

# Disability & Deafness in North East Africa

Egypt, Sudan, Djibouti, Eritrea, Ethiopia, Somalia

**Introduction and Bibliography, mainly non-medical, with historical material and some annotation**

Compiled, introduced and annotated by [M. Miles](#)  
West Midlands, UK  
m99miles@hotmail.com

For a list of abbreviations used in this document, consult the [glossary](#).

## North East Africa: History (Antiquity–1600)

EL-AGUIZY, Ola (1987) Dwarfs and pygmies in Ancient Egypt. *Annales du Service des Antiquités de l'Égypte* 71: 53–60.

Based on Arabic dissertation, Univ. Cairo

ALLOTTE DE LA FUYE, M. (1958) *Actes de Filmona*. *Scriptores Aethiopici*, tome 36. Louvain: Secretariat du Corpus scriptorum Christianorum Orientalium.

Abbott Philemon in the second half of the Fourteenth century reportedly cured "un muet" (dumb, probably deaf) who went to the saint's tomb. After he had knocked at Philemon's sepulchre (or on the tomb – "il eut frappé à son sépulture") he found himself able to speak – the question of hearing is not mentioned; nor is there any expulsion of evil spirits in this account or the subsequent healing of a paralysed person (p. 58).

ANDERSEN S.R. (1997) The eye and its diseases in Ancient Egypt. *Acta Ophthalmologica Scandinavica* 75: 338–44.

Based on archaeological evidence from before the Hellenistic period.

ARMELAGOS, George J. (1969) Disease in Ancient Nubia. *Science* 163: 255–59. Analyses lesions in nearly 800 skeletons from archaeological sites in the very hot, dry Wadi Halfa area of Lower Nubia, Sudan, dated between 7000 BC and 1300 CE. Disabling impairments are suggested by fractured limbs and crania, indications of arthritis, and child's skull indicating hydrocephalus.

BARDY, Gustave (1910) *Didyme l'Aveugle*. Paris: Gabriel Beauchesne. xii + 279 pp. Study of the teaching of Didymus, the fourth century blind theologian at Alexandria, prefaced by a review of his life (pp.1–15).

EL BATRAWI, Ahmed M. (1935) Report on the Human Remains. In: *Mission Archéologique de Nubie 1929–1934, Service des Antiquités de l'Égypte*. Cairo.

pp. 183–87 cover some pathological cases, starting with two hydrocephalic skulls, which are described in some detail (183–86).

*THE BOOK Of Paradise being the Histories and Sayings of the Monks and Ascetics of the Egyptian Desert by Palladius, Hieronymus and other. The Syriac Texts ...*, Transl. E.A. Wallis Budge. Vol. I English translation. London. 1904.

The Preface (p. vii) states that the work here translated was composed by Mar Palladius (365–425), Bishop of Helenopolis, in Bythina. Several of the monks whose lives are recounted had disabilities, e.g. Didymus the Blind (pp. 136–138); Paul the Simple (183–189); James the Lame (265–273, though nothing is said about his lameness); the sage who allowed other monks to think he was mad, while in fact he was taking care to remove evil from his mind (388–390).

CAPPS, Edward, Jr. (1927) An ivory pyxis in the Museo Cristiano and a plaque from the Sancta Sanctorum. *The Art Bulletin* 9 (4, June) 330–340.

These items from antiquity depict scenes from the life of Christ, with healing of people having severe disabilities. Capps locates them in the iconographic context of Coptic and Alexandrian schools of art, and dates them to the early sixth century CE.

DASEN, Véronique (1988) Dwarfism in Egypt and Classical Antiquity: iconography and medical history. *Medical History* 32: 253–76.

Though links from Ancient Egypt to the Levantine Arab world seem distant, Dasen notes (p. 273–4) realistic terracotta depictions of pathological defects, from Asia Minor cities with medical schools; those of "people affected by *hypothyroidism* are relatively numerous. The majority come from Egypt and Asia Minor."

DASEN V. (1993) *Dwarfs in Ancient Egypt and Greece*. Oxford: Clarendon. xxix + 354 pp. + 80 plates.

Revised D.Phil. thesis, heavily referenced, based on iconography and medical and archaeological evidence. Concludes (pp. 246–8) that positive attitudes towards dwarfs in Egypt during c. 3000 years, and a much shorter period in Classical Greece, were followed by adverse views and behaviour in Hellenistic and Roman periods. Influences on attitudes towards dwarfs, deformity and disability in lands 'between' Egypt and Greece may be guessed at, but are not here treated.

DAWSON, Warren R. (1927) Pygmies, dwarfs and hunchbacks in Ancient Egypt. *Annals of Medical History* 9 (4) 315–26.

Differentiates members of normally short-statured ethnic groups from people with exceptionally short stature and/or physical abnormalities. Discusses mainly the physiology and roles of the latter, with 52 figures.

DAWSON W[R] (1938) Pygmies and dwarfs in Ancient Egypt. *J. Egyptian Archaeology* 24: 185–89.

DOLS M. (1992) *Majnun: The madman in Medieval Islamic society*. (Ed. D.E. Immisch). Oxford: Clarendon. xvi + 543 pp.

Comprehensive, scholarly work, extensively referenced. Dols reviews madness from medical, magical/religious, social and legal viewpoints, across the early Islamic world. See index entries, e.g. Abbasiya; Abu Kaf; Africa, North; Ahmad (holy fool); Alexandria; Cairo; Coptic; Egypt; Ethiopia; Mansuri hospital; Nubia; nun; Somaliland; Sudan; Zar; (and further).

FISCHER H.G. (1987) The ancient Egyptian attitude towards the monstrous. In: A.E. Farkas, P.O. Harper & E.B. Harrison (Ed.s) *Monsters and Demons in the Ancient and Medieval Worlds*. Papers presented in honor of Edith Porada, 13–26 + plates. Mainz am Rhein: Verlag Philipp von Zabern.

pp. 13–21 differentiate hieroglyphic (non-monstrous) depictions of creatures from those truly monstrous and frightening, and trace some development over long periods of time, with illustrations. pp. 22–26 discuss human deformity and anomalies, including dwarfs, hunchbacks and grossly obese women.

FOUCART, George (1910) Children (Egyptian). In: *Encyclopedia of Religion & Ethics* (1908–26), Ed. J. Hastings, III: 532–39. Edinburgh: Clark.

Extensively documented from both ancient and modern literature available to Foucart.

FRANTZ–MURPHY G. (1981) Arabic and earlier Egyptian contract formularies. Part I, the Arabic contracts from Egypt. *J. Near Eastern Studies* 40: 203–25.

A house sale contract drawn up in Egypt, early in 963 CE, mentions "the residence of the heirs of Munah the Deaf" (Arabic: *al-Asamm*). Evidently a man of some substance, Munah is one of the earliest deaf people clearly recorded by name, date and place in the region.

FUCHS J. (1966) Blind minstrels and harpists of ancient Egypt. *Abbotempo* Book 1, 26–31.

GARDINER A.H. (1911, reprint 1964) *Egyptian Hieratic Texts, transcribed, translated and annotated. Series I: Literary Texts of the New Kingdom*. Hildesheim: Georg Olms. An early suggestion of sign or gestural language appears in a series of Egyptian magisterial admonitions to an idle schoolboy or clerk: "Thou art one who is deaf and does not hear, to whom men make (signs) with the hand," in the Papyrus Koller, "dated approximately to the end of the Nineteenth Dynasty" or around 1200 BC (pp. 35–39, 84–86;

GAUCHE, William J. (1932) Didymus the Blind of Alexandria: an educator of the fourth century. Master's dissertation, Catholic Univ. America. 42 pp.

HAMADA G. & RIDA A. (1972) Orthopaedics and orthopaedic diseases in Ancient and Modern Egypt. *Clinical Orthopaedics* 89: 253–68.

HAMILTON G.L. (1912) La source d'un épisode de Baudouin de Sebourc. *Z. für romanische Philologie* 36: 129–59.

The convoluted career, in many language versions, of a legend on how Moses got a

speech impediment. As an infant he was shown to Pharaoh. Sat on the monarch's lap, he pulled his crown off and threw it down (or maybe pulled Pharaoh's beard). Courtiers, aghast, debated this ominous act. A test was proposed. The babe was shown two basins. One held a glowing coal, the other a jewel. He reached for the jewel, but an angel guided his hand to the hot coal, which stuck to his hand. Putting his hand to his mouth for comfort, lips and tongue were also burnt; hence the speech impediment.

INSTRUCTION of Amenemope, The. (British Museum Papyrus No. 10474.) English Transl. M. Lichtheim (1976) *Ancient Egyptian Literature. A Book of Readings. Vol II: The New Kingdom*, 146–63. Berkeley: Univ. California Press.

c. 1100 BC. Ch. 2:1 "Beware of robbing a wretch, of attacking a cripple." Ch. 25:8–12 "Do not laugh at a blind man, nor tease a dwarf, Nor cause hardship for the lame. Don't tease a man who is in the hand of the god (i.e. ill or insane)..." (See PRITCHARD, below, p. 424a)

JAUSSEN J.A. (1920–24) Le Cheikh Sa`ad ad-Din et les djinn, à Naplouse. *J. Palestine Oriental Socy* 1–4, pp. 145–157.

Exorcism of jinns by a traditional healer at Nablus.

JEFFREYS, David & TAIT, John (2000) Disability, madness, and social exclusion in Dynastic Egypt. In: J. Hubert (Ed.) *Madness, Disability and Social Exclusion. The archaeology and anthropology of 'difference'*, 87–95. London: Routledge.

Brief and suitably cautious review of evidence on social responses to disability and disabled persons in the social and religious context of Egyptian antiquity, for which archaeological sources are "plentiful but often ambivalent."

KAMAL, Hassan (1967) *A Dictionary of Pharaonic Medicine*. Cairo: National Publication House. 509 pp.

Many entries have some disability relevance, e.g. Dwarfism, Ears, Epilepsy, Hemiplegia, Talipes (etc.), with references to papyri.

KOMORZYNSKI, Egon (1951) Blinde als Musiker in alten Aegypten. Vienna. *Weg Ohne Licht. Organ des Österreichischen Blindenverbandes* (Vienna) 6 (5) 3–5.

See MANNICHE below.

KOZMA, Chahira (2006) Dwarfs in ancient Egypt. *Amer. J. Med. Genetics* 140A (4) 303–311.

Passes briefly across ground given in much greater detail in V. DASEN's book, q.v., which Kozma acknowledges as "a comprehensive review of the subject". (Cites some additional work.)

LASCARATOS J. & MARKETOS S. (1994) Didymus the blind: an unknown precursor of Louis Braille and Helen Keller. *Documenta Ophthalmologia* 86: 203–208.

In Fourth century Alexandria, Didymus lost his sight when 4 years old. Later he is said to have "learned the first letters of the alphabet through his sense of touch upon their shapes

which were engraved in depth on planks of wood." He became a renowned theologian, teacher and writer.

LICHTHEIM, Miriam (1945) The songs of the harpers. *J. Near Eastern Studies* 4 (3) 178–212.

Includes some discussion of the depiction of harpers at various dates in Egypt, and the practice of representing them as blind people, pp. 187–188.

*LIFE of Takla Hâymânôt, The. III. The Book of the Miracles of our Father, the Holy Man Takla Hâymânôt, which was compiled by Abba Peter.* Transl. E.A. Wallis Budge. London. Privately printed for Lady Meux. 1906. 2 Vols.

Illustrated hagiography of the revered Takla Hâymânôt (c. 1215 – c. 1313), the major religious figure of Ethiopia. Includes many reports of healing by T.H. In the section specifically on "miracles," pp. 278–79 concern "Healing of the man with crooked legs." It tells of "a certain man who was unable to walk with his legs, and he could only move about upon his hands." He prayed to T.H., believed he would be healed, and raised himself up. T.H. appeared to him, and said "Depart thou, standing upright on thy feet as thou wast formerly" — he was healed immediately and departed on his feet.

Much historical material exists in Amharic, in which diseases are described with sufficient detail to encourage diagnostic guesswork. In the present example, the man with crooked legs could have had poliomyelitis, or a spinal injury, or various other conditions. If there were evidence that he lived in an area where lathyrus sativus was prominent in the diet, the description might suggest lathyrism. The scientific mind is usually uncomfortable with "miracle" reports; yet there is no reason to doubt that some Ethiopians in the Thirteenth century could observe and make accurate descriptions of a variety of disabling conditions (see STRELCYN, below).

LOEBL W.Y. & NUNN J.F. (1997) Staffs as walking aids in ancient Egypt and Palestine. *J. Royal Socy Medcn.* 90: 450–54.

MALTI–DOUGLAS F. (1989) Mentalités and marginality: blindness and Mamluk Civilisation. In: C.E. Bosworth, C. Issawi, R. Savory & A.L. Udovitch (Ed.s) *The Islamic World from Classical to Modern Times. Essays in honour of Bernard Lewis*, 211–37. Princeton NJ: Darwin Press.

With some discussion of historiographical approaches, Malti–Douglas suggests "the identification of the principal roles of blindness and the blind in Mamluk mentalities," based on as–Safadi's biographical dictionary of some 313 distinguished blind Arabs. The identified roles are compared favourably with some of the roles of blind people in modern 'western' countries.

MANNICHE, Lise (1991) *Music and Musicians in Ancient Egypt.* London: British Museum Press. 142 pp.

Various references to blind musicians (94–95; full chapter 97–107), also some wearing a blindfold (89–90).

MELL, Alexander (Ed.) (1899) Didymus. In: *Encyclopaedisches Handbuch des Blindenwesens*, I: 171–172. Vienna & Leipzig: Verlag von A. Pichlers Witwe & Sohn. Brief account of Didymus the Blind, theologian and teacher at Alexandria in the Fourth century.

NUNN, John F. (1996) *Ancient Egyptian Medicine*. London: British Museum. 240 pp. Well reviewed work by medically qualified Egyptologist. Good indexing of impairment / disability. See (overlapping) entries: achondroplasia, ageing, Bes, club foot, crutch, deafness, deformities, dwarf, ear, elephantiasis, eye, harpist, hump–back, hydrocephalus, industrial, kyphosis, neurological, night, physiotherapists, pituitary, poliomyelitis, pseudo–hypertrophic, rickets, trachoma, trauma, trephining, etc.

OKASHA, Ahmed (1993) Mental disorders in pharaonic Egypt. *Curare* 16: 66–70.

PAHOR A.L. (1992) Ear, nose and throat in Ancient Egypt. (Parts I, II, and III). *J. Laryngology and Otolology* 106: 677–87; 773–79; 863–73. Detailed and well–referenced paper in three parts, with numerous illustrations, concerned with medico–surgical treatment of ear, nose and throat conditions, according to medical papyri from antiquity.

RAGHEB MOFTAH & ROY M. (1991) Music, Coptic: Cantors, their role and musical training. In: A.S. Atiya (Ed.) *The Coptic Encyclopedia* 6: 1736–1738. New York: MacMillan. Account of the training and practice of blind cantors who take a leading role in religious ceremonies of the Coptic Church, a tradition dating from early Christianity, reflecting the much earlier participation of blind musicians in Egyptian court ceremonies, and continuing to the present in Egyptian Coptic church life.

RUFFER, Marc Armand (Ed. R.L. Moodie) (1921) *Studies in the Palaeopathology of Egypt*. Chicago: Univ. Chicago Press. xx + 372 pp. + plates. Many references to disability. See Index, e.g. abnormalities, baldness, clubfoot, deformed persons, dwarfs, hunchbacks, etc. Heavily illustrated.

RUPP A. (1965) Der Zwerg in der aegyptischen Gemeinschaft. Studien zur aegyptischen Anthropologie. *Chronique d’Egypte* 40/80: 260–309.

SABRA, Adam Abdelhamid (2000) *Poverty and Charity in Medieval Islam: Mamluk Egypt, 1250–1517*. Cambridge UP. Useful background study on poverty and charity. Mentions disabled people only incidentally (e.g. blind, lame, crippled, lepers etc., pp. 47–49, 60–61, 74–78, 85), but they were there among ‘the poor’ for whatever benefits were provided.

SAFI AL DIN ibn Abi l–Mansur ibn Zafir. *La ‘Risala’ de Safi al–Din ibn Abi l–Mansur ibn Zafir: Biographies des maîtres spirituels connus par un cheikh égyptien du VIIIe/XIIIe siècle* (Transl. Denis Gril, 1986). Cairo.

Some of the 'holy fools' described by Safi d-Din in Thirteenth century Egypt and elsewhere were more holy than foolish, others perhaps the reverse.

SAMPSELL, Bonnie M. (2001) Ancient Egyptian dwarfs. *KMT A modern journal of Ancient Egypt* 12 (3) 60–73.

Profusely illustrated paper combining insights from genetics, physiology, art and Egyptology.

SCHODDE, George H. (1885) The Apostolic Canons, translated from the Ethiopic. *J. Society of Biblical Literature and Exegesis* 5 (1/2) pp. 61–72.

The "Apostolic Canons" had a chequered career, being first formulated perhaps in the Second century, and varying in number in different regions of the Church. The Ethiopic version has 57 canons, and "like nearly all the Church literature of the Abyssinian Church, is a translation, and in this case from the Coptic." (The Coptic version may have been translated from the Latin in the Fifth or Sixth century). Schodde remarks of these Canons that "In the Church of Ethiopia they have had, and theoretically still have, canonical authority." Canon 37, after prohibiting junior clergy from reviling their seniors, adds that "if one of the priests ridicules a person that is deaf or lame or blind or deformed at his feet, let him be expelled; and thus also in the case of a layman, if he does this." In Canon 46, a layman who forces a virgin and has cohabited with her, is expelled; "And he shall not marry another, but he shall abide with her whom he has forced, even if she is poor and deformed." In Canon 52, after various rules for bishops,

He who is one-eyed or lame in his foot and is worthy of episcopal honour, shall be ordained. For a defect of the body does not corrupt him, but a defect of the soul [does]. A deaf and a blind man, however, shall not be ordained as a bishop, not as being unclean, but lest the property of the church be scattered. He who is possessed of a devil shall not be ordained, and he shall not pray with the believers. And if he is purified, they shall admit him; and if he be worthy, he may be ordained as one of the clergy.

Impairment and disability are a small, incidental part; yet the principle that an impairment of body did not represent a defect of soul, nor rendered one unfit for ordination, was thus enshrined in Ethiopian church law; while even one who was 'possessed' (perhaps suffering a serious mental illness) could recover and might become an ordinand. Even while excluding the deaf or blind man from the possibility of becoming a bishop, the rules give pragmatism as a reason rather than attributing unworthiness.

SCHRUMPF-PIERRON, B. (1934) Les nains achondroplasiques dans l'ancienne Egypte. *Aesculape* 24 (n.s. 9) 223–238.

SELIM, Kumur B. (2006) (i) Taha Hussein; (ii) Muwaffaq ad-Din Muzaffar. In: G.L. Albrecht et al. (Ed.s) *Encyclopedia of Disability*, II: 897–898; III: 1127. Thousand Oaks CA: Sage.

Brief entries on the Twentieth century blind Egyptian intellectual, educator and moderniser; and the blind Egyptian philologist and poet (1149–1226).

STRELCYN, Stefan (1980) Un chapitre concernant les maladies, d'un lexique Arabe–Ethiopien du XVIe. siècle. *J. Asiatique* (Paris) 268: 215–231.

Strelcyn's translation (to French) of this Arabic–Ethiopian medical lexicon shows a considerable range of terms for physical, mental and sensory impairments and disabilities, among them being: amputé, aveugle, qui balbutie, bègue, boiteux, borgne, bossu, débile, élephantiasis, instable d'esprit, estropié, fou, goutte, hallucinations, idiot, infirme, insensé, intelligence limitée, défaut de la langue, lépreux, muet, nyctalope, oeil fermé, paralytique, paraplégique, possédé par un démon, rhumatisme, sot, sourd, sourd–muet, stupéfait, stupide, vitiligo, vue faible.

VITAE Patrum. *De Vita et Verbis Seniorum Sive Historiae Eremitacae*. Antwerp. Second edn, 1628.

[Partial English translation](http://www.vitae-patrum.org.uk) at: <http://www.vitae-patrum.org.uk>

Among the Vitae of the Desert Saints, in Egypt, Palestine and Syria of the early centuries of Christianity, there are stories of people with disabilities being healed or cared for. The framework is often modelled on stories where Jesus healed disabled people by expelling demons; yet the hagiographies have some sharply observed and unexpected features in dialogue and interplay between characters. In Book 1(d), No. 17, the young saint Euphrasia's humility, fasting, battles with the devil, and devotion to serving her religious companions, are standard fare. In Ch. XXV–XVI, families brought sick or disabled children to the monastery for prayer and healing. At the Abbess's command Euphrasia received one boy of eight years, brought by his mother, paralysed, deaf and dumb. Euphrasia prayed while carrying him to the Abbess, and the boy was healed and started shouting for his mother. Euphrasia dropped him in surprise, and he ran back to the gate. Later, the Abbess sent Euphrasia to feed a "devil–possessed" sister, who had violent fits and was locked up. This one often assaulted whoever brought the food, and she began shrieking and threatening Euphrasia. The latter commanded her to be quiet or she would get the Abbess's cane and give her a terrible thrashing! This subdued the madwoman, so Euphrasia asked her pleasantly to sit down and eat her food and be calm, which she did. After further spiritual conflict, the woman was healed (Ch. XXVII–XIX). Another tale is told in two versions (in Book 7, Ch. 19, "Tending the sick," and Book 8, Ch. 26, "Eulogius and the Cripple"). The scholar Eulogius of Alexandria entered the holy life with a promise to care for a severely disabled man whom he saw in the marketplace. That man was happy to be taken up, fed, washed and maintained in the saint's cell. Yet after 15 years the cripple got tired of this life, and denounced Eulogius as a crafty hypocrite and criminal who was just using him for his own spiritual ego–trip. The cripple demanded to be taken back to the marketplace, where he could see some ordinary scenes of life and meet some normal people, and maybe get some decent food! After ineffectual attempts to sort out the quarrel, Eulogius and the cripple went for mediation to St. Anthony. The holy old monk banged their heads together and told them to go home and live together in peace and harmony.

WALKER, James H. (1996) *Studies in Ancient Egyptian Anatomical Terminology*. Australian Centre for Egyptology: Studies 4. Warminster, U.K.: Aris & Phillips. ix + 347 pp.

Summarises anatomical knowledge on basis of detailed studies of terms. Lexicon and

glossary, pp. 263–79, tabulates terms with their hieroglyphic, meanings and notes, including terms of body parts liable to various disabling impairment.

WARD, William A. (1969) The Semitic root HWY in Ugaritic and derived stems in Egyptian. *J. Near Eastern Studies* 28: 265–67.

Complexities of possible meanings, around speech, hearing and deafness, are shown as Ward compared roots of words in several regional languages and suggested a different meaning in the passage (in Papyrus Koller) supposedly addressed to an idle student or clerk, "Thou art one who is deaf and does not hear, to whom men make (signs) with the hand."

WARD W.A. (1986) Some remarks on the root gbi/gbgb, "To be weak, lame, deprived." *Z. Ägyptische Sprache und Altertumskunde* 113: 79–81.

WEERAKKODY D.P.M. (2006) Didymus the Blind. In: G.L. Albrecht et al. (Ed.s) *Encyclopedia of Disability*, I: 401. Thousand Oaks CA: Sage.

WOLFF, Hans Felix (1938) Die kultische Rolle des Zwerges im alten Aegypten. *Anthropos* 33: 445–514.

Extended review, with Index (512–514) of the role of dwarves in ancient Egyptian religious practices.

ZABA, Zbynek (1956) *Les Maximes de Ptahhotep*. Prague: Editions de l'Académie Tchecoslovaque des Sciences.

Sayings ascribed to Ptahhotep (fl. 2450 BC) Transl. from Egyptian hieroglyphs to French. Includes an eloquent lament over bodily decay and impairments of sight and hearing with old age (pp. 69–70). (See PRITCHARD, above, p. 412, for an English Transl.)

ZAHURI A.W. (1964) Hakim Daud Antaki: a distinguished, wise and learned blind physician of Egypt. *Hamdard Med. Digest* (Karachi) 8 (9–10) 20–26.

Life of the Sixteenth century blind physician Da'ud ibn `Omar al-Antaki.

ZAKI PACHA, Ahmad (1911) *Étude sur la contribution des Arabes à l'invention de l'écriture en relief spécialement destinée à l'usage des aveugles*. Le Caire.

[Not found. Listed among the publications of Ahmed Zaki Pacha, in an obituary notice by Ahmed Issa Bey (1935) *Bulletin de l'Institut d'Égypte* XVII: vii–xix. (Cf. FATTAH, above). MALTI-DOUGLAS (1988, p. 62) footnotes that the suggestion by Zaki Pacha in his *Dictionnaire biographique*, 66–71, that 'Braille' (i.e. a tactile system for blind readers) was invented by a medieval Arab had been discredited (ibid., p. 72), but was still in circulation. (See also LASCARATOS & MARKETOS, above, on the tactile system of Didymus the Blind, theologian of Alexandria).]