community in Medina, 'Urwa [*q.v.*], Ḥamza, and Muṣ'ab [*q.v.*]. Another descendant, al-Zubayr b. Bakkār (d. 256/870), dedicates the extant part of his *Djamharat nasab Kuraysh wa-akhbārihā* to al-Zubayr's offspring. Al-Zubayr is said to have given his sons the names of martyrs, *shuhadā'*, hoping that they would die in the service of Islam.

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(I. HASSON)

AL-ZUBAYR B. BAKKĀR B. 'ABD ALLĀH B. MUṢ'AB, Abū 'Abd Allāh, author of *akhbār* works which combine belles-lettres and history and belong to the oldest preserved books in this field.

He was born in 172/788-9 at Medina. As a descendant of al-Zubayr b. al-'Awwām [*q.v.*] he was a prominent member of the illustrious Zubayrī family. When he died at Mecca in Dhu 'l-Ḳa'da 256/October 870, he had been *ḳāḍī* of the Holy City for the previous one and a half decades. His grandfather was a close associate of the caliph al-Mahdī and was appointed governor of Medina by Hārūn al-Rashīd, and his father also was for some time governor of Medina; but al-Zubayr chose the life of a scholar. According to an account transmitted only by Ibn al-Athīr, vi, 526, he left his home town because of a quarrel with the 'Alids. In any case, he sojourned several times at Baghdād and Sāmarrā'. When he came to Baghdād for the first time, probably before the death of Isḥāḳ b. Ibrāhīm al-Mawṣilī [*q.v.*] in 235/849-50, he had already produced a version of his *Djamharat nasab Kuraysh wa-akhbārihā* (cf. the preface of Maḥmūd M. Shākir). His appointment to the office of *ḳāḍī* of Mecca by al-Mutawakkil seems have taken place at Sāmarrā' in 242/856-7, and if an anecdotal report is trustworthy (*Ta'rīkh Baghdād*, vi, 469), he had become some time before that date tutor to al-Mutawakkil's son al-Muwaffaḳ [*q.v.*]. The introductory *isnād* of al-Zubayr's *Azwādj al-nabī* indicates further that he lectured in the year 246/865 at Sāmarrā', and Ibn al-Nadīm, *Fihrist*, ed. Tajaddud, 123, mentions that he came to Baghdād for the last time in 253/867.

Unlike the more technically-oriented genealogical works (see, for instance, the *K. Nasab Kuraysh* of his uncle Muṣ'ab al-Zubayrī [see MUṢ'AB]), al-Zubayr's *Djamhara* is rather a collection of *akhbār* structured in a genealogical order, and it thus develops the old narrative tradition of genealogical writing, as already reflected in the *Djamharat al-nasab* of Ibn al-Kalbī (ed. Maḥmūd Firdaws al-'Aẓm, 3 vols. Damascus n.d. [*ca.* 1982-6] and ed. Nādjī Ḥasan, 2 vols. Beirut 1986), into a model which may be regarded a predecessor of al-Balādhurī's *Ansāb al-ashrāf*. Al-Zubayr's *Djamhara* treats the Banū Asad b. 'Abd al-'Uzzā b. Ḳuṣayy and centres upon the Zubayrids. In contrast to this, his *al-Akhbār al-Muwaffaḳiyyāt*, of which only a minor part is known, offers an unstructured collection including a wide range of materials current in his time. Most of the *akhbār* deal with caliphs, governors and celebrities, who are depicted in situations of social and political significance or in the context of eloquence and rhetoric art. Many of these accounts are elaborated narratives emphasising the exemplary character of the person's behaviour. Poetry plays an important role in both works. These and other works (cf. Ibn Khayr al-Ishbīlī, *Fahrasa*, 467, 499, 534), were transmitted by firmly established *riwāyāt*, the most important among them being those of al-Ḥaramī b. Abi 'l-'Alā' (*Ta'rīkh Baghdād*, iv, 390), Aḥmad b. Sulaymān al-Ṭūsī (*ibid.*, iv, 177) and Aḥmad b. Sa'īd al-Dimashḳī (*ibid.*, iv, 171). According to the anecdotally-transmitted complaints of his wife, al-Zubayr also possessed a library. Many of the titles of al-Zubayr's works listed by Ibn al-Nadīm (123) deal with the work and life of poets; none of them, however, has survived in independent transmission, although more than 600 quotations from al-Zubayr in Abu 'l-Faradj's *Aghānī* have preserved many of these materials. He is also an often-quoted authority in other works of *adab* and history, such as al-Zadjdjādjī's *al-Amālī* or al-Balādhurī's *Ansāb*, and is to be considered among the finest representatives of Classical Arabic *akhbār* literature.

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ZUBDA (A.), derived from the root *z-b-d* with the basic meaning "foam(ing)", refers primarily to "cream (of milk), (fresh) butter", secondarily to "best part(s), essence, selection". In this transferred meaning it became a popular leading word of book titles, indicating that the work in question either encompasses the most important facts of its subject-matter (as e.g. in *Zubdat al-bayān fī tadbīr amrāḍ al-insān* "The essential information about the treatment of the diseases of man"; cf. Brockelmann, S II, 1031) or that it is an abridged version of some lengthier treatise (as e.g. with *Zubdat al-asfār sharḥ Mukhtaṣar al-Manār* "The essence of the books, Commentary upon M.M."; cf. Brockelmann, S II, 90). Occasionally the primary meaning of *zubda* is played upon, as e.g. in *Zubdat al-ḥalab fī ta'rīkh Ḥalab* "The cream of the fresh milk; about the history of Aleppo" (Brockelmann, I, 332). Less often than *zubda*, its plural form *zubad* is used in the same way. The popularity of *zubda* and *zubad* in book titles is documented by 71 titles starting with *zubda* (63) or *zubad* (8) listed in the register of Brockelmann, S III, 1165. (A.A. AMBROS)

ZUDJĀDJ, ZADJĀDJ and ZIDJĀDJ (A., sing. *zudjādja*), glass, syn. *kawārīr* "glass vessels, pieces of glass"; Pers. *ābgīna* or *shīsha*. It is mentioned in the Ḳur'ān (XXIV, 35) with the meaning of "glass container functioning as a lamp".

Glassmaking is often included in scientific works on mineralogy as a particular type of stone (see e.g. al-Bīrūnī, *K. al-Djamāhir fī ma'rifat al-djawāhir*, Islamabad 1989, 191-3). In literary accounts, glass vessels and centres of glass production throughout the Islamic world are sometimes referred to, although they are invariably of generic nature. For example, Fusṭāṭ, Ṣūr, Antākiya, al-Khalīl, Ḥalab, Dimashḳ, Baghdād, Ḳādisiyya, al-Baṣra, Iṣfahān, Shīrāz and Istanbul are all mentioned as glassmaking centres at various times (a survey is in Lamm 1929-30, 484-508).

Glass had been manufactured in the areas conquered by the Muslim armies for centuries, especially in Egypt and along the eastern Mediterranean coast. The "invention" of glass blowing in the 1st century B.C. had transformed this medium from an expensive, time-consuming product into an affordable, multipurpose one. The chemistry, technology, and manipulation of glass remained unchanged in the transitional period from late Antiquity to early Islam—glassmaking being a rather traditional craft that evolved with small but steady steps in the mediaeval period.

Glassmakers in the Islamic world continued to exploit artistically the wide range of available techniques of glass working, improving upon many, partially neglecting some, and reviving others. Most utilitarian objects were inflated on the blowpipe, shaped with different tools on the pontil (a solid iron rod attached to the base of the vessel after the blowpipe was cut off) and left undecorated. A large number of vessels were further manipulated with decorative effects in the so-called hot-worked technique. Designs were created applying glass trails, roundels, and splotches on the walls; patterns were impressed blowing the object directly in a decorated mould or making use of a tong-like tool that pressed both sides of an open-shaped vessel. The most sophisticated hot-worked objects present white trails applied in a spiral motion around the walls of a dark-coloured vessel, which are then incorporated in the surface with a rolling action against a smooth stone slab or marver, and patterned in festooned motifs with a pointed tool. This type of glass is often described as "marvered" or, better, "with marvered trails".

Cold-cut glass (glass that was abraded, incised, or cut away with hard-stone tools, rotating wheels, or drills in the lapidary technique after the vessel was shaped and left to harden and cool) was inspired by Roman and especially Sāsānid models, reaching new heights in the 4th-5th/10th-11th centuries.

The glass surface was often painted with a brush or a stylus and fired again to fix the pigments onto the surface. Early on, in the 2nd-3rd/8th-9th centuries, stained glass (usually known as "lustre-painted"), probably of pre-Islamic Egyptian origin, became popular in both Egypt and Syria. A lustrous film stained the glass surface permanently in various tones of yellow, brown, orange and red (sometimes combined) through a chemical reaction during the second firing. Difficult skills were required to control the temperature in the kiln to achieve the desired results without spoiling the shape of the re-heated vessel, skills that were perfected in the period of manufacture of enameled and gilded glass in the same areas in the 7th-8th/13th-14th centuries. Enamelled glass made under the Ayyūbids and the Mamlūks is the best known type of Islamic glass, thanks to its extraordinary polychrome appearance, the good condition of many objects, which were prized and collected through the centuries, and its technical accomplishment. Enamels, which are made of lead-rich glass pulverised and applied to the glass surface with a brush and an oily medium, and heavy gilding allowed the creation of painterly surfaces, including figural and vegetal motifs as well as calligraphic inscriptions. The texts, which often include the name of a sultan or an *amīr*, are extremely useful to establish the chronology of this extraordinary type of Islamic glass.

A clear art-historical development of shapes and decoration of Islamic glass is far from being entirely understood, notwithstanding the large number of extant objects and fragments. Even when it is obviously accomplished and expensive—and therefore made for wealthy clients—does glass only in rare instances include useful inscriptions, either moulded, incised or painted, that reveal the name of a patron or an artist, let alone a date. Glass was a commercial and artistic commodity across the entire Eurasian continent, shipped via land along the Silk Route and via sea on the Indian Ocean and the Mediterranean; consequently, excavated objects or vessels with a hearsay provenance were not necessarily created in the immediate vicinity. In addition, glass was traded also in the form of cullet, either as broken vessels or raw lumps, for re-melting. This simplified technology allowed fuel to be saved, but it inevitably makes the interpretation of chemical and elemental analyses a difficult task. Such lack of direct and indirect information, combined with scant and elusive original literary sources, has prevented scholars of Islamic art and of the history of glassmaking from grasping this subject thoroughly.

Carl Johan Lamm's seminal work (Lamm 1929-30, followed by the more focused Lamm 1935 and 1941) represents the only attempt to present a general study