

TRANSIENT YET SETTLED: THE ROOMS FOR TUBERCULOSIS PATIENTS IN TURKISH SANATORIA¹

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Abstract

This paper investigates the spatial dimensions of the dichotomy between the pedagogical and clinical purposes of sanatoria, based on the examples of patient rooms in twentieth-century Turkish sanatoria. The intangible layers of sanatoria are explored with a focus on the tuberculosis patients as the primary actors, tackling the literary work on Modern Movement sanatoria architecture as well as established literature on emotions, senses, and experiences in architecture, with primary sources on Turkish sanatoria (1920s–1970s). The concepts of permanence and transience in sanatoria are assessed through the experience of the users.

The research findings unveiled, the rooms were designed as ready to be refreshed via hygiene practices anytime, while ensuring that the bodies of the patients stayed transient within their material environment. However, the design-related nuances between the physical transience of the medical body and the spiritual longevity for belonging (to a familiar place) reveals that despite their sterile appearances and clinical atmospheres, sanatoria were emotionally charged spaces that conveyed a sense of belonging for the patients.

Historians thoroughly analyzed the Modern Movement's ideas of hygiene in everyday spaces and the twentieth-century sanatoria via analyses of global cases. What is relatively new is sanatoria spaces and venues incorporate many intangible layers, and healthcare spaces offer a rich history of emotions, atmospheres, and senses in architecture. The distinctive contribution of this paper is two-fold: it reveals that atmospheres, emotions, and senses alter the perception of the transient venues of architecture of convalescence and it advances research on Turkish sanatoria by offering a comprehensive medico-social analysis that highlights distinctive local cultural nuances.

Keywords: healthcare facilities, sanatorium, tuberculosis and space, hygienic design, twentieth-century Turkey, memory and space, sensory experiences.

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Introduction

Twentieth-Century Sanatoria: “A Hygienic Utopia?”

The first half of the twentieth century was an era of transition in the history of tuberculosis. It was a period between the public acceptance of germs and the invention of drug therapy. In tuberculosis sanatoria, the treatment initially offered prevention through pedagogical and hygienic cautions, addressing both social and medical dimensions of the disease.² Hence, a sanatorium was not a place to cure but to prevent and control the spread of the disease through isolation, education, and hygiene. It is not news to architectural historians that sanatoria were the ‘hygienic utopia’³ of their time, nor were they spaces in which bodies got medicalised and rationalised, a practice which extended to the Modern Movement’s ideas of designing everyday spaces.⁴

As the twentieth-century discourse about health and hygiene influenced many characteristics of modernist interiors, it also prescribed how people should live in them. While the sanatoria had to meet the hygienic standards of contemporary medical treatment, patients, during their convalescence, also required a certain level of comfort and familiarity in the hospital setting.⁵ As people became obliged to apply the universal health norms brought about by the modern interior, the opposite also became true: although modern interiors’ characteristic forms and norms are universal, individuals showed resistance by customising those spaces. This resistance uncovers a dual nature inherent in both the physical aspects and intangible elements of healthcare spaces specifically designed to provide care for tuberculosis patients.

Exploring the Dichotomies of Spaces in Sanatoria: An Assessment of Cases from Turkey

This paper investigates this dichotomy reflected in the modern interiors of healthcare, based on the examples of patient rooms in twentieth-century Turkish sanatoria. A passage from the 1924 novel, Thomas Mann’s *The Magic Mountain*, which is set in an imaginary sanatorium in Davos—based on the writer’s observations—vividly narrates this point.⁶

An empty room, a room that had been ‘vacated’ — with its furniture turned topsy-turvy, and both doors standing wide, as one saw it in passing, on the way to the dining room or one’s daily walks — was a most significant, and yet withal such an accustomed sight that one thought little of it, especially when one had, in one’s time, taken possession of just such a ‘vacated’ room, and settled down to feel at home in it.

As part of our larger research project on Turkey’s sanatorium heritage of the twentieth century, we were struck to see the dichotomy in the rooms which were designed, equipped, and utilised to repulse the physical essence of tuberculosis patients while initiating many additional attempts for comfort in a domesticised

environment. In other words, the aim was to establish connections that were permanently emotional but physically and biologically transient.

Personal attachments and individualised experiences of the spaces of sanatoria call for an exploration of these spaces beyond their biopolitical interpretations.⁷ While Michel Foucault's concepts regarding biopolitics and (disciplinary) architecture provide a valuable understanding of the patterns and interactions within sanatoria,⁸ it is vital to explore architecture's potential to stimulate the senses in manners that extend beyond. Emotional connections can influence how people perceive and interact with the built environment and may even alter how they use it. Moreover, the design of one's surroundings stimulates the senses, creating a personal experience, especially for the patient, whose perception of the physical environment is enhanced. The spatial organisation, choice of materials, lighting, and even sounds can create a sensory experience of the space that engages people emotionally.⁹

This demonstrates that despite their sterile appearances and clinical atmospheres, sanatoria designed for tuberculosis treatment were also emotionally charged spaces.¹⁰ Sanatoria aimed to allow patients to convalesce by two main approaches: by encouraging patients to become part of social life while learning to live with tuberculosis, and by softening the 'hospital' feeling by providing individualised rooms as spaces of convalescence. For this reason, the patients were encouraged to personalise their main living environment, namely their rooms, which became their temporary homes, and a sense of belonging was thus created in spaces of transience. However, this belonging was only temporary, and later the rooms were cleaned to spotless perfection: as soon as the patients checked out, their rooms were deeply sanitised, and any traces of the patients were erased. The article thus investigates the role that design plays in the dichotomy of the material transience of the medical body versus the enduring spirituality of inhabited setting in a medical environment: in other words, the creation of a sense of "home" in the transient spaces aided the recovery of the tuberculosis patients.

Intangible Layers of Tuberculosis Care

The evaluation of this dual nature of sanatorium design begins with an assessment of the "medical side," focusing on hygiene principles in sanatorium spaces by revisiting relevant literature. The first section overviews how the pursuit of hygiene in these environments leads to a sense of transience, drawing from Turkish cases as examples in the section titled "*Against Contamination: Materiality of Hygiene and Transience.*" Subsequent sections of this study delve into the intangible aspects underlying the materiality.

We investigate the other side of the coin through thematically identified intangible layers within sanatoria. We identify and discuss the spatial reflections of the sense of belonging within the institutional scale of sanatoria in the second section "*Sense of Belonging: Exploring Intangible Layers of the Sanatoria*". Then, we focus on the room scale and the practices employed for personalizing them. This allows us to read the diverse relationships patients form with their material surroundings and

their relative nature. These themes revolve around the social implications of tuberculosis, the social stigma experienced by patients, the resulting emergence of self-organized communities within sanatoria and the pedagogical methods practiced by sanatorium administrations to ensure patient comfort and cultivate a guest-like atmosphere rather than a clinical setting. Sanatoria aimed to foster an atmosphere of social interaction by designating spaces for events and facilitating regular group activities, including shared mealtimes. They also incorporated elements to create a sense of familiarity. The metaphor of a “voyage” was sometimes used to depict the experience. For patients who were already marginalized by society, the opportunity to form their own social circles within the sanatorium, connecting with roommates and dining companions, offered a form of mental therapy. Regardless of whether they were public or private, the intention of twentieth-century sanatoria was moreover to offer an experience reminiscent of hotel stays, which held particular significance for those from lower-income backgrounds who rarely had access to such comforts in their daily lives.

Literature has witnessed works that revolved around the theme of “voyage”. Flurin Condrau also stated that even though the majority of fictitious tuberculosis treatments have little in common with the actual patient experiences at the twentieth-century sanatoria, novels such as Mann’s *The Magic Mountain* (1927)¹¹, Joseph Kessel’s *Les Captifs* (The Captives) (1926)¹² and Bruno Schulz’s *Sanatorium Pod Klepsydrą* (Sanatorium Under the Sign of the Hourglass) (1931)¹³ skilfully demonstrated the characters’ lengthy absence from society, which serves as a symbolic indication of their tuberculosis condition. Early nineteenth-century sanatoria for nervous ailments for instance, according to Leslie Topp and Nicola J. Imrie, were like grand hotels, i.e. sociable settings that exposed their individual users to a quasi-domestic environment with ‘a transitory public of unfamiliar fellow residents’.¹⁴

The voyage-like experience is further enhanced by the spirituality of the tuberculosis patients as discussed in section three: “*A Room for Personalisation.*” ‘A disease of the lungs is, metaphorically, a disease of the soul’ as Susan Sontag argued and like the x-ray—a diagnostic tool which makes the body transparent—the patients became transparent to themselves, thus vulnerable and more open to exterior stimulations.¹⁵ Subsection “Spirituality vs Materiality” examines this vulnerability. The emotions are linked to the body-awareness and senses, and both intensify correspondingly as tackled in subsection “Bodily Senses and Emotions”. According to Juhani Pallasmaa, since the human beings experience the universe with all of their bodily senses, it is impossible to separate the self from its contextual physical existence.¹⁶ The importance of bodily experiences was also emphasised by Rita Charon¹⁷ who wrote ‘The self has—and is—a body’.¹⁸ The people struggling with an illness—in this case, tubercular patients in sanatoria—become increasingly sensitive to their body, and to the stimuli from the environment since’ illness, no matter how minor, reminds one of one’s mortality, frailty and ultimate end’.¹⁹ The intensified bodily experiences, and the questioning of physical existence intensify the patients’ emotions. The temporary stay becomes life-changing and intense. Consequently, the patients’ recollections were sentimental and intensified offering us many clues of the

daily life and venues of the Turkish sanatoria as local translations of their universal counterparts, as well as their intangibility. The subsection “Personalizing Surroundings and the Medical Paraphernalia” showcases patients’ attempts to turn their space into a meaningful place, contributing to the humanization of healthcare environments. As will be demonstrated, these attempts could be as simple as modifying provided furniture and transforming the space itself. Patients personalized their surroundings by incorporating personal everyday objects such as radios, vases, and more into cupboards, nightstands, and even under the bed. They also internalized medical utensils, including x-ray films and sputum cups, among others.

This study thus revolves around the responses of tuberculosis patients within these venues of dualities and explores the dichotomies such as “transience vs permeability,” “medical/institutional vs homelike spaces,” “scientific vs. sentimental” and identifies a new one: “disinfected vs inhabited.”

Methodology

In the context of hospitals, spaces of healthcare stand out as distinct settings where the body is subjected to medical procedures, closely examined through advanced technology, and where intense emotions related to life, loss, love, frustration, hope, and disappointment are keenly experienced.²⁰ To truly comprehend the meaning and impact of these spaces, it is essential to explore the concepts of place, space, inhabitation, materiality, and sensory experiences.²¹ Taking a like-minded and interdisciplinary approach, our research seeks to uncover the multi-layered meaning and impact of sanatoria within the histories of design and healthcare. We recognize the dynamic nature of sanatorium spaces, as they were encountered by patients.

The study builds upon existing literature on late nineteenth and early twentieth-century sanatoria, tuberculosis and its socio-medical spatiality. These serve as a background for a comprehensive assessment of Turkish sanatoria and their medico-social, architectural, and spatial development.²² Although not central, phenomenological approaches are indeed inspirational and expands our understanding of human-space encounters and its meanings for architecture.²³ To gain a comprehensive understanding, we consult the growing literature on the histories of senses, emotions, and experiences, with a particular focus on health, disease and healthcare spaces.²⁴

The historiographical approach of this thus study takes a “from below” perspective, placing the patient’s experience at the centre. This approach, famously applied by historian Roy Porter in 1985 and built upon by subsequent scholars ever since, focuses on the agency of patients within the context of medical history.²⁵ We explore the memoirs of various “sick diarists”²⁶ or, individuals who transitioned from being “sufferers” to “patients” and became active participants in the medical arena.²⁷ By examining their narratives, we aim to uncover the patient’s agency in shaping the healthcare environments of sanatoria. We trace narratives that bring together the material, sensorial, and emotional dimensions. We are particularly interested in exploring the “sensescapes” and emotional landscapes of sanatoria spaces, recognizing that these rooms hold intense significance in this regard.

Additionally, we draw upon passages from literary works set in sanatoria, such as Thomas Mann's "The Magic Mountain." These works provide conceptual frameworks that allow us to contemplate the intangible layers embedded in sanatoria. Reporters' accounts, although peripheral, are utilized to convey the atmospheres of sanatoria from an outsider's perspective. Simultaneously, primary sources on individual Turkish sanatoria cases such as their blueprints, photographs, various documents produced by the medical staff are consulted. The personal recollections possess vital clues about design and how design in a medical environment was perceived through bodily senses which intensify when a person is sick, and how emotions shaped the spatial perception of the sanatoria spaces, especially the rooms. The patients yearned for their environment to be more comfortable and home-like, leading them to make surprising alterations and later reflect upon and discuss their experiences. This was an attempt to create a sense of belonging in a place where they often felt disconnected from society. These efforts not only left a tangible impact in these transient spaces but also left an enduring mark in the annals of history.

This study thus scrutinises this belonging from the memoirs of the patients who were treated at the twentieth-century sanatoria of Turkey, via biographical and autobiographical recounts, and articles in contemporary newspapers and medical journals such as *Yaşamak Yolu* [A Way of Living] (established by Istanbul Association for the Fight Against Tuberculosis [İstanbul Verem Savaş Derneği]) and popular lifestyle magazines like *Yedigün* [Seven-days] and *Yeni Mecmua* [New Magazine]. The following autobiographical sources were crucial for the conduction of this study: Actress Melek Kobra's (actress, 1915-1939) *Hatıratım* [My Memoirs], first published in 1938, edited later in 2006 by Gökhan Akçura; Duran Abacı's *Sanatoryumdan* [From the Sanatorium], published in 1965 and Hayrettin Sevüktekin's *Sanatoryumda* [At the Sanatorium], published in 1963; Mahmud Yesari's (writer, 1895-1945) *Yakacık Mektupları* [Yakacık Letters], published in 1961, as a compilation of the series published in *Cumhuriyet* newspaper during the author's sanatorium stay in 1937 entitled *Yakacıktan Mektuplar* [Letters from Yakacık]. These sources contain accounts from the Heybeliada Sanatorium (1924), Validebağ Preventorium and Sanatorium (1927, 1938), Maslak Military Preventorium (1937), Erenköy Sanatorium (1931), Yakacık Sanatorium (1936), Yedikule Tuberculosis Hospital (1949), Çamlıca Military Sanatorium (1943), and the tuberculosis wards of Cerrahpaşa Hospital and Ankara Military Hospital. These accounts need to be studied along with their narrative and language. Consequently, the paper includes numerous direct quotations from autobiographies of former patients, and these are crucial for capturing their personal and subjective experiences, which cannot be adequately conveyed through paraphrasing or summarising.²⁸

Against Contamination: Materiality of Hygiene and Transience

Hygiene maintenance in twentieth-century sanatoria drew on principles from both pre-bacterial and bacterial periods of tuberculosis. This included incorporating anti-dust finishes, good ventilation, and careful planning of the cleaning facilities to

prevent germs from travelling via surfaces, air circulation, and the many objects used by the patients. The core principle was the provision of abundant fresh air and natural ventilation, which had been a concern since the establishment of the earliest sanatoria in the 1800s, predating the bacteriological discoveries of the late nineteenth century. Following the work of pre-germ theory hospital reformers like Florence Nightingale, natural ventilation was preferred over artificial ventilation in patients' wards of modern hospitals and sanatoria.²⁹ Despite the decline of miasmatic theories,³⁰ this principle continued to play a central role in sanatorium design. The windows in the rooms, which did not have any heavy curtains to block the airflow, were almost always left open to ensure a constant airflow so that the patients did not rebreathe the air exhaled by each other. *Vasistas* - transom windows - were the ideal type for this. For instance, in Heybeliada Sanatorium, before situating the successive pavilions, calculations were made to reach the optimum airflow in the wards (fig 1).³¹ As a rule, the windows in the rooms were almost always left open to ensure the patients did not breathe in the air exhaled by the others. With the acceptance of the germ theory of disease, significant changes occurred in sanatorium design. One notable change was the increased importance of antiseptic practices and sterile finishes. Adopting the germ theory, which posited that microorganisms, rather than air, were the cause of disease, reinforced and subtly shifted the focus of existing hospital design.³²

Thus, it was perceived a design challenge to safely accommodate and cater for tens or hundreds of people with a communicable, airborne disease.³³ Above all, the sanatorium had to ensure to prevent the spread of contagion. The rooms were designed as ready to be refreshed via hygiene practices anytime. This high level of hygiene was often recognized and conveyed through elements such as white linen and polished surfaces, as well as architectural components that enabled natural ventilation. The principles for an easy-to-sterilise environment were of course about form and material. The easy-to-clean, non-absorbent material qualities of walls, floors and furniture enabled the deep cleaning and disinfection of such items after patients had been discharged or died or were relocated. Such principles simultaneously influenced the modern built environment beyond the medical realm. As Beatriz Colomina and Mark Wigley stress, 'modernising architecture was firstly a form of disinfection, a purification of buildings leading to a health-giving environment of light, air, cleanliness, and smooth white surfaces without cracks or crevices where contagion might lurk.'³⁴



Fig. 1. A 'vacated' five-bed room in Heybeliada Sanatorium's B Block (Architect: Rebii Gorbon). Source: Gorbon Family Archive.

One of the principal tuberculosis experts in Turkey, the head doctor Tevfik İsmail Gökçe of the Heybeliada Sanatorium, himself a former bacteriologist, was aware of the potential dangers of dust for his patients. To protect against cross-infection, the materials chosen in the Heybeliada Sanatorium went by the book of modern hygiene, resulting in an austere simplicity: pale colours, easy-to-clean surfaces, enamel paints, glazed tiles and linoleum and terrazzo floors.³⁵ The journalists who visited the sanatorium were impressed by this high level of hygiene. In 1935, journalist Refet Raif Öktem compared the conditions of the outside world with the healthy, enclosed, hygienic world inside:³⁶

We entered a bedroom... white, clean beds. Neat nightstands... The beds smell like soap... When I thought of the young people running to the coffeehouses that smelled of cigarettes and were heated with a thousand breaths, I seemed to understand why the disease was on the rise in the country...

In 1940, another journalist Muhteşem Öksüzcü³⁷ had similar observations: 'Well, the whole hospital is so clean that one feels bad to step on the floor... Everywhere is parquet... And everywhere is polished... Health gushes out of every corner...'

The colour white (or sometimes a very light colour) was a dominant hygiene principle to easily reveal the dirt and indicate the absence of germs. White had been the symbol of modern medicine, especially doctors in white coats, and whiteness also came to be metaphorical like a clean white sheet, ready to be provided at any time for new and fresh starts. As a result, this maximum whiteness level was not only to address sanitary concerns: the white sheets sometimes conveyed a sense of hope.

The patients were also observant of the whiteness. Actress Melek Kobra wrote from the Cerrahpaşa Hospital on 24 December 1938: 'I'm in a hospital room with white walls, on a white bed, with people in white walking around'³⁸ and writer and journalist Mahmud Yesari's short story reflects how he was dazzled by the whiteness in Yakacık Sanatorium.³⁹

Stretching slowly, he woke up, opened his eyes, and a wave of white dazzled him. At first, he thought he was buried under white snow. But this whiteness was soft, sweet, and warm. He glanced around. In a large room with white windowsills, white doors, white walls; bed, duvet sheets, pillow faces lay on a white headboard.

Incineration of the personal belongings or more commonly fumigation of a former patient's or a victim's room had been universally practised and was a reminder of the bodies' transience. Since the patients settled in with their personal belongings and small arrangements, the material setting remained as an enabler of such procedures. The rooms were designed to constantly repulse and clear the air the patients breathed, the coughs and spits they diffused, and any traces they left on a surface by touching. This sterile environment also gave the rooms of former inhabitants a certain anonymity, revealing a different perspective regarding the familiar image of sterile and cold hospital rooms. The first moment the reader encounters a patient's room in Thomas Mann's "The Magic Mountain" demonstrates this point.⁴⁰

'Joachim had turned on the ceiling light, and in its vibrating brilliance the room looked restful and cheery, with practical white furniture, white washable walls, clean linoleum, and white linen curtains gaily embroidered in modern taste. [...]

[...] 'An American woman died here day before yesterday,' said Joachim. '[...] after they took her away of course they fumigated⁴¹ the room thoroughly with formalin, which is the proper thing to use in such cases.'

'Fumigated it, eh? That's ripping,' he [Hans Castorp] said loquaciously and rather absurdly, as he washed and dried his hands. 'Methyl aldehyde; yes, that's too much for the bacteria, no matter how strong they are. H₂CO. But it's a powerful stench. Of course, perfect sanitation is absolutely essential.'

Hayrettin Sevüktekin, a lifelong tuberculosis patient who stayed in many sanatoria and hospitals during his illness, also shared interesting accounts of

fumigation of a friend's bed in Yedikule Tuberculosis Hospital:⁴² 'The sun had set, and it had become dark. The pale electric light illuminated his bedding, which was being collected to be taken to the fumigator.' While linking death with the setting sun, this moment in the text represents a dramatic transition from the natural world to the technological one, and from a domestic, familiar setting to a sterile one, as the tools of fumigation and electricity transformed the remains of the body and the last remnants of daylight.

The hospital bed can be sterilised, and yet perhaps it was when lying in bed that the transience of their bodies became most apparent to the patients, as those beds had perhaps been deathbeds for others. The journalist Bűrhaneddin Ali Moral, a patient at the Erenköy Sanatorium, knew that the bed might be his deathbed. A vivid memory which shows how people tend to highlight the medical qualities while sharing a very emotional content:⁴³

While I was pulling the soap-smelling mouflon duvet of this bed, which would be my deathbed one day, over myself, I was soaking my handkerchief with my involuntary tears [...].

In addition to the arrangement of wards, separation to prevent cross-infection was also possible with the movement of bodies in space. With a shift in the scale from the interior components, the case of Validebağ sanatorium demonstrates the architectural mass separation. The complex held both a preventorium for non-contagious patients and a sanatorium for patients who could potentially spread the microbes (fig 2). Sevüktekin, while staying in the preventorium for the non-contagious, was immediately transferred - in a way exiled - to 'the coldest wards of sanatorium', nicknamed 'Siberia' - and he could no longer use his first room after they had found infective germs in his sputum sample.⁴⁴

Doctor (M) said: 'We will transfer you to the sanatorium section.' [...] It meant that my sputum contained microbes. [...]

By the time I returned to my bed, my bedding had been rolled up and sent to the fumigator. My roommates were afraid to make eye contact with me. It was as if I was poisoning the air of the ward with every breath. [...]

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Such a high level of hygiene creates a transience in erasing the physical traces of a patient's body from its material surroundings. The resulting effect of once a domesticated interior was like an unused, sterile space before the next patient, who would also become part of this recurring cycle, and in the end, leave with memories. This made sure that the patients' bodies stay transient within their material environment.

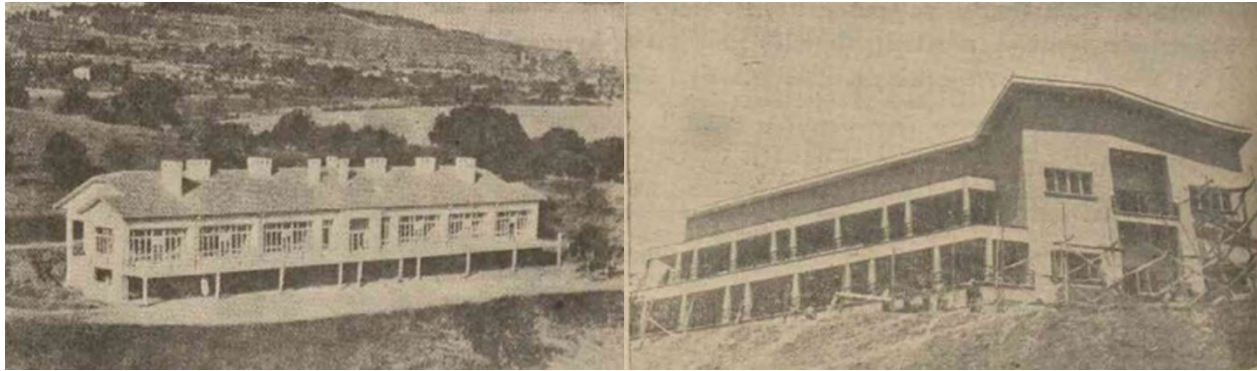


Fig. 2. Spatial separation of non-contagious from contagious patients. Source: Left: Validebağ Preventorium (Men) (*Cumhuriyet* 1938). Right: Validebağ Sanatorium (Men) (*Son Posta* 1938).

Sense of Belonging: Exploring Intangible Layers of the Sanatoria ***Overcoming Social Stigma: Self-Organized Communities in Sanatoria*** ***Institutions***

With the widespread acceptance of the germ theory, contagious diseases became increasingly associated with fear, significantly influencing cultural and social responses to epidemic outbreaks.⁴⁵ The rise of the germ theory redefined tuberculosis as a communicable disease rather than a constitutional or hereditary condition, amplifying the growing perception of tuberculosis as a social problem.⁴⁶ Coltart et al.⁴⁷ wrote about the ‘leper complex’ developed and experienced frequently by sensitive patients after learning they had tuberculosis, afraid that they would be subjected to stigma for life,⁴⁸ with the public response being ‘phthisophobia’ – fear of the consumptives.⁴⁹ Indeed, many people were afraid of encounters with people infected by tuberculosis. Bürhaneddin Ali Moral clearly demonstrated his desperation after learning of his condition:

“I have tuberculosis... tuberculosis; ... The most feared disease of society, the mortal enemy of people, the accursed disease... [...] Now I’m devastated. Everything is over.”⁵⁰

Since treatment periods lasted over several months, the patients had the opportunity to build and sustain a self-organised community. Social organisation boosted morale. There were some opportunities for this, including rest cures and gatherings at meal tables. This was not only because the menus were rich and abundant, nor because the dining halls were ‘spotlessly clean and white’, but mainly because this activity broke the monotony of the day.⁵¹ A journalist, Rüştü Sezginoglu visited the Heybeliada Sanatorium in January 1940, and to his astonishment, he found the patients attending the meals with excitement and in good cheer (fig 3).⁵²

Occasional entertainments supported the meals in ‘keeping up with the good morale.’ These included film nights, concerts, seminars, and sometimes plays organised by the patients. Öksüzçü, who visited the theatre/cinema hall of the Heybeliada Sanatorium, was quite amazed:⁵³ ‘[...] We are in the theatre hall of the hospital... Here, patients give regular performances. This place [...] is more beautiful and cleaner than all the halls in Istanbul...’ Erenköy Sanatorium also provided similar activities and organisations.⁵⁴



Fig. 3. Journalist Rüştü Sezginoglu from Yeni Mecmua visits Heybeliada Sanatorium during a mealtime.

A “Voyage!?”: Cut off from the Outer World

To enhance the collaboration of the patients, the sanatorium managements sought to take possible precautions so that the environment and the patient’s material setting felt less institutional. A disciplinary consideration as they were, there was also a humanizing aspect to these efforts. Intangible aspects arise in environs of humanistic design argues Bates,⁵⁵ which is ‘non-institutional, non-technological and non-biomedical’ – the exact same criteria targeted by the sanatoria to soften the institutional impression. For instance, Alvar Aalto⁵⁶ famously based his design approach in the Paimio Sanatorium on the patient’s sensory and emotional experience of space and recognised the patient’s visual perception and mental effects as parameters in spatial decisions.⁵⁷ The use of a variety of colours was a worldwide approach. Jan Duiker’s choice of colour scheme for the interiors of the Zonnestraal Sanatorium, which consisted of light yellow, pale blue, and cream, reflected his optimistic outlook on the facility in curing tuberculosis.⁵⁸



Fig. 4. Art in Ankara's Atatürk (Keçiören) Sanatorium. Source: Koç University VEKAM Library and Archive.

The urge to humanise the medical, surgical and technological spheres rekindled efforts to include both nature and art in hospitals.⁵⁹ The majority of Turkish sanatoria serve as evidence of how the addition of art to medical surroundings mellowed their clinical atmosphere. Examples include stained-glass windows and ornamental tiles (Heybeliada Sanatorium, Istanbul), murals of nature and people in traditional clothing (Atatürk Sanatorium, Ankara) (fig 4) or having paintings hung, as in Istanbul's private Burgazada Sanatorium. In most sanatoria, including the public ones, dining halls were indeed designed like luxurious restaurants with decorative architectural elements such as ornamental column capitals and pilasters (fig 5).



Fig. 5. A Dining Hall in the Heybeliada Sanatorium's B Block (Architect Rebii Gorbun). Source: Authors.

In Heybeliada Sanatorium, the patients were not addressed as ‘patients’, but rather as ‘guests’.⁶⁰ This alternative terminology was not only adopted by the staff but also embraced by many patients as a coping mechanism. Given their isolation from the outside world due to geographical remoteness and social stigmatization, combined with infrequent visits from their loved ones, the patients gradually embraced this guest-like identity.⁶¹ Duran Abacı, a patient who stayed at Validebağ Sanatorium during the late 1950s, recorded how a close friend in Validebağ Sanatorium - perhaps in an attempt to cheer himself - encouraged everyone to ‘feel at home in a luxurious hotel’ and that they were indeed ‘guests’ and not patients. The friend urged everyone to embrace this redefinition of the space they inhabited.⁶²

[...] he [the patient’s friend] calls out to the patient [Abacı]: ‘This is not a hospital! This is not Valdebağ Sanatorium! This is Valdebağ Palace. We are tourists, we came here to spend time and have fun. No patients. From now on, we will not even mention the things such as illness or tuberculosis.’

The optimistic narratives accompany these accounts with the idea of a voyage. According to Sontag, the metaphor of a voyage was most often associated with tuberculosis, as the patient had to be removed from their daily routine to be cured.⁶³ Yesari observed the positive correspondences between patients ‘as if on a voyage’ during his stays in Yakacık Sanatorium (fig 6).⁶⁴



Fig. 6. A newspaper article from *Cumhuriyet* written by Mahmud Yesari with caption ‘Letters from Yakacık: Cure Hours.’ Source: Yesari, Mahmud. ‘Yakacıktan Mektuplar, Kür Saatleri.’ *Cumhuriyet*, 5 April 1937.

Before the morning and evening cures, the cure balconies are in motion. The recliners are pulled back and forth, the curtains on the balconies are straightened, and those getting ready for bed talk, laugh, joke, and fidget, [...]. You'd think they're not here to stay long and needed to be looked after. Like in a caravanserai, travellers from elsewhere are waiting for the roads to open and for them to go to their native lands, to their native village.

A 1934 poem by a patient, A. Süreyya, written in 1934, also shows the voyage sensation⁶⁵:

With curtains rising from the wind before us,
We are not on an air cure, but on a sail!

A Room for Personalisation

Patients with moderate conditions shared their rooms with four to ten other patients in public sanatoria. As individuals, the patients personalised their abodes and customised/domesticised a vacant and/or a vacated room, no matter if their stays were transient (fig 7). In the words of Alvar Aalto⁶⁶, the life of a tuberculosis patient was a horizontal one, and 'a patient's room is a room for a horizontal human being, and the colours, lighting, heating and so on must be designed with that in mind'.⁶⁷ Thomas Mann also ingeniously explained this in 'The Magic Mountain':⁶⁸

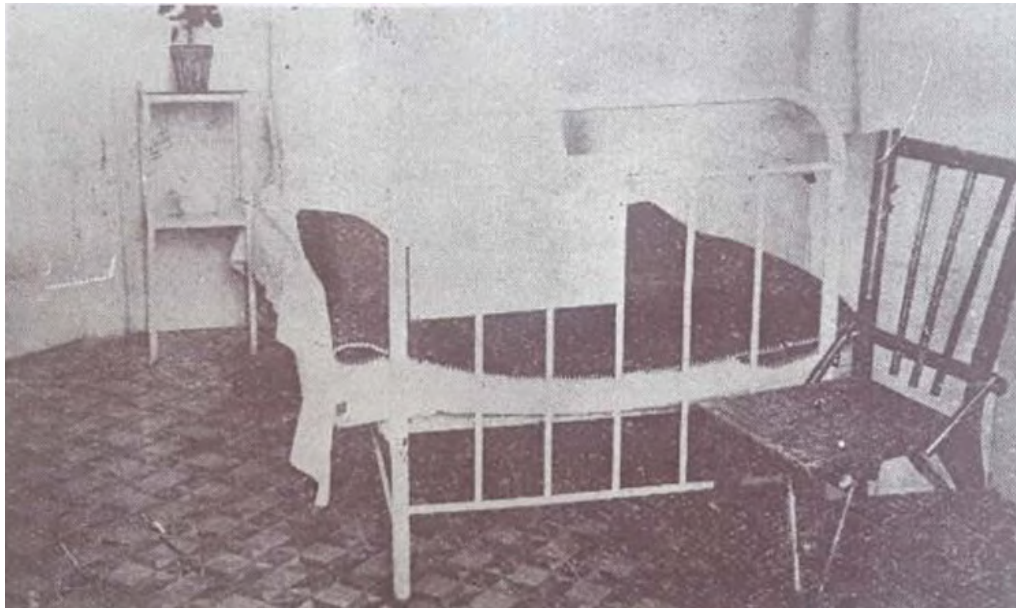


Fig. 7. A 'vacated' Room from the Heybeliada Sanatorium. Source: Sertabip Tevfik İsmail. 'Sanatoryumun 1924-1927 Salnamesi'. Sihat ve Muavenet-i İçtimaiye Vekaleti, 1927.

'[...] his neighbours to right and left conclude their evening cure and re-enter their rooms to exchange the horizontal without for the horizontal within [...].'

As Juhani Pallasmaa indicated, architectural environments are more than merely blank backdrops for human actions; they provide us with conceptual perspectives for our everyday experiences: every location, scenario, and area have a special ambiance supporting specific emotions and moods.⁶⁹ Therefore, the first impressions of the patients of their rooms are quite noteworthy.

Spirituality vs Materiality

The locations of the rooms within the building and the positioning of their beds within the rooms were important triangulation points for the patients. Sevüktekin described each of his rooms in different sanatoria with an emphasis on their location, and the spatial relations of the beds with the surrounding furniture and architectural elements were explicitly noted.⁷⁰ His possessive tone indicates the bond and familiarity he formed with the rooms through their materiality.

My room was on the second floor, on the front line. It was for four people and was illuminated by three windows, overlooking both the garden and the grove [Maslak Military Preventorium].

My room was located upstairs. When you entered the door, there were three beds in the right row and two beds in the left row. The middle bed in the right row was mine [Çamlıca Military Preventorium].

Material elements intensified the spatial experience of the patients; furniture became a stimulus, and the patients' perception of their rooms was affected by the built-in and movable furniture. Since the first hospitals, the patient in a 'bed' has been the centre of attention and the 'bed' was more than a place for the sick to sleep and be treated.⁷¹ As observed from their memoirs, the patients experienced the beds as extensions of themselves (fig 8). For instance, Abacı in Validebağ Sanatorium struggles with the adjustable bed because of his anxiety.⁷²

As part of the daily regime in sanatoria, the sessions of open-air cure on terraces constituted an essential part of the patients' 'horizontal life' where they occupied a second bed of their own - recliners - in fixed spots. As the balcony was an extension of their rooms, the recliners were the extension of the indoor beds. In many accounts, a sense of optimism during the cure period surfaces. This was partly due to the sunny weather, as the skin tracks temperature as sensations of place such as the warmth in a sun-washed spot.⁷³ Sevüktekin, with similar reflections, wrote from Çamlıca Military Sanatorium:⁷⁴ 'I spent most of my hours in the cure hall. I woke up early in the morning, lying on my bed [recliner] here, watching the sunrise with hope in me.'



Fig. 8. Patients in their Beds & Rooms at Heybeliada Sanatorium. Source: Sertabip Tevfik İsmail. 'Sanatoryumun 1924-1927 Salnamesi'. Sihat ve Muavenet-i İctimaiye Vekaleti, 1927.

In most sanatoria, patients were allowed to keep their belongings and/or suitcases. Having one's own place in a private built-in cupboard, i.e., *yüklük*,⁷⁵ brought about a sense of belonging (fig 9). The patients could leave some of their material belongings and suitcases there at an arm's length. Bürhaneddin Moral demonstrates:⁷⁶ 'Here is room six... A second-class hotel room, I would say... A snow-white bed, and a bedside table, as if untouched, and a built-in cupboard...'

Moreover, some institutions also provided built-in sinks in the rooms. As Heybeliada Sanatorium expanded its first historic pavilion in the 1930s, the new pavilions included *yüklüks* and built-in sinks with running water in each room. The built-in sinks, interestingly, could be another interpretation of the domestic Turkish culture, as some built-in cupboards (*yüklük*) included a *gusülhane*, a cubicle for ablution/washing. The built-in sinks indeed formed part of the stimuli repertoire, as can also be seen from the patients' memoirs. For instance, in her room at Cerrahpaşa Hospital, the in-situ sink became a stimulus for Melek Kobra,⁷⁷ as 'the sound of water dripping from the faucet of the sink opposite' occasionally woke her from her dreams.

The patients also formed bonds with the movable furniture. Especially the nightstands, at an arm's distance, held stored both medical and personal belongings. The nightstands could not be shared with anyone and thus became personal items. Some even went further. Abacı witnessed one attempt to leave a mark in such a sterilised environment. On the inner surface of a nightstand drawer, he noticed a poem carved by a former occupant of his room, who was thinking day and night of the very recent antibiotic treatment of tuberculosis.⁷⁸

I'm getting air [injection] from the right.
I'm getting more and more scr*wed
The tuberculosis cure is found
I think of it day and night.



Fig. 9. A built-in cupboard from the Heybeliada Sanatorium. Source: Authors.

Bodily Senses and Emotions

As well as the visually integrated memories, smells and sounds help people recollect a certain time and place.⁷⁹ According to Pallasmaa, vision is directed while sound encompasses; and while the sight suggests exteriority, the sense of sound reflects interiority.⁸⁰ The spatial perceptions of spaces are thus more intensified when conveyed through sounds. Annemans et al., in their study concerning the spatial experiences of patients in hospitals, emphasise that stimuli can be received from a source that is distant.⁸¹

The impact of the coughs on patients' perception in sanatoria prevails in the memoirs of Kobra, who welcomes her transfer from the tuberculosis ward of the

Cerrahpaşa Hospital to the Yakacık Sanatorium, where she had stayed before. Despite the familiarity of the institution and *her previous* room, Kobra still felt the unfamiliarity of the setting because of the different coughs.⁸²

I'm in my room. Again, in my old room... When I entered, my face changed as if I saw a familiar face. [...] There are coughing sounds here again...

But these seem more foreign to me. I knew the coughing sounds of Cerrahpaşa... Like a lover who memorises the lover's footsteps.

Shadows and dim light encourage daydreaming and imagination. The blurry and ambiguous visual representations which stimulate imagination are often strongest in mist and twilight which induce the patients into trance-like states of meditation and self-immersion.⁸³ In dim light, the furnishing and design of the room interiors indeed became robust stimuli for the patients. In bed from sunrise to sunset, the patients followed the darkening skies. For instance, Kobra preferred the room darker as she was 'immersed in spiritual and material darkness' because of her progressing condition.⁸⁴

The sun is retreating, retreating, and retreated, the fire is out. My room is gradually getting darker. I don't feel the need to light my electricity.⁸⁵ Too much light is boring for a person who is completely immersed in the spiritual and material darkness.

The effect of suddenly turning on the 'electric light' in a bedridden patient's room is felt by the tubercular A. Süreyya who wrote a poem about this issue.⁸⁶

The white walls turned ashen
The windows turned dull and slowly bruised,
The furniture has a noticeable sluggishness:
The shadows got longer; the windows darkened!

*

In the heart of the room that looks like a temple
Abundance suddenly shone; the lamp was lit!

Personalizing Surroundings and the Medical Paraphernalia

The patients were encouraged to personalise their rooms to a certain extent with their belongings. One such object was the vase placed on the top of the nightstand. One journalist witnessed an example at the Yakacık Sanatorium as he visited the adoptive daughter of Atatürk, Nebile when she kindly asked the doctor for the carnations to be put in a vase (fig 10).⁸⁷ Moreover, the accompanying photograph of this interview captures the embroidery she decorated her nightstand with, as well as a radio.

One other method of promoting recuperation was to broadcast music. For those needing entertainment, radios provided the necessary calming of the nerves.⁸⁸ Some

radios were kept in communal areas, and some in the rooms either shared by patients or belonging to an individual. Kobra wrote about her happiness when her mother brought her radio into the Yakacık Sanatorium; twenty days later, it remained an integral part of her spatial experience. She vividly described a “wet navy blue in the air” while listening to a “beautiful piece” from a gypsy orchestra.⁸⁹

Sometimes, ingenious patients helped each other in acquiring and building personal appliances. For example, another patient/friend in the Validebağ Sanatorium crafted a personalised radio for Abacı, which helped him soothe his nerves during sleepless nights.⁹⁰



Fig. 10. Atatürk’s adoptive daughter Nebile in Yakacık Sanatorium settled in her private room. Source: Güngör, Selahattin. ‘Atatürk Kızı Nebile Sanatoryomda.’ *Yeni Mecmua* 2, no. 33 (15 December 1939): 6–7, 13.

Aside from these, medical paraphernalia, which measured and documented patients’ medical conditions, were also cherished. These included thermometers, spittoons, spit cups, and disinfectants.⁹¹ Sputum cups were one of the most significant of these personalised objects as they were inseparable from the tuberculosis patient. In the *Magic Mountain*, they were nicknamed Blue Peters, one of the first objects observed by the protagonist Hans Castorp.⁹² Such nicknames for spittoons were evident in Turkey too. One Turkish patient, Muvaffak İhsan, a journalist, used the nickname for these objects, which were also blue, as *tabanca*, meaning ‘pistols’ or ‘guns’ in Turkish.⁹³ This was only one of the military metaphors that were widely used in medicine after the 1880s, following the identification of bacteria as ‘invading’ or ‘infiltrating’ agents of disease.⁹⁴ Additional military metaphors were employed by Sevüktekin, who almost obsessively kept his x-ray plates for self-evaluation during his stay in the Ankara Military School Hospital. He was quite obsessed with his ‘films,’ ‘x-rays’ or ‘black glass plates⁹⁵’ and analysed them as maps of his personal war

– like the warfare maps of the Second World War, which was taking place at that time.⁹⁶

[Year 1940] I was clipping daily battle sketches from newspapers [...]. Meanwhile, I was taking my illness like a war [...]. I was staring at my films for a long time, considering the injured areas as hostile areas.

By often recording their body weight and fever, the patients inadvertently assisted the doctors and became quite fluent of reading and understanding the tuberculosis data. This attempt at ‘making sense’ of their condition was paramount for morale.⁹⁷ Also, as local translations of universal sanatoria, it is interesting that tuberculosis patients in Turkey carried ‘evil eye’ beads⁹⁸ in their pockets for spiritual protection.

*

The patients actively settled in their rooms with in-situ and movable furniture, furnishings to domesticise the environment, and personalised medical objects. However, they had conflicting and divergent opinions of medical success. Abacı, in his memoirs, demonstrated such a struggle and wanted to leave. On his self-discharge from the Validebağ Sanatorium, he packed and left his suitcase under his bed, asking a friend to keep an eye on it.⁹⁹ This single recollection demonstrates that the bed and bedroom itself were property, like a suitcase left under the bed. This act also shows that the patient was aware of an eventual return. However, his traces were to be erased, and the rooms converted to the ‘untouched,’ ‘fumigated’ and ‘vacant’ state. Moreover, although the sanatoria did not admit the fatally sick, occasional deaths were inevitable. In this case, the patient with a worsened condition would relocate to a new, perhaps a more isolated, single room. In this case, how effective was a tool architecture in making the patients forget that they were very close to death?

Conclusion

The pedagogical and clinical purposes of sanatoria present a dichotomy in their nature. The sanatoria had to provide an ultimate hygienic setting and comfort patients with an incurable and fatal disease by softening the institutional atmosphere born out of the hygienic cautions. Despite their sterile appearances and clinical atmospheres, sanatoria reflected cultural nuances in their materiality and were emotionally charged spaces that aimed to convey a sense of belonging to the patients. The users of sanatoria formed connections with the physical environment. These connections extended to sensory experiences such as smells, sounds, colours, and the movement of bodies within the space.

These accounts on sanatoria ultimately demonstrate that while biopolitical aims and hygienic concerns impacted their material culture, the emotional, sensual, and cultural nuances of these spaces and their users could not be ignored. This serves as a reminder that universal design does not always result in uniformity of experience and that many more layers of healthcare design history are still to be revealed. By

examining the spatial responses to tuberculosis and delving into the intangible aspects of treatment venues, this research aimed to unpack the complex dynamics of sanatorium facilities in Turkey.

The findings challenge the widely accepted “gospel of hygiene” in modern spaces and prompt us to question the disciplinary and pedagogical motives intertwined with the human-centric intentions of public health practices of the time. The coexistence of contradictory narratives and metaphors, such as voyages and homeliness, further contributes to the contradictory essence that shaped and was reflected in the spatiality of sanatorium spaces, particularly in patient rooms. Moreover, the personalization of rooms by patients, whether within or in defiance of the rules, reveals a profound desire to belong and exert spatial control. Patients actively engaged in place-making, settling in, or expressing resistance through unconventional practices. Their interactions with the environment reveal a distinctive state of engaging with space: one that is transient yet settled, occupying an intriguing in-between realm. This highlights the subjective nature of patients’ views and experiences, emphasizing that they were not passive recipients of medical procedures but rather active agents in shaping their surroundings. It is worth noting the significant role played by “sick diarists” in documenting the architectural design of these spaces. Their accounts, highly personal and subjective, serve as unique historical records of healthcare environments and unveil the most challenging layers uncover: the intangible aspects of the experiential, sensory, and emotional dimensions.

Overall, this research expands our understanding of healthcare spaces, urging us to reconsider the complex interplay between physical design, cultural contexts, and individual experiences. It calls for further exploration and analysis of the intangible aspects that contribute to the profound impact of healthcare environments on patients’ lives.

NOTES

¹ This article is one of the outputs of a larger research project, supported by the Turkish Architects’ Association 1927 (Mimarlar Derneği 1927): Avcı Hosanlı, Deniz; Değirmencioglu, Cansu; Kepez, Orçun. 2022. *Architecture of Convalescence: Mapping the Sanatorium Heritage in Turkey*.

² Not unlike the global context, Turkey’s experience of tuberculosis was intertwined with the social and cultural dimensions of the disease, suffered its repercussions affecting demographics and the labour force, and witnessed multi-layered knowledge exchanges between the spaces of medicine and everyday life. For the history of chest diseases, including tuberculosis, in Turkey, see Nuran Yıldırım and Mahmut Gürkan, *Türk Göğüs Hastalıkları Tarihi*, ed. Muzaffer Metintaş (İstanbul: Türk Toraks Derneği, Aves Yayıncılık, 2012). Notably, the early Republican Period has garnered significant attention from scholars across various fields. On the links between the anti-tuberculosis campaign and the architectural culture of everyday spaces, see Cansu Degirmencioglu, “On Latticed Windows, Disease, and the Materiality of a Bygone Epoch,” *Journal of Architectural Education* 76, no. 1 (January 2, 2022): 127–32, <https://doi.org/10.1080/10464883.2022.2017714>. For an examination of the cultural transformations from 1920s to 1930s in the context of tuberculosis visualization methods, please refer to Alev Berberoğlu and Cansu Değirmencioglu, “Deconstructing the Story of a Contagion: Tuberculosis and Its Representations in Early Republican Turkey,” in *Visual Culture and Pandemic Disease Since 1750: Capturing Contagion*, ed. Marsha Morton and Ann-Marie Akehurst (New York: Routledge, 2023), 225–45. For the social dimensions of tuberculosis in the early Republican period, see Ceren Gülser İlikan Rasimoğlu, ‘Erken Cumhuriyet Döneminde Sağlıklı Bireyin İnşası: Pronatalist Politikalar, Çocuk Sağlığı ve Verem’, *İstanbul Üniversitesi Sosyoloji Dergisi* 39, no. 2 (2019): 329–57; Ceren Gülser İlikan Rasimoğlu, “Verem

iyi olur bir hastalıktır”: Cumhuriyetin ilk yıllarında verem mücadelesi ve siyaset’, *Toplumsal Tarih*, no. 296 (2018): 86–96; Ceren Gülser İlikan Rasimoğlu, ‘A Sanitary Journal for Common People: Yaşamak Yolu’, in *Health, Culture and the Human Body: Epidemiology, Ethics and History of Medicine, Perspectives from Turkey and Central Europe*, ed. İlhan İlkılıç et al. (Istanbul: Betim Center Press, 2014), 299–311. For the encounters between the domains of public health and domestic realm regarding tuberculosis, see Emine Ö. Evered and Kyle T. Evered, ‘Dispensary, Home, and “a Women’s Army”: Framing Tubercular Geographies and Gender in Late Ottoman Turkey’, *Journal of Historical Geography* 68 (1 April 2020): 33–43, <https://doi.org/10.1016/j.jhg.2020.02.003>.

³ In referring to the term “hygienic utopia,” we are indicating a fundamental way of life and, more importantly, a mode of governance in which cleanliness and healthy living practices become central to communal living. For the most significant fictional example of hygienic utopia, Benjamin Ward Richardson, *Hygeia: A City of Health* (London: Macmillan and Co., 1876).

⁴ Beatriz Colomina, *X-Ray Architecture* (Baden: Lars Müller Publishers, 2019); Margaret Campbell, ‘What Tuberculosis Did for Modernism: The Influence of a Curative Environment on Modernist Design and Architecture’, *Medical History* 49, no. 4 (October 2005): 463–88, <https://doi.org/10.1017/S0025727300009169>; Paul Overy, *Light, Air and Openness: Modern Architecture Between the Wars* (London: Thames and Hudson, 2007).

⁵ Julie Willis, Philip Goad, and Cameron Logan, *Architecture and the Modern Hospital: Nosokomeion to Hygeia* (New York: Routledge, 2018), 53.

⁶ Thomas Mann, *The Magic Mountain (Der Zauberberg)*, trans. H.T. Lowe-Porter (London: Secker & Warburg, 1971), 305.

⁷ “Biopolitics” or “biopower”, as proposed by Michel Foucault, is the “authority” to govern life and manage populations for the well-being of nations. See. Sven-Olov Wallenstein, *Biopolitics and the Emergence of Modern Architecture* (New York: Princeton Architectural Press, 2008), 4, 9–10.

⁸ Modern architecture is an integral component of the biopolitical machine, and the doctor and medical knowledge grew as sources of public authority. Wallenstein, 31. This is mirrored in the development of the contemporary institutions of medicine, i.e. the modern hospital, where the institutional hierarchy is based on the “gaze” of the *doctor* on the *patient’s* sick-body (or dead-body). Michel Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception*, trans. Alan M. Sheridan (Taylor & Francis e-Library, 2003), xiii; Gordana Fontana-Giusti, *Foucault for Architects*, Thinkers for Architects 9 (London & New York: Routledge, 2013), 75–76. This gaze correlates with the mimesis of x-ray and modern sanatoria. Colomina, *X-Ray Architecture*, 10.

⁹ Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses* (Wiley, 2012); Juhani Pallasmaa, ‘Empathic and Embodied Imagination: Intuiting Experience and Life in Architecture’, in *Architecture and Empathy*, ed. Philip Tidwell (Espoo: Tapio Wirkkala – Rut Bryk Foundation, 2015).

¹⁰ Protagonists as tuberculosis patients in emotionally charged spaces are often depicted in the twentieth-century Turkish cinema. See Deniz Avcı-Hosanlı, “The Portrayal of Care in *Yeşilçam*: Heybeliada, Süreyyapaşa and Kirazlıyayla Sanatorium Buildings” (paper presented at the 14th 4T International Design and Design History Symposium “Who Cares”, Izmir, Turkey, November 17–19, 2021).

¹¹ Mann, *The Magic Mountain (Der Zauberberg)*.

¹² Joseph Kessel, *Les Captifs* (Gallimard (electronic version), 2015).

¹³ Bruno Schulz, *Sanatorium under the Sign of the Hourglass*, trans. Celina Wieniewska (New York: Penguin, 1979).

¹⁴ Leslie Topp, ‘Isolation, Privacy, Control and Privilege: Psychiatric Architecture and the Single Room’, in *Healing Spaces, Modern Architecture, and the Body*, ed. Sarah Schrank and Didem Ekici (London and New York: Routledge, 2017), 98; Nicola J. Imrie, ‘The Architecture and Culture of Sanatoria for Nervous Ailments in the Austro-Hungarian Empire 1890–1914’ (PhD Dissertation, London, Birkbeck College; University of London, 2008).

¹⁵ Susan Sontag, *Illness as Metaphor* (New York: Farrar, Straus and Giroux, 1978), 12, 17–18, 63–64.

¹⁶ Pallasmaa, *The Eyes of the Skin*, 69.

¹⁷ Rita Charon, *Narrative Medicine: Honoring the Stories of Illness* (New York: Oxford University Press, 2006), 73–76.

¹⁸ The conventional five senses of sight, hearing, taste, smell, and touch are not the only ways that a person might experience the bodily experience in space. Kinaesthesia, or the feeling of movement, is one of the aspects of body experience covered by the study of the senses and indicates how movement in three-dimensional space modifies one’s physiological sense of orientation and position. For more information see. Robin Veder, ‘Garden Walks: Physical Mobility and Social Identity at Dumbarton Oaks’ in *Healing Spaces, Modern Architecture, and the Body*, ed. Sarah Schrank and Didem Ekici (London and New York: Routledge, 2017), 124, 128.

¹⁹ Charon, *Narrative Medicine: Honoring the Stories of Illness*, 78.

²⁰ Marie Allitt et al., ‘Creative Forms: Booklets by the Hospital Senses Collective’, *Medical Humanities*, 28 June 2023, 2, <https://doi.org/10.1136/medhum-2023-012638>.

²¹ Allitt et al., 2.

²² Contemporary Turkey bears witness to the gradual destruction of twentieth-century sanatoria which encompass invaluable architectural, cultural, and medico-social values. See Deniz Avci-Hosanli, "Beyond Decay: Nostalgia and Loss in Turkey's Abandoned Twentieth-Century Sanatoria" (paper presented at Prague - Heritages, Past and Present - Built and Social, Prague, Czechia. June 28–30, 2023).

²³ Pallasmaa highlights the multi-sensory nature of spatial experiences, emphasizing that architecture engages all our senses, including memory, consciousness, and emotion. By considering this perspective, we acknowledge that senses play a crucial role in shaping our perception and understanding of space, and that architecture serves as a means of engaging with the world through sensory experiences.

²⁴ See, for instance Rob Boddice and Bettina Hitzer, eds., *Feeling Dis-Ease in Modern History: Experiencing Medicine and Illness* (London: Bloomsbury Academic, 2022); Agnes Arnold-Forster, 'The Emotional Landscape of the Hospital Residence in Post-War Britain', in *Feelings and Work in Modern History: Emotional Labour and Emotions about Labour*, ed. Agnes Arnold-Forster and Alison Moulds (London: Bloomsbury Academic, 2022), 58–75. The interdisciplinary project 'Sensing Spaces of Healthcare' investigates the sensory dimensions of NHS hospitals, encompassing their past, present, and future. See Victoria Bates, 'Making Senses', *Sensing Spaces of Healthcare* (blog), 21 January 2020, <https://hospitalsenses.co.uk/making-senses/>.

²⁵ Roy Porter, 'The Patient's View: Doing Medical History from Below', *Theory and Society* 14, no. 2 (1985): 175–98.

²⁶ Porter, 179.

²⁷ Porter, 194.

²⁸ All the translations from Turkish to English are done by the authors.

²⁹ Florence Nightingale, *Notes on Hospitals* (London: Longman, Green, Longman, Roberts, and Green, 1863), 16.

³⁰ Before the acceptance of the germ theory of disease, the prevalent explanation for diseases was the miasma theory. Miasmatisms held that contagious diseases spread through the air, attributed to atmospheric conditions and airborne particles. Decomposing organic matter, including waste and foul-smelling substances, was commonly cited as the source of these diseases. William Bynum, *The History of Medicine: A Very Short Introduction* (New York: Oxford University Press, 2008), 75.

³¹ Tevfik İsmail Gökçe, *Heybeliada Sanatoryumu Kuruluş ve Gelişimi (1924-1955)*, ed. Fatih Artvinli, Cem Hakan Başaran, and Tuna Pektaş, First edition 1957 (İstanbul: İstanbul Tüberkuloz Vakfı, 2021), 77–97.

³² Jeanne Kisacky, *Rise of the Modern Hospital: An Architectural History of Health and Healing, 1870-1940* (Pittsburgh: University of Pittsburgh Press, 2017), 87.

³³ The relationship between airborne contagions and healthcare spaces has been under re-evaluation since the onset of the COVID-19 pandemic. For a recent survey examining the historical and contemporary evidence on the effectiveness of hygienic design strategies in reducing the risk of infection in healthcare facilities, see Udomiaye Emmanuel, Eze Desy Osondu, and Cheche Kalu, 'Infection Control Through Environmental Design', in *Architectural Factors for Infection and Disease Control*, ed. AnnaMarie Bliss and Dak Kopec (New York: Routledge, 2023), 80–92.

³⁴ Beatriz Colomina and Mark Wigley, 'The Bacterial Clients of Modern Architecture', *Docomomo Journal* 1, no. 62 (2020): 7.

³⁵ Gökçe, *Heybeliada Sanatoryumu Kuruluş ve Gelişimi (1924-1955)*, 406.

³⁶ Refet Raif Öktem, 'Heybeliada Sanatoryumunda Neler Gördüm?', *Yaşamak Yolu*, 1935, 19–21.

³⁷ Muhteşem Öksüzcü, 'Heybeli Ada Sanatoryomu', *Yaşamak Yolu*, no. 92 (6 October 1940): 2–5.

³⁸ Melek Kobra, *Hatıratım*, ed. Gökhan Akçura (İstanbul: Everest, 2006), 90.

³⁹ Mahmut Yesari, *Yakacık Mektupları* (İstanbul: Yeni Matbaa, 1961), 67.

⁴⁰ Mann, *The Magic Mountain (Der Zauberberg)*, 10–11.

⁴¹ Fumigation is a sterilization method of using chemical gas to disinfect an enclosed space or an object.

⁴² Hayrettin Sevüktekin, *Sanatoryum Anılarım* (İstanbul: Sıralar Matbaası, 1963), 57.

⁴³ Bürhaneddin Ali Moral, 'Bir Veremlinin Hatıraları: Sanatoryumda İki Sene', *Yaşamak Yolu*, no. 99 (12 January 1941): 12–13.

⁴⁴ Sevüktekin, *Sanatoryum Anılarım*, 65–66.

⁴⁵ See J. N. Hays, *The Burdens of Disease: Epidemics and Human Response in Western History* (New Brunswick, New Jersey and London: Rutgers University Press, 2009).

⁴⁶ Flurin Condrau, 'Beyond the Total Institution: Towards a Reinterpretation of the Tuberculosis Sanatorium', in *Tuberculosis Then and Now: Perspectives on the History of an Infectious Disease* (Montreal: McGill-Queen's University Press, 2010), 84. For a broader analysis of tuberculosis' social dimension in the context of nineteenth-century France, see David S. Barnes, *The Making of a Social Disease: Tuberculosis in Nineteenth-Century France* (Berkeley: University of California Press, 1995).

- ⁴⁷ Margaret Coltart, Helen Raine, and Elizabeth Harrison, *Social Work in Tuberculosis* (London: Chest and Heart Association, 1959), 32–50.
- ⁴⁸ Linda Bryder, *Below the Magic Mountain: A Social History of Tuberculosis in Twentieth-Century Britain* (Oxford: Clarendon Press, 1988), 222–23.
- ⁴⁹ Nancy Tomes, *The Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge, Mass.: Harvard University Press, 1998), 131.
- ⁵⁰ Moral, ‘Bir Veremlinin Hatıraları: Sanatoryumda İki Sene’, 12–13.
- ⁵¹ Adams and Burke note a similar observation in the case of examples from Canada. Annmarie Adams and Stacie Burke, ‘Not a Shack in the Woods: Architecture for Tuberculosis in Muskoka and Toronto’, *Canadian Bulletin of Medical History* 23, no. 2 (October 2006): 449, <https://doi.org/10.3138/cbmh.23.2.429>.
- ⁵² Rüştü Sezginoglu, ‘Heybeliada Sanatoryumunda’, *Yeni Mecmua*, (2 January)1940.
- ⁵³ Öksüzcü, ‘Heybeli Ada Sanatoryomu’, 2–5.
- ⁵⁴ ‘Erenköy Sanatoryumuna Ziyaret’, *Yaşamak Yolu*, no. 90 (2 December 1940): 15–16.
- ⁵⁵ Victoria Bates, ‘“Humanizing” Healthcare Environments: Architecture, Art and Design in Modern Hospitals’, *Design for Health* 2, no. 1 (2018): 11–12, <https://doi.org/10.1080/24735132.2018.1436304>.
- ⁵⁶ Göran Schildt, ed., *Alvar Aalto in His Own Words* (New York: Rizzoli, 1998), 103.
- ⁵⁷ Willis, Goad, and Logan, *Architecture and the Modern Hospital*, 56.
- ⁵⁸ Margaret Campbell, ‘Strange Bedfellows: Modernism and Tuberculosis’, in *Imperfect Health: The Medicalization of Architecture*, ed. Giovanna Borasi and Mirko Zardini (Zurich: Lars Müller Publishers, 2012), 137.
- ⁵⁹ Bates, ‘“Humanizing” Healthcare Environments: Architecture, Art and Design in Modern Hospitals’, 14.
- ⁶⁰ Niyazi Ahmet, ‘Heybeli Sanatoryomunda’, *Yedigün* 12, no. 314 (14 March 1939): 14–16.
- ⁶¹ Bryder, *Below the Magic Mountain*, 200.
- ⁶² Note that Abacı mentions himself as a third person in his memoirs. Duran Abacı, *Sanatoryumdan* (Ajans - Türk Matbaası, 1965), 54.
- ⁶³ Sontag, *Illness as Metaphor*, 36.
- ⁶⁴ Yesari, *Yakacık Mektupları*, 37.
- ⁶⁵ A. Süreyya, ‘Hava Küründe’, *Yaşamak Yolu*, no. 61 (1934): 4.
- ⁶⁶ Schildt, *Alvar Aalto in His Own Words*, 103.
- ⁶⁷ Willis, Goad, and Logan, *Architecture and the Modern Hospital*, 56.
- ⁶⁸ Mann, *The Magic Mountain (Der Zauberberg)*, 90.
- ⁶⁹ Pallasmaa, ‘Empathic and Embodied Imagination’, 7.
- ⁷⁰ Sevüktekin, *Sanatoryum Anılarım*, 21, 38–39.
- ⁷¹ Willis, Goad, and Logan, *Architecture and the Modern Hospital*, 33.
- ⁷² Abacı, *Sanatoryumdan*, 68–69.
- ⁷³ Pallasmaa, *The Eyes of the Skin*, 62.
- ⁷⁴ Sevüktekin, *Sanatoryum Anılarım*, 39.
- ⁷⁵ In the multi-functional usage of the rooms in Ottoman/Turkish traditional domestic architecture, the rooms provided built-in cupboards called *yüklük*. These cupboards were recessed and hidden in the walls, providing tidiness and easy-to-cleanliness while also affording storage. In this sense, they were ideal for twentieth-century antiseptic design principles. See. Doğan Kuban, *The Turkish Hayat House* (İstanbul: T.C. Ziraat Bankası Yayınları, 1995); Sedat Hakkı Eldem, *Türk Evi Plan Tipleri* (İstanbul: İTÜ Mimarlık Fakültesi Yayınları, 1954).
- ⁷⁶ Moral, ‘Bir Veremlinin Hatıraları: Sanatoryumda İki Sene’, 12–13.
- ⁷⁷ Kobra, *Hatıratım*, 90–91.
- ⁷⁸ Abacı, *Sanatoryumdan*, 15.
- ⁷⁹ Haptic was also one of the prevailing senses in humanized hospital design, however, with a contagious disease like tuberculosis, pleasant-to-touch surfaces, would not be encouraged. For an example of design to stimulate haptic senses, see. Maggie’s Centres (drop-in centres for people with cancer, first established in Edinburgh, 1966). See. Bates, ‘“Humanizing” Healthcare Environments: Architecture, Art and Design in Modern Hospitals’, 14.
- ⁸⁰ Pallasmaa, *The Eyes of the Skin*, 53.
- ⁸¹ Margo Annemans et al., ‘Inpatients’ Spatial Experience: Interactions Between Material, Social, and Time-Related Aspects’, *Space and Culture* 21, no. 4 (1 November 2018): 496, <https://doi.org/10.1177/1206331217750828>.
- ⁸² Kobra, *Hatıratım*, 99–100.
- ⁸³ Pallasmaa, *The Eyes of the Skin*, 50.
- ⁸⁴ Kobra, *Hatıratım*, 108–9.
- ⁸⁵ In the early years of electricity’s introduction in Turkey, the term “electricity” was occasionally used in reference to electric lamps in everyday language.

⁸⁶ A. Süreyya, 'Sanatoryomda Son Akşam', *Yaşamak Yolu*, no. 51–52 (1933): 15.

⁸⁷ Selahattin Güngör, 'Atatürk Kızı Nebile Sanatoryomda', *Yeni Mecmua* 2, no. 33 (15 December 1939): 6–7, 13.

⁸⁸ For instance, the cover of the April 1937 issue of *Hospital Magazine* (Australia) featured a little child with headphones on and a smile, ironically defined 'likeness of a bedridden patient having fun'. See Willis, Goad, and Logan, *Architecture and the Modern Hospital*, 50.

⁸⁹ Kobra, *Hatıratım*, 103, 108–9.

⁹⁰ Abacı, *Sanatoryumdan*, 80–81.

⁹¹ These were commercialized and sold in private sanatoria in Europe. Helen Bynum, *Spitting Blood: The History of Tuberculosis* (Oxford: Oxford University Press, 2012), 138–39; Mann, *The Magic Mountain (Der Zauberberg)*, 167.

⁹² Mann, *The Magic Mountain (Der Zauberberg)*, 7, 147.

⁹³ Muvaffak İhsan, 'Sanatorium', *Yaşamak Yolu*, no. 39–40 (1932): 28–30.

⁹⁴ Sontag, *Illness as Metaphor*, 65–66.

⁹⁵ Mann romanticized the 'black glass plates': '[Castorp's uncle] lifted [...] a black glass plate, one of the small personal articles with which the owner adorned his cleanly quarters. [...] He looked at it— "What is that?" he said. He might well ask. It showed the headless skeleton of a human form—the upper half, that is—enveloped in misty flesh; he recognized the female torso. "That? Oh, a souvenir," the nephew answered. To which the uncle replied: "Pardon me," and hastily replaced the picture on its easel.' Mann, *The Magic Mountain (Der Zauberberg)*, 437.

⁹⁶ Sevüktekin, *Sanatoryum Anılarım*, 20–21.

⁹⁷ Condrau, 'Beyond the Total Institution: Towards a Reinterpretation of the Tuberculosis Sanatorium', 78.

⁹⁸ Yesari, *Yakacık Mektupları*, 42.

⁹⁹ Abacı, *Sanatoryumdan*, 84.

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