LIMC), I, 1, 1981, p. 410; R.
   Cagnat & V. Chapot, Manuel d'archéologie romaine, Paris, 1916, p. 449.

TAT

- 7 W. Amelung, Die skulpturen des vatikanischen Museums, I, Berlin, 1903, p. 833, no. 223, ol. 116; Le Glay, op. cit., p. 403. no. 19.
- 8 Levi, op. cit., pp. 292-293, fig. 18; Vermaseren, op. cit., no. 419. fig. 116; Le Glay, op. cit. p. 403. no. 18.
- 9 Levi, op. cit., pp. 287-288, fig. 15.
- 10 Ibid, pp. 294-595, fig. 19e. The phoenix, the solar bird which symbolizes the eternal renovation of the life, appears on the Alexandrian coins of Antoninus Puis accompanied by the legend AIWN, see R. S. Poole, Catalogue of the Greek Coins in the British Museum, Alexandria and the Nomes. London, 1892, pl. XXvi, no. 1004; J. Vogt, Die alexandrinischen Kaisermünzen, Stuttgart, 1924, vol. 1, pp. 115-116, vol. 2, p. 68.

11 - Le Glay, op. cit. p. 410.

- 12 F. Gnecchi, I medaglioni romani, 3vols., Milan, 1912, vol. 2, P. 15, no.54,pl. 48, 4, p. 60, no. 75, pl. 83, 3 and Passim.
- 13 Levi, op. cit., p. 292.
- 14 Ibid, loc. cit.
- 15 A. Alföldi, "Aion in Merida and Aphrodisias", in Madrider Beitrage, 6, 1979, no. 31.
- 16 Vermaseren, op. cit., p. 168, no. 390, fig. 112; p. 202, no. 503, fig. 144 and passim; M.F. Squarciapino, I culti

orientali ad ostia, (EPRO), 3, Leiden, 1962, pp. 55-56. (second century).

- 17 A.D. Nock, "A Vision of Mandulis Aion", in Harvard Theological Review, 27, 1934, p. 53.
- 18 J. Toutain, Les culte paiens dans l'empire romaine, Paris, 1911, p. 129; Rainer Vollkommer, "Mithras", in (LIMC), VI, 1992, vol. 1, p. 583. for some examples of Mithra's figures see H. Waldmann, Die Kommagenischen Kulturformen unter könig Mithradates I. Kallinikos und seinem sohn Antiochus I., (EPRO), 34, Leiden, 1973, pls. 15, 1; 22, 3; 30, 3.
- 19 Franz Cumont, The oriental Religions in Roman Paganism, translated by Grant showerman, New York, 1965, p. 24; Campbell Bonner, Studies in Magical Amulets, Ann Arbor, 1950, p. 139; Vollkommer, op. cit., p. 622.

- 21 Vermaseren, op. cit., no. 463.
- 22 Cumont, op. cit. p. 140; Vollkommer, p. 583.
- 23 Franz Cumont, Texts et monuments figures relatifs aux mysteres de Mithra, 2 vols, Bruxelles, 1896-1899, vol. 1, pp. 221-212; Toutain, op. cit., p. 125.
- 24 Cumont, op. cit., pp. 112-117; Toutain, op. cit., pp. 125-126; Joscelyn Godwin. Mystery Religions, in the Ancient World, London, 1981, pp. 98 ff.

<sup>20 -</sup> Cumont, loc. cit., Vollkommer, loc. cit.

- 25 Malaise, op. cit., p. 144, no. 109; W, Hornbostel, (EPRO), 32, Leiden, 1973, p. 272, no. 2; Le clay, op. cit., p. 401, no. 8; p. 402, no. 9.
- 26 Le Glay, op. cit., p. 410.
- 27 H. Idris Bell, Cults and Creeds in Graeco Roman Egypt, Liverpool, 1953, pp. 20-21.
- 28 H. Bloch, "The Serapeum of Ostia and the Brick Stamps of 123 A.D." in American Journal of Archaeology, 63, 1959, p. 226, pl. L, 4; Kater-Sibbes, op. cit., p. 165, no. 852.
- 29 A.N. Newell, "The Dove Deity of Alesia and Serapis Moritasgus", in Revue Archeologique, 1939, pp. 134 ff, fig. 8; V. Tran Tam Tinh, Serapis debout, (EPRO), 94, Leiden, 1983, p. 265, no. v, 2 fig. 298 a-b.
- 30 Cumont, Oriental Religions in Roman Paganism, pp. 73 ff.
- 31 Minucius Felix, 22, 2.
- 32 Samuel A. B. Mercer, The Religion of Ancient Egypt, London, 1949, p. 426.
- 33 Cumont, op. cit., p. 84; John Ferguson, The Religions of the Roman Empire, London, 1970, p. 37.
- 34 For an ample survey of these monuments see Kater -Sibbes, op. cit., passim.
- 35 J. M. C. Toymbee, Art in Britain under the Romans,

London, 1964, pp. 93, 94, 98, pl. XXI; Kater - Sibbes, op. cit., p. 159, no. 833.

- 36 Garcia y Bellido, Les religions orientales dans l'Espagne romaine, (EPRO), 5, Leiden, 1967, pp. 137-138; Tran Tam Tinh, op. cit., p. 33.
- 37 Malaise, op. cit., p. 81, no. 87' p. 82, no. 89; Kater -Sibbes, op. cit., p. 103, nos. 555-556.
- 38 M.J. Vermaseren & C. C. van Essen, The Excavations in the Mithraeum of the church of Santa Prisca on the Aventine, Leiden, 1965, p. 434, no. 7, pls. CIV 1-6; CV and passim; Malaise, op. cit., p. 81, no. 87' p. 228, no. 415; p. 229, nos. 416-417 ; Kater - Sibbes, op. cit., pp. 122-123, nos. 658-661.
- 39 G. Grimm, Die Zeugnisse ägyptischen Religion Kunstelements in römischen Deutschland, (EPRO), 12, Leiden, 1969, p. 185, no. 87, pl. XXXVII, 2; Kater -Sibbes, op. cit., p. 165, no. 852.

- 41 Bloch, op. cit., p. 226, pl. L 4; Kater Sibbes, op. cit., p. 101, no 543.
- 42 To the view of Fraser, these traditions appeared in the Roman era, P.M. Fraser, Ptolemaic Alexandria, 3 Oxford, 1972, vol. 1, p. 265.

43 - P. Oxy., I, 110 = Grenfell & Hunt, The Oxyrhynchus papyri, I, 1893; p. Fuad, 76 = D. S. Crawford, Fuad I

<sup>40 -</sup> Kater - Sibbes, op. cit., p. 139, no. 579.

University Papyri, 1949.

- 44 PSI, X, 1162 G. Vitelli & M. Norsa & Others, Pubblicazioni della Societa Italiana per la ricerca dei papiri greci e latini in Egitto, X, 1932; p. Michigan, VIII, 511 = H. C. Youtie & J. G. Winter, papyri and Ostraca from Karanis, VIII, 1951.
- 45 Bonner, op. cit., pp. 32 ff.
- 46 Cumont, op. cit., pp. 73 ff; Jaroslav Cerny, Ancient Egyptian Religion, New York, 1952, p. 139.
- 47 J.G. Smyly, Greek Papyri from Gurob, Dublin, 1921,36.
- 48 Fraser, op. cit., vol. 2, p. 436, no. 745.
- 49 Ammiannus Marcellinus, 22, 11, Socrates, Historia Ecclesiastica, 3, 2.
- 50 Socrates, H. E., a, 16.
- 51 Vermeseren, op. cit., no. 91-105.
- 52 Bonner, op. cit., pp. 264 ff.
- 53 Ibis, loc. cit.
- 54 A. Rowe, "Short Report on Excavations of the Greeco-Roman Museum at Pompey's Pillar", in Bulletin de la Société d'Archéologie d'Alexandrie, 35, 1942, pp. 131 no le 2, 152.
- 55 For a list of these monuments, see Rowe, op. cit., pp. 153-156.

YVA

- 56 Ibid, pp. 134, 135, 140, 159.
- 57 Toutain, op. cit., pp. 132-137.
- 58 Fraser, op. cit., I, pp. 28, 265.

YVY

59 - Gary Lease, "Mithra in Egypt, in the Roots of Christianity ed., B. A. Pearson and J.E. Goehring, Philadelphia, 1986, pp. 125-129.

