



COMING TO TERMS WITH THE FUTURE

*Concepts of Resilience for the Study
of Early Iranian Societies*

REINHARD BERNBECK, GISELA EBERHARDT
& SUSAN POLLOCK (EDS)



This is a free offprint – as with all our publications the entire book is freely accessible on our website, and is available in print or as PDF e-book.

www.sidestone.com

COMING TO TERMS WITH THE FUTURE

*Concepts of Resilience for the
Study of Early Iranian Societies*

REINHARD BERNBECK, GISELA EBERHARDT
& SUSAN POLLOCK (EDS)

© 2023 Individual authors

Published by Sidestone Press, Leiden
www.sidestone.com

Lay-out & cover design: Sidestone Press

Photograph cover: Mountain near Yazd in Iran. Photo: Pav-Pro Photography –
[stock.adobe.com \(#122215020\)](https://stock.adobe.com/#122215020)

ISBN 978-94-6426-145-5 (softcover)
ISBN 978-94-6426-146-2 (hardcover)
ISBN 978-94-6426-147-9 (PDF e-book)

Contents

Resilience as an Approach to Lifeways in the Iranian Highlands: An Introduction 7

Susan Pollock, Reinhard Bernbeck, Gisela Eberhardt

CLIMATE AND PALAEOENVIRONMENT

Holocene Paleoenvironmental Change and Phases of Drought in the Iranian Highlands. A Review 21

Martin Kehl, Babak Rafiei-Alavi, Hamid Alizadeh Ketek Lahijani

The Impact of Climate on Human Occupations in Iran from the Neolithic to the Early Iron Age: An Attempt to Link Archaeological and Paleoclimate Records 39

Babak Rafiei-Alavi, Martin Kehl, Hamid Alizadeh Ketek Lahijani

Evidence of Neanderthal Resilience from Forty-Five to Thirty-Nine Thousand Years Ago at the Bawa Yawan Rockshelter, Kermanshah, Zagros Highlands 65

Saman Heydari-Guran, Nemat Hariri, Martin Kehl, Samran Asiabani, Faramarz Azizi, Elham Ghasidian

Water Stress and Imperial Politics in the Southern Zagros Mountains: An Interdisciplinary Approach in Long-Term Perspective 83

Andrea Ricci, Silvia Balatti, Elodie Brisset, Morteza Djamali, Abdolmajid Naderi Beni, Ahmad Azadi, Pejman Firoozbakhsh

SETTLEMENT, SUBSISTENCE, AND MOBILITY

Resilience in Practice: A View from the Kura-Araxes Cultural Tradition in Iran 99

Sepideh Maziar

Reaching the Breaking Point? Developments in the Chalcolithic to Early Bronze Age Varamin Plain 115

Susan Pollock, Morteza Hessari, Reinhard Bernbeck

**The Bronze and Iron Age of Mazandaran (3200–1000 BCE):
Resilience and Cultural Adaptability** 131

Hassan Fazeli Nashli, Mojtaba Safari, Yunshi Huang, Zhenhua Deng,
Hadi Davoudi, Xiaohong Wu

**The Environmental Limitations for the Pastoral-Nomadic Way of
Life in the Karadagh Highlands of Northwestern Iran: Evidence
from the Iron Age I-II and Modern Times** 151

Bahram Ajourloo

POLITICAL AND ECONOMIC INSTITUTIONS

**Second-Year Cows for Manlari. Elamite State Investment in
Cattle Husbandry in the Southern Zagros Mountains** 169

Azam Rayat and Walther Sallaberger

**Coping with Problems of Mining: Approaching Resilience
Strategies through the Study of Resource-Scapes in the
Iranian Highlands** 183

Thomas Stöllner

Imperial Control and Highland Resilience in the Parthian Zagros 205

Michael Brown and Shelir Amelirad

**Resilience in Centralized State Systems. The Persepolis
Fortification Archive and Achaemenid Institutional Longevity** 223

Wouter F. M. Henkelman, Kai Kaniuth, Kourosh Mohammadkhani

**Prestigious Building and Urban Development in Ilkhanid Iran:
The Rab‘-i Rashīdī in Tabrīz as an Example of Resilience and
Vulnerability in a Long-Term Perspective** 249

Birgitt Hoffmann, Lorenz Korn, Thomas Lorain, Jonas Elbers,
Maryam Moeini

**Dynamics of Development and Resilience in Western Fars:
The Bozpar Valley** 271

Stefan R. Hauser, Giuseppe Labisi, Elnaz Rashidian

Prestigious Building and Urban Development in Ilkhanid Iran: The Rab'-i Rashīdī in Tabrīz as an Example of Resilience and Vulnerability in a Long-Term Perspective

Birgitt Hoffmann, Lorenz Korn, Thomas Lorain,
Jonas Elbers, Maryam Moeini

Abstract

The project deals with the original constitution and subsequent transformations of an archaeological site dating from the Ilkhanid (Mongol) period (thirteenth to fourteenth century): the Rab'-i Rashīdī of Tabrīz. It was founded as a pious endowment (*waqf*) by the statesman Rashīd al-Dīn, who embedded his mausoleum into an ensemble of religious, educative and charitable institutions. Extant structures on the site are mainly of later origin (sixteenth to seventeenth century), but excavations have yielded material datable to the founding phase. The article gives an overview of the site and the respective written sources, introduces results of the first phases of fieldwork and an analysis of materials on hydraulic installations. While by the express will of the founder and by its juridical nature the original endowment was conceived as a perpetual institution, the archaeological remnants suggest substantial transformations in later periods. It seems that the site persisted thanks to its natural resources, which were exploited for civil and military purposes.

Keywords: Ilkhanid Period; Tabrīz; *waqf*; architectural re-use; fortification; water installations

چکیده

این پروژه تعامل بین ساختارهای اصلی و تحولات بعدی در ربع رشیدی تبریز را در یک سایت باستان شناسی از دوره ایلخانیان (قرن 13 و 14) ارائه می کند. ربع رشیدی یک مجموعه وقفی است که توسط وزیر خواجه رشیدالدین تاسیس شده است. وی مقبره خود را نیز در کنار این موسسات مذهبی، آموزشی و خیریه ها بنا کرده بود. ساختارهای معماری موجود در سایت عمدتاً در دوره های بعدی (قرن 16 و 17) ساخته شده اند، اما نتایج حفاری ها؛ تاریخ گذاری دقیقی از زمان ساخت مجموعه ارائه می کند. این مقاله مروری دارد به منابع نوشتاری و موقعیت مکانی، سپس نتایج اولین مرحله ی حفاری و نحوه آبرسانی مجموعه بررسی و تحلیل می شود. و بدین ترتیب قدمت و طول عمر ساختارهای اصلی نمایان می شوند که با وضعیت فعلی سایت متفاوت هستند؛ چرا که سایت ربع رشیدی به لطف موقعیت خوب جغرافیایی و منابع طبیعی خود در دوره های بعدی همواره برای اهداف نظامی و غیرنظامی مورد بهره برداری مجدد قرار گرفته است.

کلید واژگان

ایلخانیان، تبریز، وقفنامه، استحکامات دفاعی، تاسیسات آبرسانی، استفاده مجدد معماری

Introductory remarks by Birgitt Hoffmann
The focus of our project is on an archaeological site, the Rabʿ-i Rashīdī of Tabrīz, its original constitution and its transformations since its founding in the beginning of the eighth/fourteenth CE century. For this purpose, it is essential to define the place that the Rabʿ-i Rashīdī occupied successively within the political, urban and socio-ecological framework of greater Tabrīz. Therefore, we make use of multiple sources and methods: Archaeological fieldwork is complemented by working with textual sources, pictorial and photographic materials, maps and GIS software applications. Resilience concepts and theories will be considered to explore continuities and changes in the relations of our site and the city of Tabrīz proper.

The topic of resilience is widely discussed in urban studies. However, in most cases the accent is on modern cities and how to identify promising strategies in the face of multiple challenges such as natural disasters, safeguarding resources and infrastructure, etc. (e.g., Vale and Campanella 2005; Meerow and Newell 2016; more generally on the potentials of the resilience concept for the social sciences, Bonß 2015). More rarely, historical cities are viewed through resilience glasses (Schott 2013; Middleton 2020; Landsteiner and Soens 2020). Yet, the terms of vulnerability and resilience are applied more in a descriptive than in an analytical way (for a critique of the ubiquity and ‘undertheorized’ use of these terms from a geospatial social research perspective, see Bürkner 2010). Since 2016 research on resilience of and resiliences in medieval and early modern cities (Schulte 2021) is implemented within the DFG Forschungsgruppe/Research Unit 2539 “Resilienz. Gesellschaftliche Umbruchphasen im Dialog zwischen Mediävistik und Soziologie/Phases of Societal Upheaval in Dialogue between Medieval Studies and Sociology,” which is located at the University of Trier. This research group combines agency-centered with structure-oriented perspectives, and historic-empiric with theoretical approaches (Bock 2018; Burkart 2018; Endreß, Clemens, and Rampp 2020; Schulte 2021). While the participants from the field of sociology engage in theory building, the historical case studies deal with resilience strategies of city councils and trading companies, thus focusing on intentional ways of action by individuals and groups.

An explicit reference to resilience discourses is still missing among monographs and articles dealing with pre-modern Iranian cities of the Islamic period. But even before resilience became a guiding concept in the humanities and social sciences, inspiring research on Iranian cities has been done which, apart from typological questions, also addresses and conceptualizes questions of emergence, persistence and/or decline of settlements (Aubin 1970; English translation: Paul 2018b; Haneda 1997; Gaube 2008; for a review of recent research Paul 2018a). Thus, the

research agenda of resilience studies has been broached at least in an indirect way.

The city of Tabrīz makes a remarkable example of a resilient city not only with regard to its persistence but also to its morphological structure (Maṣūri and Muḥammadzāda 1396/2017; Jaʿfarpūr Nāšir 1397sh/2018). This is particularly the case if we equate simplistically resilience with the capacity of an entity to cope with disruptive events and consider the eventful political history and the series of natural disasters, above all earthquakes, which afflicted Tabrīz and its immediate surroundings from the late eighth to the early ninth century CE onwards (Melville 1981; Dhukā 1368sh/1989b). For the Rabʿ-i Rashīdī, although located within the extended city walls, this was not true to the same degree. Testing the applicability of resilience discourse as an analytical tool for the explanation of this divergence is among the main challenges of our project. In order to discuss resilience concepts with respect to the Rabʿ-i Rashīdī, an outline of the wider historical and social frame and the agency of individuals and groups is crucial.

Historical context

The Mongol conquest of Iran in the 1220s had brought enormous loss in human lives, devastation to cultivated lands and cities of Iran, followed by economic decline. The city of Tabrīz had got off rather lightly by skilful negotiation and paying heavy tribute. The establishment of the Ilkhanid dynasty (ca 1256–1335) some decades later by Hülegü (r. ca 1256–1265) brought at least some political stability and recovery after decades of crises. (Morgan 2016, 158–71). It was a major challenge for the Mongol rulers, descendants of Genghis Khan, with their background in steppe-type pastoral nomadism, that they found themselves confined to a habitat that was, for the greater part, characterized by sedentariness, agriculture and urban-rural agglomerations (for this term: Aubin 1970). Stocked with vast herds of horses and sheep, the Ilkhanid rulers and their military following depended on alimentation (agricultural products, water) and pasture (Smith 1999) to secure their sustenance. The city and hinterland of Tabrīz provided all of this in abundance and therefore became a favorite temporal abode of the royal encampment and was labelled as a royal “capital” (*dār al-mulk*).

Drawing on the administrative and fiscal expertise of the Iranian bureaucracy proved also indispensable. Iranian elites entered the service of the Ilkhans, partly because they had no choice, partly with an opportunistic agenda. The resulting cooperation was hierarchically structured, marked by multilevel cultural diversities, sometimes rewarding for either side, sometimes strained, and quite often detrimental for the civil Iranian side (Aubin 1995). With regard to the manifold instances

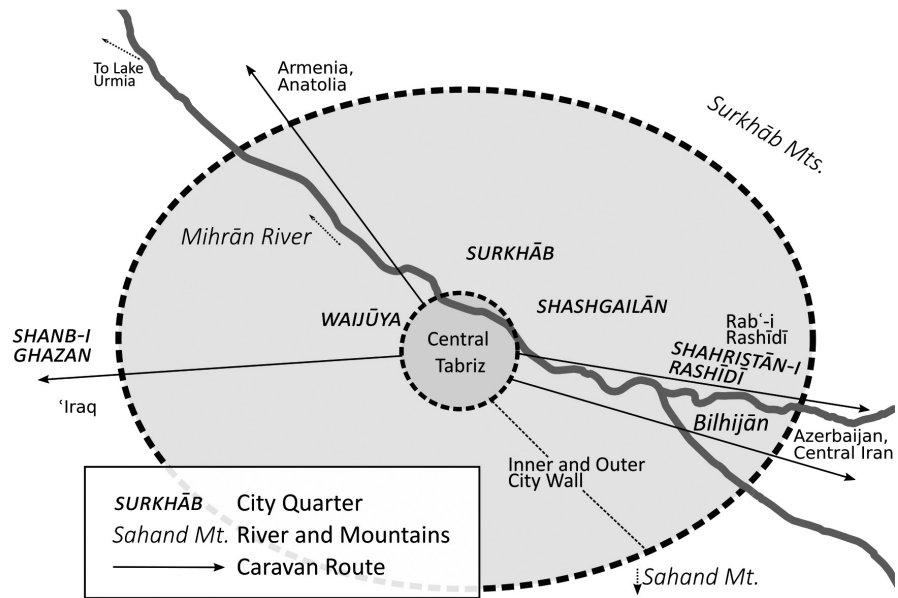


Fig. 1: Schematic map of medieval Tabriz. © Jonas Elbers.

of cultural convergence, building activities and urban development make an interesting field of observation. On the one hand, the Ilkhans kept to their itinerant way of life: they migrated seasonally with the royal court (including their Iranian staff) from winter to summer encampments and never abandoned the tent for city life. On the other hand, they showed a great passion for monumental buildings (O’Kane 1996) alongside their routes of migration and declared several places to be principal royal cities (*dār al-mulk*): e.g., Marāgha, Tabriz and Sulṭāniyya (Masuya 2002; Masuya 2013; Hatf Naiemi 2019).

The conversion of the Ilkhan Ghazan (r. 1295–1304) to Islam marks a decisive step in adapting to the culture of the Iranian subjects. This becomes manifest in his most ambitious building project: the magnificent funeral compound he had erected for himself on the western outskirts of Tabriz (Fig. 1), the Ghazaniyya (also Shām-i Ghazan and Shanb-i Ghazan; Haneda 1997). Deeply impressed by the splendour of Islamic mausolea and by the streams of visitors they attracted, he dismissed the Mongol practice of anonymous burial in favor of a monumental site which at the same time visualized his imperial aspiration, his hope for perpetual commemoration and his devotion to the creed of his subjects. Ghazan’s mausoleum was embedded in an ensemble of Islamic institutions designed for religious worship and education, research, health care and charity. The walled compound was surrounded by other urban structures for the supply of Mongol military contingents, caravans and visitors. It was described by contemporary observers as a little city of its own. If we turn to the Rab’-i Rashīdī (to be translated as “the Rashidian Residence”), the circle becomes complete. The Rab’-i Rashīdī appears to be a startling reflection of the Ghazaniyya at the eastern side of the city: It was a walled

complex of pious, educative and charitable institutions centred around the mausoleum of its founder with commercial and residential quarters adjacent to it. The sources mention it in one breath with the Ghazaniyya and likewise called it a little city of its own (Hoffmann 1997; Hoffmann 2014; Blair 2016). The man who had it erected was Rashīd al-Dīn Faḡlallāh Hamadānī (c.1248–1318), physician, vizier, historiographer and confidant in the service of the Ilkhanid rulers Ghazan and Öljeitü. He was of Jewish origin and was therefore like his masters a newcomer to Islam. In the same manner as Ghazan and Öljeitü, Rashīd ad-Dīn showed a keen interest to create a monument which would be resilient to the vicissitudes of history and thus immortalize him and which at the same time demonstrated his religious devotion. Both of them resorted to the Islamic institution of *waqf* as juridical frame for their respective projects.

Waqf as a strategy of resilience?

Waqf in theory

For the purpose of this paper only a small selection of the vast and multilingual research on *waqf* can be considered. In Islamic law the Arabic term *waqf* pl. *auqāf* denotes a pious endowment for charitable purposes. By his endowment the founder of a *waqf* hopes for spiritual profit in the hereafter. Juridically he transfers his legal ownership of one or several objects to the ownership of god. The donated objects are inalienable, i.e. no longer to be sold or inherited. The donation is irrevocable and perpetual. Only objects that yield profits regularly are qualified to become a *waqf*. Patches of farmland, orchards, vegetable gardens, irrigation facilities, houses, shops and commercial buildings figure most prominently among

the donated assets. However, the founder decides on the goals for which the yields are to be disbursed. Among the purposes we find the building, upkeep and repair of religious institutions such as mosques, madrasas, *khānaqāhs* and shrines, the providing and maintenance of public amenities such as bridges, irrigation facilities, public baths, caravansarais, or care for the poor and the sick (soup kitchens and healthcare institutions). The funding of beneficiaries, e.g., religious scholars, students and staff in the service of an endowed institution (mosque, *madrasa*, etc.), is another important expenditure item. In general, *waqf* income first serves the preservation of the profit-yielding capacity of the donated objects. Next come the maintenance of the beneficiary institutions (building and personnel) and the remuneration of the *waqf* administrators. Surplus is to be invested in the augmentation of *waqf* properties. Endowments can be established – totally or in part – in favor of family members because care for one’s own family is also acknowledged as a charity. In case the line of the founder’s family becomes extinct, a purpose of public charity has to be defined. A founder can also mix both types by allocating portions of *waqf* income respectively (for the juridical frame: Peters 2012; Meier, Pahlitzsch and Reinfandt 2009, 11–18 on the varying regulations due to different schools of Islamic jurisprudence and on divergent practice with respect to historical circumstances). The Rab’-i Rashīdī was such a mixed *waqf*: after the deduction of the funds for the upkeep of endowed properties, the *waqf* income was divided in two equal parts, one for the Rab’-i Rashīdī, the other for the founders’ sons (Hoffmann 2000, 153–4).

Side benefits

Aside from spiritual profit, *waqf* provided temporal advantages, too: Founders could reserve the administration of the endowment for themselves and their offspring, a function that was to be remunerated from the *waqf* income. *Waqf* was also a means to prevent inheritance disputes and the splitting of real and landed estate. The benefiting of family members has already been mentioned above. As infringing upon a *waqf* was of ill repute, founders hoped to avoid the risk of confiscation by ruling powers (Lambton 1997).

Waqf in history

The establishment of pious foundations for the sake of religious, educational and charitable purposes was a widespread practice in Islam followed by ordinary people as well as the rich and the powerful (for *waqf* in twelfth to fourteenth-century Iran: Lambton 1997; for *waqf* as an integrative force in Muslim communities: Hodgson 1974, vol. 2, 2, 119, 124; Hoexter 1987; Ghazaleh 2011). Accordingly, endowments could vary considerably in size. For the rich, for rulers and for prominent state

officials the providing of public welfare was prestigious, served to legitimize personal wealth and to immortalize the name of the founder. As a result, more often than not, buildings and infrastructure of public interest such as mosques, schools, hostels, bridges and water supply were inaugurated, maintained and managed by pious endowments. In some cases, endowments even became the nucleus of a new city: The city of Tūs, after being heavily destroyed by the Mongols, was abandoned in favor of Mashhad, which grew around the endowment complex of Imām Rizā. The settlement that accumulated around the Mazār-i Sharīf endowments for the alleged burial of ‘Alī exceeded nearby Balkh. Accordingly, the endowments of the Ilkhanid ruler Öljeitü for his mausoleum also followed the intention to establish a new royal city: Sulṭāniyya (Haneda 1997). Thus, the vital role *waqf* played for the urban development of pre-modern cities of the Islamic world is hardly to be overestimated (Deguilhem 2008). Iranian cities like Tabrīz were no exception (Lambton 1997; Werner 2000; Werner 2003; Werner, Zakrzewski, and Tillschneider 2013). The Ghazaniyya and the Rab’-i Rashīdī make special cases in point.

Potentials of research on waqf

Endowments in a general transcultural view have been described as a “total historical phenomenon” (Borgolte 2012 referring to Marcel Mauss’ “*fait total social*” and to the “*histoire totale*” of the French *Annales* historians). Indeed, *waqf* integrates a multitude of spheres of realities: religious, juridical, political, economic, social, architectural... In addition to its various modalities, *waqf* is equally multi-scalar in its social interfaces such as family, neighborhood, city, state, local and trans-local religious communities, etc. Similarly, it is of paramount importance in terms of cultural memory and identity. It is a key means for “securing one’s legacy,” demonstrating piety, and serving one’s community. Its role in building communities is key to resilience. Research on *waqf* therefore opens a window into bygone lifeworlds in their complexity (Meier, Pahlitzsch, and Reinfandt 2009; Ghazaleh 2011).

Waqf and resilience

The fact that by its juridical nature *waqf* is defined as inalienable and perpetual makes it an interesting topic for resilience studies. But research on the long-term history of *auqāf* which would allow for an assessment of how specific endowment entities reacted to crises caused by political disorder, natural calamities or bad management and abuse are extremely rare. At least greater portions of the innumerable endowments, small or large, which for hundreds of years were dedicated from all over the Islamic world to the holy sites of Mecca and Medina and of Jerusalem are preserved and studied (e.g., Hoexter 1998; Singer 2002). In Iran it is the likewise “crowd-funded”

Shi'ite shrines of Mashhad and Qom which look back upon a history of more than a millennium – yet research on these *auqāf* is also still sporadic (Werner 2009). For the Ilkhanid period the evidence is patchy, since only a few endowment deeds (*waqfnāma*, *waqfiyya*) are preserved (Lambton 1997).

The Rab'ī Rashīdī according to the endowment deed

Fortunately, in the case of the Rab'ī Rashīdī the copious original *waqfnāma* dated 1309 (with addenda up to 1316) has been preserved. The document is unique because the greater part of it was written down not as usual by a jurist, but by the donor himself, Rashīd al-Dīn (Facsimile reproduction: WRR 1971; printed edition WRR 1977). The founder's minute stipulations not only provide information on the functions of the component units and the payment, obligations, alimentation and accommodation of beneficiaries and staff. His instructions also evoke a vivid picture of the social composition and the daily life within the Rab'ī Rashīdī and its relations to the attached quarters and other parts of the city of Tabrīz. The great mass of endowed properties – predominantly landed estates and water supply facilities – in greater Tabrīz and its hinterland sheds light on the enormous economic power behind this endowment (for an extensive study, see Hoffmann 2000, for a shorter summary, Hoffmann 1997).

The endowment deed clearly reveals that the walled Rab'ī Rashīdī compound was meant to be the nucleus of an extended urban agglomeration – referred to as Rabaż-i Rashīdī and Shahristān-i Rashīdī – including a mosque and a bazar, residential and commercial quarters, baths and caravansarais and even a paper mill. Further, with Bāgh-i Rashīdābād and Bāgh-i Fatḥābād, it comprised agricultural and horticultural areas (*bāgh*) with some small-scale livestock breeding for the supply of the endowment's beneficiaries and staff (Hoffmann 2000, 129–33; Hoffmann 2014). The rich topographical data of the *waqfnāma* are instrumental for a tentative reconstruction of the expanse of these extensions. The endowment deed also goes into details with the water management system by an extended network of underground water channels (*qanāt/kahrīz*) and other water distributing devices, some of which even were to supply public and private spaces in adjacent neighborhoods and the inner city of Tabrīz. According to contemporary witnesses, this meant a breakthrough to the water supply of the areas situated north of the Mihrān Rūd/Maidān Chāy river on the slopes of the Surkhāb mountains. These areas had been short of water up to then (see below). The joint evaluation of information from the *waqfnāma*, archaeological findings supplemented by topographical and hydrological data will allow for a better understanding of this irrigation network,

which most probably contributed strongly to the resilience of the area under study.

The *waqfnāma* documents several levels of time: the antecedent and the current component parts of the ensemble as well as extensions already in progress or planned. However, it offers just a snapshot in time. For the exploration of the endowment's fate, i.e. its development, persistence, transformation or decomposition, archaeological evidence has to be supplemented by a wide range of narrative sources. The violent end of Rashīd al-Dīn and his son and successor to the endowment's administration meant the first heavy blow for the Rab'ī Rashīdī. It was followed by a long series of crises over the centuries caused by political disorder, war, misappropriation and earthquakes.

The Rab'ī Rashīdī endowment as an object of resilience studies

The tool kit for studying resilience with respect to historical issues borrows from concepts developed by sociology which emphasize the social-constructive and processual character of resilience (Endreß and Maurer 2015; Endreß, Clemens and Rampp 2020). Hence all the historical projects in the above-mentioned DFG Research Unit 2539 focus on the agency of groups and individuals and their coping and adaptive capacities. For our project, this guideline is not easily applicable. One might consider the juridical framework of *waqf* and the stipulations of the founder as written down by himself in the endowment deed, which aim to safeguard the endowment in perpetuity, and value them as strategies of resilience. This would, however, fail to do justice to the intrinsic complexity of the particular entity we observe with respect to phenomena of resilience. This complexity is owed above all to the Rab'ī Rashīdī's composite structure which again feature heterogenous dimensions:

- On a strictly material level, it is made up by the endowed properties (landed estates, real estate, water resources) and the benefited objects (terrain, buildings and water infrastructure of the Rab'ī Rashīdī and its extensions) and all works for the upkeep, repair and extension.
- With respect to people (and other living beings) and social composition one has to take into account the administrators (the founder himself and two of his sons), the beneficiaries (professors, students, doctors, preachers, reciters of the Qur'ān, Sufis and guests), the staff (attendants, doorkeepers, water carriers, security, cooks), the poor who were fed daily by the soup kitchen, the carriers who brought enormous amounts of bread to the Rab'ī Rashīdī every day, the slaves who farmed nearby areas for the supply of the Rab'ī Rashīdī with their cattle and fowl, the diggers of water channels and

the families of beneficiaries and staff who lived in the adjacent neighborhoods.

- On the level of operation and service, one has to consider religious, educative, charitable and health-care functions, the production of splendid manuscripts (Qur'āns, Hadith collections and the writings of the founder) and the hosting of social events (receiving prominent guests, religious performances) as well as the role of the *waqf* as an employer and booster of urban development.

Regarding resilience, it would be a mistake to focus solely on one of these dimensions. Rather, an appropriate and meaningful discussion of resiliences of this specific *waqf* has to consider all these levels. This becomes particularly evident considering questions such as: When might a *waqf* be classified as resilient? Is a *waqf* resilient when the material basis is intact, but the stipulations of the founder are disregarded? Is it resilient when it no longer preserves its original functions but still provides income which now feeds a reduced number of beneficiaries? What about the resilience of sub-units like the water supply system? Is the recurrent reuse of the site to be rated as transformations according to the adaptive cycle scheme?

After the violent deaths of both Rashīd al-Dīn (1318) and his son and successor (1336), the Rab'-i Rashīdī saw heavy pillaging and alienation in parts. Nevertheless, the site itself with the structural and infrastructural leftovers was chosen as military stronghold by successive dynastic rulers and conquerors up to the seventeenth century. How long and to what extent the site functioned as a *waqf* with its original facilities and services, or was reused by successive holders of power, has still to be investigated. Much depends on the information that written sources provide, especially on the history of the Rab'-i Rashīdī after the end of Ilkhanid rule. The project will investigate the history of the Rab'-i Rashīdī and the question of its resilience by consulting and critical evaluation of all available written sources, maps, documents and photographs (for an overview, see the relevant paragraph below). This, in turn, will also contribute to the correct chronological classification of the visible architectural remains, which seem to date from later periods. The synopsis of the archaeological findings, of textual evidence and of inductive reasoning based on these empirical data will not only allow for a better understanding of the history of the Rab'-i Rashīdī *waqf* but will also contribute to an assessment of the applicability of resilience concepts as analytical tools for issues like this.

The Site of Rab'-i Rashīdī: Resilience in relation to natural limitations and resources

by Lorenz Korn

For his pious foundation, Rashīd al-Dīn Faḡlallāh had chosen a site on the margins of the urban area of Tabrīz, approximately 3 km east of the city center *intra muros* with its bazaar and Great Mosque (Fig. 1). Thanks to an uninterrupted tradition of local historiography and to a great number of travel reports, there were never doubts about the location of the site (cf. maps *Naqṣa-yi Dār as-Salṭana-yi Tabrīz 1297/1880*; Wilber and Minovi 1938, 251, fig. 1). This location implies that the potential for the survival of the foundation was subject to general conditions which largely overlapped with those of the city proper. After uncertain origins in pre-Islamic periods (settlements reach back at least to the Early Iron Age), the foundation of Tabrīz as a city is reported to date to the reign of Hārūn ar-Rashīd (late eighth to early ninth century CE). The first secure information that a Friday Mosque existed, as a clear feature of overarching urban functions, is attested for 244/858. It seems that until that period Tabrīz was competing with other places in Azerbaijan (among others Marāgha and Ardabīl) for the function of a regional capital (for general history: Minorsky, Bosworth and Blair 2012; Mashkūr 1352sh/1973; Dhukā 1368sh/1989a; for the architectural monuments, Kārang and Turābī Ṭabāṭabā'ī 1351sh/1972; Umrānī 1385sh/2006; for tentative schematic plans of the medieval city, Nizhād Ibrāhīmī 1393sh/2014; Ja'farpūr Nāṣir 1397sh/2018 and Elbers, Fig. 1 above). Thanks to its geographical situation in a fertile plain of arable fields and at the crossroads of major trans-regional traffic routes, Tabrīz became the most significant political and commercial center in the highlands of Azerbaijan (Minorsky, Bosworth and Blair 2012). These routes connected Tabrīz with the north (Armenia and the Caucasus), the northwest (Anatolia and the Black Sea), the southwest (Northern Mesopotamia), the southeast (the central Iranian highlands) and the east (the Aras valley, Mughān and the Caspian shores). These advantageous conditions were crucial for the survival of the city through periods of crisis. Earthquakes were the most striking events from the point of view of natural conditions. Between the Abbasid period and the late eighteenth century CE, major earthquake destructions can be dated to 858, 1042, 1273, 1459, 1550, 1641, 1721 and 1780 (Melville 1981; Dhukā 1368sh/1989b). It has been postulated that earthquakes in fact constitute the primary element for periodization in the history of Tabrīz. Destructive as they were, it is impressive to see that the city of Tabrīz was rebuilt every time when it had been hit and devastated, at the initiative of some rulers or the inhabitants.

The second element of natural conditions that fundamentally influenced the thriving of the city of Tabrīz was, of course, water. The step of relief at which Tabrīz

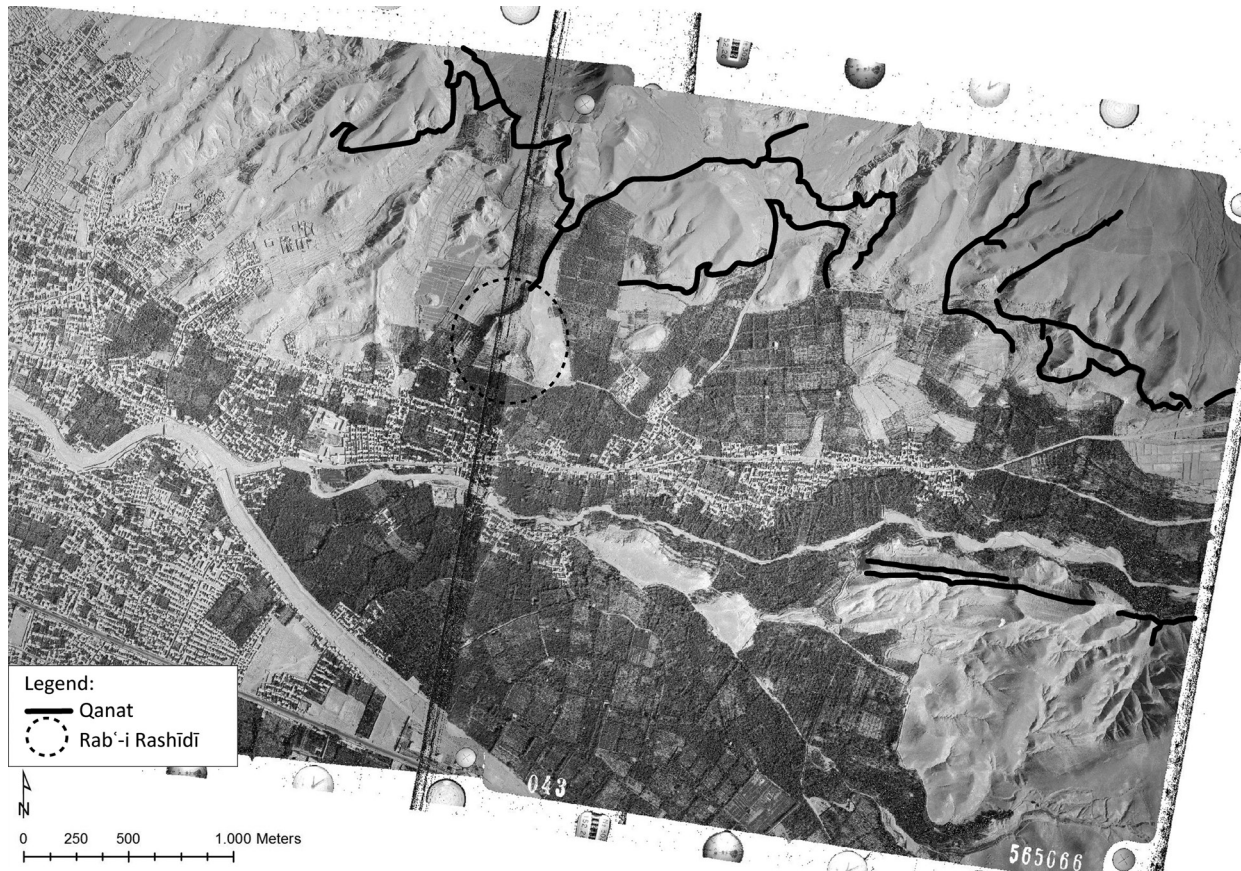


Fig. 2: Tabrīz. Aerial photograph showing the southern slope of the Surkhāb chain with the Rab'-i Rashīdī area (dashed circle) and the margins of the city center on the left. Qanāt conduits traced in black (1956 aerial survey photograph, with modifications; © Tabrīz Topographical Center, with permission; graphics by Alejandro Jimenez, Rab'-e Rashidi Project).

is located between the plain in the northwest to the hilly areas in the southeast and northeast make surface water and ground water available. However, surface water is partly salty, e.g., the Ājī Chāy/Talkha Rūd/Shūrāb when it comes toward Tabrīz (Ehlers 1984) and partly subject to heavy seasonal changes (e.g., the Mihrān Rūd/Maidān Chāy/Qurī Chāy). Therefore, it was vital for a city like Tabrīz to explore ground-water resources. The area of the Rab'-i Rashīdī and its extensions some three kilometers east of the city of Tabrīz proper and high above the northern bank of the Mihrān Rūd had been short of water by nature. It was the efforts of its founder to develop water resources that fundamentally transformed this area into a fertile stretch of land. In fact, technical installations of water supply that were built for the Rab'-i Rashīdī and its dependencies should prove to be one of the elements that had long-lasting effects.

In aerial photographs taken in 1954 (Fig. 2), it is possible to trace the *qanāt* lines, some of which lead to the northern tip of the Rab'-i Rashīdī site where a narrow ridge connects the spurs on which the buildings of the Rab'-i Rashīdī were

erected with the slope of the 'Ain 'Alī/Surkhāb mountains (for further considerations on the system of *qanāts* feeding the Rab'-i Rashīdī, see below in the section by Jonas Elbers).

The topographical conditions of the Rab'-i Rashīdī make it clear that water installations on this site were difficult to provide, because the intake was bound to be relatively high up on the slope, approximately 1480 m ASL. The two spurs that form the upper part of the Rab'-i Rashīdī area continue southwards at nearly the same level, while the surrounding area slopes gradually down to ca. 1445 m. Between the two spurs there is a depression that was also included in the walled perimeter that comprised the entire elevated area of the site. The plan of this enclosure has a roughly triangular shape, the sides of which measure ca. 300 m in length. There is evidence that some parts of these walls go back to the Ilkhanid period, while some extant parts of it must certainly be attributed to later phases.

The choice of this elevated area for the core of Rashid ad-Din's foundation had consequences for its survival, or rather, its re-use during later periods. Obviously, it was apt



Fig. 3: 1956 aerial photograph of the Rab'-i Rashīdī site. © Tabriz Topographical Center, with permission.

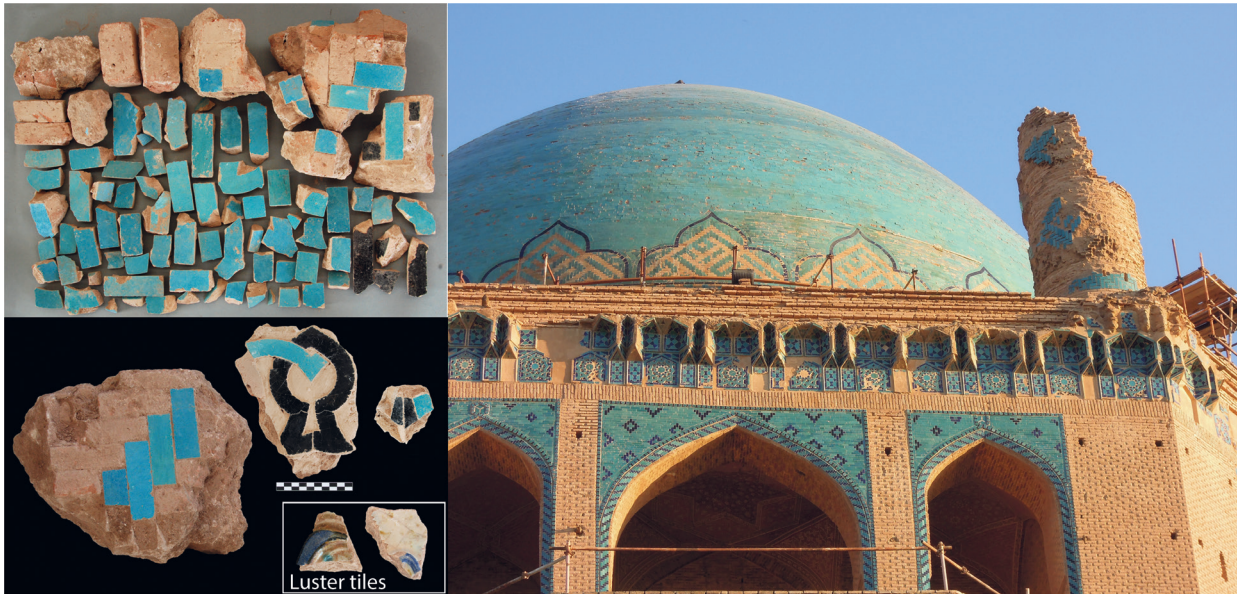


Fig. 4: Ilkhānid ceramic tiles discovered in Trench XII (left, photo: © M. Bouquet, Rabʿ-*e* Rashidi Project). Uljāitū Shrine, Sulṭāniyya, Iran (right, photo: © S. Aube, with permission).

to be used as a fortress during phases of military conflict. This had a major effect on the development of the site at a time when the pious foundation of the Rabʿ-*i* Rashīdī had long vanished.

Physical evidence of resilience on Rabʿ-*i* Rashīdī: First archaeological and architectural study results

by Thomas Lorain

From the original endowment ensemble, nothing visible has survived on the site. However, 2019 excavations have unearthed material which could be associated to the Ilkhānid period and therefore to the original Rabʿ-*i* Rashīdī complex. The eastern bulk of the site presents a large three thousand square meter rectangular area clearly identifiable on the aerial and satellite images (Fig. 3). Remains of its northern and western wall enclosure are still visible on site, whereas its eastern wall was only discernible through a geomagnetic survey. The southern wall, if it ever existed, has now totally vanished.

A trench excavated north of this area (Trench XII) brought to light an archaeological layer containing dozens of glazed architectural ceramics (Fig. 4). Mostly composed of small rectangular bricks covered with a turquoise glaze (approx. 3 × 8 cm), the discovery also includes more rounded turquoise shapes (probably parts of vegetal patterns, or maybe inscriptions) and black glazed as well as unglazed rectangular bricks. Some of the elements have remains of mortar adhering to them, allowing us to partly reconstruct the patterns and architectural elements to which they were attached (such as wall angle and possibly

muqarnas). The limited number of colors (turquoise, black and unglazed) as well as the patterns allow us to propose some stylistic comparisons from the second half of the thirteenth to the early fourteenth century, such as the façade and cupola decoration of the Oljeitū shrine in Sulṭāniyya, dated 1305–1317 (Wilber 1955, 139–41). This dating is reinforced by the discovery in the same layer of two rare sherds of luster-glazed tiles, so-called “Kāshān tiles,” usually dated to the very same period (Porter 2014, 101–2, fig. 92). Therefore, these discoveries are dated to the Ilkhānid period and might be linked to the creation of the Rashīd al-Dīn complex (or maybe even a little bit earlier). In any case, such quality of decoration was only used for important buildings. Extension of this trench will certainly help to specify a more precise dating of these structures in the near future. A preliminary analysis of ceramics recovered from the relevant contexts – mostly debris from the collapse of the fourteenth-century structure – does not contradict this attribution so far.

These wall and vault decorations were probably associated with a floor made of stones and bricks following a herringbone pattern. The bricks only left their traces on the ground since they have been deliberately removed from the site before the glazed decoration collapsed from wall and ceilings. They were certainly reused for other buildings shortly after the abandonment of the original monument. After the complete collapsing of this early building, the site was re-used several times. This is shown by two later successive floors made of bricks poorly arranged and associated with a small oven. This type of floor was also discovered in another area further north.

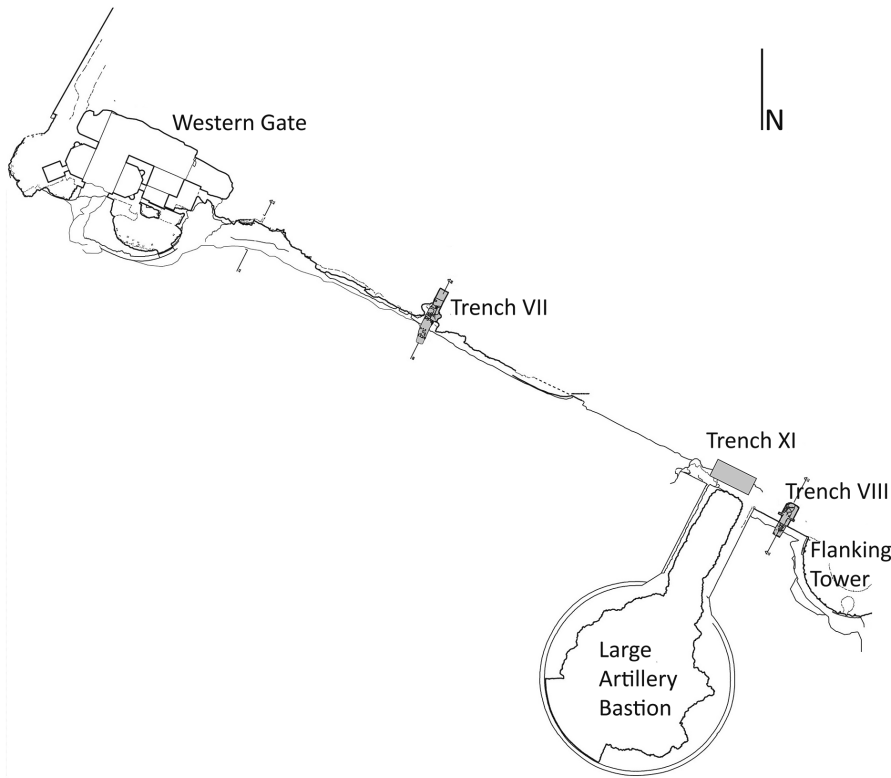


Fig. 5: Plan of the southern stretch of Rab'-'i Rashīdī fortifications. Trenches of excavations are marked grey. Drawing: © C. Fuchs, Rab'-'e Rashidi Project.

It is therefore clear that this later occupation was not supported by the original Rashīd al-Dīn endowment. Rather the defensive potential of the location represents the most likely explanation for the long period of occupation.

Not much remains from the Ilkhānid enclosure of the site, apart from some elements still visible in the core of the western gate, and no evidence of an early fortification of the site exists. After the abandonment of the pious foundation, in a later stage which remains to be properly dated, the site was entirely protected by a long perimeter wall flanked by semi-circular towers and took the shape of a triangle. Architectural surveys of these fortifications as well as archaeological excavations showed that the southern stretch, directly facing the Mihrān Rūd valley and therefore less naturally protected, received more attention than the rest of the walls. This part has been restored and transformed several times (Fig. 5).

The most impressive feature marking these transformations is undoubtedly the addition of a massive artillery bastion largely protruding from the main wall (Fuchs 2017; Fig. 6). This building is directly linked to the Ottoman invasions of northwestern Iran during the late sixteenth and early seventeenth centuries (Minorsky, Bosworth, and Blair 2012), while the exact attribution of the tower either to Ottoman or Safavid initiative is still debatable. The wall itself was also transformed and strengthened as shown by 2018 (Trenches VII and VIII) and 2019 excavations (Trench XI). It was thickened, certainly to counter new artillery developments.

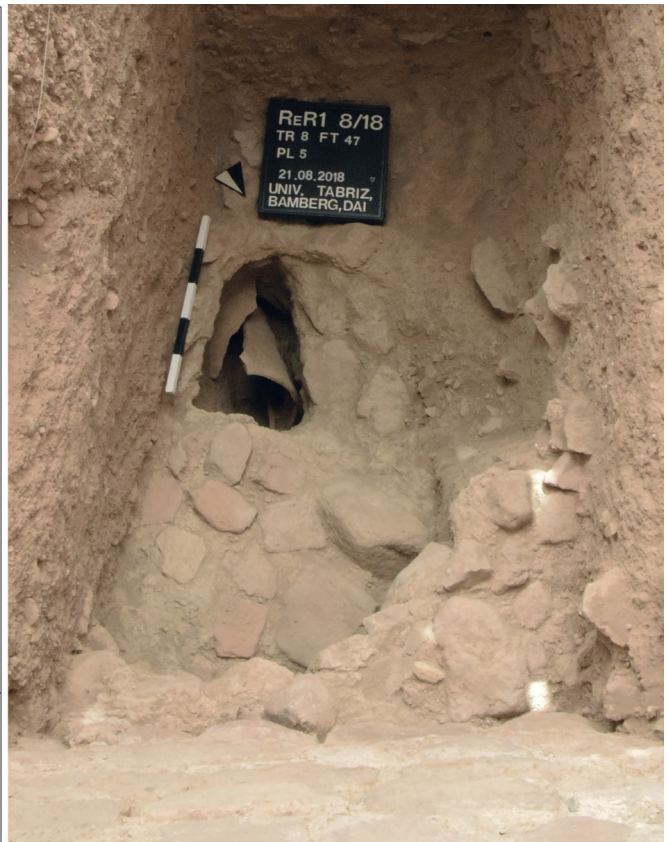
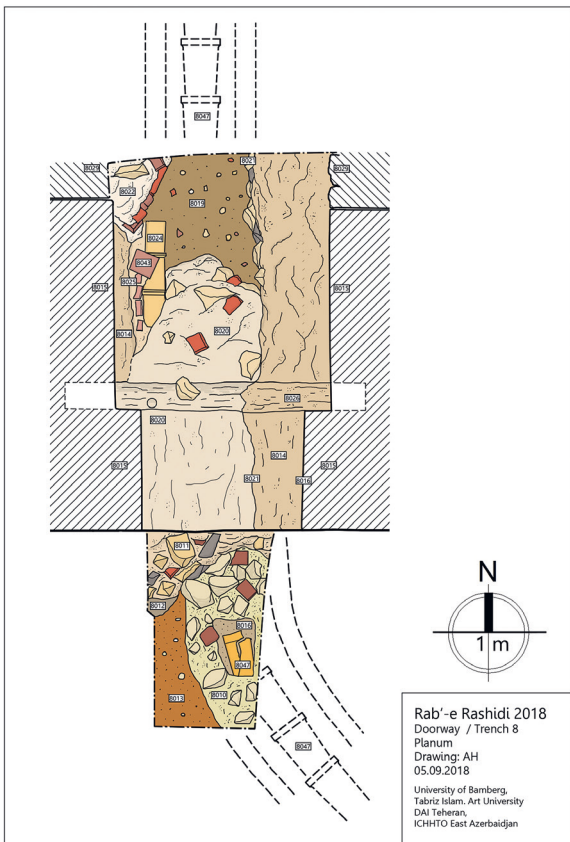
This long sequence of military use only came to an end when its last defensive feature was added in the late twentieth century: an anti-aircraft device was installed on top of the site, a few decades before the Rab'-'i Rashīdī became a protected heritage property.

Another consequence of the topographical situation of the Rab'-'i Rashīdī was the demand for water, which led Rashīd al-Dīn to develop a master plan to provide the whole area with water from *qanāts*. This is not only proved by the endowment deed (Rashīd al-Dīn 1356sh/1977) but also by contemporary comments. Even in the nineteenth century Nādir Mīrzā, author of a historical and geographical survey of Tabrīz, described a water conduit that possibly could be traced back to Rashīd al-Dīn's initiative (Hoffmann 2000, 138–40). This information is complemented (and will perhaps be further modified) by archaeological evidence: During the first campaign of archaeological soundings in the German-Iranian project on the Rab'-'i Rashīdī, a large freshwater conduit which had been placed into existing structures came to light (Fig. 7). The clay pipe, with a diameter of more than 30 cm, was carefully bedded under the threshold of a minor gateway in the south perimeter

Fig. 7: Tabrīz, Rab'-'i Rashīdī. Sounding in the gateway east of the bastion tower (trench VIII), plan and view from above (2018). At the base of the trench, the large water pipe was installed after the wall had been constructed (drawing and photo: © A. Heidenreich, University of Bamberg).



Fig. 6: Tabrīz, Rabʿ-i Rashīdī. Bastion tower on the southern perimeter wall, view from W (2017). Photo: © C. Fuchs, Rabʿ-e Rashidi Project.



wall and must have transported fresh water from the upper northern parts to the adjacent lower parts of the Rabʿ-i Rashīdī (Fuchs and Heidenreich 2019). While no secure absolute date for this installation has been identified, it suggests that abundant water was available on the hillside of the Rabʿ-i Rashīdī for the areas below through the *qanāts* and means of water storage. The elevated position of the Rabʿ-i Rashīdī guaranteed that the flow of water could be controlled from here. While the exact functions of the area changed relatively soon after the demise of the founder, the natural conditions and some artificial constructions ensured the importance of the site through centuries.

The water supply network – an eco-social subsystem of the Rabʿ-i Rashīdī endowment and its supposed contribution to the resilience of the site

by Jonas Elbers

Perhaps the most outstanding achievement of Rašīd al-Dīn's pious foundation is the establishment of a water supply system, not only for the Rabʿ-i Rashīdī and the areas depending on it (the quarters of the Shahristān-i Rashīdī and the Rashīdābād garden) and for the quarters of Tabrīz proper. The water supply system allowed for the urban development of Tabrīz east of its older city walls. (A new, more comprehensive city wall ordered by Ghazan Khan included among others the Rabʿ-i Rashīdī. Ḥamdallāh Mustaufī 1919, 76). The endowment deed of the Rabʿ-i Rashīdī (*WRR 1971 and WRR 1977*) gives a detailed description of the water supply network (*WRR 1977*, 204–15; Hoffmann 2000, 134–40, 330–48). It shows the high degree of technical expertise on the side of the founder (or of persons who gave advice to him). For implementation a task force of 30 skilled workers was provided who after completion were permanently engaged with the maintenance of the system. Some artifacts related to water installations from preceding excavations at the Rabʿ-i Rashīdī might open a chance for the reconstruction of the system (Fuchs and Heidenreich 2019, 128). Contemporary sources highlighted the pioneering character and beneficial effects of Rašīd al-Dīn's efforts to bring water to this area which previously suffered from shortages. It seems promising to look at the water management system as an entity which could be checked for its resilience qualities.

Twelve underground water channels (*qanāt*; *kārīz*; *kahrīz*; on the technical features, see Beaumont 1971; Beaumont 1982; Semsar Yazdi and Labbaf Khaneiki 2010) harvested groundwater from foothill areas north, east and southeast of the Rabʿ-i Rashīdī, which poured into three principal conduits and ran through the residential quarters and gardens of the Shahristān-i Rashīdī before joining each other. After crossing the river and flowing together into Tabrīz proper, the water channels provided surplus water to the garden lands in the city's western outskirts. The water

served the *ḥammāms* of the Shahristān-i Rashīdī and other city quarters. The citizens of Tabrīz could collect water from the conduits through well-like openings. Smaller pipes branched off to outlets such as drinking fountains and basins. The Shahristān-i Rashīdī and its inhabitants, i.e. the staff of the Rabʿ-i Rashīdī, received water through another fourteen *qanāts* allotted to them. A large-scale characteristic of the water distribution network is an open channel (*nahr*) which Rašīd al-Dīn built and which bore his name – Nahr-i Faẓlallāhī. The *nahr* brought water from Nahand, some 25 km northeast of Tabrīz, via the Surkhāb mountains to the arid northeastern areas of Tabrīz and his endowment. According to a contemporary source, this outstanding construction eclipsed the other achievements of the donor. Possibly, remnants of this channel were still visible in the nineteenth century. In his historical and geographical survey of Tabrīz, Nādir Mirzā describes an old, but now neglected channel that brought water from Nahand to Tabrīz and crossed the saline Ājī Chāy/Talkha Rūd River through an underpass (Hoffmann 2000, 138–40).

Analysis of the Rashīdī water supply network described in the endowment deed is a demanding task because the original text is not always easily understood. Some of the descriptive data like “right” or “left” are indeterminate, and most of the toponyms are unidentifiable. Furthermore, parts of the network were still under construction or in the planning phase, making it hard to determine the full depth and breadth of the water supply network. It is only their spatial interrelation that sometimes allows for a rough allocation. A schematic water flow diagram (Fig. 8) helps us understand the water supply network and its spatial relations better. Unfortunately, a comprehensive written outline and a diagram held out in prospect by Rašīd al-Dīn is not preserved or was never completed (*WRR 1977*, 212; Hoffmann 2000, 344).

Traditional Iranian cities developed along pre-existing water supplies and field grids that themselves follow the slope of the land (Bonine 1979, 208); therefore, our next step will be to align the water distribution network with the historical surface topography by evaluating additional spatial information from the endowment deed on endowed landed estates, aerial photographs, and maps. This will hopefully contribute to a hypothetical reconstruction of the spatial dimensions of the Shahristān-i Rashīdī and its core, the Rabʿ-i Rashīdī. In addition, the reconstruction of the water supply network allows for a look into conceptual interrelations between places, their inhabitants and water use purposes (Rieger 2017).

From the *waqfnāma*, we learn about the number of wells available for the inhabitants of specific areas, mosques, *ḥammāms*, private and Rashīdī gardens and about business uses of water (water mills and paper mills). The water supply network reflects the social and economic relationships between different groups and entitled

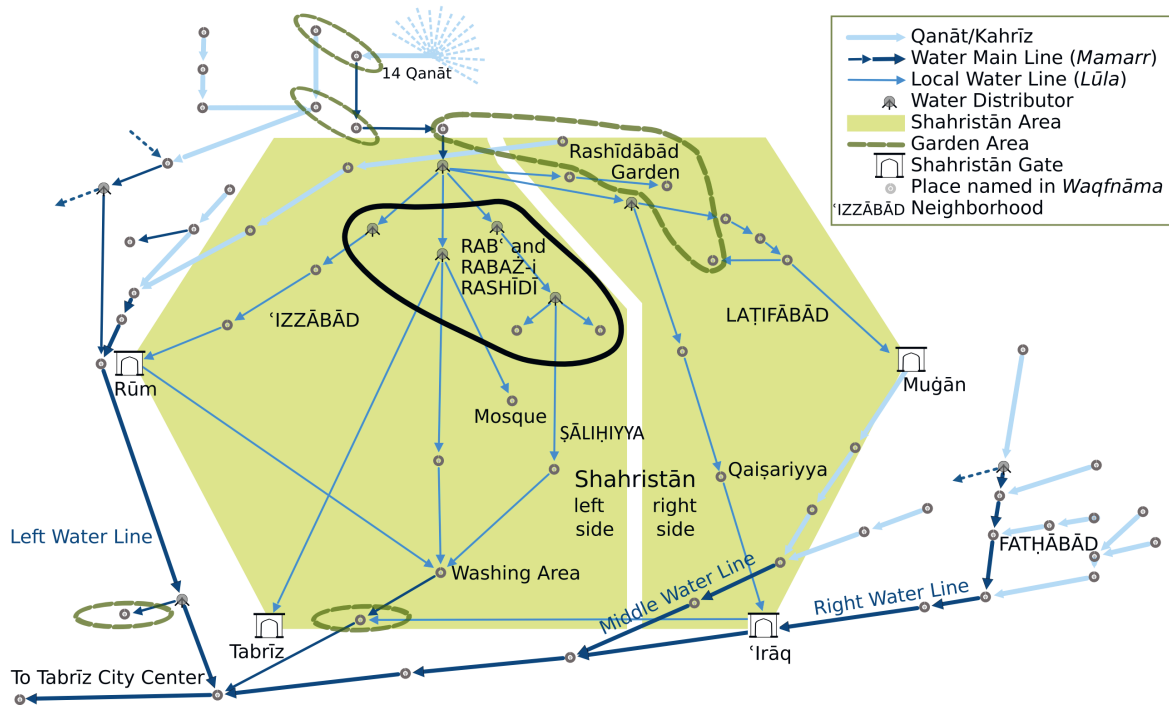


Fig. 8: Schematic map of the Rab'ī Rashīdī water supply. © J. Elbers, University of Bamberg.

benefits to specific groups. There is also some information on devices for water partition and water shares. However, the information on devices for water partition is rather vague: Water rations are defined by the amount of water, the proportion of the water flow, or most problematic by “as much as needed.”

Water was free of charge when drawn by jugs from points of distribution (water wells, water containers, basins, etc.) and delivered to *ḥammāms* and to mosques for ritual ablution. Water for the staff living in the Shahrīstān was free of charge and included in the land rent paid to the *waqf*. All other users had to pay charges for the irrigation of private estate, and the gained profits paid for the infrastructure's upkeep. The unequal allocation of water could have fueled conflicts between different groups of consumers, especially in times of external pressure on the system, leading to the question of resilience.

Unlike water supply networks based on open channels (e.g., used in contemporary Cairo or Abbasid Baghdad) Rashīd ad-Dīn's piped and *qanāt*-fed water supply network provided a steady flow of water. Therefore, it is comparable to modern networks, and we can follow established approaches to evaluate resilience. Water supply networks are complex systems: water harvesting, transportation and allocation can be understood as a linked ecological and socio-technical system. A water supply network should maintain productivity, even under external stress (Amarasinghe 2014, 3–5). Natural hazards, like droughts, landslides, earthquakes, and salinization, all

present in the Tabrīz area, are stress factors for the water supply network. Socio-cultural hazards include water theft, human-induced water pollution, legal disputes, wars, and a fast-growing population.

Although the *waqfnāma* contains minor instructions for adjustments on the *qanāt* system in the case of water shortage, we will focus on the distribution network's capabilities and organizational framework to study the system's resilience. The *waqfnāma* includes a few instructions on dealing with a surplus or a lack of water and diverting water in specific circumstances from one area to another. It also mentions water from two *qanāts* with different owners transported through one channel and then separated again at the same ratio at a certain point. This means, even in consideration of its dendritic structure, the system was technically able to compensate for partial failures. For a more in-depth analysis of resilience, one can hope for future excavations at the Rab'ī Rashīdī. According to the *waqfnāma*, the primary and secondary water pipes had standardized diameters (measures are not identified; WRR 1977, 209; Hoffmann 2000, 137, 342). Identifying the diameters and downward gradients of those pipelines and the function of distribution terminals would allow for a more quantified analysis of the water supply network's resilience.

The *waqfnāma* in total is descriptive and normative. The same is true for the stipulations on the water supply system. The *waqfnāma* also made dispositions for certain types of eventualities. But we do not know what happened

to this sophisticated water distribution system when, during the struggles for succession following the death of the Ilkhan Abū Saīd in 1335, the administrator of the Rabʿ-i Rashīdī, a son of the founder, was killed and the site became a place of retreat for several candidates competing for the throne. Did the water supply network survive *in toto* or by disintegrating into still functioning parts under different ownership? Hopefully the forthcoming excavation campaigns will unearth more material evidence for a better understanding of the network. To evaluate its resilience, we have to look deeper into the system. As it is rather complex containing ecological, technical and social domains, different understandings of resilience are up to discussion. This demands a very thorough definition of the analyzed system to avoid ambiguous answers to the question of its resilience.

Sources of information and studies on the Rabʿ-i Rashīdī and the urban development of Tabrīz by Maryam Moeini

For about half a century the Rabʿ-i Rashīdī has attracted a good deal of scholarly (and likewise public) attention. In the context of these writings a broad variety of sources is cited, not always with a desirable sense for source criticism. A careful verification and contextual assessment therefore seem appropriate. Most of the cited texts are available in printed editions and of course have been consulted already by many researchers. But there is no synoptic and systematic assessment of their statements.

The survey below gives a systematic overview of the typology of source material to be considered, without claiming comprehensiveness. Special attention is given to studies in Persian, some of which deal with the urban structure and development of Tabrīz in a long-term perspective.

Documentary sources

The extant endowment deed (*waqfiyya*, *waqfnāma*) gives abundant detail on the function of the elements of the Rabʿ-i Rashīdī but provides sparse information on structural outline and architectonic design (facsimile reproduction: *WRR* 1971; printed edition: *WRR* 1977).

The systematic analysis of the rich topographic data and mapping the results are among the main goals of the project. Except for the *WRR* there are only few documents at hand which provide some occasional and indirect information on our topic. Endowment deeds from late fourteenth- and fifteenth-century Tabrīz list properties close to those of the Rabʿ-i Rashīdī or landed estates which previously belonged to it (for the Kujujī *waqfiyya*, Werner, Zakrzewski, and Tillschneider 2013, 78-80, 87; for the Muẓaffariyya, Mashkūr 1352sh/1973, 651-676 gives a Persian summary of the Arabic original, which has not been edited up to now; for a critical reassessment of the document, Werner 2003). Even a much later document contributes important details: the

Fūlād-nāma dating from the early Qajar period (nineteenth century) provides toponyms that are mentioned in the *waqfiyya* of the Rabʿ-i Rashīdī but nowhere else (Yazdānī no date¹; Darkataniyān 2019). It deals with the traditional procedures of water management and thus contributes to a better understanding of how the water supply of the Rabʿ-i Rashīdī endowment was organized.

Persian historiography

While some of the major chronicles of the Ilkhanid period offer detailed information on our site, those of later periods are less informative but still render important details (for a comprehensive survey, Spuler 1985, 399–408, sources in Arabic 419–23; Melville 1998; 2003).

It is true that passages from these sources are cited widely in secondary literature but up to now their statements on the Rabʿ-i Rashīdī have not been evaluated critically in their entirety. The usage of topographical and architectural terms, for example, may differ considerably. While in the *WRR* and in other contemporary sources the term Rabʿ-i Rashīdī denotes the core of the endowment with its institutions and facilities, in fifteenth-century and later sources it may possibly refer to this core plus all extensions, i.e. a much broader area. We will carefully document, compare and evaluate the respective passages.

Geographical literature written in Persian

There are few but important titles. The fourteenth-century *Nuzhat al-qulūb*, a comprehensive geographical survey of Ilkhānid Iran written by Ḥamdallāh Mustaufī, a financial administrator, historian and protégé of Rashīd al-Dīn, has an entry on Tabrīz (Ḥamdallāh Mustaufī 1919, 75–80; Ḥamdallāh Mustaufī 1336sh/1958, 85–91). Although written around 1340, i.e. after the dynastic decline of the Ilkhanids, it is silent about the fate of the Rabʿ-i Rashīdī in this turbulent period, probably because the author was not up to date. In the nineteenth century Nādir Mīrzā wrote a historical and geographical survey of Tabrīz which is a treasure of information on topography, water supply and architectural remains – also of the Rabʿ-i Rashīdī – some of which are no longer existent (Nādir Mīrzā 1373sh/1994).

Anthologies and specialized genres

Scattered information on activities and events concerning the Rabʿ-i Rashīdī and on the fate of the family of its founder are mentioned in works such as Ḥāfiẓ Ḥusain Karbalāʾī's voluminous sixteenth-century guide to the graves of Sufis and prominent persons in Tabrīz (Ibn-i Karbalāʾī 1383sh/2004), hagiographic literature such as the *Ṣafwat*

1 A handwritten copy of this document is kept in “The Museum of Āzarbāyjān” in Tabrīz. We thank Mr. Ghulam Riẓā Yazdānī for sharing his unpublished transcription of the document.

aş-Şafā (Ibn-i Bazzāz 1373sh/1994), and biographical dictionaries (e.g., Ibn al-Fuwaṭī² 1374sh/1995).

Poetry

Verses by seventh- and eighth-century poets such as Salmān Sāwajī, Kamāl Khujandī or Auḥadī Marāghaī praise or comment on the features and the fate of the Rabʿ-i Rashīdī and the city of Tabrīz in general. Mashkūr1352sh/1973 cites some specimens, but a more systematic scrutiny of anthologies and versified chronicles seems promising.

Sources written in Ottoman Turkish

Since the sixteenth century the Ottomans attacked and conquered Tabrīz several times and engaged in various fortifications. Whether the Rabʿ-i Rashīdī was included in these activities is still an open issue (e.g., Selānikī Mustafa Efendi 1989; for Persian translation of some reports Sahiliughlū 1390sh/2011 and Abū Bakr Ibn ʿAbdallāh1387sh/2008). The historian and geographer Kātib Chelebi and the famous traveler Evliyā Chelebi, both seventeenth century, also gave a detailed description of Tabrīz (Kātib Chelebi 1732, 380–383 [PDF 30–33]; Evliyā Chelebi 1999, 121–136; 2001, 190–203; eng. transl. 2010, 22–33, 39–50; pers. transl. 1398sh/2019, 20–34, 41–51).

European travelogues

As for Tabrīz at the very beginning of the fifteenth century the Spanish ambassador Clavijo and the German prisoner of war Johannes Schiltberger are the only eyewitnesses from outside (Clavijo 1859; 1993; 1999 and Schiltberger 1976 [reprint of the 1859 edition]; 1879). Information becomes richer for the later part of that century thanks to Venetian ambassadors who visited the court in Tabrīz in hopes of an alliance against the Ottomans (Bernardini 2007; Palombini 1960). Later on, a great number of European ambassadors, merchants and adventurers produced descriptions of Persia and eventually of Tabrīz (Schuster-Walser 1970; Touzard 2000; Nasiri-Moghaddam 2000; Wright 2002; Bast 2002).

Pictorial sources

Illustrations of Persian historiography as well as of European travelogues occasionally provide information on architectural shapes and facades, the size of the buildings, their locations and building materials as well as their embeddedness in social life (e.g., Maṭrāqchi 1976).

Photographs

Aerial and historical photographs give an impression of the condition of the site and its archaeological remnants

(defensive fortifications and towers) before ca.1960, i.e. before later encroachments affected the area due to accelerated urbanization, destruction and erosion. They also show the access shafts leading to the underground water channels (*qanāts*) and in this way mark the course of these channels.

Historical maps

Mapping of Tabrīz based on land surveys started only in the nineteenth century and was conducted by Russian and Persian cartographers (most detailed for our purposes: *Naqsha-yi Dār as-Salṭana-yi Tabrīz* 1297h/1880 by Qarajadāghī).

Research literature

The first preliminary mapping, description and photographic images of the Rabʿ-i Rashīdī site in modern scholarship were presented by Donald Wilber and Mojtabā Minovi (Wilber and Minovi 1938, no. 34 and photos 43–46). The discovery and publication of the autographical endowment deed in facsimile by Afshār and Mīnuwī (WRR 1971) immediately inspired research in Iran. In his comprehensive history of Tabrīz up to the end of the fifteenth century, Mashkūr gave an abstract of the endowment deed and cited passages from narrative sources and relevant verses of poetry (Mashkūr 1352sh/1973, 521–65). The site was included into a comprehensive survey of historical monuments of Azerbaijan (Kārang and Turābī Ṭabāṭabāī 1351sh/1972, 162–9, photos 727,728, 730). Sheila Blair made a first attempt at a tentative reconstruction of the architectural ensemble based on this document (Blair 1984; Blair 2016). Hoffmann (2000) gives a more detailed analysis of the endowment deed (see also Hoffmann 1997 and 2014 for shorter summaries in English). Some small-scale archaeological research was done by Lāla Rūḥangīz in the years 2005–2007 (Rūḥangīz 1383sh/2004; 1384–1385sh/2005–2006; 1386sh/2007; 1390sh/2011). What came to light were numerous shards of tiles most probably of the Ilkhanid period and parts of an underground irrigation system. On the other hand, the assumption that the extant remnants of towers and ramparts are of later, probably 17th century Safawid or Ottoman origin, was corroborated.

Based on textual evidence only and therefore not considering the topographical conditions of the site, an exemplary reconstruction of the Rabʿ-i Rashīdī using computer-aided design tools has been presented (Kaynizhād and Bilālī Uskuyī 2011). After years of stagnation the joint venture between the Tehran branch of the German Archaeological Institute (DAI) and the Tabrīz Branch of ICHHTO (= Iran Cultural Heritage, Handicrafts and Tourism Organization) started in 2016. Christian Fuchs has published reports and interpretations of the constructional and archaeological evidence of campaigns 2016–2019 in iDAI

2 This author had visited the Rabʿ-i Rashīdī personally when it was still undamaged.

publications (Fuchs 2017; Fuchs und Heidenreich 2019). A short abstract on the recent campaign was published by the Iranian partners (Ājurlū and Murādi 1399sh/2020).

The fate of the Rab'ī Rashīdī after the decline of the Ilkhānids is closely entangled with the eventful history of Tabrīz (Minorsky, Bosworth, and Blair 2012). The confusing political circumstances of the thirteenth to fifteenth centuries are highlighted by Zakrzewski (2018, 2019). The spatial structure of Tabrīz, especially the position of the city gates and the course of the city walls, has been discussed and mapped by several authors based on textual, not on archaeological research (Wahhābzāda 1374sh/1995; Manšūrī and Muḥammadzāda 1396sh/2017). Parts of the old city wall were recently detected during excavations near Arg-i 'Alishāh.³

Acknowledgments

We are grateful to all colleagues from our partner institutions who participated in the research project for their cooperation and support, in particular the Iranian Cultural Heritage, Handicraft and Tourism Organisation of Eastern Azerbaijan in Tabrīz, as well as Tabrīz Islamic Art University. Our partners Dr. Bahram Ajorloo (Tabrīz Islamic Art University) and Hossein Esmaili Atiq (Iranian Cultural Heritage Organisation, Tabrīz) were at the head of all processes of the project, and without them, the present paper would not have been written. We would also like to thank the funding institutions, first the Gerda Henkel Foundation who funded the first phase of the Rab'-e Rashidi Project from 2018 to 2021, followed by the Deutsche Forschungsgemeinschaft from 2020 onwards, for their generous support of this project.

References

Sources

- Abū Bakr Ibn 'Abdallāh. 1387sh/2008. *Tārīkh-i 'Uṭmān Pāshā. Sharḥ-i yūrish-i 'uṭmānī ba Qafqāz wa Āqarbayjān wa tašarruf-i Tiflīs, Shirwān wa Tabrīz 986-993h*. Translated by Našrallāh Šāliḥī, edited by Yūnus Zairak. Tehrān: Intishārāt-i Ṭahūrī.
- Auḥādī Marāghāī. 1340sh/1961. *Kullīyyāt-i Auḥādī-yi Isfahānī ma'rūf ba Marāghī. Diwān, Manṭiq al 'ushshāq, Jām-i Jam*. Edited by Sa'īd Nafīsī. Tehrān: Amīr Kabīr.
- Clavijo, Ruy Gonzales de. 1859. *Narrative of the Embassy of Ruy Gonzales de Clavijo to the Court of Timour at Samarcand: A.D. 1403-6*. Translated for the first time with notes, a pref., and an introductory life of Timour. Edited by Clements R. Markham 1859. Reprint New York: Franklin, 1970.

3 Communication on website of the Ministry of Cultural Heritage, Tourism and Handicraft 6.11.1395/25.01.2017. Accessed February 10, 2023. <https://www.mcth.ir/news/ID/20041>.

- Clavijo, Ruy Gonzales de. 1993. *Clavijos Reise nach Samarkand: 1403-1406*. Aus dem Altkastilischen übersetzt und mit Einleitung und Erläuterung versehen von Uta Lindgren. München: Institut für Geschichte der Naturwissenschaften.
- Clavijo, Ruy Gonzales de. 1999. *Embajada a Tamorlán*. Edited by Francisco Lopéz Estrada. Madrid: Castalia.
- Darkataniyān, Ghulām Rizā. 2019. [Fūlādnāma]. "Naḥwa-yi taqṣīm wa tauzī-i āb bain-i kishāwarzān wa maḥallāt-i shahr-i Tabrīz dar daura-yi Qājār". Unpublished archival document, Sāzmān-i asnād-i millī-yi Irān.
- Evlīyā Çelebi, b. Dervīş Muhammed Zilli. 1999. *Evlīyā Çelebi Seyâhatnamesi. 2. Topkapı Sarayı Kütüphanesi Bağdat 304 numaralı yazmasının transkripsiyon-dizini*, edited by Orhan Şaik Gökyay et. al. Istanbul: Yapı Kredi Yayınları.
- Evlīyā Çelebi, b. Dervīş Muhammed Zilli. 2001. *Evlīyā Çelebi Seyâhatnamesi. 4. Topkapı Sarayı Kütüphanesi Bağdat 305 numaralı yazmasının transkripsiyon-dizini*, edited by Orhan Şaik Gökyay et. al. Istanbul: Yapı Kredi Yayınları.
- Evlīya Chelebi. 2010. *Travels in Iran and the Caucasus, 1647 & 1654*. Translated by Hasan Javadi and Willem Floor. Washington, DC: Mage.
- Evlīya Chelebi. 1398sh/2019. *Irān dar siyâhatnāma-yi Auliyā Chalabī*. Translated by Dāwud Bahlūlī. Tehrān: Intishārāt-i 'ilmī wa farhangī.
- Ḥamdallāh Mustaufī Qazwīnī. 1919. *Ḥamdallāh Mustaufī Qazwīnī: The Geographical Part of the Nuzhat al-Qulūb*, translated by Guy Le Strange. Leiden: Brill.
- Ḥamdallāh Mustaufī Qazwīnī. 1958. *Bakhsh-i nakhust az maqāla-yi siwwum-i Nuzhat al-qulūb*, edited by Muḥammad Dabīr Siyāqī. Teheran: Tahūrī.
- Ibn-i Bazzāz Ardabīlī, Tawakkulī b. Ismā'īl Bazzāz. 1373sh/1994. *Şafwat aş-şafā. Dar tarjuma-yi aḥwāl wa aqwāl wa karamāt- Shaykh Şafī' al-Dīn Ishāq Ardabīlī*, edited by Ghulām Rizā Ṭabātabā'ī -Majd. Tabrīz.
- Ibn al-Fuwaṭī, Kamāl al-Dīn 'Abd ar-Razzāq. 1374sh/1995. *Majma' al-ādāb fī mu'jam al-alqāb*. 6 vols., edited by Muḥammad al-Kāzīm. Tehrān: Sāzmān-i chāp wa intishārāt-i wizārat-i farhang wa irshād-i islāmī.
- Ibn-i Karbalā'ī [i.e.] Ḥāfiẓ Ḥusain Karbalā'ī. 1383sh/2004. *Rauzāt al-jinān wa jannāt al-janān*. 2 vols., edited by Ja'far Sulṭān al-Qurra'ī. Tehrān: Bungāh-i tarjuma wa nashr-i kitāb.
- Kamāl Khujandī. 1372sh/1993. *Dīwān-i Kamāl-i Khujandī*, edited by Aḥmad Karamī. Tehrān: Silsila-i nashriyyāt-i mā.
- Kātib Çelebi [= Ḥājjī Khalife/Ḥājjī Khalifa].1732. *Kitāb-i Cihānnümā* [dated 1632], edited by İbrahim Müteferriqa. Accessed February 10, 2023. http://www.kitabicihannuma.com/Cihannuma_pdf/8-Cihannuma_351-400.pdf

- Maṭrāqchi, Naṣūh. 1976. *Beyān-ı menāzil-i sefer-i İrākeyn-i Sulṭān Süleymān Hān*, edited by Hüseyin G. Yurdaydin. Ankara: Türk tarih kurumu basimevi.
- Nādir Mirzā. 1373sh/1994. *Tārīkh wa juḡhrāft-yi dār as-salṭana-yi Tabrīz*, edited by Ghulām Rizā Ṭabāṭabā'ī - Majd. Tabrīz: Sutūda.
- Rashīd al-Dīn Faẓlallāh Hamadānī. 1350sh/1971. *Waqfnāma-yi Rab'ī Rashīdī*, edited by Mujtabā Mīnuwī and Īraj Afshār. Tehrān: Intishārāt-i anjuman-i āṭār-i millī (faksimile edition).
- Rashīd al-Dīn Faẓlallāh Hamadānī. 2536 shsh/1356sh/1977. *Waqfnāma-yi Rab'ī Rashīdī. Edited by Mujtabā Mīnuwī and Īraj Afshār. Bā hamkāri-yi 'Abd-al-'Alī Kārang dar taṣḥīḥ-i qismat-i marbūṭ ba-Āzarbāyjan*. Tehrān: Anjuman-i Āṭār-i Millī (printed edition).
- Sāhillūghlu, Khalīl. 1390sh/2011. *Rūznāma-yi safar-i Sulṭān Murād-i chahārūm ba-Īrān wa Tabrīz*, translated by Naṣrallāh Ṣāliḥī, edited by Yūnus Zairak. Tehrān: Ṭahūrī.
- Salmān Sāwajī. 1371sh/1992. *Dīwān-i Salmān-i Sāwajī. Ba-muqaddama wa taṣḥīḥ-i Abu l-Qāsim Ḥālat*, edited by Aḥmad Karamī. Tehrān: Silsila-yi nashriyyāt-i mā.
- Schiltberger, Johann. 1879. *The Bondage and Travel of Johann Schiltberger*, translated by J. Buchan Telfer, edited by Philip Brunn. Cambridge.
- Schiltberger, Johannes. 1976. *Reisen in Europa, Asia und Afrika von 1394–1427*, edited by Karl Friedrich Neumann. Amsterdam. Reprint of the edition Munich 1859.
- Selānikī Mustafa Efendi. 1989. *Tarih-i Selānikī*, edited by Mehmet İpşirli. Istanbul: Edebiyat Fakültesi.
- WRR 1971 see Rashīd ad-Dīn Faẓlallāh Hamadānī. 1350sh/1971.
- WRR 1977 see Rashīd ad-Dīn Faẓlallāh Hamadānī. 2536 shsh/1356sh/1977.
- Yazdānī, Ghulām Rizā. no date. “[Fūlād-nāma]. Bāzkhwānī-yi sanad-i sahm-i āb-i Tabrīz”. Unpublished manuscript.
- Maps**
- Wilber, Donald, and Mojtaba Minovi. 1938: “Notes on the Rab'ī Rashīdī”. *Bulletin of the American Institute for Iranian Art and Archaeology* 5 (3): 251, fig. 1.
- Naqsha-yi Dār as-Salṭana-yi Tabrīz*. 1297h/1880. Drafted by Muḥammad Rizā Muhandis wa Sarhang Qarajadāghī. Reprint Tehran: Mu'ssasa-i Juḡhrāfiyāi wa kārtūgrāfi-yi Saḥāb.
- Research literature**
- Ājurlū, Bahrām, and Amīn Murādī. 1399sh/2020. “Raḥyāftī tahlīlī ba-dīrīnagī wa kārkard-i burj-i buzurg-i junūbiy-i Rab'ī Rashīdī-yi Tabrīz”. *Bāgh-i Nāzar* 17 (85). English version in the same issue: “Analytical Approach to the Function and Dating of the great Southern Tower of Rab'ī Rashīdī in Tabrīz”. doi:10.22034/bagh.2020.171487.3990
- Amarasinghe, Pradeep. 2014. *Resilience of Water Supply Systems in Meeting the Challenges Posed by Climate Change and Population Growth*. PhD Dissertation, Brisbane, Queensland University of Technology. Accessed February 10, 2023. <https://eprints.qut.edu.au/78369/>.
- Aubin, Jean. 1970. “Éléments pour l'étude des agglomérations urbaines dans l'Iran médiéval.” In *The Islamic City. A Colloquium*, edited by Albert Hourani and Samuel Miklos Stern. Oxford: Cassirer, 65–75.
- Aubin, Jean. 1995. *Émirs Mongols et vizirs Persans dans le remous de l'acculturation*. Studia Iranica, Cahier 15. Paris.
- Bast, Oliver. 2002. “Germany. v. German Explorers and Travelers in Persia”. In *Encyclopaedia Iranica*, online edition. Accessed February 10, 2023. <https://www.iranicaonline.org/articles/germany-v>.
- Beaumont, P. 1971. “Qanat Systems in Iran”. *Hydrological Sciences Journal* 16 (1): 39–50. doi:10.1080/02626667109493031.
- Beaumont, P. 1982: “Āb. iii. The Hydrology and Water Resources of the Iranian Plateau”. In *Encyclopaedia Iranica*, online edition. Accessed February 10, 2023. <http://www.iranicaonline.org/articles/ab-iii-the-hydrology-and-water-resources-of-the-iranian-plateau>.
- Bernardini, Michele. 2007. „Italy. iv. Travel Accounts. A General Survey”. In *Encyclopaedia Iranica*, online edition. Accessed February 10, 2023. <https://www.iranicaonline.org/articles/italy-iv-travel-accounts-2>.
- Blair, Sheila S. 1984. “Ilkhanid Architecture and Society: An Analysis of the Endowment Deed of the Rab'ī Rashīdī”. *Iran* 22: 67–90.
- Blair, Sheila S. 2016. “Rab'ī Rashīdī”. In *Encyclopaedia Iranica*, online edition. Accessed February 10, 2023. <http://www.iranicaonline.org/articles/rab-e-rashidi>.
- Blessing, Patricia. 2014. *Rebuilding Anatolia after the Mongol Conquest: Islamic Architecture in the Lands of Rūm, 1240–1330*. Farnham, Surrey and Burlington, VT: Ashgate Publishers.
- Blessing, Patricia. 2019. “Building a Frontier. Architecture in Anatolia under Ilkhanid Rule.” In *Cultural Encounters in Anatolia in the Medieval Period: The Ilhanids in Anatolia. Symposium Proceedings, 21–22 May 2015*, Ankara, edited by Yalman, Suzan and Filiz Yenişehirlioğlu, 65–85.
- Bock, Nils. 2018. “Tagungsbericht: Strategies, Dispositions and Resources of Social Resilience. A Dialogue between Medieval History and Sociology, 12.03.2018–15.03.2018 Trier.” In *H-Soz-Kult, 04.06.2018*, www.hsozkult.de/conferencereport/id/tagungsberichte-7729. Accessed February 10, 2023.

- Bonine, Michael E. 1979. "The Morphogenesis of Iranian Cities." *Annals of the Association of American Geographers* 69 (2): 208–24.
- Bonß, Wolfgang. 2015. "Karriere und sozialwissenschaftliche Potenziale des Resilienzkonzepts." In *Resilienz im Sozialen. Theoretische und empirische Analysen*, edited by Martin Endreß and Andrea Maurer. Wiesbaden: Springer, 15–31.
- Borgolte, Michael. 2012. "'Totale Geschichte' des Mittelalters? Das Beispiel der Stiftungen." In *Stiftung und Memoria*, authored by Michael Borgolte and edited by Tillmann Lohse. *Stiftungsgeschichten*, 10. Berlin: Akademie Verlag, 41–59.
- Burkart, Eric. 2018. "Tagungsbericht: HT 2018: Rat und Resilienz. Krisenbewältigung in der Stadt des 14. bis 16. Jahrhunderts, 25.09.2018–28.09.2018 Münster" In *H-Soz-Kult*, 21.12.2018, <http://www.hsozkult.de/conferencereport/id/tagungsberichte-8029>. Accessed February 10, 2023.
- Bürkner, Hans-Joachim. 2010. *Vulnerabilität und Resilienz. Forschungsstand und sozialwissenschaftliche Untersuchungsperspektiven*. Working Paper, 43. Leibniz-Institut für Regionalentwicklung und Strukturplanung. Erkner.
- Chāyli, Šamad. 1387sh/2008. *Farhang-i asāmī-yi rūstāhā-yi Āzarbāyjān-i šarqī*. Tabrīz: Nashr-i Akhtar.
- Deguillhem, Randi. 2008. "The Waqf in the City". In *The City in the Islamic World*, 2 vols., edited by Salma K. Jayyusi et. al. Leiden: Brill, 929–56. doi:10.1163/ej.9789004162402.i-1500.248
- Dhukā, Yaḥyā. 1368sh/1989a. "Tabrīz". In *Shahrhā-yi Īrān*. Vol.3, edited by Muḥammad Yūsuf Kiyānī. Tehrān 1368sh/1989, 151–202.
- Dhukā, Yaḥyā. 1368sh/1989b: *Zamīnlarzahā-i Tabrīz*. Tehrān: Kitāb Sarā.
- Ehlers, Eckart. 1984. "Ājī Čāy." In *Encyclopaedia Iranica*, online edition. Accessed February 10, 2023. <http://www.iranicaonline.org/articles/aji-cay-river-which-flows-into-lake-urumia>.
- Endreß, Martin, and Andrea Maurer, eds. 2015. *Resilienz im Sozialen. Theoretische und empirische Analysen*. Wiesbaden: Springer.
- Endreß, Martin, Lukas Clemens, and Benjamin Rampp, eds. 2020. *Strategies, Dispositions and Resources of Social Resilience: A Dialogue between Medieval Studies and Sociology*. doi:10.1007/978-3-658-29059-7.
- Fuchs, Christian. 2017. "Tabrīz, Iran. Die Südbastion auf dem Gelände des Rab'ī Rashīdī: Untersuchungen zur Baugeschichte. Die Arbeiten des Jahres 2017." *e-Forschungsberichte / iDAIpublications* 2: 100–6. <https://publications.dainst.org/journals/efb/1995/6187>. urn:nbn:de:0048-journals.efb-2017-2-p100-106-v6187.5 .
- Fuchs, Christian, and Anja Heidenreich. 2019. "Tabrīz, Iran. Das ilkhanidische Tabrīz: Bauhistorische und archäologische Untersuchungen zum Rab'ī Rashīdī". *e-Forschungsberichte / iDAIpublications* 1: 116–30. <https://publications.dainst.org/journals/efb>. urn:nbn:de:0048-journals.efb-2017-2-p100-106-v6187.5.
- Gaube, Heinz. 2008. "Iranian Cities". In *The City in the Islamic World*, 2 vols., edited by Salma K. Jayyusi et. al. Leiden: Brill, 158–80. doi:10.1163/ej.9789004162402.i-1500.47.
- Ghazaleh, Pascale. 2011. "Introduction: Pious Foundations: From here to Eternity". In *Held in Trust: Waqf in the Islamic World*, edited by Pascale Ghazaleh. Cairo/New York: The American University of Cairo Press, 1–22.
- Haneda, Masashi. 1997. "The Pastoral City and the Mausoleum City: Nomadic Rule and City Construction in the Eastern Islamic World." In *Islamic Urbanism in Human History. Political Power and Social Networks*, edited by Tsugitaka SATO. London/New York: Kegan Paul, 142–70.
- Hatef Naiemi, Atri. 2019. *A Dialogue between Friends and Foes: Transcultural Interactions in Ilkhanid Capital Cities (1256–1335 A.D.)*. PhD dissertation: University of Victoria, Canada. Accessed February 10, 2023. <http://hdl.handle.net/1828/11108>.
- Hodgson, Marshall. 1974. *The Venture of Islam: Conscience and History in a World Civilization* 2. Chicago: University of Chicago Press. Accessed February 10, 2023. https://ia803003.us.archive.org/27/items/TheVentureOfIslamExpansionInMiddleAgeVol2MarshallHodgson/The_Venture_of_Islam_Expansion-in-Middle_Age_Vol-2_Marshall-Hodgson.pdf.
- Hoexter, Miriam. 1987. "The Idea of Charity: A Case Study in Continuity and Flexibility of an Islamic Institution". *Wissenschaftskolleg. Jahrbuch 1985/86*, edited by Peter Wapnewski, 179–89. Berlin.
- Hoexter, Miriam. 1998. *Endowments, Rulers and Community. Waqf al-haramayn in Ottoman Algiers*. Leiden: Brill.
- Hoffmann, Birgitt. 1997. "The Gates of Charity and Piety: Rašīd al-Dīn Faḍl Allāh as Founder of Pious Endowments." In *L'Iran face a la domination mongole. Études réunies et présentées par Denise Aigle*, 189–201. Bibliothèque Iranienne, 45. Teheran: Institut Français de Recherche en Iran. Leiden: Brill.
- Hoffmann, Birgitt. 2000. *Waqf im mongolischen Iran. Rašīduddīns Sorge um Nachruhm und Seelenheil*. Stuttgart: Steiner.
- Hoffmann, Birgitt. 2014. "In Pursuit of Memoria and Salvation: Rašīd al-Dīn and His Rab'ī Rashīdī." In *Politics, Patronage and the Transmission of Knowledge in 13th – 15th Century Tabrīz*, edited by Judith Pfeiffer, 171–85. Leiden/Boston: Brill.

- Holod, Renata. 1983. "Āb anbār. i. History." In *Encyclopaedia Iranica* I/1. London/New York: Routledge.
- Ja'farpūr Nāšir, Sānāz. 1397sh/2018. "Barrasī-yi maḥdūda-yi bārū-yi qadīm-i shahr-i Tabrīz bā istifāda az manābī-i tārikhī". *Bāgh-i Naẓar* 15 (62): 37–46. Accessed February 10, 2023. http://www.bagh-sj.com/article_66284.html. English version in the same issue: "Investigation of the Old City Wall of Tabriz from Historical Sources".
- Kārang, 'Abd-al-'Alī, and Jamāl Turābī Ṭabāṭabā'ī. 1351sh/1972. *Āṭār-i bāstānī-i Āzarbāyjān*, vol. 1 of *Āṭār wa abnīya-i tārikhī-i Shahrīstān-i Tabrīz*. Tehrān: Anjuman-i Āṭār-i Millī.
- Kaynizhād, Muḥammad 'Alī, and Azīta Bilālī Uskūyī. 1390sh/2011. *Bāz-āfarīnī-yi Rab'-i Rashīdī ba-asās-i mutūn-i tārikhī*. Tabrīz: Dānishgāh-i Hunar-i Islāmī.
- Lambton, Ann K.S. 1997. "Awqāf in Persia: 6th – 8th/12th – 14th Centuries". *Islamic Law and Society* 4 (3): 298–318.
- Landsteiner, Erich, and Tim Soens, eds. 2020. *Farming the City. The Resilience and Decline of Urban Agriculture in European History*. Innsbruck: Studienverlag.
- Manšūrī, Sayyid Amīr, and Shabnam Muḥammadzāda. 1396sh/2017. "Taḥawwulāt-i sāzmān-i faẓā'ī-yi shahr-i Tabrīz az awāyil-i islām tā daura-yi Qājār". *Bāgh-i Naẓar* 14 (51), 21–32. English version in the same issue: "The Changes of Tabriz Spatial Organization from Early Islamic Era to Qajar Era".
- Mashkūr, Muḥammad Jawād. 1352sh/1973. *Tārikh-i Tabrīz tā pāyān-i qarn-i nuhum-i hijrī*. Tehrān: Anjuman-i Āṭār-i Millī.
- Masuya, Tomoko. 2002. "Ilkanid Courtly Life". In *The Legacy of Genghis Khan. Courtly Art and Culture in Western Asia, 1256–1353*, 75–103. New York: The Metropolitan Museum of Art.
- Masuya, Tomoko. 2013. "Seasonal Capitals with Permanent Buildings in the Mongol Empire". In *Turco-Mongol Rulers, Cities and City Life*, edited by David Durand Guédy, 223–56. Leiden: Brill.
- Meerow, Sara, Joshua Peter Newell. 2016. "Urban Resilience for Whom, What, When, Where, and Why?" *Urban Geography* 40.3: 309–29. doi:10.1080/02723638.2016.1206395.
- Meier, Astrid, Johannes Pahlitzsch, and Lucian Reinfandt, eds. 2009. *Islamische Stiftungen zwischen juristischer Norm und sozialer Praxis*. Berlin: Akademie Verlag.
- Melville, Charles. 1981. "Historical Monuments and Earthquakes in Tabriz". *Iran* 19: 159–77.
- Melville, Charles. 1998. "Ḥamd Allāh Mustawfi's Zafarnāmah and the Historiography of the Late Ilkhanid Period". In *Iran and Iranian Studies: Essays in Honor of Iraj Afshar*, edited by Kambiz Eslami, 1–10. Princeton: Zagros.
- Melville, Charles. 2003. "Historiography. iv. Mongol Period". In *Encyclopaedia Iranica*, online edition. Accessed February 10, 2023. <https://iranicaonline.org/articles/historiography-iv>.
- Middleton, Guy D. 2020. "A Tale of Three Cities: Urban and Cultural Resilience and Heritage between the Late Bronze Age and Early Iron Age in the Eastern Mediterranean." *Urban History* 48 (4): 724–48. doi:10.1017/S0963926820000607.
- Minorsky, Vladimir, Clifford Edmund Bosworth, and Sheila Blair. 2012. "Tabrīz". In *Encyclopaedia of Islam, Second Edition*, edited by P. Bearman, Th. Bianquis, C.E. Bosworth, E. van Donzel, W.P. Heinrichs. doi:10.1163/1573-3912_islam_COM_1137.
- Morgan, David. 2016. *Medieval Persia 1040–1797*. New York: Routledge.
- Nasiri-Moghaddam, Nader. 2000. "France. viii. Travelogues of the 18th – 20th Centuries". In *Encyclopaedia Iranica*, online edition. Accessed February 10, 2023. <https://www.iranicaonline.org/articles/france-viii-travelogues-of-the-18th-20th-centuries>.
- Nizhād Ibrāhīmī, Aḥmad. 1393sh/2014. "Rawand-i shakl-gīrī wa tausi'a-yi shahr-i Tabrīz az ṣadr-i islām tā zuhūr-i qājār". *Paṣūhiš-I hunar* 2 (7): 41–6.
- O'Kane, Bernard. 1996. "Monumentality in Mamluk and Ilkhanid Art and Architecture". *Art History* 19 (4): 499–522. doi:10.1111/j.1467-8365.1996.tb00683.x.
- Palombini, Barbara von. 1960. *Bündniswerben europäischer Mächte um Persien 1453–1600*. Wiesbaden: Steiner.
- Paul, Jürgen. 2018a. "Cities in Medieval Iran: A Review of Recent Publications". *Eurasian Studies* 16: 5–20.
- Paul, Jürgen. 2018b. "Jeans Aubin's Article 'Elements for the Study of Urban Agglomerations in Medieval Iran' in Context." *Eurasian Studies* 16: 21–38.
- Peters, Rudolph. 2012. "Waḳf. I. In Classical Islamic Law". In *Encyclopaedia of Islam, Second Edition*, edited by P. Bearman, Th. Bianquis, C.E. Bosworth, E. van Donzel, W. P. Heinrichs. doi:10.1163/1573-3912_islam_COM_1333.
- Porter, Yves. 2014. "Les carreaux de revêtement dans l'architecture musulmane : des fragments du monde ne élévation". In *Terre d'Islam. Les collections de céramique moyen-orientale du musée Ariana à Genève*, edited by Anne-Claire Schumacher, 99–118. Milano: 5 continents.
- Rieger, Anna-Katharina. 2017. "Lines in the Landscape. Water distribution and Socio-Religious Landscape in Ancient Southern Syria". In *SpatioTemporalities on the Line*, edited by Sebastian Dorsch and Jutta Vinzent, 65–95. Berlin/Boston: De Gruyter.
- Rūhangīz, Lāla. 1383sh/2004. "Guzīna-yi sufālīnahā'ī-yi gumānazānī ba-manzūr-i ta'yīn- 'arṣa wa pīshnīhād-i ḥarīm-i muḥawwaṭa-yi Rab'-i Rashīdī". Unpublished

- report, Pazhūhishkada-yi bāstānshināsī - Sāzmān-i mīrāth-i farhangī, šanāyī'-dastī wa gardishgarī-yi Ādharbāyjan-i sharqī.
- Rūhāngīz, Lāla. 1384–1385sh/2005–2006. "Guzārish-i kāwush-i muḥawwaṭa-yi tārikhī-yi Rab'-i Rashīdī, faṣl-i duwwum." Unpublished report, Pazhūhishkada-yi bāstānshināsī - Sāzmān-i mīrāth-i farhangī, šanāyī'-dastī wa gardishgarī-yi zĀdharbāyjan-i sharqī.
- Rūhāngīz, Lāla. 1386sh/2007. "Guzārish-i kāwush-i bāstān shināsī-yi muḥawwaṭa-yi tārikhī-yi Rab'-i Rashīdī, faṣl-i siwwum". Unpublished report, Pazhūhishkada-yi bāstānshināsī - Sāzmān-i mīrāth-i farhangī, šanāyī'-dastī wa gardishgarī-yi Ādharbāyjan-i sharqī.
- Rūhāngīz, Lāla. 1390sh/2011. „Rab'-i Rashīdī wa Khwāja Rashīd ad-Dīn Faḏlallāh Hamadānī“. In *43 Maqāla dar buzurdāsh-t-i ustād duktūr Muḥammad Yūsuf Kiyānī*, edited by Muḥammad Ibrāhīm Zārī, 153–82. Hamadān: Bū 'Alī Sinā.
- Schott, Dieter. 2013. "Katastrophen, Krisen und städtische Resilienz: Blicke in die Stadtgeschichte." *Informationen zur Raumentwicklung 4: Resilienz*, 297–308. https://www.bbsr.bund.de/BBSR/DE/veroeffentlichungen/izr/2013/4/Inhalt/DL_Schott.pdf?__blob=publicationFile&v=1. urn:nbn:de:101:1-2019102508060660971468.
- Schulte, Petra. 2021. "Resilienz durch Information. Einleitende Überlegungen." In *Annales Mercaturae*. Jahrbuch für internationale Handelsgeschichte, 6. Themenheft Information und Resilienz in der Stadt des 12. bis 16. Jahrhunderts. Information und Resilienz in der Stadt des 12. bis 16. Jahrhunderts, edited by Petra Schulte and Eileen Bergmann, 7–18. Stuttgart: Steiner.
- Schuster-Walsler, Sibylla. 1970. *Das safawidische Persien im Spiegel europäischer Reiseberichte: (1502–1722)*. Untersuchungen zur Wirtschafts- und Handelspolitik. Baden-Baden: Grimm.
- Semsar Yazdi, Ali Asghar and Majid Labbaf Khaneiki. 2010. *Veins of Desert. A Review of the Technique of Qanat/Falaj/Karez*. Tehran: Iran Water Resources Management Organization.
- Singer, Amy. 2002. *Constructing Ottoman Beneficence: An Imperial Soup Kitchen in Jerusalem*. Albany: State University of New York.
- Smith, John Masson Jr. 1999. "Mongol Nomadism and Middle Eastern Geography: Qishlāqs and Tümens". In *The Mongol Empire and its Legacy*, edited by Reuven Amitai-Preiss and David O. Morgan, 39–56. Leiden: Brill.
- Spuler, Bertold. 1985. *Die Mongolen in Iran: Politik, Verwaltung und Kultur der Ilchanzeit 1220–1350*. Berlin: Akademie-Verlag.
- Touzard, Anne-Marie. 2000. "France. vii. French Travelers in Persia. 1600–1730". In *Encyclopaedia Iranica*, online edition. Accessed February 10, 2023. <http://www.iranicaonline.org/articles/france-viii-travelogues-of-the-18th-20th-centuries>.
- 'Umrānī, Bihruz. 1385sh/2006. *Bāft-i tārikhī-i Shahr-i Tabriz*. Tehrān: Samirā.
- Vale, Lawrence, and Thomas J. Campanella. 2005. "Introduction." In *The Resilient City. How Modern Cities Recover from Disaster*, edited by Lawrence J. Vale and Thomas J. Campanella, 3–23. Oxford: Oxford University Press.
- Wahhābzāda, 'Abd ar-Raḥmān. 1374sh/1995. "Tārikhcha-yi burj wa bārū-yi Tabriz". *Majmū'a-yi maqālāt-i kungra-yi tārikh-i mi'mārī wa shahrsāzi-yi Irān* vol. 3, Arg-i Bam; Kirmān: Sāzmān-i Mirāṭ-i Farhangī-yi Kishwar.
- Werner, Christoph. 2000. *An Iranian Town in Transition, A Social and Economic History of the Elites of Tabriz 1747–1848*. Wiesbaden: Harrassowitz.
- Werner, Christoph. 2003. "Ein Vaqf für meine Töchter. Ḥātūn Ğān Bēgum und die Stiftungen zur 'Blauen Moschee' in Tabriz". *Der Islam* 80: 94–109.
- Werner, Christoph. 2009. "Soziale Aspekte von Stiftungen zugunsten des Schreins von Imām Rizā in Mašhad, 1527–1897". In *Islamische Stiftungen zwischen juristischer Norm und sozialer Praxis*, edited by Astrid Meier, Johannes Pahlitzsch, and Lucian Reinfandt, 167–89. Berlin: Akademie Verlag.
- Werner, Christoph, Daniel Zakrzewski, and Hans-Thomas Tillschneider, eds. 2013. *Die Kuḡuḡi-Stiftungen in Tabriz. Ein Beitrag zur Geschichte der Ğalāyiriden*. Wiesbaden: Reichert.
- Wilber, Donald. 1955. *The Architecture of Islamic Iran: The Il Khānid Period*. Princeton: Princeton University Press.
- Wilber, Donald, and Mojtāba Minovi. 1938. "Notes on the Rab'-i-Rashīdī." *Bulletin of the American Institute for Iranian Art and Archaeology* 5: 247–59.
- Wright, Denis. 2002. "Great Britain. vii British Travelers to Persia" In *Encyclopaedia Iranica*, online edition. Accessed February 10, 2023. <https://iranicaonline.org/articles/great-britain-vii>.
- Zakrzewski, Daniel. 2018. "Local Elites and Dynastic Succession: Tabriz Prior to, under and Following Mongol Rule (Sixth/Twelth to Ninth/Fifteenth Centuries)." *Eurasian Studies* 16: 352–94.
- Zakrzewski, Daniel. 2019. "Lords of Tabriz: Local Interests, Political Agency and Dynastic Change (Seventh/Tirteenth to Ninth/Fifteenth Centuries)." In *Aus den Tiefenschichten der Texte. Beiträge zur turko-iranischen Welt von der Islamisierung bis zur Gegenwart*, edited by Nader Purnağcheband and Florian Saalfeld, 117–38. Wiesbaden: Reichert.

The authors

Birgitt Hoffmann: PhD in Islamic Studies (1985) University of Freiburg; *venia legendi* for Iranian and Islamic Studies (1995) University of Bamberg. Professor of Islamic Studies at the Universities of Würzburg (1996–1997) and Bonn (1997–2005). 2005–2019 professor of Iranian Studies, University of Bamberg. The fields of her research are history, historiography, literature and culture of the Persianate world (thirteenth to nineteenth century), with a special focus on the Ilkhanid period.

Birgitt Hoffmann – University of Bamberg, Institute of Oriental Studies, Schillerplatz 17, 96045 Bamberg, Germany. birgitt.hoffmann@uni-bamberg.de.

Lorenz Korn: Professor of Islamic Art and Archaeology at the University of Bamberg. After his PhD (Tübingen 1999), he worked in various research projects on Islamic architecture, on Iranian metalwork of the pre-Mongol period, and on the archaeology of oases in Oman. His recent research focuses on architecture, architectural decoration and urbanism in the central Islamic lands from the tenth to sixteenth centuries. This included numerous field surveys and archaeological work in Iran and Uzbekistan.

Lorenz Korn – University of Bamberg, Institute of Oriental Studies, Schillerplatz 17, 96045 Bamberg, Germany. lorenz.korn@uni-bamberg.de; <https://orcid.org/0000-0001-7705-0901>.

Thomas Lorain holds a PhD in Islamic archaeology from EPHE, Paris. Primarily interested in building archaeology, he focuses his researches on the Turco-Persianate world. After several experiences in Turkey and Central Asia, he held the position of deputy director

of the Délégation Archéologique Française en Afghanistan from 2014 to 2017. Today, he continues his work on different Islamic sites of this country. Since 2020 he is associate researcher in the Rab’i Rashidi project at Bamberg University.

Thomas Lorain – University of Bamberg, Institute of Oriental Studies, Schillerplatz 17, 96045 Bamberg, Germany. thomas.lorain@uni-bamberg.de; <https://orcid.org/0000-0002-1717-2672>.

Maryam Moeini is a PhD student of Islamic Art and Archaeology at the University of Bamberg working on “Funerary Architecture of the Saljuq Period in Iran”. She completed her Bachelor’s (2003) and Master’s (2007) degree in “Restoration and Conservation of Historical Buildings and Monuments” in Iran. Since 2018 she is a member of the Rab’i Rashidi research team at the University of Bamberg.

Maryam Moeini – University of Bamberg, Institute of Oriental Studies, Schillerplatz 17, 96045 Bamberg, Germany. maryam.moeini@uni-bamberg.de.

Jonas Elbers graduated from Hamburg University in 2015 with a Magister’s degree in Iranian Studies. There, he was employed as project coordinator for the academic exchange project “Sprachwissenschaft als Paradigma im Kulturdialog” and taught at the Iranian Studies Department. Before joining the current research project at Bamberg University, he worked as a project manager in the adult education sector. His research focuses on geographical and calendrical questions in Iranian history.

Jonas Elbers – University of Bamberg, Institute of Oriental Studies, Schillerplatz 17, 96045 Bamberg, Germany. jonas.elbers@uni-bamberg.de.

