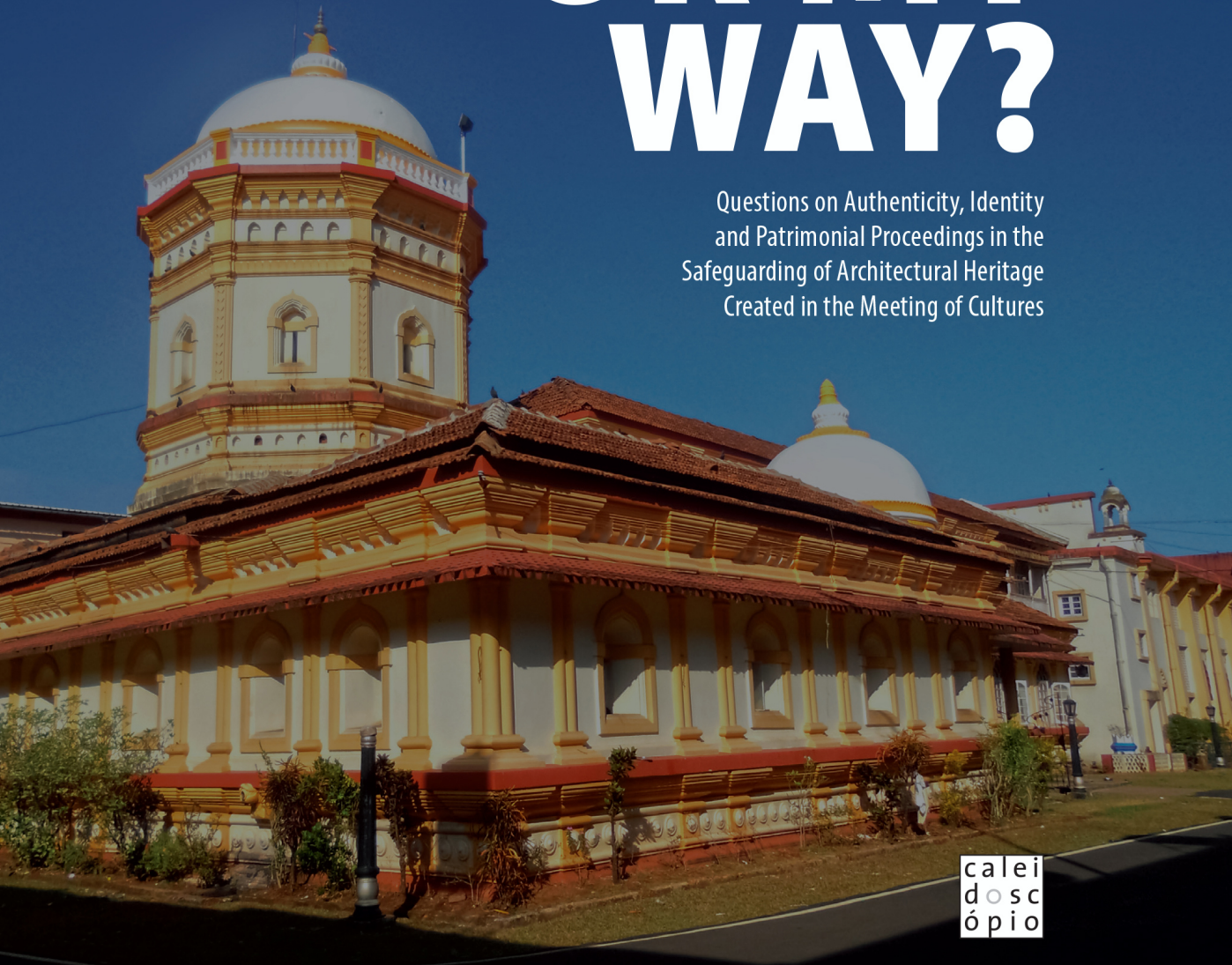


Edited by **Joaquim Rodrigues dos Santos**

PRESERVING TRANSCULTURAL HERITAGE

YOUR WAY OR MY WAY?

Questions on Authenticity, Identity
and Patrimonial Proceedings in the
Safeguarding of Architectural Heritage
Created in the Meeting of Cultures



calei
dos
ópio

PRESERVING TRANSCULTURAL HERITAGE

YOUR WAY OR MY WAY?

Questions on Authenticity, Identity
and Patrimonial Proceedings in the
Safeguarding of Architectural Heritage
Created in the Meeting of Cultures



TITLE

Preserving Transcultural Heritage: Your Way or my Way?
Questions on Authenticity, Identity and Patrimonial Proceedings in the Safeguarding of Architectural Heritage Created in the Meeting of Cultures

EDITOR

Joaquim Rodrigues dos Santos
(ARTIS – Instituto de História da Arte, Faculdade de Letras da Universidade de Lisboa)

SCIENTIFIC COMMITTEE

Vítor Serrão (president), Ana Tostões, Christopher Marrison, Francisco Lopez Morales, Gill Chitty, Giovanni Carbonara, Hélder Carita, Javier Rivera Blanco, Joaquim Rodrigues dos Santos, Johannes Widodo, Jorge Correia, José Delgado Rodrigues, Kassim Omar, Khalid El Harrouni, Luis Urbano Afonso, Maria João Neto, Maria Lúcia Bressan Pinheiro, Nobuko Inaba, Olga Sevan, Paulo Peixoto, Rabindra Vasavada, Rosa Perez, Rui Fernandes Póvoas, Susan Jackson-Stepowski, Tamás Fejérdy, Virgolino Jorge, Webber Ndoro, Zhang Jie

EXECUTIVE COMMITTEE

Joaquim Rodrigues dos Santos (president), Maria de Magalhães Ramalho, Inês Cristovão, Vera Mariz, Tiago Rodrigues, Cátia Reis, Luis Urbano Afonso, Margarida Donas Botto

The authors are responsible for their texts and the images contained on them, including the correct reference of their sources and the permissions from the copyright owners.

LAYOUT

Fernanda Cavalheiro e Margarida de Almeida

ISBN

978-989-658-467-2

DOI

10.19262/978-989-658-467-2

LEGAL DEPOSIT NUMBER

428851/17

ISSUE

07.2017

EDIÇÃO

calei
dos
c
ópio

CALEIDOSCÓPIO – EDIÇÃO E ARTES GRÁFICAS, SA
Rua de Strasburgo, 26 – r/c dto. 2605-756 Casal de Cambra. PORTUGAL
Telef.: (+351) 21 981 79 60 | Fax: (+351) 21 981 79 55
caleidoscopio@caleidoscopio.pt | www.caleidoscopio.pt

ORGANIZATION



INSTITUTIONAL SUPPORT



SPONSORSHIP



Parques de Sintra
Monte da Lua



FUNDAÇÃO
ORIENTE



Câmara Municipal
lisboa



UNIÃO DAS FREGUESIAS DE SINTRA



EGEAC



CONTENTS

- 13 **Foreword**
Vitor Serrão; Maria Magalhães Ramalho
- 15 **Why the Preservation of Transcultural Heritage?**
Joaquim Rodrigues dos Santos
- 19 **SOME ISSUES ON THE PRESERVATION OF TRANSCULTURAL HERITAGE**
- 21 **Questions of authenticity concerning different cultures and preservation**
Jukka Jokilehto
- 33 **“The sea was yesterday what heritage can be today, we must only beat some Adamastores”:
The Portugal ICOMOS and the World Heritage of Portuguese Origin program**
Ana Paula Amendoeira
- 41 **The Relevance of a Charter for Transcultural Heritage**
Gustavo Araoz
- 49 **HERITAGE VALUES AND MANAGEMENT OF AFRICAN AND AMERICAN HISTORIC CITIES AND
SITES WITH EUROPEAN INFLUENCES**
- 51 **The 19th Century Architecture and Urban Planning in the Kasbah of Algiers:
A Colonial Inheritance to be Protected**
Asma Hadjilah
- 59 **Preservation of Heritage and Professionalization of Culture in Belém do Pará:
Theoretical Aspects and Ideological Divergences**
Cybelle Salvador Miranda
- 75 **Architecture Identity of the Old Town of Buenos Aires:
Defense and Recovery of its Transcultural Heritage**
Jesús Rojas-Marcos González
- 85 **Authenticity and Identity Dilemma - The Case of Mombasa Old Town
and Lamu World Heritage Site**
Kassim M. Omar
- 93 **Urban Conservation of Historical Areas:
Come Back to Thirty-Five Years (1981-2016) of Observation in Fez Medina, Morocco**
Khalid El Harrouni
- 105 **The Preservation of Maputo’s Downtown Built Heritage:
Issues, Practices and Challenges**
Lisandra Mendonça
- 115 **The Construction of Cultural Heritage in Brazil: Minas Gerais and Goiás**
Margarida Valla
- 127 **Preservation of Heritage and Urban Renovation: The New Meanings of City Landscapes**
Tereza Duarte Paes

- 137 **SAFEGUARDING OF ARCHITECTURAL HERITAGE BELONGING TO ETHNIC AND RELIGIOUS MINORITIES INSIDE COUNTRIES WITH DOMINANT CULTURES**
- 139 **Universal Rules or Community Values? Negotiative Conservation of Minority Heritage in Turkey**
Elif Keser-Kayaalp
- 147 **Artistic Interventions as Guardians of Palestinian Minority's Heritage**
Irit Carmon Popper; Alona Nitzan-Shiftan
- 157 **Built Together, Heritagised Together:
Using Building Archaeology for Safeguarding Early Modern Churches in China**
Thomas Coomans; Xu Yitao
- 167 **Safeguarding of Abandoned Architectural Heritage in Poland Originally Belonging to Religious Minorities - Problems and Challenges**
Tomasz Tomaszek
- 179 **Minority Architecture as "Shared Built Heritage":
The Transylvanian Saxon's Communal Buildings in Romania**
Timo Hagen
- 189 **The Xucuru-Kariri and Their Transcultural Heritage**
Suzany Marihá Ferreira Feitoza; Maria Angélica da Silva; Alcía Alves Rocha
- 199 **A Virtuous Itinerary Between Ghetto Synagogues and Emancipation Synagogues:
The Rediscovery of North Italian Judaism**
Valeria Rainoldi
- 211 **THE "INDIAN MELTING POT" FOR RELIGIONS AND CULTURES: CHALLENGES CONCERNING TRANSCULTURAL HERITAGE PRESERVATION**
- 213 **The Politics of Renovation: The Disappearing Architecture of Goa's Brahmanical Temples**
Amita Kanekar
- 225 **"Your Church is Older than the Taj Mahal!" - The Challenge of Preserving the Patrimony of the Archdiocese of Bombay**
Fleur D'Souza
- 235 **Challenges in Preserving and Presenting Colonial French Heritage in India:
The Case of Puducherry**
Helle Jørgensen
- 243 **Cultural Idiosyncrasies and Preservation Challenges in the Indo-Portuguese Catholic Religious Architecture of Goa (India)**
Joaquim Rodrigues dos Santos
- 255 **Preservation of the Historical and Artistic Heritage of the Archdiocese of Goa:
Plan to Implementation - Early Outcome**
Mónica Esteves Reis
- 265 **Preserving the Exfoliated Weathered Fabric of Basilica of Bom Jesus, Old Goa Approach - Approach Conflict**
Nizamuddin Taher
- 277 **A Garden Overgrown: Panjim's Garcia da Orta Park and the Remaking of Eco-Cultural Legacies**
R. Benedito Ferrão
- 283 **The Ruination of the Inconvenient: Eroding Goa's Intangible Heritage**
Vishvesh Kandolkar; Pithamber Polsani

- 291 **QUESTIONS, CONTROVERSIES AND IDIOSYNCRASIES ON AUTHENTICITY BETWEEN DIFFERENT CULTURES, WHEN FOCUSING THE SAFEGUARDING OF TRANSCULTURAL HERITAGE**
- 293 **Preserving the Transcultural Identity of Local Shopping Streets: North Street and Castle Street, Belfast**
Agustina Martire; Anna Skoura
- 307 **Conservation of Transcultural Heritage: Cooperation Towards Correct Interpretation and Common Strategies - The Vice-Roys Portrait Gallery**
Ana Teresa Teves Reis; António Candeias
- 317 **The destruction of Cultural Heritage in the Middle East (1991-2016)**
Barış Gür
- 327 **"The Elephant in the Room": A Nineteenth Century Well-House Preservation in South Tel-Aviv**
Braha Kunda
- 335 **"My Culture" as a Constantly Changing Perception: Vernacular Built Traditions in Kwazulu-Natal, South Africa**
Deborah Whelan
- 345 **Conservation, Safeguarding and Sustainability of Cultural Heritage of Galata, its Authenticity and Integrity**
Demet Ulusoy Binan; Gülce Güleycan Okyay
- 359 **Yin Yu Tang and the Effects of Re-Contextualization on Vernacular Architecture**
Mariko Azuma
- 369 **The Church of Atarfe (Spain): From the Continuity to the Break with the Islamic Past**
Mario Mata González
- 379 **(Re)Inventing the Indians: Native American Voices in Contemporary Museum Practice**
Meghan Gilbride
- 395 **Memory, Space & Transcultural Heritage in Puerto Rico**
Nadya K. Nenadich Correa
- 405 **The Artificial Cascade Fountain of Cyrillo Volkmar Machado in Quinta de Belas: Challenges to its Preservation**
Sofia Braga
- 417 **HUL: Shared Built Heritage in Wuhan for Sustainable Urban Development**
Song Yi; Ding Yuan
- 427 **CONTEXTUALIZING THE (UN)WANTED: TOURISM AND MANAGEMENT OF TOTALITARIAN REGIMES IN EUROPE**
- 429 **Contextualizing the Heritage of the Communist Regime in Poland: New Narratives**
Elżbieta Błotnicka-Mazur
- 439 **Sense and Sensitivity: Krakow's Route of Memory as a Way of Collective Trauma Management**
Łucja Piekarska - Duraj
- 447 **(Un)Wanted Heritage? Socialist Realist Architecture in Gdynia and Gdansk**
Magdalena Howorus-Czajka
- 459 **Memory of Different People in One Territory: WW2 Cemeteries in Cassino & Montecassino**
Michela Cigola; Arturo Gallozzi; Marcello Zordan

- 473 **WEST VERSUS EAST: DIFFERENCES AND DIFFICULTIES TO THE CONSERVATION OF THEIR SHARED HERITAGE (EUROPEAN COLONIES IN FAR EAST / "ASIAN TOWNS" IN THE WEST)**
- 475 **Pondicherry - A Model Heritage City for India**
Ashok Panda; Shubham Biswas
- 485 **Conserving Canada's Chinatowns: An Overview and Consideration of late 20thC approaches**
John Ward
- 497 **Safeguarding Sino-Portuguese Heritage in Macau Between 1990 and 1999**
Luis António Durão
- 509 **Dalian's "Russian-Style Street":
A "Facadist" Approach to the Preservation of Russian Heritage in China**
Valentine Nebon-Carle
- 521 **GREEKS, ROMAN AND BYZANTINES IN THE MEDITERRANEAN REGION AND NEAR EAST:
GUARDING TRANSCULTURAL REMAINS CONTAINING ANCIENT CLASSICAL INFLUENCES**
- 523 **Multi-Cultural Perception of the Cult Site of Hacı Bayram in Historic Center of Ankara**
Açalya Alpan; Ece Kumkale Açıköz
- 533 **Preserving Roman Archaeology in Northern Africa: The House of Amphitrite Curculum (Algeria)**
Alessandro Pierattini
- 543 **The Via Antiqua from Braga to Astorga:
Transformation, Disruption and Permanence of a Cultural Route**
Daniel Vale
- 553 **Viminacium: Research, Protection and Recognition**
Emilija Nikolić; Jelena Anđelković Grašar; Dragana Rogić
- 565 **Felix Romuliana as a Bird Phoenix**
Ljudmila Djukic
- 573 **Learning from the Past:
The Case of Transcultural Heritage in Rural Ecclesiastical Monuments of Cyprus**
Nasso Chrysochou
- 583 **Empire on the Borders:
Fragile Structures Along the Frontiers Between the Byzantine and Slavic Cultures**
Nora Lombardini; Elena Fioretto
- 593 **How to Plan an Ancient City Within Modern Settlement: The Case of Soli Pompeiopolis**
Remzi Yağcı
- 603 **Comparative Analysis of the Identity and Patrimonial Processes of Two Roman Archaeological Sites in Portugal: The Roman Temple of Évora and the Shrine of Panóias, Vila Real**
Rute Teixeira
- 611 **EUROPEAN HERITAGE AS IMPERIALIST STATEMENT IN COLONIES: (UN)DESIRABLE MEMORIES WHICH MUST BE PROTECTED OR TO BE FORGOTTEN?**
- 613 **The Architectural Conservation Movement in Colonial Egypt (1882-1956): A Methodology**
Adham Fahmy
- 623 **Colonial Heritage in Latin America: Damnatio Memoriae or Transcultural Dialogue?**
Amélia Polónia; Cátia Miriam Costa

- 631 **Law, Religion, Heritage: Preservation in Late Colonial India - The Problem of the Thatta Mosque**
Indra Sengupta
- 639 **Producing Anglo-India: The Shaping of Meaning Under a British Paradigm**
Javier Ors Ausin
- 649 **A New New Delhi? Re-Examining Areas of Conflict Between Conservation and Redevelopment of Lutyen's Delhi**
Manas Murthy; Vanicka Arora
- 661 **The Saint Sebastian Fortress on the Island of Mozambique: The Conservation of a Foreign Heritage**
Maurizio Berti
- 673 **The Attitudes Towards the Built Heritage of Lahore**
Saba Samee
- 687 **Luís Benavente: A Key Player in Portugal's Strategy for the Safeguarding of Colonial Architectural Heritage**
Vera Mariz
- 697 **BETWEEN FAR EAST AND THE INDIAN SEA: INDOCHINESE AND INSULINDIAN CULTURES (INFLUENCES, FUSIONS AND HERITAGE SAFEGUARDING)**
- 699 **Inhabitants' Awareness of Shared Architectural Heritage: A Case Study of the Darmo Conservation Area, Surabaya, Indonesia**
Erika Yuni Astuti
- 709 **World Heritage for Whom? - Sustainable Heritage Tourism and Community Development of Luang Prabang**
Lui Tam
- 721 **Saigon's Colonial Architecture: Conservation in the Face of Rapid Development and New Identity Construction**
Phi Nguyen
- 733 **The Virgin Mary in the Meeting of Cultures: Safeguarding the Transcultural Heritage in the Immaculate Conception Community, Bangkok**
Saraphun Wongngernyuang
- 743 **GLOBALISATION AS GENERATOR OF NEW TRANSCULTURAL HERITAGES: PRESERVING MIGRANTS' ARCHITECTURAL HERITAGE**
- 745 **Questions About the Authenticity of the Brazilian World Heritage**
Gabrielle Cifelli
- 755 **Franciscan Friars in the Tropics: An Uneasy Cultural Meeting Between Brazil and Germany**
Maria Angélica da Silva; Taciana Santiago de Melo; Ana Luiza Cavalcanti Mendonça
- 765 **Australian Shared Built Heritage**
Susan Jackson-Stepowski
- 775 **Matter of Life and Death: Reasons to Remember in St. Mary's Cemetery, Chennai**
William Pettigrew; Emily Mann

- 787 **PRESERVING SHARED HERITAGE ALONG THE SILK ROAD, A MAJOR CREATOR OF CULTURAL ENCOUNTERS**
- 789 **Some Remarks Regarding the Preservation of Ilkhanid Architectural Heritage in Iran: History, Challenges and Perspectives**
Ana Marija Grbanovic
- 801 **The Silk Road: How Maritime Routes can Promote Cultural Connections - Macau as Case-Study**
Maria José do Carmo Freitas
- 813 **Chinoiserie: An Exploration of Cultural Heritage Along the Maritime Silk Roads Empire on the Borders: Fragile Structures Along the Frontiers Between the Byzantine and Slavic Cultures**
Mei Qing
- 823 **A Century of Archaeological Research and Restorations at Ani: Preserving an Armenian-Orthodox vs. Turkish-Islamic Past**
Zeynep Aktüre; Fahriye Bayram
- 835 **MEMORIES TO REMEMBER AND (NOT) FORGET: SLAVES' HERITAGE OUTSIDE THEIR HOMELANDS**
- 837 **Preserving Indonesia's Slavery Inheritance Culture Through an Intuitive Approach in Creating Spatial Experience in a Slave Memorial**
Doni Fireza
- 851 **The Architecture of Creole Cosmopolitanism: Strategies for Preserving the Landscapes of Slavery in Mauritius**
Dwight Carey
- 859 **When Orishas Visit the Earth: Survivals at Terreiros of the Afro Matrix Religions in Alagoas, Brazil**
Louise Maria Martins Cerqueira; Maria Angélica da Silva; Arlindo da Silva Cardoso; Karina Mendonça Tenório de Magalhães Oliveira; Lucas Cardoso Ramos; Paula Louise Fernandes Silva
- 871 **THE OTTOMAN EMPIRE IN THE CROSSROAD BETWEEN EUROPE, ASIA AND AFRICA: FUSION OF CULTURES AND HERITAGES TO PRESERVE**
- 873 **Heritage or Property: Preserving the Churches of Aintab**
Gül Cephaneçigil
- 885 **Visitor Management at Historical Monuments and Sites: A Proposal for Topkapi Palace Museum**
H. İlke Tandoğdu; Gülsün Tanyeli
- 897 **Highlights on the (1987-1989) Restoration of the Ottoman's Al - Qushlah Building**
Nawar Sami Mehdi Al-Ali
- 909 **A Carmelite Father and an Ottoman Water Mill in Palestine: Cultural Interaction at the Monk's Mill**
Ruth Liberty-Shalev; Adi Har-Noy

- 919 **SHOULD BE FOLLOWED OR IGNORED? RECEPTION OF EUROPEAN HERITAGE THEORIES WITHIN NON-WESTERN CULTURES**
- 921 **Jean-Philippe Lauer, Athens Conference and the Introduction of Anastylis to Saqqara**
Adham Fahmy
- 931 **Transferring Urban Theories to Iranian Context**
Azadeh Arjomand Kermani
- 943 **The Role of European Professors in Historic Preservation in Turkey: The Case of Paolo Verzone**
Mesut Dinler
- 953 **Against the Reception of Eurocentric Heritage Theories on Non-Western Cultures: A Case of Pre/Post Colonisation in Nigeria**
Olukoya Obafemi
- 965 **POSTERS**
- 966 **Unwanted Heritage as Asset, Position of Memorial Architecture of Communist Yugoslavia in Contemporary Bosnia and Herzegovina**
Aida Bičakčić
- 967 **Enhancement and Digitization of Ecclesiastical Relics**
Athanasios T. Stogiannos
- 968 **Preserving Transcultural Heritage in a Unique Land Where the Continents & Cultures Meet: Istanbul Case**
Ebru Yıldız; Elmas Erdoğan
- 969 **Archeological Landscapes, it's Survival and Sustainability: Antalya, Perge Case**
Ebru Yıldız; Elmas Erdoğan
- 970 **Preservation of the Basilica of Bom Jesus in Goa: An Illusion of Immanence**
Joaquim Rodrigues dos Santos
- 971 **The Apprehended Rebellion Against Modern Catholic Church Architecture and Iconography in a Small Philippine City**
Liliane Rejante Manahan
- 972 **Portuguese-Brazilian Landscape: An Urban Heritage Network**
Roseline Vanessa Oliveira Machado; Flávia Cerullo; Bianca Machado
- 973 **Clerical House and Museum: Trajectories of Architectural Heritage in Brazil**
Silveli Maria de Toledo Russo

A CARMELITE FATHER AND AN OTTOMAN WATER MILL IN PALESTINE: CULTURAL INTERACTION AT THE MONKS' MILL

Ruth Liberty-Shalev

Technion Institute of Technology

Adi Har-Noy

Ruth Liberty-Shalev & Adi Har-Noy, Architecture & Conservation

ABSTRACT

This paper introduces the story of The Monks' Mill, a watermill in rural northern Palestine, as a microcosmos of the Ottoman Empire, reflecting the cultural mobility brought on by the Tanzimât reformation of the mid nineteenth century and suggesting an alternative to the hegemonic narrative of East meets West at the crossroads of Tradition and Modernity. Research into the mill's history and architecture sheds light on the hitherto little documented but well-developed regional water-mill industry of the era, which made technologically sophisticated use of its limited water resources, and displays a more reciprocal exchange between local and foreign, east and west, rural and urban.

KEYWORDS

Tanzimat; water mill; Carmelite monks; Palestine;

Chapter One: The Monks' Mill and the Carmelite Monastery in Haifa - An Introduction

In 1799 the Carmelite Monastery of the Ordo Draturum B.V. Mariae De Monte Carmelo on Mount Carmel in northern Palestine was sacked and left in ruins. During the preceding months it was used as a hospital for French soldiers during Napoleon's campaign in the Middle East. When Napoleon's army failed to conquer Acre and departed in May 1799, Ottoman rule over Haifa was regained and the monks were punished for supporting the losing party by repeated raids, which greatly damaged the monastery building.¹

Seventeen years later, in May 1816, the Carmelite Order leadership in Rome decided to undertake the project of rehabilitating the monastery. The man chosen to lead this mission was the architect Father Giambattista Cassini². Soon after his arrival in Haifa in 1818 Cassini, also known as Carlos Cassini³ or Fra Giovanni Battista⁴ drew up a plan for a new monastery. However, in 1820 the dilapidated monastery building was demolished to its core by Abdulla Pasha, ruler of Acre⁵.

Let us first reassure the reader that the task of rebuilding the Carmelite monastery was ultimately achieved with great success. The significantly larger and more majestic building which still stands in Haifa today was completed by the mid 1850's⁶, impressing locals and visitors alike from its highly visible location at the very tip of Mount Carmel⁷.



Image 1 & 2: The Carmelite Monastery on Mount Carmel (Source: Laurence Oliphant, *Haifa or Life in Modern Palestine*, 1887)

The accomplishment of this feat is usually attributed to Father Giambattista, who, when faced with the imposing task of raising funds for rebuilding the monastery in its entirety, embarked on the financial enterprise which remarkably ended up on the pages of the Parisian paper *La Presse* on the 31st of May, 1837. This story was then quoted and retold in the personal accounts of various western travelers⁸ who credited the renovation of The Monks' Mill on the Sepphoris stream to the technological ingenuity of Giambattista, the Carmelite monk who purchased and led its renovation in the 1830's.

Here is what the young reporter and aspiring writer Alexander Dumas tells us of the mills at Sepphoris Valley and their relation to the rebuilding of the Carmelite Monastery on Mount Carmel⁹:

After the demolition of the monastery by Abdulla Pasha, Father Giambattista Casini devised a new plan for the monastery, calculated the anticipated costs to be 350,000 francs, and began drawing up a plan to raise funds. His first concern was to generate a steady income for the Carmelite community in Haifa, and to this end he thought to employ the use of two deserted water mills he encountered five hours from the Carmel, on his way to Nazareth. Why the mills were deserted he did not know- perhaps their water source dried up, or otherwise war damages rendered them unusable. He searched in the vicinity of the mills, and a mile upstream found a spring which could be connected by canals to the mills and provide water for their operation. The mills were the property of a large Druze family who did not wish to sell their land, hence Father Giambattista proposed to lease their land against one third of the mill's revenues. To facilitate the renovation and operation of the mills he approached an affluent Turkish acquaintance and offered him yet another third of the profits against the estimated cost of the renovation. As soon as the three-way deal was struck, Giambattista entrusted the supervision of the renovation works to a young and capable brother, and left for one of his extended fundraising campaigns in Europe.

How did Father Giambattista's story, in all the detail articulated above, get published in the emerging new tabloid *La Presse*? In his 1897 account of the Carmelite monastery's history, Father Saint Sauveur sheds light on this point:

When in 1837, Jean-Baptiste visited Paris, the famous novelist of the time, Alexandre Dumas, published an article in the newspaper *La Presse* on 31 May 1837, in favor of the project at the Carmel. This article was later translated into various languages, and greatly contributed to garnering support and popularizing Jean-Baptiste's project.¹⁰

And so it would seem that what began as a recounting of past events¹¹ during an interview in Paris, turned into a newspaper story by an aspiring novelist, and from there onwards embellished¹² and repeated enough times to be accepted as history.

Chapter Two: The Ottoman Tanzimat in Palestine

The reformation and modernization of the Ottoman Empire in the nineteenth century, known as the Tanzimat, is widely considered as a major catalyst of change and development. Initially the new regulations and policies introduced by the Tanzimat were aimed at facilitating enhanced governmental control in the Ottoman provinces. As time wore on they increasingly took on the role of bringing about liberal reform, modernization and progress, thus spurring and advancing ongoing processes of urbanization and commerce with international markets¹³. Particularly from the mid nineteenth century onwards the Tanzimat accommodated the interests of European powers in Palestine, allowing the establishment of a network of semi-autonomous consulates with special rights.¹⁴ This in turn gave rise to a mobile and growing community of consuls, merchants and clergy who resided in Palestine and maintained close contacts with an increasingly western-oriented

local elite.¹⁵ In this respect Haifa, Nazareth and their environs were no different to the cities of Beirut, Jaffa, Jerusalem, and Alexandria, characterized by a relatively tolerant mosaic of religious and ethnic communities, including Muslim, Greek Orthodox, Latin Catholics, Druze, Maronites, Jews, Baha'is and Templar Germans.

Architecturally speaking, the celebrated legacies of the Tanzimat in Palestine can be divided into two groups: The first appears from the mid nineteenth century onwards, when the cities of Palestine were subjected to a spurt of development through which each of the European powers expressed its prowess and secured a stronghold in the holy land. In this process the cities of Jerusalem, Jaffa, Nazareth and Haifa were endowed with an array of public institutions, most of them under the auspices of religious establishments and causes. Such were the German protestant Schneller orphanage (also known as The Syrian Orphanage) built at the outskirts of Jerusalem in 1856; the Greek-orthodox church and pilgrim's hostel (known as 'The Russian Compound') in Jerusalem, built by Tzar Alexander II in 1860; the French Hospice in Jaffa, built in 1879 for the Sisters of Saint Joseph; and the nunnery of Notre-Dame du Mont-Carmel, built at the footsteps of Mount Carmel in Haifa 1888, to name but a few. Most of the edifices left by this era throughout the county are still associated today with the countries that sponsored them, and are widely considered as the celebrated markers of Europe's role in introducing social, institutional and technological progress into nineteenth century Palestine.¹⁶

Appearing on the scene circa 1900 the second group constitutes the Imperial projects of the Ottoman regime under Sultan AbdulHamid II. Perhaps the most celebrated of these projects was the ambitious Hejaz Railway, aimed at creating a direct connection between Istanbul and the pilgrimage destinations of Mecca and Medina in the Hejaz region of Arabia. This project, funded through popular subscription and treasury subsidies¹⁷ and executed with considerable German technical and financial support, came into fruition in the early years of the twentieth century. The laying of the 1600 km from Baghdad to Hejaz (with a branch line to Haifa) involved thousands of local employees, from builders and platelayers to site managers and engineers, and introduced innovative engineering and new building materials. It was, without doubt, one of the largest public projects of the era, and a major agent of progress and modernity.

Another imperial project, much smaller in scope but particularly well known for its deliberate assertion of the Ottoman empire's modernity, was the erection of seven clock towers in major Palestinian towns¹⁸ between 1901-1907, in celebration of the 25th anniversary of Sultan AbdulHamid II reign¹⁹.

These public high profile projects, documented and celebrated²⁰, well exposed to the public eye (and therefore continuously researched), demonstrate and establish a clear link between modernity, urbanization, European influence and progress. Yet at the geographical and cultural periphery of the empire, little known but nonetheless groundbreaking cultural exchanges constantly take place. The Tanzimat had indeed propelled local exposure to progress through large public projects and through the growing mobility of diverse communities from the mid nineteenth century onwards. Yet rather than introducing modernity and cultural interchange into an entirely traditional world, it was enhancing processes of reciprocal influence which were long underway, as will be demonstrated through the unexpected connection between the Carmelite Monastery project and its little side venture at the Monks' Mill.

Chapter Three: ‘Chimney’ Water Mills in Northern Palestine

Mount Carmel and the Sepphoris Valley²¹ are located in northern Palestine, a region that consists of rocky mountainous terrain dissected by long valleys. The area is rich with fertile land, hence the basic preoccupation of its population since prehistoric and ancient times with agriculture. Since the area is subject to a short rainy season, water availability has always been a prime consideration in the location of settlements and agriculture, determining the spread of human activities within the landscape. Many water resources, mainly springs, were utilized by man for personal use and irrigation. The remains of dams, canals, water reservoirs and aqueducts can be found scattered throughout the valley and the surrounding region, evidence to the sophisticated water supply systems built by past generations. Among these remains the chimney water mills stand out as the regionally typical, common and innovative local technology, which maximized local conditions of mountainous topography, fertile valley lands and water availability.

Grinding wheat into flour is one of the oldest and most important crafts made to fulfill the basic needs of human existence. Until modern times grinding was carried out using two stones, one on top of the other. The upper stone, called the runner, would move and crush the grains distributed on the lower stone, called the sleeper. In ancient times milling was performed manually, thus being a very difficult and inefficient process, motivating man to explore easier and more effective solutions to produce wheat. One of these solutions was the use of water power²².

Water mills can be divided into two main prototypes, depending on the water wheel²³ orientation, vertical or horizontal. It takes large quantities of water to set a vertical water mill in motion, whereas horizontal water mills, less challenged by gravity, require relatively small amount of water. It is therefore not surprising that most pre-industrial installations in western Europe, where water is generally plentiful all year round, contain a vertical water wheel, whereas in northern Israel, where streams are sometimes seasonal and less abundant horizontal water wheels were used²⁴.

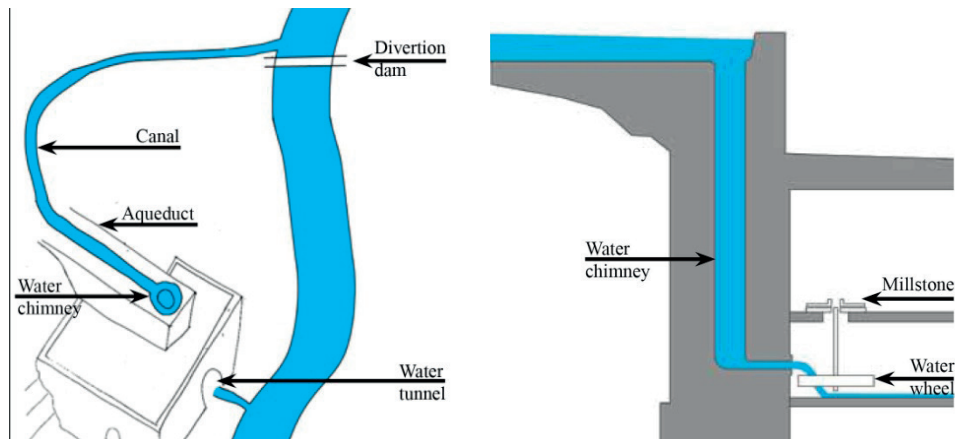


Image 3 - The basic scheme of chimney water mill (source: Monks' Mill survey)

Furthermore, innovative solutions had to be engaged in an area with unstable water supply in order to keep a high and constant water pressure running through the mill. The chimney water mill provided an innovative solution to this problem: by diverting the water stream from its natural course into a canal or aqueduct, and letting the water drop through high chimneys, the water would burst through a small hole in the bottom of the chimney and spin the horizontal water wheel by kinetic energy together with the pressure created by the height differences²⁵. In chimney watermills, the same amount of water can become four times more powerful than in regular watermills which depend only on the natural water flow of the stream²⁶.

The watermill and the olive press²⁷ were among the most important enterprises of the traditional Arab village²⁸. Located alongside the stream, far from the village's living quarters, they usually served a number of adjacent villages. Farmers often came to the mill from a distance and stayed there for a few days, waiting in the long seasonal queues. Thus the mill became a place for regional social gathering, for exchanging local gossip, news and ideas²⁹.

Historically, only wealthy land-owning families could own a watermill since building and maintaining it required funds and expertise. The distant and isolated mill, with its abundance of grains and wheat, was a magnet for gangs of robbers and only forceful owners, such as Emirs, government agents, and powerful rural families, were able to protect their customers³⁰. The operation of the mill was usually leased to a the highest bidding local, who in turn generated his income by charging the villagers a small percentage of their grain for his services. This system proved profitable to all parties involved, and was considered an attractive and worthwhile business enterprise up to the early twentieth century.

Chapter Four: The Monks' Mill: Development and Features

The Monks' Mill, situated on the banks of the Sepphoris Stream in northern Israel, is a double level chimney water mill, with two chimneys on each level. The water propelling the mill was diverted from a spring (Ras el Ein) two km up the Sepphoris Stream, and led by a water canal and an aqueduct to the upper chimneys of the mill. In northern Palestine it was one of the largest and most productive mills of its time, and it continued to function as a mill until the late 1920's³¹, well after most Ottoman mills.

When surveying a vernacular edifice such as a water mill, one usually encounters little to no written documentation regarding its construction or operation. Due to the unusual circumstances of the Monks' Mill reconstruction, its history is fortunately interwoven in the chronicles of the Carmelite Order in Haifa. The story, as told by Dumas and published in *La Presse* in 1837, focuses on Giambattista's endeavors and resourcefulness, and accordingly sheds an extraordinarily bright light on the mill's role as a financial investment, as well as on the technological ingenuity which was required to divert water to the hitherto abandoned mill.

The Monks Mill was built in several phases of which we know very little, and was in ruins when spotted by Giambattista on his journey (according to Dumas' account). Allegedly, it was his idea to use the water from 'Ras El Ein' spring in order to set the mills in motion again: "*He searched so well, that at the distance of a mile he found a spring, which by means of an aqueduct, he could make useful for his plans.*"³²

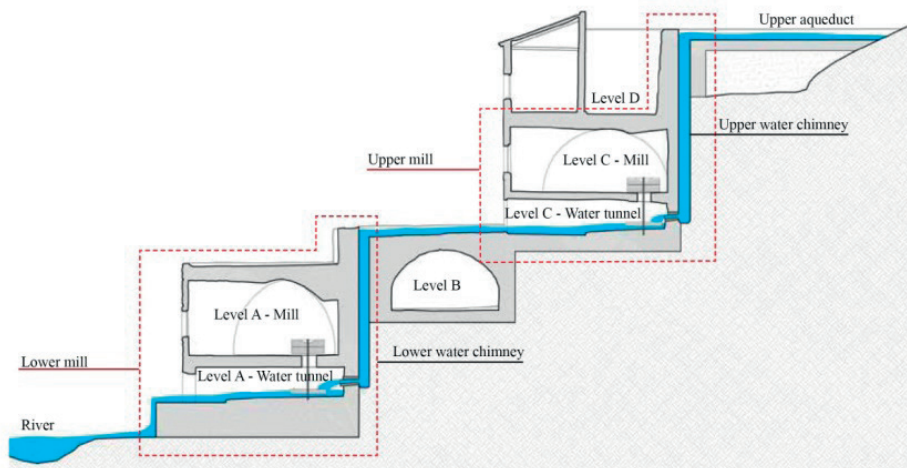


Image 4 - The Monks' Mill double chimney watermill system (source: *Monks' Mill survey*)



Image 5 - The Monks' Mill, 2012 (source: *Monks' Mill Survey*)

While Dumas and Wilson's accounts allude to Giambattista as the professional 'Scholar European' introducing the 'Local Indigenous' to new and advanced technologies, this paper argues that, without undermining the importance of Giambattista's idea, he was merely applying vernacular technologies prevalent in the region since ancient times. Indeed, it would seem that Giambattista's main achievement was the wise integration of those local technologies into his plans.

The remains of old chimney water mills scattered throughout the streams of Northern Israel provide ample testimony to an extensive, knowledge-based local industry, which in our case served as the basis of an exchange between local and foreign technologies.

The practice of using diversion dams to convey stream water through low grade canals, thus artificially enlarging the height differences, was common to many chimney water mills, such as the eighteen watermills and five diversion dams of Amud Valley³³. Similarly, the double-level mill was a well known local contraption. The Marfuka Mills, a mile downstream from the Monks' Mill, were double level chimney water mills with one chimney on each level. Water for these mills was also diverted by a dam not far from the Monks' Mill. Yet another chimney water mill, situated on the banks of the Zalmon stream, also has two levels of chimneys, and in the Farod valley, the remains of a three level chimney water mill are still evident.

Furthermore, the water supply system for old Sepphoris, built by the Romans during the 1st and 2nd centuries AD conveyed water from the foothill springs of Nazareth through two aqueducts, one carved and the other stone built, to an underground water reservoir. From here water flowed to the city of Sepphoris through a tunnel and an aqueduct³⁴.

These examples demonstrate that the Monks mill, albeit reconstructed by the Carmelites, was informed and inspired by well-established local building traditions, rich in advanced technological solutions. Nevertheless,, some features of the building, such as the unification of the two levels of chimneys and the entire grinding system to one comprehensive building, and the use of European round vaults instead of the typical pointed Ottoman vault, make the foreign influence well noticed and emphasizes the Monks' Mill uniqueness amongst the region's chimney water mills.

Chapter Five: Conclusion

By departing from the hegemonic narrative which portrays Europe as the 'agent of progress' which, in its role as an imperial power introduces new technologies to a retrograde Middle East, this paper joins more contemporary notions of a reciprocal encounter. It is rather a confluence between east and west involving different cultures, traditions, knowledge and expertise, which resulted in cross-fertilization and led to unique enterprises.

The watermill industry in Northern Palestine is one typical example of a vernacular yet highly sophisticated and ever evolving technology, stemming from universal human necessities as well as from the specific environmental conditions of the region. At the Monks' Mill, a western architect, one who masters traditional European building techniques interacted with this local knowledge. Western and Eastern building traditions were fused and integrated in the Monks' Mill features, and resulted in an innovative solution for water conveyance as well as in an outstanding mill building, to this day impressive and noticeable in its surrounding.

It is thus suggested that the mobility of 19th century Ottoman society brought together different communities connected by common financial or social interests; and that this development is reflected not only by high-profile, well-known and well-documented architectural projects, such as clock towers or foreign hospices, but also through remote rural sites such as the Monks' Mill. The absence of formal, western documentation leads to a presumption that wide progressions of modernity usually occur in the urban sphere, while the rural periphery continues to retain its traditional ways, oblivious to the winds of change and progress. And while the Tanzimât reformation of the mid nineteenth century did enhance the modernization of the region and its break from traditionalism, it is

through uncharted sites such as the Monks' Mill that we are reminded of the existence of cultural confluence and technological breakthroughs on the social and geographical periphery, absent from the broad strokes of history painted by western narratives .

Notes

- 1 the edifice (which was to replace an earlier building at a different location) had been under construction since the laying of its corner stone in 1767, see Carmel, 1969: 65-75
- 2 Not to be confused with father Giambattista di Sant-Alessio, the father architect who designed the now dilapidated monastery building during the 1760's.
- 3 Carmel, 1969: 75
- 4 **Hogg, 1835 (Vol II): 177**
- 5 Carmel, 1969: 75-76
- 6 von Mulinen, 1908: 126
- 7 At the beginning of the nineteenth century Haifa was a shore town of 2000 inhabitants at the footsteps of Mount Carmel. The new Carmelite Monastery was a solitary building at the very tip of the yet undeveloped mountain, and was at the time unparalleled in its size, majesty and viability, see Carmel, 1969: 101-103
- 8 To name some of these sources: John Wilson's '*The Lands of the Bible*' of 1847; Victor Guerin's '*Description Geographique, Historique, et Archeologique de la Palestine*' of 1880; the March-April 1933 volume of the Carmelite journal '*La Voix de Notre Dame du Mont Carmel*', where Dumas's account was re-published in full. Carmel (footnote in 1968:103) cites additional sources which recount Giambattista's project, although not all these mention the Monks Mill (for example Hogg's *Visit to Alexandria, Damascus and Jerusalem*. 1835).
- 9 in the 31st of May, 1837 edition of La Presse, 'Varietes' section, under the heading 'Frere Jean-Baptiste: Architecte du Carmel'.
- 10 Translated from the French by the authors, see original footnote in Saint -Sauveur, 1897: 197: "Lorsque le F. Jean-Baptiste visita Paris, en 1837, un celebre romancier de l'epoque, Alexandre Dumas, publia, le 31 mai 1837, dans le journal La Presse, en faveur de l'oeuvre du Carmel, un article qui, traduit en diverses langues, contribua puissamment a vulgariser l'oeuvre et a lui concilier les sympathies".
- 11 by 1837 the 1st storey of the rebuilt monastery was complete and inhabited (see Hogg, 1935: 175), and presumably so was the acquisition and renovation of the Monks' Mill.
- 12 For an example of embellishment, consider the description of Dumas as '*the famous novelist of the time*', which certainly was the case in 1897 when Saint-Sauveur wrote his history of the Carmelite order, but not in 1837, before Dumas published any of his novels.
- 13 Krämer, 2008: 71-76
- 14 Maoz, 1968: 211-212
- 15 Seikaly, p. 26-28.
- 16 For an example to this widely accepted point of view see Kroyaker, D, *Architecture in Jerusalem: Euro-Christian Construction Outside the Walls 1855-1918*, Keter Press, Jerusalem, 1987.
- 17 Shaw & Shaw, 1977: 227
- 18 Jerusalem, Jaffa, Nablus, Acre, Safed, Haifa and Nazareth.
- 19 For more on relationships between modernity and Ottoman temporality see in Wishnitzer, A, *Reading Clocks Alla Turca: Time and Society in the Late Ottoman Empire*, The University of Chicago Press, Chicago & London, 2015.
- 20 The Hijaz railway project was documented at the behest of Sultan Abdulhamid II by court photographer Ali Sami Bey, a graduate of the Imperial school of Military Engineering who was employed by the palace to document various Imperial activities outside Istanbul, see under *Ottoman Empire: Asia and Persia* (p.1037) in Hannavy's *Encyclopedia of Nineteenth-Century Photography*, Routledge, 2008.
- 21 During the 18th century Sepphoris valley was referred to as 'Wady el Melek', see for example Conder and Kitchener, 1881: 267 & sheet V.
- 22 Avitzur, 1992: p. 72
- 23 Water mills consist of a revolving wheel ('water wheel') which is operated by the force of flowing water, and in turn spins the 'runner'- the top stone.
- 24 Frenkel, 2003: p. 48-49
- 25 Avitzur, 1992: p. 75
- 26 Avitzur, 1972: p. 249
- 27 The place where olive oil was produced using an olive oil press.
- 28 Shufani, 1988: p. 102
- 29 Avitzur, 1972: p. 87
- 30 Shufani, 1988: p. 103

- 31 Avitzur, 1994: p. 393-394
 32 Wilson, 1847: 243-245 (footnote)
 33 Freundlich & Sha'altiel, 2006:1
 34 For additional information about these systems see the archaeological surveys of excavation seasons at the site of Zepphoris, such as by Y. Tepper (2013) and U. Berger & O. Barzily et al (2011).

References

- Avitzur, S. Daily life in the nineteenth century. Tel-Aviv: Am Ha-Sefer, 1972 [Hebrew].
 Avitzur, S. Installations in their Landscapes: Chapters in Industrial Archaeology in the Land of Israel. Tel-Aviv: Avshalom Institute, 1994 [Hebrew].
 Avitzur, S. Water Resources of the Land of Israel : Sources, Extraction and Ways of Utilization. Tel-Aviv: Avshalom Institute, 1992 [Hebrew].
 Carmel, A. The History of Haifa Under Turkish Rule, Haifa: Haifa University College, 1969 [Hebrew]
 Conder, C.R. and N.H. Kitchener, The Survey of Palestine: Map of Western Palestine in 26 sheets, sheet V and Memoirs of the Topography, Orography, Hydrography and Archaeology, Volume I (Galilee), sheet V, London: the Palestine Exploration Fund, 1880/1881.
 Freundlich, A. and Y. Sha'altiel, Water mills in Nahal Amud: Historic and Physical Survey, Israel Antiquity Authority, 2006 [Hebrew].
 Friedman, E. The Latin Hermits of Mount Carmel: a Study in Carmelite Origins. Roma: Teresianum, 1979.
 Frenkel, R. Mills and Querns in Talmudic Literature - A Reappraisal in light of Archeological Evidence, *Cathedra* 110 (2003), p. 43-60 [Hebrew]
 Hogg, E. Visit to Alexandria, Damascus and Jerusalem during the Successful campaign of Ibrahim Pasha, Vol II, London: Saunders and Otley, 1935
 Krämer, G., A History of Palestine: From the Ottoman Conquest to the Founding of the State of Israel, Princeton: Princeton University Press, 2008.
 Liberty-Shalev, R. The Monks' Mill: Historic and Physical Survey, Kishon Drainage Authority, 2012 [Hebrew].
 von Mulinen, E., *Beitrag zur Kenntnis des Karmels*, Leipzig: Baedeker, 1908 [German].
 Wilson, C. T., *The Lands of the Bible. Vol II*. Edinburgh: William Whyte and Co., 1847.
 Seikaly, M., *Haifa: Transformation of an Arab Society, 1918-1939*, London: Tauris, 2002.
 Saint-Sauveur, R.P.A., *La Sanctuaire du Mont-Carmel: Depuis son Origine Jusqu'à nos Jours*, Paris: Societe de Saint Augustin, 1897 [French].
 Shufani, A. "Water Mills" in Yedaya, M. and A. Gil (ed.), *Ma'aravo shel ha-Galil , Sulam-Tsur-Ga'aton : ha-Hug ha-ezori li-yedi'at ha-arets*, 1961 [Hebrew].