



The Arab Hospital: (Relational) Health as (Relational) Infrastructure

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Abstract

Through a synthesis of the hybridization found in historic Arab Hospitals alongside contemporary work from OMA and Renzo Piano Building Workshop (RPBW), this paper's argument evolves to first explore successfully integrated hospitals in both Türkiye and Iraq (8th century to 13th century). It then critically examines the argument made by OMA regarding the Western precedent of the "matchbox on a muffin" (tower on podium) which became (and still is) universal: that it suffers because of its lack of correct adaptability. The paper concludes with an analysis of both contemporary hospitals and provides a reading of both OMA's and RPBW's proposals that unites modern adaptability to the relational, dynamic, and patient-centered contexts of the historic Arab Hospital.

The paper argues that the design of the Arab hospital is not the result of "finding" a solution, but instead, one that allows for a process of relation that creates environments for healing. It is through this sequence that historic Arab Hospitals were (and still are) uniquely patient-centered, as integrated into its local healing culture as much as its building culture.

Introduction

A hospital is one of the few typologies of architecture that accept the human condition in a less than idealized state. They are places designed and built to heal it. The typology also accommodates a vast range of temporal liminality. It is temporary for patients, functional and precisely organized for doctors, nurses, medical students - for whom the hospital is a place of study and occupation, often for a career that spans decades.

It is still your period, I mean it is your inheritance...Now in the push of modernism, modernization, that ancient strength should not be weakened and lost and that background of your own culture should now be developed so genuinely, so broadly and so individually that it still has so many phases of beauty that no architect should come here and put a cliché to work.¹

1 - As quoted, Frank Lloyd Wright included this within a lecture given on 22 May 1957 to the Society of Iraqi Engineers in Baghdad. For further analysis on his

إلى الذين يعانون،
إلى الذين يطببون،
إلى الذين يديرون،
عسى أن يكون في هذا المثال من
التواصل بين الأصالة والحداثة
عبرة في النفوس

2

speech and work while there, see:

Joseph M. Siry, "Wright's Baghdad Opera House and Gammage Auditorium: In Search of Regional Modernity," *The Art Bulletin* 87, no. 2 (2005): 265-311, <https://doi.org/10.1080/00043079.2005.10786240>.

2 - Salīm Ḥasanīyah, *Min Al-Bīmāristān Ilā al-Mustashfā : Dirāsah Taḥlīliyah Muqāranah Lil-Niẓām al-Idārī* (Wizārat al-Thaqāfah fī al-Jumhūrīyah al-'Arabīyah al-Sūrīyah, 1998). 3.

This paper explores the history of this typology and its relational influence across and beyond the Arab world. The history of the Arab hospital contains a prescient understanding of the local context, modern prefabrication, but also to the needs of the patient. The architecture of a hospital then becomes one of the techniques of healing, alongside the ability to accommodate and support patients holistically, in treatment that was innovative and non-discriminatory. Its distinctions are its relations: to context and to patient. For example, within the description of the Al-Mansūrī Hospital in Baghdad (978-1258), the first description of patient care is “the patients were treated kindly.” Further, when the hospital was renovated to increase the number of patient beds by Caliph al-Qā'im bi Amrillāh in 1057, “a beautiful garden was established by the side of the hospital and included a variety of fruit trees and herbs. Boats would transport, along the canals in the hospital grounds, patients who were unable to walk from one section of the hospital to another.”³

As described by University of Paris professor of Philosophy Frédéric Gros, the argument is sourced to the historic understanding of *medicine* itself in the middle ages, how illness existed within the hospital. He writes how (in comparison to how medicine was taught in Europe) “it is not, between here and there, the same medicine we are dealing with: the medicine of the East,

DeepL Translation to English is:

To those who suffer,
To those who heal,
To those who lead,
May this example of
the harmony between tradition and modernity serve as
a lesson to us all

3 - Muhammad Ibrahim Hafiz Ismail Surty, *Muslims' Contribution to the Development of Hospitals* (Qur'anic Arabic Foundation, 1996). 64.

[which is] situated within the relative proximity of the ancient heritage, conceives itself as an art of encounter, the attentive application to suffering, the clinical gentleness of being seen.”⁴ This can also be seen in how historic Arab leaders saw their own hospitals function. The hospital functioned ecologically with the site, patient and provider. Interdependence as we see in an early Arab hospital becomes the pathway towards healing.

The Many Forms of Adaptability Within the Historic Arab Hospital

Another component of the relational exchange occurring between site and patient: the hospital's location was often dynamic. As we can see within Surty's text, numerous examples exist where the *hospital* itself travelled (surgeons, physicians, medicines, drugs) to the house of the patient, if requested. The earliest documented date of this is 716 in response to Caliph al-Muqtadir's Minister, Alī bin 'Īsā al-Jarrāh's direction for teams of doctors to travel into rural villages beyond Baghdad. Surty's argument is clear: “the provision of public health facilities into rural areas by the State was probably the first of its kind in the world...its implementation indicates the concern the State had for public health...and the existence of a large number of qualified physicians.”⁵

4 - Frederic Gross writing in the preface of: Françoise Cloarec, *Bimâristâns, Lieux de Folie et de Sagesse : La Folie et Ses Traitements Dans Les Hôpitaux Médiévaux Au Moyen-Orient* (L'Harmattan, c1998). 10.

Translated from the original French. I have used Google Lens to assist in translating. The original text is: “Car ce n'est pas, ici et là, de la même médecine qu'il s'agit: la médecine orientale, prise dans la proximité relative de l'héritage antique, se conçoit comme un art de la rencontre, l'application attentive à la souffrance, la douceur clinique d'un regard.”

5 - *ibid.* 61-62,67, 69-70.

In this sense the hospital's presence is a metonym for the Arab city. Janet L. Abu-Lughod reminds us that the Arab city "is not a form". It is a process. The same could be said about the Arab hospital. The process of engaging with the hospital - is the hospital. Of the many contributing forces Abu-Lughod lists within her book, "terrain / climate; a technology of production, distribution and transportation; and a system of social organization" all have an applicable force of relation in the hospital, especially when considering these were often teaching hospitals.⁶

6 - Janet L. Abu-Lughod, "The Islamic City—Historic Myth, Islamic Essence, and Contemporary Relevance,"

As seen in the previous examples, the Arab hospital functioned as a dynamic and interrelated *infrastructure* that fundamentally allowed coexistence, both with the site, but also, as documented, by faith as well. Found within *Health Sciences in Early Islam* we find the following description:

Even more remarkable is the fact that Christian physicians who belonged to the Eastern churches were employed together with other non-Muslim minority groups on an equal basis with their Muslim colleagues

International Journal of Middle East Studies 19, no. 2 (May 1987): 162. <https://www.jstor.org/stable/163352>.



Figure 01. The Courtyard of the Healing Center. The small corridor near the entrance leads to the Mental Asylum. Abdullah Kılıç, Kayseri Gevher Nesibe Şifahanesi ve Tıp Medresesi 1206 = Kayseri Gevher Nesibe Hospital and Medical Academy 1206 (Medical Park Hastanesinin kültür hizmetidir, 2007). 34.

in these institutions in a complete spirit of cooperation as a team. They performed commendable services according to their qualifications...and received no discrimination on account of their faith.⁷

Examples of a dynamic and contextual public health architecture can also be found during the Ottoman Empire's rule. These include the extensively documented Gevher Nesibe Medical Madrasah (Teaching Hospital) and Asylum in Kayseri, Türkiye (1206 AD) and the first prefabricated hospital, Renkioi, The Allied British Army's military hospital, built during the Crimean War (1855). Both show an engagement with technology and are in dialogue with, but do not copy, precedent hospital administration from the west.

By focusing on the Gevher Nesibe Hospital first, we will see how the specific term used to describe Seljuk hospitals, *Darüşşifas*, is itself rooted in a process of localized hybridization. As Prof. Dr. Ali Haydar Bayat describes in *Kayseri Gevher Nesibe Hospital and Medical Academy 1206*:

Darüşşifas are the extension of Islamic medicine in the Seljuk territories which were improved through vast experiences and wide knowledge in the centuries it was applied... the gates opened to Anatolia especially after the victory of Alp Arslan [...] in 1071...Anatolia was a bridge between northern and southern as well as eastern and western trade routes...All of these contributions led to the increase of the state's revenue...The accumulated income was spent on public works in the country⁸.

Trade brought commerce and wealth; exchange brought hybridity. Through this hybridity, cities on the major trade routes became a critical infrastructure, and within them, hospitals were a critical node. An understanding of the evolution of their interrelated program can be traced through the names for the facilities themselves. Based on location, the hospital was "defined by the word Maristan (meaning asylum)...a compound word in Persian language: *Mâr* meaning 'snake', the symbol of health and medicine, and *Stan* meaning 'place or location.'⁹ However, there are numerous other names which appear in the Ottoman Empire when exploring public health institutions: *bîmaristan*, *dârû's-sihha*, *dârû's-sifa*, *dârû's-l-âfiye*, and *dârû't-tib* (combined hospital and teaching hospital nutrition center, health center, treatment center, and medical center), respectively.¹⁰ The hospital, then, became relational to the needs and demands of the exact version required for the community. In the case of Gevher Nesibe, the local context of Kayseri, one of the oldest cities of Anatolia, showed an interesting synthesis beyond local precedent:

[M]ost architectural works [...] were built as a complex of buildings with a mosque and public bath within [the complex]...Medical academies (madrasah) had usually been planned apart them...With all its baths and other units, Gevher Nesibe (1204-1206) had been planned as a whole, not as an [isolated] medical academy...It had an application or practice hospital, mental disorders department, operation theatre, pharmacies, classrooms, students halls and patient wards.¹¹

7 - Sami K. Hamarneh, *Health Sciences in Early Islam*, ed. Munawar A. Anees, 2 vols. (Blanco, TX: Noor Health Foundation and Zahra Publications, 1983), 1:105.

8 - Abdullah Kılıç, *Kayseri Gevher Nesibe Şifahanesi ve Tıp Medresesi 1206 = Kayseri Gevher Nesibe Hospital and Medical Academy 1206* (Medical Park Hastanesinin kültür hizmetidir, 2007). 13-14

9 - Ibid. 21

10 - Ibid.

11 - Ibid.25.

No longer was the approach to hybridity mobile, such as the examples discussed previously. Here, the hybridity was liminal and explored how public life could infuse into a hospital. As seen in Fig. 02, the program was mixed with a very clear understanding of the diversity of uses a teaching hospital requires, alongside public facilities such as a hamam (public bathhouse) directly on the exterior of the 2800m² building - accessed discretely upon entering the Şifahane, Healing Center. The Medrese, Teaching Hospital is adjacent, separated by a nearly complete separating bearing wall. When it is broken, as we locate in plan north, the 1m wide E/W spanning corridor indicates another intricate passage for physicians, and those studying. The teaching was dialectical, hybridized with treatment in the Şifahane, as well as the *Akl hastalıkları*, the mental asylum.

The pairing of density and expansion is evident across the [68mx42m] complex. For example there are many rooms of a similar size. The use of intentional congregational space offsets this density through two contextually sized courtyards. What is fascinating is the demarcated efficiency of the vaulted rooms surrounding these courtyards. Each is differentiated between both wings of the building. The entrance portals utilize the efficiency in a clear architectural way: marking

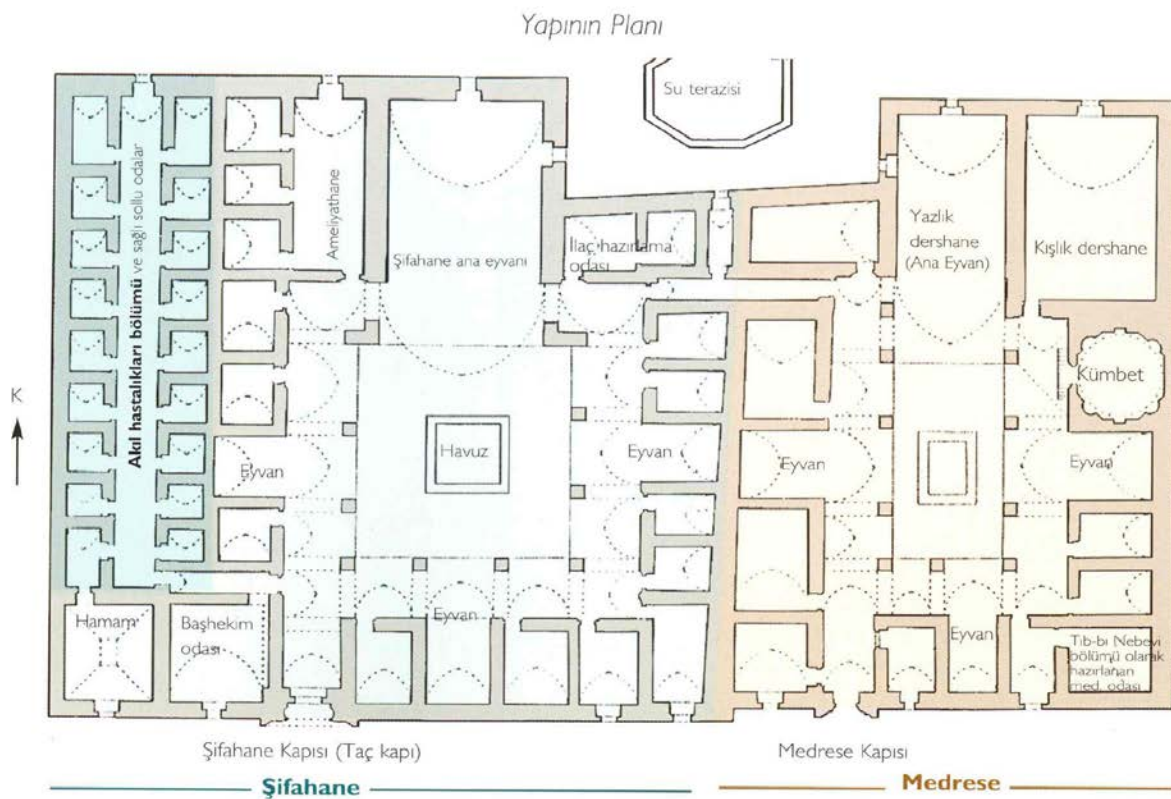


Figure 02. Plan of Gevher Nesibe Hospital and Medical Academy: Şifahane, Healing Center. The Medrese, Teaching Hospital. Abdullah Kılıç, Kayseri Gevher Nesibe Şifahanesi ve Tıp Medresesi 1206 = Kayseri Gevher Nesibe Hospital and Medical Academy 1206 (Medical Park Hastanesinin kültür hizmetidir, 2007). 27.

the procession into the space. As Abdullah Kiliç writes, this ability to respond to the procession of patients was unique when compared to overlap of physician circulation. "The portal does not lie on the longitudinal axis of construction; it lies along the axis of the colonnade..." which forms the primary entrance. This subtle blending of circulation and planning allows for all of the dueling complexities of a mixed-use program consisting of spatial ingredients requiring a subtle understanding of circulation, privacy, and function. Not only are mental disorders acknowledged and included in the program, they are planned in a humane way - something concurrently nonexistent in Europe, where patients were completely isolated from society.¹² Directly adjacent to the asylum is a public bath, discretely placed at the corner of the building. One of the treatment methods was live music, played into the asylum via open holes in the patient's room.

This treatment method then also becomes a therapeutic method *in relation* to the public hamam. This separation of ingress/egress and overlapping privacy is fundamental to the organization of the hospital, to its spatial flow, and beyond that, programmatic responsibility; it utilizes a hybridity of spatial sequencing to achieve it.¹³

East / West Hybridity as Prefabrication

A different form of adaptability appears further into the Ottoman Empire's rule, the first prefabricated hospital in the world, the Military Hospital in Renkioi, Türkiye. Following a winter of fighting and increasing sick levels in the army, the hospital at Renkioi was designed by Isambard Brunel and was managed by Dr. Edmund Al-

exander Parkes. In her book *Beyond Nightingale: Nursing on the Crimean War Battlefields*, Carol Helmstadter describes how the hospital was designed in eight days, situated in a part of the Dardanelles, and overlooked the Sea of Marmara. It had 1,000 beds that were initially planned for, but the capacity expanded to 2,250. There was a sewer system carrying waste in wooden pipes alongside an infrastructure of fresh-water. 25,000 gallons-a-day were the requirements. There was a quarter-mile-long railway connecting the pier to the hospital. In summary, this was a modern war hospital which in itself represented a modern application of technology for a very specific purpose - rehabilitation for battle.¹⁴

Considering this hospital was built in Türkiye and designed in England for British troops, the relationship to the site initially appears more as a field condition, wherein soldiers are quickly healed to return to battle, than it does to local and temperate climate.

However, through the consideration of the hospital's layout - fresh seaside air was mechanically introduced - an argument appears for understanding the prefabrication's spatial grid as something inherently situated to the specific site. As Gillian Howard argues:

Each separate building unit was constructed from wood...the same size and shape so that with an infinite length of open corridor to connect them, they could be arranged in any form to suit the levels and shape of the ground. A unit consisted of two wards, one nurse's room, a small storeroom, bathroom, surgery, lavatories and ventilating apparatus....By forcing the air into the room (positive pressure) it prevented the ingress of bad air from drains, WC's etc. In addition to this, a very simple provision was

12 - See Footnote 32. Source text is: Kayseri Gevher Nesibe Şifahanesi ve Tıp Medresesi 1206 = Kayseri Gevher Nesibe Hospital and Medical Academy 1206 (Medical Park Hastanesinin kültür hizmetidir, 2007). 3.

13 - Abdullah Kiliç, *Kayseri Gevher Nesibe Şifahanesi ve Tıp Medresesi 1206 = Kayseri Gevher Nesibe Hospital and Medical Academy 1206* (Medical Park Hastanesinin kültür hizmetidir, 2007). 32.

14 - Carol Helmstadter, *Beyond Nightingale : Nursing on the Crimean War Battlefields*, Nursing History and Humanities (Manchester University Press, 2021), 4074901, eBook Comprehensive Academic Collection (EBSCOhost), [https:// research.ebsco.com/linkprocessor/plink?id=af2ecffb-b3e4-3af6-a7b4-bae32e32c6a2](https://research.ebsco.com/linkprocessor/plink?id=af2ecffb-b3e4-3af6-a7b4-bae32e32c6a2).

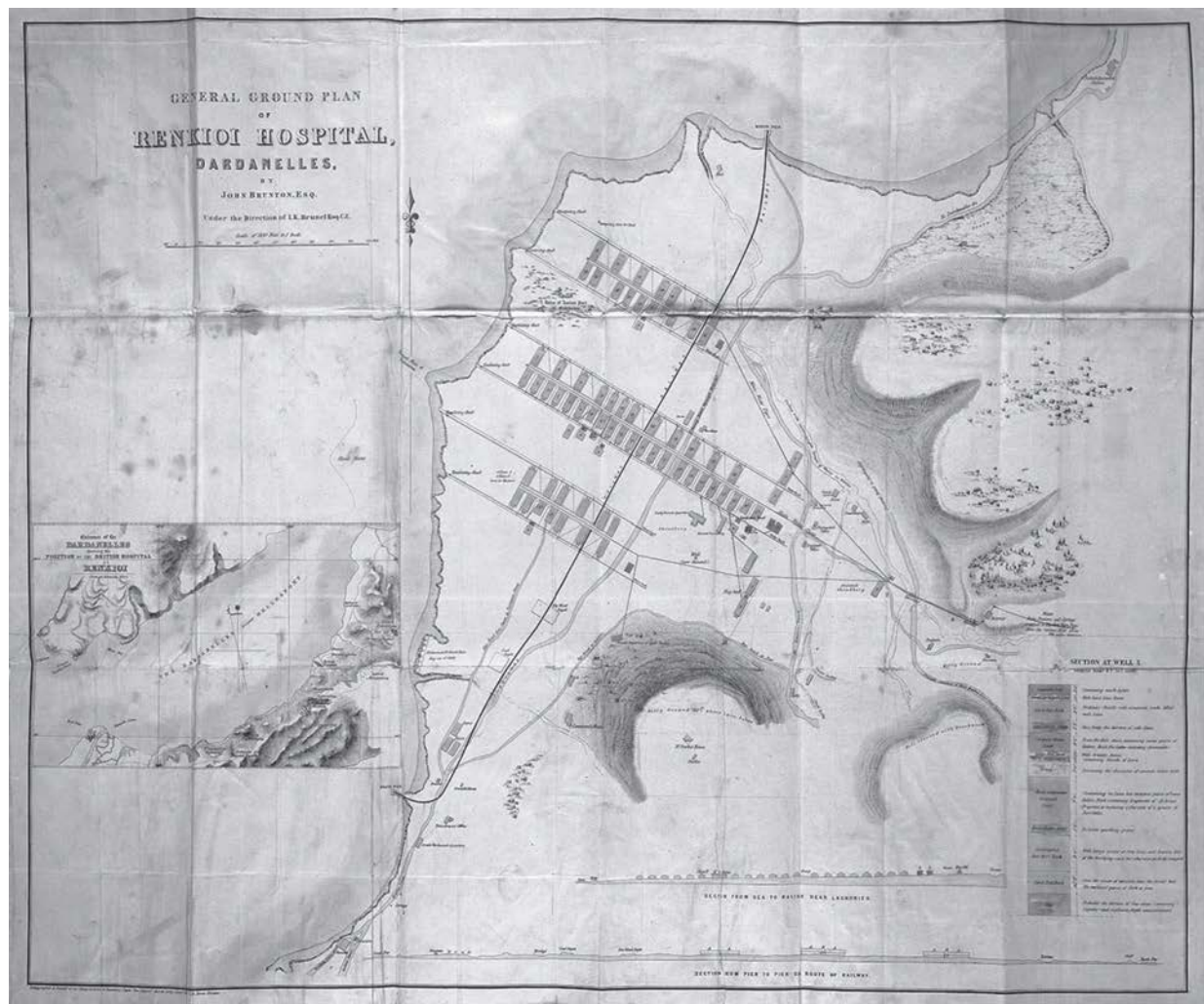


Figure 03, "A map drawn by John Brunton showing the layout of the innovative pre-fabricated Renkioi Hospital designed by Isambard Kingdom Brunel." For more see: Radosław Achramowicz and Przemysław Kiełb, "Evolution of Field Hospitals as an Architectural Response to Modern Threats.," *Housing Environment / Środowisko Mieszkaniowe* 49, no. 4 (2024): 124–38, 183114701, pp. 126, Central & Eastern European Academic Source, <https://doi.org/10.2478/he-2024-0033>.

made for passing the air over a considerable area of water surface that would not only help to cool it but also reduce the effect of the excessive dryness of the climate.¹⁵

15 - Gillian Howard, "Pioneer of Prefabrication - Brunel's Hospital at Renkioi - Brunel Museum," The Brunel Museum, accessed April 3, 2026, [https://the-](https://the-brunelmuseum.com/hospitalatRenkioi/)

The hospital hybridized planning and prefabrication as the primary argument for its construction.¹⁶ Another

[brunelmuseum.com/hospitalatRenkioi/](https://the-brunelmuseum.com/hospitalatRenkioi/).

16 - Radosław Achramowicz and Przemysław Kiełb, "Evolution of Field Hospitals as an Architectural Response to Modern Threats.," *Housing Environment / Środowisko Mieszkaniowe* 49, no. 4 (2024): 124–38,

innovation seen by the west was its administration of staffing: female nurses were, for the first time, tasked with patient support. Carol Helmstadter shows how through this war and its new approach to hospital design, it “shaped the beginning of female military nursing and, in the West, female nursing in general.”¹⁷ However, as documented in *Health Sciences in Early Islam*, Sami Khalaf Hamarneh writes that in the Arab world this had already occurred. First, in 831 the ad-Dimnah hospital in al-Qayrawan, the capital of modern-day Tunisia - followed by a hospital in Jerusalem’s ad-Dabbaghah quarter in the 11th century.¹⁸ In light of this, the adaptability and non-segregated employment extended into the occupational aspect of a hospital as much as its architecture.

A Brief History: Adaptable Hospitals in the West

The adaptable hospital is not unique to the Middle East, though it can be argued it is there where it first appeared. As Reinier de Graaf and Alex Retegan point out, the Western approach to adaptability in health

care has been explored since the 1960s.¹⁹ John Weeks and Gordon Best argued extensively for an adaptable approach to modern hospital design while presenting at the American Hospital Association’s Institute on Hospital Design, Chicago, June 1970:

[ongoing research has] confirmed a general view that the traditional basis for hospital design loosely defined as a “matchbox on a muffin” [tower on podium] is an incorrect format. So explosive are the forces leading to growth and so all pervasive are those which lead to change in complex institutions that a traditionally conceived architectural concept of a building fitting closely a particular set of functions cannot have relevance. We take the general view that (1) hospital buildings should never be complete ... and

(2) that an envelope fitting particular functions rather loosely should be standardized for use as widely as possible throughout a complex.²⁰

Through a synthesis of the hybridization found in the Arab Hospitals discussed at the beginning of this paper and the argument of the adaptable hospital as an architectural imperative, this paper’s argument evolves to first explore and critique the Western precedent of the “matchbox on a muffin” (tower on podium) which became (and still is) universal. The paper argues that the design of an Arab hospital creates an environment for healing that was (and still is) uniquely patient-centered, as integrated into its local healing culture as much as its

183114701, pp. 124–38, Central & Eastern European Academic Source, <https://doi.org/10.2478/he-2024-0033>.

17 - Carol Helmstadter, *Beyond Nightingale : Nursing on the Crimean War Battlefields*, Nursing History and Humanities (Manchester University Press, 2021), 4074901, eBook Comprehensive Academic Collection (EBSCOhost), <https://research.ebsco.com/linkprocessor/plink?id=af2ecffb-b3e4-3af6-a7b4-bae32e32c6a2>. 05.

18 - For the hospital in Modern-Day Tunisia, “Sudanese women were employed to serve in the wards and among the patients as nurses.” And, for the hospital in Jerusalem, “by the end of that century [the 11th], it grew into a great establishment which had in addition three beautiful churches, a place for the knights, and a convent for the nursing sisters.” For more see: Sami Khalaf Hamarneh, *Health Sciences in Early Islam: Collected Papers* (Zahra Publications, 1983). 101-103

19 - Reinier de Graaf and Alex Retegan, “Treatment - The Hospital of the Future,” *E-Flux Architecture*, accessed February 14, 2026, <https://www.e-flux.com/architecture/treatment/650606/the-hospital-of-the-future>.

20 - I want to point out this source was first documented in Reinier de Graaf’s and Alex Retegan’s essay “Treatment.” See preceding Footnote. John Weeks and Gordon Best, “Design Strategy for Flexible Health Sciences Facilities,” *Health Services Research* 5, no. 3 (1970): 264.

building culture. So much so that “adaptable” Hospital architecture in the middle of the 20th century in the West failed to understand how to implement flexibility in a patient-centered framework seen throughout the Arab examples discussed earlier. As Reinier de Graaf and Alex Retegan argue:

[the hospitals designed by Gordon and Weeks] were not a success. The departments that were deemed likely to expand didn't. [Northwick Park Hospital's] 6.9-meter structural grid impeded the transformation of the inpatient rooms to later standards. The 3.55-meter floor-to-floor height was too low to accommodate new HVAC equipment. Thirty years later, the hospital was obsolete, and is now classed as being in urgent need of significant work.²¹

The problem was not only a lack of foresight into modern (Western) demands of modern (Western) health care (HVAC, coordination of infrastructure), but also a fixation on determining what aspects of the program were to be adaptable first. It is ironic that Weeks and Best placed so much emphasis on adaptability when (as we can see in the quote above) the structural grid underpinning the entire basis of expansion could not handle an evolution of the *same* type of architectural program.

A Return to Hospitals as Adaptable Infrastructure : UAE and Qatar

Two 21st-century hospitals in the UAE and Qatar aim to break this mold: Jawaher Boston Medical District in Sharjah, UAE (designed by RPBW, Figure 04), and the Al Daayan Health District in Doha, Qatar (designed by OMA, Figure 05). As both projects' images show, there is an immense amount of liminal/ transitional/ “green” space in both proposals.

21 - Reinier de Graaf and Alex Retegan, “Treatment - The Hospital of the Future,” E-Flux Architecture, accessed February 14, 2026, <https://www.e-flux.com/architecture/treatment/650606/the-hospital-of-the-future>.

These contemporary examples re-interpret an engagement with this through an expansive scope of modules that constantly reflect programs into adaptive co-habitation with the environment.

Similar to how the previous Arab Hospitals in this paper explored circulation as a relational technique, both OMA's and RPBW's projects leverage this architectural unfolding as a metonymic concept, one that constantly pulls users and patients into contact with the environment as a healing technique. The process of engaging with the Arab hospital then also becomes how one heals.

Both employ high-tech urban agriculture and modify the microclimate by way of a large transparent parasol (RPBW) and a mosaic of courtyards (OMA), adjacent to circulatory zones of movement. Reading the press brief from BEEAH, the developer behind the RPBW project, “The design features a special focus on the forest, distinguishing the Jawaher Boston Medical District as a holistic healthcare destination that prioritizes the crucial role of nature in promoting healing and well-being.”²² The documentation of this is shown via highly *rendered*, (they are proposals...not yet built) programmatic green space. However, it is still noteworthy that both architects place an emphasis on urban and highly technocratic ecological infrastructures (OMA) alongside highly technical adaptability. It is both local and specific where the relations exist between the human and nonhumans in an infrastructure designed to support that growth within a largely arid climate

22 - “Jawaher Boston Medical District | Middle East | BEEAH Healthcare,” BEEAH Group | UAE, accessed February 14, 2026, <https://www.beeahgroup.com/services/jawaher-boston-medical-district/>.



Figure 04. "A new model for the hospital of the future." Architects: Renzo Piano Building Workshop. Source: RPBW and Renzo Piano Building Workshop, "Jawaher Boston Medical District," accessed February 15, 2026, <https://www.rpbw.com>.

(RPBW).^{23, 24} It is a strange looping argument they both subtly use as a foundation for each scheme: without their proposed architecture, the proposed ecology would not survive.

23 - Reinier de Graaf, "Radical Flexibility Is the Next Level of Mixed Use," interview by Frank Kaltenbach, DETAIL Magazine GmbH, September 2023, Published within DETAIL Magazine, p. 23-26, <https://inspiration.detail.de/en/article/radical-flexibility-is-the-next-level-of-mixed-use-6138>.

24 - "Jawaher Boston Medical District | Middle East | BEEAH Healthcare," BEEAH Group | UAE, accessed February 14, 2026, <https://www.beeahgroup.com/services/jawaher-boston-medical-district/>.

Specifically, the OMA hospital seen below in Figures 05 and 06 is located on the periphery of Doha, Qatar. De Graaf and Retegan underscore how little land is available to cultivate agriculture: less than 2% of the country. Their argument is for the same effect of relational health infrastructure qua ecology - but beyond species selections that create an immersive forest, as in the RPBW project.

Here, courtyards are the constant bridge between the nonhuman as healing space. It is not a mild proposal. Spatially, it has immense presence in the scheme: consider the amount of green courtyards shown in Figure 05. Over half of the square area is shown as planting. As De Graaf and Retegan write, "Our ['modules'] measure 4,000 [sic] square meters, enough to host either

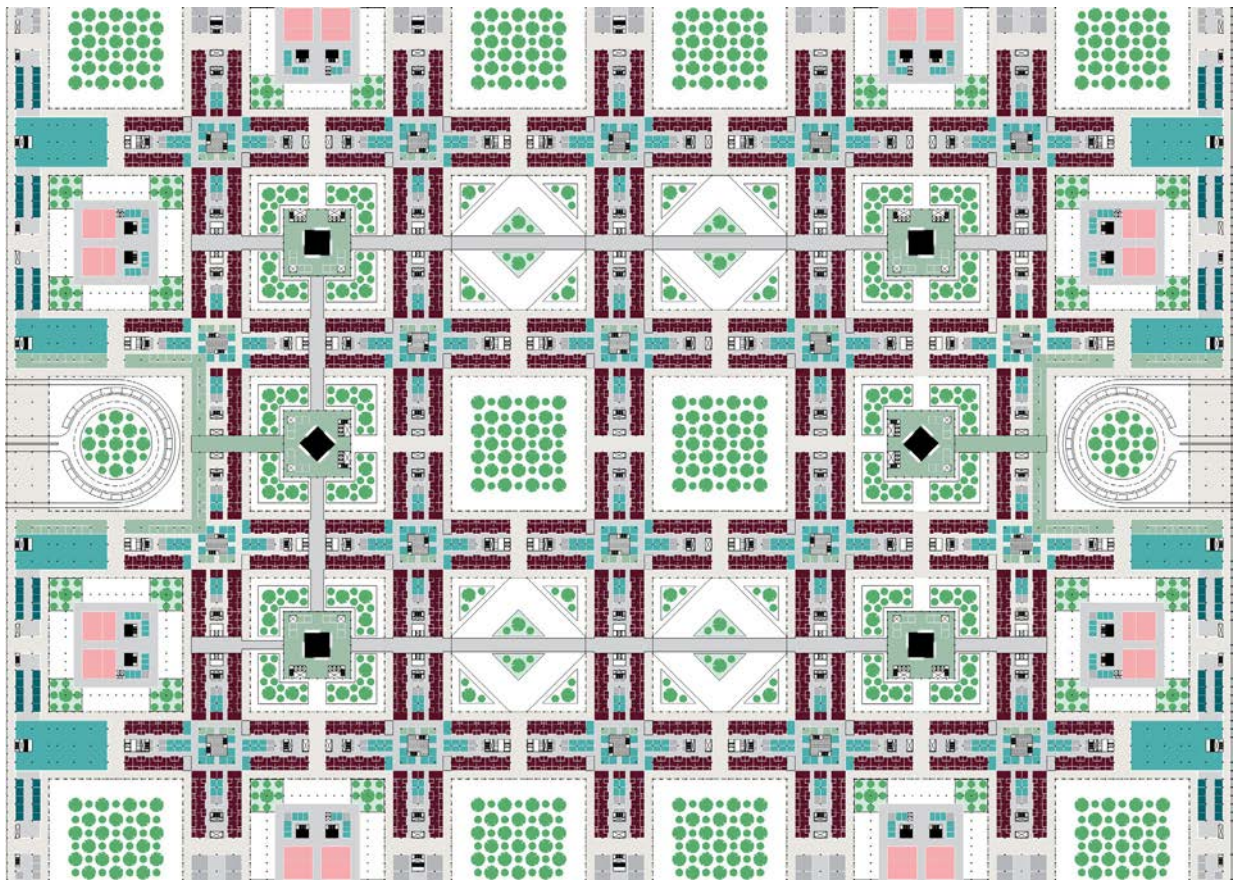


Figure 05. Al Daayan Medical District, outside of Doha, Qatar. Prefabrication, An Urban Farm, An On-Site Energy District. Architects and image: OMA. Accessed from: Reinier de Graaf and Alex Retegan, "Treatment - The Hospital of the Future," E-Flux Architecture, accessed February 14, 2026, <https://www.e-flux.com/architecture/treatment/650606/the-hospital-of-the-future>.

inpatient rooms or clinical facilities... in direct contact with the outdoor space." They promote the flexible *adaptability* through the use of in-situ robots to accomplish this task, alongside others: an organized distribution of goods through the complex.²⁵ It is difficult to confirm these intents beyond analysis on the published drawings which rely heavily on renderings - there are

25 - Reinier de Graaf and Alex Retegan, "Treatment - The Hospital of the Future," E-Flux Architecture, accessed February 14, 2026, <https://www.e-flux.com/architecture/treatment/650606/the-hospital-of-the-future>.

no architectural plans indicating program or functional use of rooms at a more articulated scale beyond Figure 05.

Yet, if we accept the premise that these are preliminary studies indicating *intent*, it is through these forces we can allow the architecture itself to unfold the myriad of complexities facing modern health care design, of which De Graaf and Retegan name many: labor shortages, supply chain challenges, and most critically, *adaptability*.²⁶ Another facet worth writing: these are

26 - Ibid.

infrastructural nodes for a country: they are not museums. It seems both obvious and important to write this: a hospital is not a place one chooses to visit in full health. More than any other marketing line underwriting these proposals, they are *local* infrastructure. However, this point must not overlook the argument made by Annmarie Adams in the April 2025 edition of *Architectural Review*, wherein she writes that this acceptance of the intent of a chosen “reinterpretation” of a project’s typology cannot be accepted at face value without a more critical analysis. She writes:

Such claims of reinventing the hospital are mostly framed in selective perspectives on the architectural history of the building type. Jacques Herzog, co-founder of Herzog & de Meuron who have designed numerous hospitals, claims that architects have been excluded from healthcare design... According to De Graaf and Retegan, the wrong architects have designed hospitals. ‘There used to be a time when architects such as Otto Wagner, Tony Garnier, Louis Kahn and Le Corbusier would take on a commission to design a hospital. The latter’s unbuilt Venice Hospital (1965) is probably the last attempt by an avant-gardist to construct a hospital,’ they claim. Le Corbusier’s design for a hospital for Venice was famously windowless.²⁷

There are an innumerable number of users and demands placed upon the hospital. A complex synthesis of functions requires the architecture to be both precise and adaptable. Reflecting this challenge in the presence of Annmarie Adams’ argument - one can view the OMA and RPBW proposals as siblings to the state-funded, large, and newly marketed future projects, often reliant on an avant-garde, curated, architectural logic of history to justify their spatial and temporal

purpose.²⁸ However, when zooming out to a regional scale, informed by the Arab Hospital’s history discussed throughout this paper, a counterargument presented by our professor, Amale Andraos, is powerful: The challenge, then, is to avoid simplistic explanations of any sort. In fact, in the rise of these new cities²⁹, we can glimpse a struggle for both regional power and the nature of its makeup.³⁰ We are presented with ways to engage modernity but with a conservative underpinning that circumvents democracy. In this struggle, ethnicity, tradition, and religious identity are set as the foundation for new transnational formations, variously moderate or extreme as they may be. Using form and content, architecture is expected to reconcile competing forces.

Buildings must go up and their forms must, by necessity, involve some kind of settlement.

Within the scope of this paper’s argument, the task of the architect is to leverage this hybridity in an extremely challenging typology - as an opportunity. We are reminded that “on average, a new hospital takes 5 years to build...and, paradoxically, the body of knowledge in healthcare doubles every 72 hours...[it then is an accepted truth for every architect with a hospital

27 - Annmarie Adams, “The Hospital of the Future?,” *The Architectural Review* (London), April 2025, 102–5, 3194760659, pp. 102–5, Agricultural & Environmental Science Collection; ProQuest Central; ProQuest Digital Collections. 105.

28- For further analysis please see: Ahmed Kanna, *Dubai, The City As Corporation* (University of Minnesota Press, 2011), <https://clio.columbia.edu/catalog/8857488>.

29 - I reprise again the argument presented earlier in the paper that the Arab hospital becomes a metonym for the Arab city via the argument of Janet Abu-Lughod. See Footnote 6.

30 - As quoted in the original: “[footnote 4] See Mitchell 2011.” See: Amale Andraos, “Problematizing a Regional Context Representation in Arab and Gulf Cities,” in *The New Arab Urban: Gulf Cities of Wealth, Ambition, and Distress* (New York University Press, 2019), <https://clio.columbia.edu/catalog/ebs19616210e>. 61.

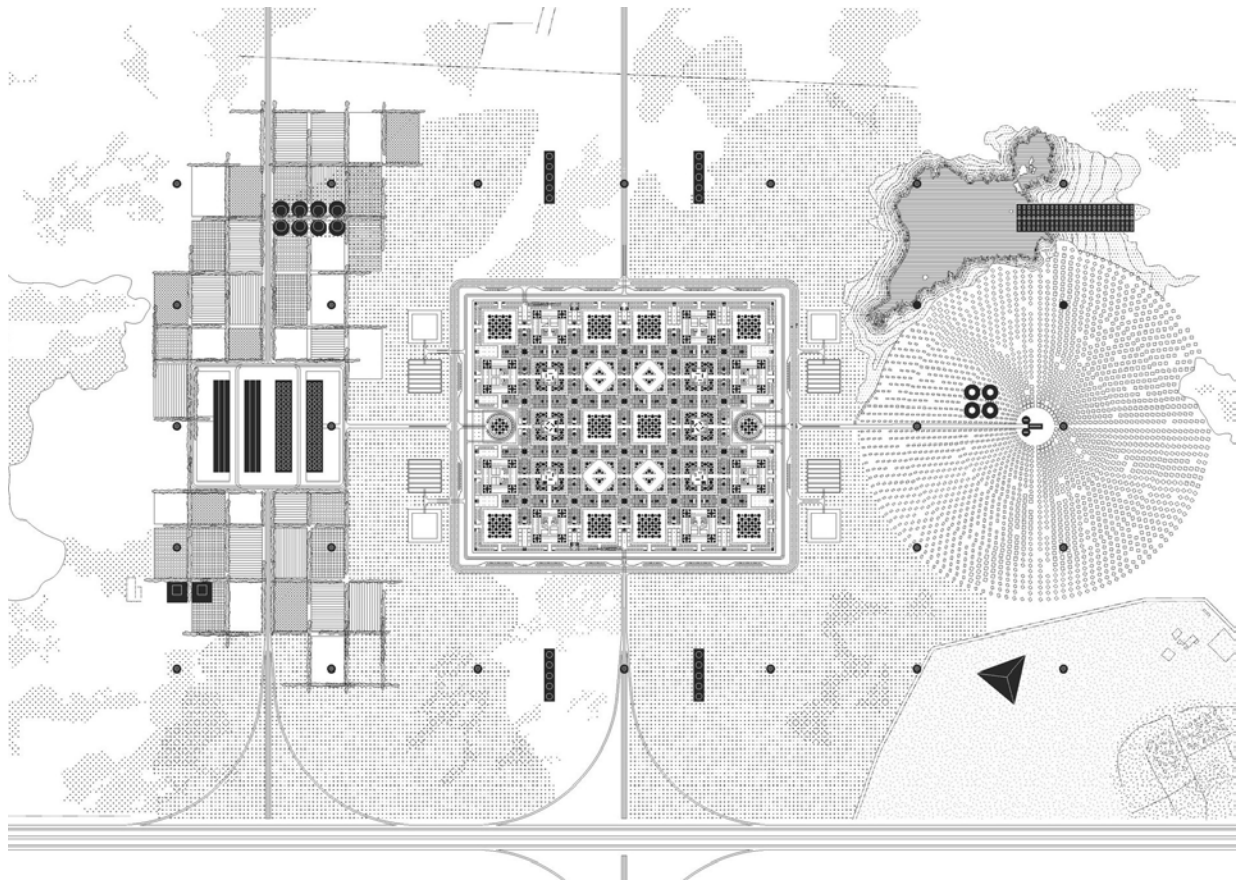


Figure 06. Al Daayan Master Plan. Urban Agriculture, Adaptable Hospital, Renewable Energy in one. See: Reinier de Graaf and Alex Retegan, "Treatment - The Hospital of the Future," E-Flux Architecture, accessed February 14, 2026, [https:// www.e-flux.com/architecture/treatment/650606/the-hospital-of-the-future](https://www.e-flux.com/architecture/treatment/650606/the-hospital-of-the-future).

commission:] the more recently hospitals are completed, the faster they become obsolete."³¹

If innovation is so innate to the foundation of the research underpinning health care, why then are so many hospitals built with an unflinching architecture?

Conclusion

The Arab Hospital argues for a more humane approach

to healing. As we can see in the Gevher Nesibe Medical Madrasah, built in 1206 AD in Kayseri, Türkiye. The architecture can be incredibly receptive to a large and diverse group of patients. Within the institution, "there was no discrimination between men or women, Muslim or non-Muslims, and everyone would be treated and served equally...with [a] holistic treatment and care approach. Here, psychiatric patients were not subject to the same ruthless procedures in European centers at the time...they were not isolated from society."³²

31 - Reinier de Graaf, "Radical Flexibility Is the Next Level of Mixed Use," interview by Frank Kaltenbach, DETAIL Magazine GmbH, September 2023, Published within DETAIL Magazine, p. 23-26, <https://inspiration.detail.de/en/article/radical-flexibility-is-the-next-level-of-mixed-use-6138>.

32 - *Kayseri Gevher Nesibe Şifahanesi ve Tıp Medresesi 1206 = Kayseri Gevher Nesibe Hospital and Medical Academy 1206* (Medical Park Hastanesinin kültür hizmetidir, 2007). 3.

We are reminded then of the relational history of the Arab Hospital and its focus on hybridity, of liminal experience relational to both the provider and the patient and the greater ecologies supporting that hospital. The hospital becomes a place of relation.

The process of engaging with the Arab hospital is the Arab Hospital.

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