ART AND DESIGN
Journal homepage: https://art-design.com.ua/en
8(4), 2025

Received 01.07.2025 Revised 13.11.2025 Accepted 27.11.2025

UDC 725.5 DOI: 10.30857/2617-0272.2025.4.7

Democratising hospital design: Reconfiguration of disciplinary power via M. Foucault's theory

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Abstract. Hospital interiors remained decisive sites where spatial form, materials, lighting, and acoustics structured everyday conduct, making the democratisation of design a timely concern for healthcare quality and dignity. The purpose of this study was to theorise and test a "democratisation design" logic that reconfigured disciplinary power into emancipatory spatial practice. A mixed qualitative design method was employed that combined literature synthesis, discourse analysis of briefs and standards, and comparative case studies of five contemporary hospitals to evaluate spatial layout, material language, adjustable lighting, and participatory navigation. How traditional interiors encoded hierarchy through radial zoning, cold hard finishes, uniform high-illuminance lighting, and voice-controlled soundscapes was investigated; these configurations produced routinised flows and asymmetric visibility. Decentralised layouts, nature-based materials, and circadian-tuneable lighting were established to rebalance perception and privacy while sustaining hygiene and throughput. Dialogic interfaces – open corridors, shared decision-making corners, and self-service information – were analysed and were found to reduce information asymmetry, improve perceived control, and increase trust and satisfaction. The findings were summarised as a four-part framework (movement, material, light, sound) showing where specific interventions reinforced or redistributed power across entry, waiting, and treatment zones; across five cases, queuing stress was reduced, wayfinding times were shortened, and staff coordination was supported without increasing infection-control risk or compromising clinical workflows. The results could be used by healthcare architects, engineers, and hospital managers to inform design guidelines and post-occupancy evaluations that align safety and efficiency with agency, dignity, and participation in both new builds and phased renovations

Keywords: environmental design; healthcare interior; patient-centred design; environmental perception; spatial layout; interior finishing; interior lighting

INTRODUCTION

Hospital interiors have a direct impact on the quality of treatment and the psychological state of patients. Traditionally, spatial solutions – zoning, materials, lighting, and communication organisation – shaped the relationship between doctor and patient in the logic of control and subordination, corresponding to the disciplinary model of power described by M. Foucault (1995; 2003). Architectural and design

Suggested Citation:
Zhao, K., & Kosenko, D. (2025). Democratising hospital design: Reconfiguration of disciplinary power via M. Foucault's theory. *Art and Design*, 8(4), 80-90. doi: 10.30857/2617-0272.2025.4.7.

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elements such as raised counters, cold lighting, and semi-open offices reinforced the hierarchy and reduced the sense of trust. Simultaneously, contemporary approaches aim to rethink the hospital not as a "disciplinary container" but as a space that supports dignity, autonomy, and partnership. Research into this transition is important for the development of interiors that can build trust, reduce stress, and increase the resilience of the healthcare system.

As healthcare models transitioned to a patient-centred philosophy, B. Bogaert (2022) argued that hospital interiors should shift from passive carriers of authority to active agents for reconfiguring relationships. His study examined three key aspects of design – spatial planning, material language, and lighting narrative – to reveal how traditional hospital space functioned as a "container of discipline" and how it could be transformed into a "democratic field". In particular, it was found that decentralised plans disrupt hierarchical power structures, warm natural materials humanise the technological environment, and adjustable lighting reconfigures the visual order. O. Pekarchuk & Kh.B. Palianytsia (2024) analysed universal physical rehabilitation halls for military personnel and proposed concise guidelines on daylight use, material finishes, and functional zoning to enhance patient agency.

M. Fiddler (2022) indicated the tool "Panoramic Openness" became one approach to analyse power, based on viewing space as the manifestation formality of a physical structure whose forms provide a set of commands that silently govern individuals by exploiting their difference in visibility conditions, body manipulation technique, or through attempts at disciplining them according to some pre-given measure. B. Dalton (2024) demonstrated that "queered" spatial interventions exposed and reworked sensory-power configurations; ethnographies of bedside rounds under a Foucauldian lens likewise mapped multiprofessional power and discourse, confirming a "power choreography". C.A. Suijker (2023) argued that M. Foucault's knowledge/power-space insights were key to contemporary healthcare: hospitals were organised as therapeutic realms through governance and environmental interventions, and layouts shaped patient–clinician behaviour via visibility, circulation, and zoning. Thus, M. Foucault's perspective is crucial for understanding power in contemporary healthcare.

Empirical studies have further enriched this theoretical perspective. C.Q. Smith *et al.* (2024) analysed a pan-organisational reconfiguration in England, showing how power/knowledge and managerial moral agency shaped evidence-led redesign. C. Perry *et al.* (2022) documented the centralisation of specialist cancer surgery in Greater Manchester that effectively redrew the care geography. F. Qian & Y.S. Luo (2022) emphasised the enduring relevance of M. Foucault's insights for understanding how disease, space, and power interrelate. These contributions clarified that medical space was not merely a physical backdrop for treatment but a materialised expression of power relations. As P. Draganov & M.C. Sanna (2021) argued, hospital layouts and designs were shaped by the logic of regulation and control, which made them a critical lens for understanding how power operated in the contemporary healthcare system. N.S. Polka *et al.* (2022) conducted a hygienic assessment of new architectural and planning solutions for psychiatric facilities and recommended EU-aligned, multidisciplinary design guidance to create therapeutic environments, showing how spatial standards reshaped agency and safety.

As H.Y. Park (2023) emphasised, hospital space was not a neutral place of diagnosis and treatment, but rather accomplished the "micro-governance" of power through spatial layout and visual mechanisms, further validated M. Foucault's prediction of the logic of modern power operation. The interior design of hospitals not only had to fulfill clinical needs, but also implied the rational operation of power practices. For example, spatial layout and process control together shaped the order of the body that could be observed, documented, and managed. The analysis of research provided a theoretical basis and methodological recommendations for an in-depth analysis of disciplinary mechanisms in the spatial design of hospitals. Accordingly, this study set out to operationalise an overarching "power-body-space" framework to examine how spatial layout, material language, and lighting reconfigured bodily discipline and power relations within specific hospital interior environments.

To explore how hospital interior design reflected and restructured disciplinary power, this study analysed spatial layout, material application, lighting, and acoustic strategies through literature review, case study, and discourse analysis. The literature review consolidated prior theory and yielded criteria for spatial layout, material use, lighting, and acoustics. The case study translated these criteria into concise measures – circulation hierarchy, material tactility/reflectance, lighting controllability, and acoustic attenuation – and applied them to constructed interiors, revealing patterns of power reproduction and points for redistribution. Discourse analysis examined design briefs, regulations, wayfinding, and professional narratives, showing how efficiency, visibility, and risk rationalities legitimised specific spatial choices and where alternative framings were possible. Together, the methods cross-validated results and identified actionable levers – decentralised layouts, warmer natural materials, adjustable lighting, and basic acoustic controls – for shifting interiors from disciplinary containers toward more democratic spatial fields. Drawing on M. Foucault's theory (Foucault, 1995; 2003), it examined how traditional hospital environments employ hierarchical zoning, cold materials, uniform lighting, and controlled soundscapes

to exert invisible control over patients' bodies. Based on this framework, five contemporary hospitals were selected for comparative analysis: Shunde Hospital of Southern Medical University (Shunde, PRC), Advocate Illinois Masonic Medical Center (Chicago, USA), Lapland Central Hospital (Rovaniemi, Finland), LHL Hospital (Gardermoen, Norway), and Steno Diabetes Centre (Copenhagen, Denmark), to assess how specific design interventions challenged or reinforced spatial power structures for comparative analysis, focusing on how specific design interventions challenge or reinforce spatial power structures. Particular attention was given to decentralised spatial planning, the use of natural materials, user-adjustable lighting, and participatory navigation systems.

MEDICAL DISCIPLINE IN DISCIPLINARY SPACE: THE POWER-BODY-SPACE LOGIC OF HOSPITAL INTERIOR DESIGN

In Michel Foucault's theory of disciplinary power, the body was not only an object of political power but also a crucial medium of knowledge production. As a typical "disciplinary institution", the hospital – through its spatial structure and operational mechanisms – implemented highly detailed management and discipline of the body (Foucault, 1995). First, hospitals visualised and technologically controlled the body through spatial facilities. Beds, operating tables, monitoring stations, and observation windows allowed the patient's body to be precisely positioned, seen, and manipulated, thereby supplying the physical preconditions for the medical gaze This vertical spatial arrangement – physicians working "from above", nurses surveilling from stations, and administrators overseeing the ward – reinforced hierarchical relations within the healthcare system and normalised role-based asymmetries. Second, information technologies disaggregated the body into legible data units. With imaging modalities, electronic medical records, and laboratory information systems, bodies were rendered as comparable metrics that could be identified, evaluated, and tracked over time; as Michel Foucault argued, the modern body thus became both an object of knowledge and a site in which mechanisms of control were embedded (Foucault, 2003).

Third, hospital layouts shaped visibility, privacy, and movement in ways that guided behaviour. S. Bae (2023) showed that during COVID-19, changes in layout, wayfinding, and room use affected staff routines, awareness, and feelings of safety. This demonstrates how spatial design influenced clinical practices. Similarly, A.B. Pratiwi *et al.* (2022) found that open doors, shared spaces, and thin partitions reduced both physical and informational privacy, limiting patient disclosure and examination. This illustrates how conditions of visibility structured interaction. Fourth, planning strategies and infection-control measures also worked as tools of governance. K. Tang & B. Chen (2023) reported that zoning (clean/dirty areas), controlled circulation, flow separation, and modular layouts reorganised movement to reduce infection risk. In this way, circulation paths, thresholds, and restricted access disciplined bodies and routines. Taken together, these strands indicated that interior layout, visibility conditions, and information infrastructures operated as disciplinary techniques: they enabled coordination and safety while simultaneously governing bodies and conduct. In this sense, the modern hospital realised what Michel Foucault diagnosed – an apparatus in which knowledge production and power converged through space, routines, and records – rendering the clinic a key site for analysing how contemporary healthcare organised, measured, and disciplined embodied life.

SPATIAL CONSTRUCTION OF DISCIPLINARY MECHANISMS: MATERIALISED EXPRESSIONS OF POWER

The spatial construction of the disciplinary mechanism was examined through the prism of movement, material, light, and sound, which were identified as key points of entry. As C. Spence (2020) noted, these were not limited to general design considerations but represented components of the hospital environment that directly influenced patients' bodily perception and behavioural responses, thereby enabling the abstract mechanism of power to acquire a visual form and become integrated into everyday experience. Line-of-motion design – such as the entrance with an elevated guide desk and ground instructions that guided arrows all the way – was the invisible path of discipline, so that patients naturally obeyed the established rhythm, that was described by S. Chaeibakhsh *et al.* (2021), drawing on M. Foucault, as "panoramic surveillance". The choice of materials, such as smooth and easy to clean flooring, stainless steel chairs, glass partitions, etc., not only met hygiene requirements but also materialised a technical rationality; such a cool, hard environment required the body to enter a mode of adaptation. Attention was then directed to the lighting strategy: uniform illumination in the public area created an atmosphere of no "blind spots", while the spotlight in the treatment area focused attention on the patient's body, with the light itself functioning as a subtle disciplinary instrument. Ultimately, as O. Tronstad *et al.* (2023) observed, the acoustic environment – through high-frequency calling, radio control, and noise-reduction strategies – built a rhythmic, uniform, restricted voice-controlled order in the auditory dimension, so that patients invisibly complied with the temporal rhythm and behavioural logic of the healthcare system. The subsequent analysis focused on these four dimensions and demonstrated how hospital interiors integrated mechanisms of power into spatial organisation and exercised invisible control over the body through design.

The spatial layout from the entrance to the hospital's waiting area became a gradual disciplining of the patient's physical limitations. At the entrance the 1.2-1.3-metre-high reception desk was surrounded by transparent partitions, and patients needed to tilt their heads to communicate, a passive gesture that implied the inequality of power between doctor and patient. In studies of hospital signage, A. Lundberg *et al.* (2024) found that unidirectional floor arrows and fixed electronic department displays further deprived patients of autonomous spatial judgment and reduced them to "passive executors" of the medical process. The discipline of the waiting area appeared even more pronounced: dense, narrow, hard plastic chairs forced patients to remain in a rigid sitting position, forming a physical memory of institutional order over time; cyclic call announcements, repetitive signage, and segregated queuing areas, as M.D. Lamb (2021) argued, reinforced behavioural norms through high-frequency repetition, strictly limiting patient activities to standardised frameworks predetermined by the healthcare system and making the space a tangible vehicle for power disciplining.

The choice of materials for hospital interiors implied the logic of technological prioritisation. Floors were made of polished epoxy resin and polyvinyl chloride (PVC); walls were covered with glazed tiles or antimicrobial coatings; and waiting chairs were mainly stainless steel and hard plastics. According to L.X. Yong & J.K. Calautit (2023), such easily sterilisable, hard finishes deliberately created a space relatively devoid of human touch and tilted the environment toward a technologically dominated, "de-emotionalised" field. Layers of transparent materials were used to build networks of power and surveillance. Nurses' stations were often enclosed by translucent glass walls, creating a surveillance structure reminiscent of M. Foucault's panorama, where healthcare workers could observe patients from multiple angles and fully expose their behaviour. In neonatal areas, circular glazing recentred the nurses' station in the visual field, placing infants' conditions in full view; frosted glass in treatment rooms, while claiming to protect privacy, was often adjusted to allow a clear inward view of the patient while blocking outward sightlines, a calibration that, as S. Kumar *et al.* (2020) discussed, delineated the power boundary between clinicians and patients.

Lighting strategy was vital to building visual power in hospital space and shaped a monitoring order through differentiated design. In public areas, cool, uniform panels supported panoramic legibility; in clinical arenas, shadowless and task lights fixed the gaze on specific anatomical sites. Excessively bright, uniform lighting heightened patients' sense of being observed and increased anxiety, whereas adjustable systems enhanced perceived control and reduced stress. In parallel, sound assumed an important disciplining function: high-frequency queue tones and looping messages captured attention and synchronised movement, while noise-control strategies dampened conversation and privileged system operation over spontaneous social exchange; as E. de Lima Andrade *et al.* (2021) and S. Lenzi *et al.* (2024) showed, hospital soundscapes often exceeded recommended levels and

Table 1. Spatial design interventions, patient effects, and disciplinary functions in hospital interiors

Design solution	Effect on the patient	Disciplinary function
Elevated reception counter with transparent partition	Tiptoeing/stretched posture; deference cues	Visual hierarchy; role asymmetry
One-way floor arrows and fixed electronic boards	Reduced autonomous wayfinding; path dependency	Channelling flows; routinising movement
Nested queue lanes and waiting-zone partitions	Constrained trajectories; compliance	Ordering bodies in space; priority control
Polished epoxy/PVC floors; antimicrobial wall finishes	Perceived coldness; careful, measured gait	Hygiene as legitimacy; behaviour standardisation
Stainless-steel / hard-plastic seating (high density)	Rigid sitting; curtailed lingering	Postural control; turnover pressure
Transparent / frosted glass partitions	Heightened exposure; limited privacy	Asymmetric visibility; surveillance
Uniform, bright public lighting	Sense of being watched; vigilance	Panoptic legibility; deterrence
Focused task / surgical lighting	Bodily focalisation; passivity during procedures	Authority concentration; clinical control
Queue-calling systems and public-address loops	Attentional capture; timetable compliance	Temporal discipline; voice-command order
Noise-control rules and sound-absorbing materials	Muted conversation; subdued affect	Silencing; privileging system over dialogue

Source: compiled by the authors

required intentional mitigation to balance operational efficiency with human dignity.

Taken together, movement, material, light, and sound formed a concerted apparatus that translated institutional aims into embodied routines: elevated reception counters, one-way floor arrows, and nested queues channelled flows and cast patients as passive executors; polished epoxy floors, stainless-steel seating, and antimicrobial finishes operationalised a cool, technical rationality that invited bodily compliance; uniform, high-illuminance public lighting erased "blind spots", while focused task lights in treatment rooms fixed the clinical gaze on specific anatomical sites; and, sonically, queue-calling systems, looping announcements, and noise-control rules synchronised attention and subdued spontaneous interaction. From the entrance through the waiting area, this layering of cues progressively intensified discipline – narrowing choice, scripting posture, and redistributing visibility and voice – while also improving hygiene, safety, and coordination. In this sense, hospital interiors did not merely host care; they materialised power as everyday practice and showed how design decisions at the level of pathways, surfaces, luminance, and soundscapes shaped how bodies were perceived, moved, and acted upon, and where room remained for negotiation, dignity, and patient agency.

THEORETICAL LOGIC OF DEMOCRATISATION DESIGN: FROM DISCIPLINE TO EMANCIPATORY SPATIAL PRACTICE

The theoretical logic behind the democratisation of hospital space is to transform it from a place of discipline and control into an environment of emancipation and participation. This transformation takes place in four dimensions. First, spatial relationships are changing: instead of a hierarchical order, a field of dialogue, openness and interaction is being created. Second, the material language of space shifts from cold technicality to the use of natural materials that create an atmosphere of warmth and care. Third, lighting is transformed from a tool of functional control into a means of supporting physiological rhythms and psychological recovery through brightness control and the integration of natural light. Fourth, new information systems and meeting spaces give patients the opportunity to participate in their own treatment and decision-making, making them active participants rather than passive executors. As a result, the hospital becomes not a 'container of power' but a democratic platform that simultaneously protects professionalism and safety and ensures equal participation and a humanistic approach, as C. Morley (2024) pointed out.

A central goal of contemporary hospital design was to break down the hierarchical order of traditional healthcare spaces through spatial reorganisation, thereby creating a space for open, equal dialogue, as M. Zinoski *et al.* (2022) argued. By adopting open layouts and providing accessible public areas, designers could dismantle physical and psychological barriers between doctors and patients. In doing so, patients, medical staff, and visitors became more equal participants in the space, which helped to democratise power relations in healthcare. For example, the "open campus" design of Shunde First People's Hospital connected the hospital with the city through linked courtyard gardens and open plazas, allowing patients to enter treatment areas via public gardens. These shared spaces provided places to relax and integrated the hospital into the community, weakening the traditional fortress-like isolation of the hospital and reducing internal hierarchies (Fig. 1).

Figure 1. Shunde Hospital of Southern Medical University (Shunde, PRC)
Source: HMC Architects (2019)

Similarly, the Advocate Illinois Masonic Medical Centre in Chicago reimagined spatial engagement through "mobile public corridors." Its main corridor featured open seating areas and a glass curtain wall that brought natural light and outside views, encouraging patients and visitors to linger and look outward. The movement of medical staff was no longer confined to closed, staff-only corridors, breaking the traditional pattern of passive patients and active caregivers. Instead, a two-way flow of people and information was established, creating a more transparent and mutual environment (Fig. 2). Empirical studies showed that a friendly, comfortable atmosphere (lower reception desks, natural light, biophilic elements) increase trust and overall satisfaction, while flexibly organised waiting areas with controllable lighting and space significantly reduce patient anxiety and improve their assessment of the environment (Lee & Yoon, 2023). When hospital space was organised around dialogue, it ceased to be a mere container of power and became a "relationship incubator." By shaping the physical environment in egalitarian ways, the medical field could escape the constraints of technical formalism and return to the humanistic ethos of patient-centred care.

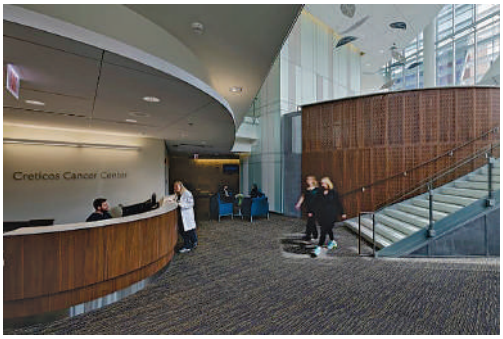

Figure 2. Advocate Illinois Masonic Medical Centre (Chicago, USA)
Source: SmithGroup (n.d.)

In hospital design, the role of materials shifted from a purely technical, functional symbol to a medium that conveyed emotional comfort and sensory experience, as S. Chowdhury *et al.* (2025) noted. The aim was to innovate the material palette to soften traditional medical environments' cold, technological atmosphere and instead create a healing ambiance attuned to human emotions and the body, as E.M. Ismaeil & A.E.E. Sobaih (2022) argued. Walls and furnishings incorporated natural materials such as wood and cork, whose warm textures and tactility counteracted the sterile feel of high-tech surfaces. These materials were physically pleasant to touch and eased patients' instinctive anxiety in clinical settings through warm colours and soothing textures. As M.L. Ríos-Rodríguez *et al*. (2023) and I. Al Khatib *et al*. (2024) reported, introducing natural materials significantly reduced stress for patients and healthcare providers, fostering a more relaxed psychological atmosphere. This change reflects a broader rethinking of architectural responsibility and ethics in the wake of the pandemic, with a focus on interdisciplinary collaboration, climate awareness, and user-centred design – an area highlighted by A.M. Maj & A. Kusmierska (2020) in their study of architectural paradigms.

Designers creatively leveraged natural materials to imbue hospital spaces with warmth and a connection to nature. For example, the extension of Lapland Central Hospital used wood extensively. Wooden panels were prominently featured in the entrance canopy (Fig. 3a) and throughout the interior (Fig. 3b), where the wood's natural grain interacted with soft light and shadow to create a warm, inviting first impression. The hospital's patient wards adjoined a forest, and wooden interior walls echoed the greenery visible through large windows, allowing patients to feel the warmth of wood under their touch and to visually immerse themselves in the surrounding natural scenery. This approach created a multi-dimensional healing experience linking material, body, and environment. The natural attributes of wood, synergised with open spatial layouts and ample natural light, produced a safe and restorative environment. Using wood and light as fundamental elements, this design innovation critiqued medical architecture's prevailing "technology-first" logic. Transforming building materials from standardised, cold components into elements that carried natural memories and emotional warmth enabled the hospital space to shed its rigid, machine-like character. Instead, the design deeply respected individual bodily experience and emotional needs. The material design thus functioned as a "silent therapist" in democratising medical environments and supported healing (Kwak & Choi, 2025).

a

b

Figure 3. Lapland Central Hospital (Rovaniemi, Finland)
Note: a – exterior; b – interior
Source: Verstas Architects (n.d.)

The core of lighting design in democratised healthcare was reconfiguring visual power relations by giving patients greater control over their light environment. H. Kallestad *et al*. (2024) reported that reducing blue light at night for psychiatric inpatients improved sleep and stabilised mood. This suggested that the relationship between light and circadian rhythms was strong and that, when light was adjustable to bodily needs rather than fixed and purely functional, patients were no longer passive recipients of care but actively participated in it. Complementarily, S. Aghajari & C.-C. Chen (2023) argued that combining dynamic, daylight-mimicking systems with circadian-tuneable LED lighting reduced disruption of physiological patterns and improved sleep.

A similar design was used at the LHL Hospital in Norway to visualise what a "more patient-initiated" lighting solution could do. The building invited ample

daylight through large windows and glass curtain walls, forging a strong visual link between interior spaces and the external natural landscape. Lighting was integrated with indoor elements like plants and water features to create an autonomously adjustable system. Patients felt the passage of time through diffused natural light when there was sufficient daylight (Fig. 4a), and experienced a soothing respite when daylight was limited through the warm-dimming system (Fig. 4b). This design broke with traditional "functional lighting" in hospitals, transforming light from a cold technical carrier to an active element involved in emotional regulation.

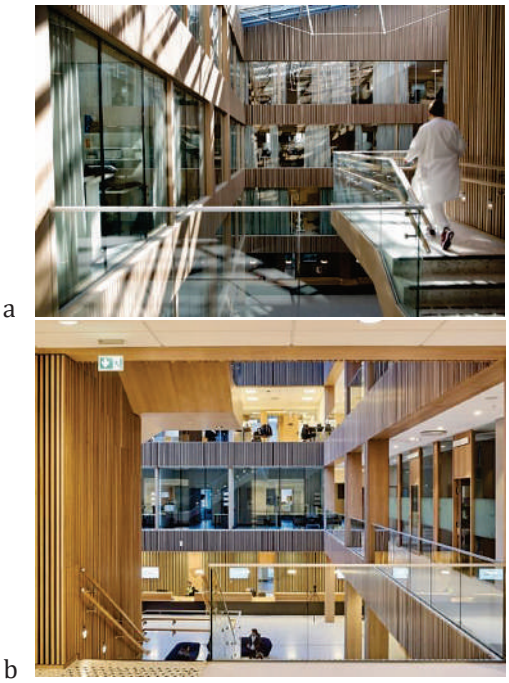

Figure 4. LHL Hospital (Gardermoen, Norway)
Note: a – sufficient daylight; b – insufficient daylight
Source: Nordic Office of Architecture (n.d.)

In essence, light no longer served merely the technical needs of treatment; through technological and natural integration, it became a medium that allowed patients to reclaim control of their surroundings via self-regulated illumination. This was not merely a matter of design improvement but a profound transformation of power relations: when lighting began to support the restoration of biological rhythms and psychological well-being, the hospital environment shifted from an instrument of control to an autonomous lightscape that fostered healing. Contemporary hospital design shifted from fixed, top-down procedural workflows to perception-guided environments that activated patient agency (Ghalehnoei *et al.*, 2022). Introducing self-service information kiosks and touchscreen wayfinding guides allowed patients to navigate appointments and services independently, thereby enhancing their sense of participation and trust in the healthcare process.

Democratising hospital space also meant encouraging the co-creation of meaning between patients and their environment (Salvati *et al.*, 2021). The Steno Diabetes Centre in Copenhagen was a vivid example of user-oriented design. A cascading landscaped staircase at the entrance encouraged people to chat and move their bodies without the alienation of a traditional hospital (Fig. 5a). The central courtyard and rooftop garden were public spaces that blended the medical environment with community life: patients could attend health lectures or relax in the rooftop garden while waiting for their appointments, and visitors could enjoy the cozy atmosphere in the open courtyard (Fig. 5b). This design broke down the rigid division of functional areas in traditional hospitals. It turned the difficult "waiting time" into a positive experience, focused on health, and brought people closer together. The details, such as barrier-free access and mixed-use areas, conveyed equality and respect everywhere. Rather than remaining a sealed medical facility, the hospital evolved into a warm, inclusive space that connected with and belonged to the community.

Figure 5. Steno Diabetes Centre (Copenhagen, Denmark)
Note: a – entrance; b – roof garden
Source: Mikkelsen Architecter (n.d.)

Taken together, movement devices, materials, light, and sound formed a coherent system that translated institutional priorities into everyday routines at entrances, waiting areas, and treatment zones. These arrangements improved hygiene, throughput, and risk control, but simultaneously restricted choice, dictated posture and interaction, and redistributed who was

able to see and speak. Patients encountered a sequence of measures that encouraged compliance and made deviation costly or confusing, while staff operated within stable conditions of visibility and authority. In this way, the interior did not merely support the delivery of care; it embodied power as daily practice and reinforced hierarchies of roles and perception.

CONCLUSIONS

This study demonstrated that hospital interiors operated as disciplinary frameworks but could be reconfigured toward democratic practice. It was found that decentralised circulation, warmer natural materials, tuneable patient-controlled lighting, and participatory navigation redistributed agency while sustaining hygiene and staff coordination. The analysis showed that these moves reduced queuing stress, shortened wayfinding times, improved perceived control and trust, and did not increase infection-control risk or compromise clinical workflows. Across the five cases, specific mechanisms were identified. In Shunde Hospital of Southern Medical University (Shunde, PRC), open courtyards and porous edges dissolved fortress-like segregation and established civic permeability. In Advocate Illinois Masonic Medical Centre (Chicago, USA), "mobile public corridors" and a glazed spine established a two-way flow between staff and visitors, increasing transparency and informal encounters. At Lapland Central Hospital (Rovaniemi, Finland), extensive wood surfaces with daylight integration softened institutional affect and anchored a multisensory, restorative ambience. In LHL Hospital (Gardermoen, Norway), patient-facing control of blue-depleted, dimmable lighting supported circadian alignment and emotional stability, evidencing a shift from functional light to negotiated illumination. At Steno Diabetes Centre (Copenhagen, Denmark), a courtyard and roof garden reframed waiting as participation, proving that community interfaces converted idle time into health-promoting activity. It was established that the movement-material-light-sound framework provided actionable criteria for design briefs, audits, and post-occupancy evaluations across entry, waiting, and treatment zones, thereby linking spatial choices to measurable shifts in visibility, choice, and voice. Prospects for further research include longitudinal, mixed-method evaluations of patient outcomes and staff workflows; acoustic-ecology experiments to quantify the effects of alarm and announcement regimes; and cross-cultural, cost-sensitive trials to test external validity and equity impacts when scaling democratisation strategies in new builds and phased renovations.

ACKNOWLEDGEMENTS

None.

FUNDING

None.

CONFLICT OF INTEREST

None.

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Демократизація дизайну лікарні: реконфігурація дисциплінарної влади через теорію М. Фуко

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Анотація. Інтер'єри лікарень є вирішальними просторами, де форма, матеріали, освітлення та акустика структурують повсякденну поведінку, що робить демократизацію дизайну нагальною темою для якості та гідності медичної допомоги. Це дослідження мало на меті теоретично обґрунтувати й випробувати логіку «демократизованого дизайну», яка переконфігуровує дисциплінарну владу в емансипативну просторову практику. Було застосовано змішані якісні дизайн методи, що поєднують синтез літератури, дискурс-аналіз технічних завдань і стандартів та порівняльні дослідження прикладів п'яти сучасних лікарень для оцінки просторового планування, «мови» матеріалів, регульованого освітлення та партисипативної навігації. Було досліджено, як традиційні інтер'єри кодують ієрархію через радіальне зонування, холодне тверде оздоблення, уніфіковане високояскраве освітлення та звукове середовище з голосовим керуванням; ці конфігурації породжують рутинізовані потоки та асиметричну видимість. Було встановлено, що децентралізовані планування, матеріали, натхненні природою, та освітлення, налаштоване під циркадні ритми, відновлюють баланс сприйняття й приватності, водночас підтримуючи гігієну та пропускну здатність. Було проаналізовано діалогічні інтерфейси – відкриті коридори, зони спільного ухвалення рішень та інфокіоски самообслуговування – і встановлено, що вони зменшують інформаційну асиметрію, підвищують відчуття контролю, а також довіру й задоволеність. Результати було узагальнено як чотирикомпонентну рамку (рух, матеріал, світло, звук), що показує, де конкретні втручання підсилюють або перерозподіляють владу в зонах входу, очікування та лікування; у п'яти прикладах зменшувався стрес від черг, скорочувався час пошуку маршруту та підтримувалася координація персоналу без підвищення ризику, пов'язаного з контролем інфекцій, чи компрометації клінічних процесів. Отримані результати можуть бути використані архітекторами медичних закладів, інженерами та менеджерами лікарень для формування настанов із проєктування та післяексплуатаційних оцінювань, щоб узгоджувати безпеку й ефективність із суб'єктністю, гідністю та участю як у новому будівництві, так і під час поетапних реконструкцій

Ключові слова: дизайн середовища; інтер'єр медичного закладу; дизайн орієнтований на пацієнта; сприйняття середовища; просторове планування; внутрішнє оздоблення; внутрішнє освітлення