

honours bestowed on her late husband, including a *ḡāgīr* worth Rs. 75,000 a year. A month later, the British Government conferred upon him the title of *Nawwāb Walādīyah Amīr al-Mulk*, with entitlement to a 17-gun salute within British India.

Şiddik Ḥasan's marriage to the Begum was resented by a group in the royal family, especially by her daughter and heir-apparent, Sulṭān Ḍjahān Begum (reigned 1901-26), who feared being bypassed if a male child were to be born of the new marriage. The dissident party found the British Political Agent at Bhopāl, Sir Lepel Griffin, more than sympathetic. On his advice, the first British accusation of publishing "seditious material" was made on 21 March 1881, which curtailed Şiddik Ḥasan's powers as the *de facto* ruler of the state (the Begum being in *pardah*). Being a staunch supporter of the *Ahl-i Ḥadīth*, he had alienated Ḥanafī 'ulamā' as well as the Şhī'īs. The British were wary of the movement because of its recent military role in the Frontier region. Şiddik Ḥasan was also accused of a number of administrative malpractices, causing rifts in the royal family and maintaining contacts with foreign personalities, including the *Mahdī* of the Sudan. Griffin had originally recommended to the Viceroy, Lord Dufferin, the death sentence for the Nawwāb or transportation for life. But the Viceroy, perhaps taking into account the state's traditional loyalty to the British, opted for his deposition, which came into effect on 28 August 1885, with all his honours and authority revoked. Henceforth, his loyal wife became a figurehead, and real power was exercised by her daughter, Sulṭān Ḍjahān Begum and the Prime Minister henceforth appointed by the British, whilst Şiddik Ḥasan remained under house-arrest in his private residence, Nūr Maḥall. He died on 20 February 1890 at the age of 59 years; the Government of India restored his honours posthumously and the state was allowed to refer to him in official communications as the "Late Nawab and Husband of the Ruler."

Şiddik Ḥasan was already writing books when he joined the Bhopāl civil service. He is reported to have sent a copy of his *Tuḥfa-yi fakīr* (a treatise on coffee and tea) to the Nawwāb of Tonk in 1276/1859. However, his marriage with the Begum placed enormous funds at his disposal. He had free access to eight official printing presses and a team of court 'ulamā', which included some Yemenis. He dispatched emissaries to various parts of India and Arab lands to buy rare mss. for him. Many Indian and Arab 'ulamā' and poets came to live in Bhopāl because of his patronage. He embarked on an unprecedented writing career in Arabic, Persian and Urdu on a wide range of religious, technical and literary subjects. His son lists 222 titles (74 Arabic, 45 Persian and 103 Urdu) to his credit (*Ma'āthir-i Şiddikī*, iv, appendix). These range from two-paged treatises to multi-volume works. Revenues from his *ḡāgīr* and the Bhopāl treasury allowed him to print his books in India, Cairo and Istanbul for free distribution worldwide. A latter-day al-Suyūṭī, his writings are rarely original. His rôle hardly goes beyond recompiling, abridgment, enlargement, interpretation or translation from one language to another. Moreover, some works attributed to him were authored by a team that worked for him, and in some of these, like the *Riyāḍ al-murtād* and *al-Dīn al-khālīs*, he is quoted as a third person. Indeed, one of his books, *Lukṭat al-'aḡḡlān* (Istanbul 1296/1879, 717-20) says that there is no harm on one's ascribing his book to someone else (cf. Saeedullah, 87 f.).

In his religious writings, Şiddik Ḥasan repeats a limited range of topics: e.g. opposition to *fikhī taḡlīd* (which he regarded as responsible for the Muslims' intellectual stagnation), *taṣawwuf* and *fikhī* rigidity, necessity of *ḡīṭihād*, admonition on wasteful expenditure in religious and civil ceremonies, and exposition of the conditions preceding the Day of Judgement. Unscrupulous copying from previous works attracted sharp criticism from some contemporary 'ulamā', e.g. 'Abd al-Ḥayy al-Lakhnawī (*Ibrāz al-ḡhayy* and *Tadhkirat al-rāshid*, Lucknow 1301/1884). His literary activities were greatly curtailed in the wake of his deposition. His important works nevertheless include: *Fath al-bayān* (*tafsīr*), *Abḡḡad al-'ulūm* (on 'ilm), *al-Tāḡī al-mukallal*, *Ṭiḡṣār ḡuyūd al-abrār* and *Ithāf al-nubalā'* (biographies), *Nashwat al-sakrān* (on love) and *Gul-i ra'ānā* (Persian and Urdu *dīvān*).

Bibliography: Şhāh Ḍjahān Begum, *Tāḡī al-iḡbāl*, Kānpūr 1289/1872; E. Van Dyke and Muḡammad al-Biblāwī, *Iktifā' al-kanū'*, Cairo 1313/1896, 106 f., 118, 313, 497; Sulṭān Ḍjahān Begum, *An account of my life*, tr. C.H. Payne, London 1912; Nawwāb Sayyid 'Alī Ḥasan "Ṭāhīr", *Ma'āthir-i Şiddikī* (or *Sīrat-i Wāladīyahī*), Lucknow 1924-5, 4 vols.; Brockelmann, S II, 859-61; Sayyid 'Abd al-Ḥayy and Sayyid Abu 'l-Ḥasan 'Alī al-Nadwī, *Nuḡhat al-khawāṭir*, Ḥaydarābād, Deccan 1390/1970, viii, 187-95; Raḡmān 'Alī, *Tadhkirat-i 'ulamā'-i Hind*, tr. Muḡammad Ayyūb Kādīrī, Karachi 1961, 250 f.; Saeedullah, *Life and works of Nawab Siddiq Hasan Khan of Bhopal*, Lahore 1973; S.M. Iḡtibā' al-Nadwī, *Musāhama al-Amīr Şiddik Ḥasan Khān fi 'l-ma'ārif al-Islāmiyya bi 'l-Hind*, unpubl. Ph.D. thesis, Aligarh Muslim Univ. 1976; Şhaykh Muḡammad Ikram, *Mawḡī-i Kawthar*, Lahore 1979, 66 f.; Raḡiyya Ḥāmid, *Nawwāb Şiddik Ḥasan Khān*, Bhopāl 1983.

(ZAFARUL-ISLĀM KHĀN)

NAYRİZ, NĪRİZ, the name of a mediaeval Islamic region and of a town of Fārs in southern Persia.

The Nayrīz plain is essentially a landlocked region in the southern Zagros mountains, drained by the Kūr and Pulwār rivers which rise in the Zagros and flow southeastwards into the shallow lake known in mediaeval Islamic times as the Lake of Nayrīz and in more recent ones as Lake Baḡhtigān (*q. v.*, and also E. Ehlers, art. *Baḡtagān Lake*, in *EI*); although the lake itself is salt, the plain forms an agriculturally prosperous region, and in ancient times was the heartland of Achaemenid Persia, where lay Pasargadae and Persepolis.

In mediaeval Islamic times, the chef-lieu of the region was the town of Khayār (thus in al-Iṣṭakhārī and Ibn Ḥawḡal, the modern Khīr/Khayr in al-Muḡkaddasī), whilst Nayrīz lay one stage to the east on the Kirmān road. Ḥamd Allāh Mustawfī, *Nuzha*, 138, 240, tr. 138, 232-3, states that both Khayra (*sic*) and Nayrīz had fortified citadels. The geographers place Nayrīz in the *sardsīr* or cold region and mention iron mines, white clay used like chalk for writing and for bleaching, and black clay used for sealing, as being found in the vicinity. The mosque which al-Muḡkaddasī mentions at the side of the market is presumably the existing Friday mosque, which has an inscription dating from 362/973. In more recent times, Nayrīz was the centre of Bābī rebellions in 1850 and 1853 led by Sayyid Yahyā Darābī (Waḡīd); see *The Dawn-Breakers*, *Nabīl's narrative of the early days of the Bahā'ī revelation*, Wilmette, Ill. 1932, 465-99; M. Momen, *The Babi and Baha'i religions 1844-1944*, Oxford 1981, 106-13, 147-52.

At present, the town (lat. 29° 14' N., long. 54° 18'

E., altitude 1,587 m./5,205 feet) is in a district frequented by both *Khamsa* and *Kashkā'ī* [q.v.] nomads; it is the chef-lieu of the sub-district of *bakhsh* of the same name in the *shahrestān* or district of *Fasā*, and ca. 1960 had a population of 15,391.

Bibliography: Le Strange, *Lands*, 289-90; Schwarz, *Iran*, 104-5; A. Godard, *Le Masdjid-é Djum'ā de Nīrīz*, in *Āthār-é Īrān*, i (1936), 163-72; Admiralty Handbook, *Persia*, London 1945, 74-6; Razmārā, *Farhang-i djuhgrāfiyā-yi Īrān*, vii, 237; Sylvia A. Matheson, *Persia, an archaeological guide*, London 1972, 262. (C. E. BOSWORTH)

NAYRŪZ [see *NAWRŪZ*].

AL-NAYRĪZĪ, **ABU 'L-ABBĀS AL-FADL B. HĀTIM**, Persian geometer and astronomer, about whom almost nothing is known, though his *nisba* refers to the town of *Nayrīz* [q.v.] in *Fārs*. Because he mentions the caliph *al-Mu'ṭadid* in several of his works, it is commonly assumed that *al-Nayrīzī* flourished around 900 A.D. in *Baghdād*.

Al-Nayrīzī is well-known in the history of mathematics because he wrote a commentary to the Arabic translation of *al-Ḥadīdjādī* b. *Yūsuf* b. *Maṭar* [q.v.] of the *Elements* of *Euclid* (300 B.C.). The translation and commentary have been preserved in Arabic (Books I-VI) and in a mediaeval Latin translation by *Gerard of Cremona* (Books I-X). In his commentary, *al-Nayrīzī* preserved extracts of the ancient commentaries on the *Elements* by *Hero of Alexandria* (ca. A.D. 100) and *Simplicius* (ca. A.D. 500), which are not otherwise extant. In particular, *al-Nayrīzī* presents a "proof" of *Euclid's* famous parallel postulate by *Simplicius* and another such proof by one *Aghānis*, who was probably a contemporary of *Simplicius*.

In a separate treatise, *al-Nayrīzī* gave his own "proof" of the parallel postulate, which is similar to that of *Aghānis*, and which is based on the assumption that parallel lines are equidistant. *Al-Nayrīzī* wrote two other mathematical works: a treatise on an exact method for the numerical determination of the *qibla* [q.v.], based on four applications of the spherical theorem of *Menelaus*, and a hitherto unpublished text on an instrument for measuring the height of mountains, the width of rivers, the depth of wells etc.

Al-Nayrīzī's most important astronomical works, his commentary on the *Almagest* and two *Zījīs*, are now lost. His treatises on the spherical astrolabe and on astronomical conjunctions are extant.

Bibliography: *Sezgin*, *GAS* v, 283; vi, 191-2; vii, 156, 268-9; *B. Rosenfeld*, *G.P. Matvievskaia, Matematiki i astronomii musulmanskogo srednevekov'ia i ikh trudy*, *Moscow* 1983, ii, 116-118 (useful bibliographies). On *al-Nayrīzī* and the parallel postulate, see *A.I. Sabra*, art. *al-Nayrīzī*, in *Dictionary of Scientific Biography*, x, *New York* 1974, 5-7; *Kh. Jaouiche*, *La théorie des parallèles en pays d'Islam*, *Paris* 1986, 127-137. (J.P. HOGENDIJK)

NAZAR (A.), lit. "theory, philosophical speculation", probably did not receive until the 9th century A.D. the meaning of research in the sense of scientific investigation as translation of the Greek θεωρία. With *Aristotle*, e.g. *Metaph.* 1064 b2 (translated by *Eustathius/Usūth* at the beginning of the 9th century), and the Greek *Prolegomena* (Προλεγόμενα τῆς φιλοσοφίας) to the commentaries on *Prophry's Isagoge*, the philosophies were then divided into theoretical (*nazariyya*) and practical (*'amaliyya*); the latter seek to obtain the useful or the good for man, the former pure truth, in physics, mathematics and metaphysics (see *Hein*, *Definition* 146 ff.).

Nazar is primarily an epistemological conception and after the example of *Ammonius Hermiae*, a pupil

of *Proclus*, is dealt with among the Arabs in the already-mentioned *Prolegomena* prefixed to the *Isagoge* of *Porphyry* [see *Manṭiḳ* in *EP*]. *Nazar* is also discussed as an activity of the human 'aql [q.v.] in psychology, but in this case as a rule under synonyms like *fikr*, *tafakkur*, etc.; cf. e.g. 'Abd al-Djabbār: see *Peters* 58 f.; *Bernand*, *Problème*, 202 ff.

The history of this terminology has still to be written. In the oldest version of *Aristotle's* logic, a compendium written by 'Abd Allāh b. al-Muḳaffa' (executed 139/756 or later) or his son *Muḥammad*, 'ilm and 'amal are already distinguished as branches of philosophy (*hikma*), but 'ilm is defined as a *tabaṣṣur* and *tafakkur* of the *qalb* (i.e. of the mind); cf. *G. Furlani*, *Di una presunta versione araba di alcuni scritti di Porfirio e di Aristotele*, in *RRAL*, ser. VI, vol. vi [1926], 207 = *al-Manṭiḳ li-Ibn al-Muḳaffa'*, ed. *M. Takī Dānishpazūh*, *Teheran* 1977, 2, 21 ff.

The oldest speculative theologians of Islam were perhaps more familiar with the distinction 'ilm 'aqli/shar'ī than with *nazari'*/*'amali*. The 'aql is generally recognised as a "root" of the *Mu'tazilī* system. The *Zaydī* *al-Kāsim* mentioned it (beginning of the 3rd century A.H.) among his *uṣūl*: 'aql, *Ḳur'ān* and *sunna* (*Madelung*, 129). *Nazar* was felt to be an innovation like *ra'y* and *kiyās* in *fikh*; the *Hanbalī* school objected to the adoption of *nazar* (see *Laoust*, 9, n. 1). Contrary to it, the *Zāhirī* theologian *Ibn Ḥazm* [q.v.] admitted 'aql without hesitation—of course the 'aql created and equipped by God—as a source of knowledge. Not blind belief (*taḳlīd*) nor deduction from the unknown (*kiyās*) were to lead it to the acceptance of the *Ḳur'ān*, *sunna* and *iqjma'*, but quite certain knowledge. There is nothing which *Ibn Ḥazm* insists upon so often and so emphatically as this; there is no other way to certainty than that of tracing it to sensual perception (*hiss*) and intuition of the intelligence ('aql). Indeed, sensual perception is so much preferred by him that comprehension by the reason is called a sixth *idrāk* (*Kitāb al-Fiṣal*, i, *Cairo* 1899, 4-7). The philosophical position of *Ibn Ḥazm* recalls *Hellenistic eclecticism*, according to which all human cognition arises either from sensual perception or intuition or is derived from these sources through the intermediary of proof. Many, however, emphasise the direct evidence of sensual perception (cf. already *sūra* X, 101 etc.; *van Ess*, 239), and regard the method of proof as a difficult and uncertain one. Hence we have the emphasis laid on general agreement (*A. iqjma'* and *iqjima'*) as a possible, but often doubted (cf. *van Ess* 308 ff.), criterion of truth. Only where there is no agreement is investigation necessary.

The dualistic epistemology of the eclectics (senses x reason) was very greatly modified in Islam by the penetration of the intellectual monism into *Neo-Platonic mysticism* and *Aristotelian logic*. While different stages in human knowledge were distinguished, true knowledge was only to be attained by rational intuition and the intermediary activity of the mind. The main thing for the *Neo-Platonist* was intuition (*nazar*, *basar*). It is remarkable how in the *Neo-Platonic Theology of Aristotle*, the latter is made to say (*Arabic text* ed. *Fr. Dieterici*, *Leipzig* 1881, 163): "Plato recognised all things *bi-nazar al-'aql* (intuition), *lā bi-manṭiḳ wa-kiyās*", i.e. Plato as the divine perceives everything at once like God himself and pure 'aql. *Nazar* in this sense of direct perception is constructed with *ilā*, in other cases, however, with *fī*. For *nazar fī*, transmitted reflection of the human intelligence, the *Theology* generally uses *fikr* and *ra'wiyya* and the world of senses, with which our soul is associated, is called 'ālam al-fikra wa 'l-ra'wiyya. Following the *Theology*, the