New Spaces for a New Midwifery at the Lying-In Hospital of the City of New York

Kathleen Pierce

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ABSTRACT

In January 1902, the rebuilt Lying-In Hospital of the City of New York received its first patient. The new hospital arrived at a moment of transition at several interlocking registers: new theorizations of vanguard hospital design; increasing medical specialization and professionalization; burgeoning awareness of germ theory and antiseptic procedures; and changing understandings of pregnancy, labor, childbirth, and postnatal care. The 1902 hospital sits at the nexus of these intersecting cultural threads. This article centers the 1902 Lying-In Hospital as a productive site for understanding changing conceptions of pregnancy and birthing in turn-of-the-century New York City and beyond. Through close study of the planning, construction, and operation of the hospital, it demonstrates that the building's plan made manifest physicians' efforts to professionalize obstetrics, articulate discrete stages of childbirth, and prevent midwives from practicing, emphasizing physicians' racialized and ethnicized thinking about the birthing practices of migrant women. These theoretical solutions for physicians, however, simultaneously transformed patients' understandings of pregnancy and birthing through the experiential space of the reorganized hospital. Unlike birthing in the home—wherein labor, delivery, and recovery all took place within a singular room—the hospital physically and temporally segregated labor, delivery, and postnatal care, contributing to the medicalization of childbirth.

On January 14, 1897, the *New York Times* announced that J. P. Morgan had given $1,000,000—equivalent to about $30,700,000 in 2019—to the Society of the Lying-In Hospital of the City of New York (referred to as "the society" throughout) for the construction of a new hospital building.[1] The society positioned itself as a charitable institution that strove to provide vanguard medical care for "the destitute and helpless mother," regardless of her marital status.[2] The existing hospital, the former Hamilton Fish mansion, was razed to allow construction of the new eight-story building on the same Lower Manhattan site, on Second Avenue between Seventeenth and Eighteenth Streets (Figures 1 and 2). Morgan's patronage arrived at a moment of transition not only in the life of the society, but also at several interlocking registers: new theorizations of vanguard hospital design, particularly the shift from the pavilion to the block plan; increasing specialization and professionalization in medicine, both broadly and in the field of obstetrics specifically; burgeoning awareness of Louis Pasteur and Robert Koch's germ theory of disease and Joseph Lister's antiseptic procedures; and changing understandings of pregnancy, labor, childbirth, and postnatal care.[3] The completed 1902 Lying-In Hospital sits squarely at the nexus of these intersecting cultural threads.

While histories of general hospital design, midwifery, and the more general shift of childbirth from the homosocial space of the home to the heterosocial space of the hospital are well trod, birthing's built environment—especially the maternity or lying-in hospital—has rarely

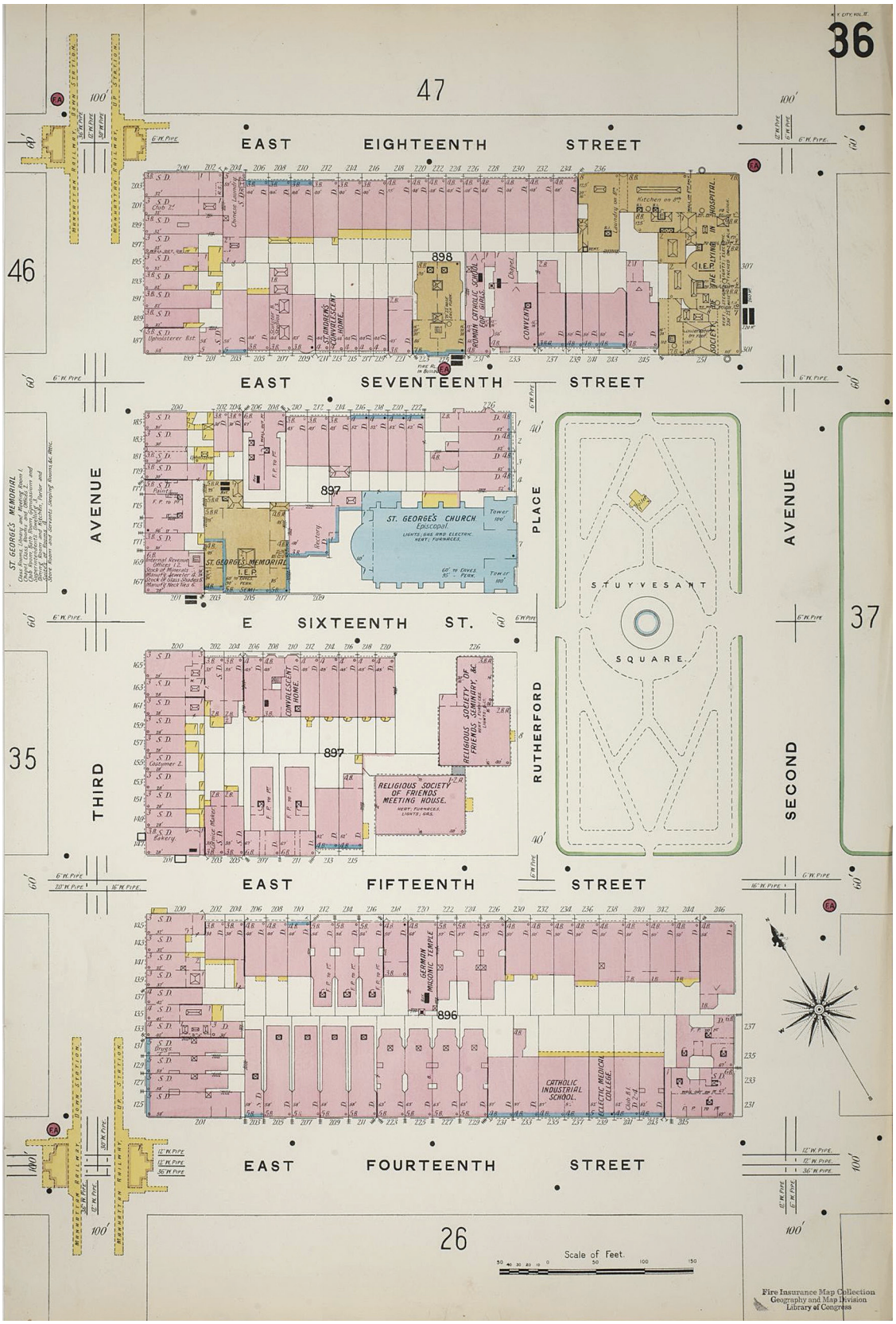
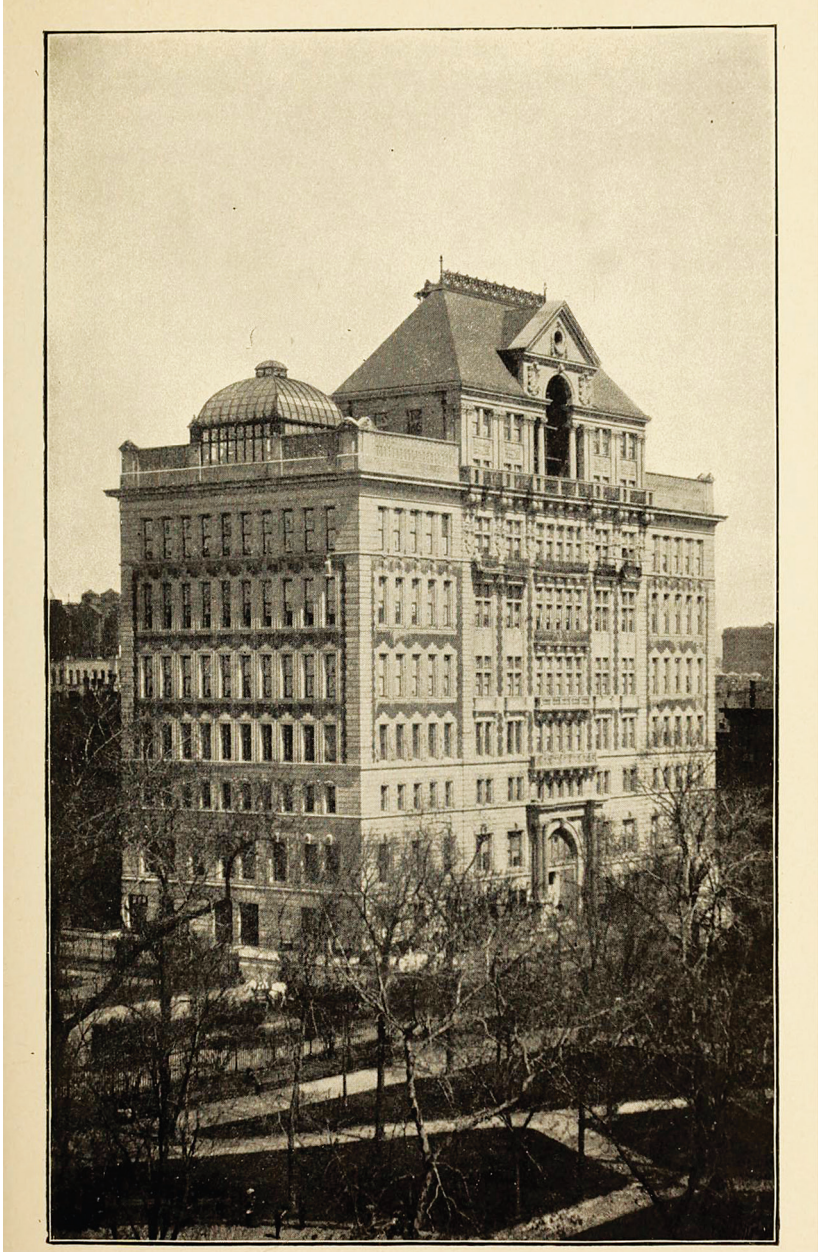


Figure 1. Map showing the location of the hospital as well as surrounding spaces and transport options. The hospital is located at the corner of East Eighteenth Street and Second Avenue in the upper right corner of the map. The green space of Stuyvesant Park appears just below. The stations for the north-south elevated railway station appear in yellow along Third Avenue. *Sanborn Fire Insurance Map from New York, Bronx, Manhattan, New York*, vol. 2, 1903, page 36. Library of Congress, Geography and Map Division.

been centered as a critical cultural site for understanding changing conceptions of pregnancy and childbirth in the turn-of-the-century United States.[4] This article identifies the architecture of the maternity hospital *itself*—the spaces chosen to be included or excluded from its plan, the physical organization of its wards, and its location within the city—as markedly ripe for analysis. The 1902 Lying-In Hospital's rich and historically accessible primary source records (including annual reports, a medical bulletin, published plans, and frequent journalistic coverage), coupled with the timing of its conception in the later 1890s, affords a particularly generative case study. Through close reading of the planning, construction, and operation of the Lying-In Hospital of the City of New York from 1893 to 1905, I demonstrate that the 1902 building's plan made manifest physicians' efforts to professionalize obstetrics, legitimizing medical authority through the allocation of particular rooms for care, research, residence, and medical education. Physicians' efforts to primarily intervene in the births of migrant women further evince connections among the spatial organization of the new hospital, birthing, assimilation, and racialized hygienic reform. These theoretical solutions for physicians, however, simultaneously transformed patients' experiences. Labor, delivery, and recovery in the home took place in a single room. Yet in the 1902 hospital, patients experienced discrete stages of birthing—only recently codified in medical literature—in physically distinct and especially constructed spaces, embedding a fractionated model of birthing into the building's very design. The present article thus builds on Annmarie Adams's insistence on recognizing hospital architects as active agents who shape medicine.[5] Although many aspects of this case study can be extrapolated to illuminate the productive role of maternity hospitals across the United States, the present study also serves as a microhistory of turn-of-the-century Manhattan. It traces interactions between its physicians, nurses, wealthy investors, midwives, and the groups of pregnant people from varied class and ethnic backgrounds who chose—or rejected—institutionalized obstetric care.



THE SOCIETY OF THE LYING-IN HOSPITAL, SECOND AVENUE, 17TH AND 18TH STREETS.

Figure 2. View from the southeast of the completed 1902 hospital building by R. H. Robertson. Reproduced in Society of the Lying-In Hospital, *Annual Report: 1902*, n.p.

"A Building Especially Constructed to Meet Our Peculiar Needs"

The society opened its first hospital in 1799 at 2 Cedar Street in a home modified for hospital use, a common strategy for early lying-in hospitals. This hospital closed after only one year due to financial instability. The society would not again have its own dedicated space until 1893, when it merged with the Midwifery Dispensary.[6]

Drs. James Markoe and Samuel Lambert, two European-trained American physicians who would subsequently join the society's medical board, established the Midwifery Dispensary in 1890 at 312 Broome Street.[7] The society operated out of the Broome Street facility until 1894, when philanthropic donations allowed for the purchase of the Hamilton Fish property.[8] The property's siting within the city's wider geography especially appealed to the board of governors; they appreciated its central location and proximity to elevated railroad stations, surface roads, and crosstown cars—the primary modes of access for its projected middle-class and poor clientele. Transport options included both a north-south elevated railway station only a block away at the corner of Eighteenth Street and Third Avenue and access to streetcars on the east-west Seventeenth and Eighteenth Street Crosstown Line (see Figure 1). The board of governors also lauded its adjacency to a public park, Stuyvesant Square, affording "great advantages in respect to air and sunshine."[9] The building's verdant surroundings aligned with the contemporary discursive knitting together of health and (purportedly) natural spaces, most clearly articulated for New Yorkers by midcentury debates about the role green spaces play in a city's health and, ultimately, Frederick Law Olmsted and Calvert Vaux's work on Central Park.[10] The mansion's interior was entirely reconceived and renovated; it was ready to receive patients by 1895. The Broome Street location remained with the society as a dispensary, effectively a clinic offering free outpatient services.

Even as the Hamilton Fish hospital opened in 1895, the society lamented the space as insufficient and began designing a block-plan hospital.[11] Their hopes would be realized in the 1902 building, whose plans were "adopted after careful consideration of the principal hospitals in this country and Europe," including buildings in Paris, London, and Berlin.[12] The architect, Robert Henderson Robertson, was ostensibly chosen by Morgan himself.[13] Although Robertson was not known for his work designing hospitals, he was well acquainted with the Markoe family, which likely accounts for the commission.[14] Markoe and Lambert also contributed to the development of the new building, drawing a direct link between contemporary obstetric discourse and the hospital's plan.[15] In fact, an 1897 letter from Morgan reprinted in the *New York Times* explicitly stipulated that the plans and construction of the hospital, "from a medical point of view, shall be satisfactory to Dr. James W. Markoe."[16] While the society would continue to honor its founding mission statement—to provide free care to pregnant patients in need—the new building would also include several well-appointed private rooms for patients able to pay for care.[17] The new hospital was to accommodate not only a greater number of patients, but also a school of obstetrics and, therefore, rooms for lectures and study as well as student dining halls and dormitories.

The school was key to the hospital's presentation as a vanguard site of obstetric care, as demonstrated by the medical board's statement that the hospital's purpose was "to teach obstetrics quite as much as to conduct a work of charity."[18] In the turn-of-the-century United States, however, medical education's prerequisite requirements, curriculum, and duration were far from uniform; both medical education and practice were highly unregulated through the end of the nineteenth century.[19] Before Abraham Flexner's searing 1910 critique of the low standards of American medical schools (known as the Flexner Report), many schools had no entrance requirements, operated on a for-profit model, and could require as little as several weeks of study to earn a degree.[20] Select institutions, such as Harvard or Johns Hopkins, began implementing reforms in the 1870s and 1890s, such as requiring a college degree for entry, extending the course of study to three or four years, and incorporating scientific study, laboratory research, and clinical work into the curriculum. Yet these only comprised a model, and by no means certified the consistency of programs as state licensing laws enacted after the Flexner Report would do.[21]

The society embedded its educational programs within these reforms. Their programs, which predated the 1902 building, were ancillary to the full medical degree. The first courses were developed for undergraduate and graduate medical students; a nursing program was later

added to the curriculum.[22] The medical course was open to any student, male or female, who had completed at least two years of study at any medical school; completion of the program resulted in a certificate. The focus on the specialty of obstetrics, coupled with the prerequisite of at least two years of medical education, demonstrates an investment in both increasing specialization and contemporary educational reforms. The language deployed by the medical board in its 1897 report further illuminates this investment. They describe patients' medical histories as a rich yet rarely tapped resource for scientific research. The Johns Hopkins Hospital, they note, comprises the "preeminent exception to this general rule" through their regular publication of patient statistics for general use among researchers.[23] Textually allying it with this increasingly elite institution, the report goes on to identify the Lying-In Hospital as similarly exceptional, noting its own "three previous publications" of statistics from patient histories in the service of expanding research.[24] Similarly, describing students' experiences, they write: "many . . . have received their first clinical experience here."[25] The nod to "clinical experience" fixes the productive intersection of the hospital's multiple missions in the crosshairs: it was only the emphasis on charity patients in the 1890s that could generate enough "clinical material," a telling term physicians often used to describe the society's patients, to support research and education. And it was only through research and discipline-specific educational programs, such as the medical course, that obstetricians could potentially bolster their specialist authority.[26] That the society's annual reports note not just the names, numbers, and hometowns of students, but also their "college registrations," further evinces efforts to forge connections between the society's work and increasingly respected institutions.[27]

Linkages among education, specialization, and Progressive-era charity are also located at the very origins of the 1902 building project.[28] Even before the purchase of the Hamilton Fish property, the board wrote of aspirations for "a proper building" for "practical study in labor cases, thus giving the graduates of the medical colleges practical knowledge"; they envisioned a "proper" hospital space, elsewhere termed "a building especially constructed to meet our peculiar needs," as demonstrating the value of clinical education and research.[29] The society's 1895 report lays out the desired spatial organization of such a building, explicitly couching the hoped-for hospital's organization in its pedagogical mission by narrating connections between each space—from wards to lecture rooms—and its intended educational function.[30] This same report eventually concludes by listing the three primary ideas such a hospital would communicate, in a most revealing order of priority: "*First*—The establishment of a School of Obstetrics," "*Second*—The establishment of a centre [*sic*] of scientific research," and "*Third*—The perfection of charitable methods of dealing with poor women in their confinement."[31] This report was reprinted in 1896, with an urgent appended lamentation: that teaching was

> seriously hampered, by the fact that the Board has not at its disposal any suitable place for carrying on much of the educational work. Every available foot of space in the present [Hamilton Fish and Broome Street] buildings is utilized beyond the hope of redemption. . . . Even the rooms at present used by the staff are not suitable for the purpose to which they are put.[32]

The board thus positioned spatial organization and allocation at the crux of both research and teaching. A subsequent statement reveals charity's role at the fulcrum: "the plan . . . calls for sufficient ward room to accommodate two hundred and fifty patients. Even this apparently large number will furnish patients enough for only twenty-five house pupils."[33] Here, the diction lays bare patients' perceived roles as mere case studies for students and researchers. The society ultimately described the completed building, which began receiving patients in January of 1902, as both "modern" and "scientifically constructed."[34] Contemporary writing suggests that outside observers also understood the building as clarifying connections across dedicated and "scientifically constructed" spaces, education, specialism, research, and medical authority. In his report

about the 1902 hospital, for example, Dr. Robert L. Dickinson writes: "And who have been our teachers? The specialists in obstetrics, equipped with their own wards, or their own hospitals, applying modern methods, training obstetricians to succeed them."[35]

Journalistic reporting coupled with statistics published in the society's annual reports reveal a great deal about the populations that used the newly completed hospital's facilities and comprised its teachers' and researchers' "clinical material," as well as the way the society—and New Yorkers—envisioned its intervention in the health of particular groups of people. Scholars have pointed to the first decade of the twentieth century as initiating a transitional moment in public perceptions of hospital care: from a site for charitable palliation for the poor to an institution offering vanguard procedures for poor and wealthy patients alike.[36] While the decision to include private pay rooms in the 1902 building hints at the society's ambitions, contemporary news reports evince the institution's association with poor residents, as well as the ethnicization and racialization of hospital patients. An article in the *New York Tribune* outlining progress on the Lying-In Hospital's construction, for example, explains:

> The erection of this great hospital is perhaps the logical outcome of the tremendous racial changes which have been going on in that district of the city. . . . The influx of a vast foreign element has altered what was once an exclusively residence [*sic*] part of the city to one occupied largely by tenement dwellers. The increasing congestion of this kind of population naturally demanded hospitals.[37]

The unnamed author's evocation of "a vast foreign element" invading the city both reveals and stokes xenophobia. In addition, rhetoric deployed in the longer quote conflates immigration, poverty, hospital use, and the unsanitary conditions associated with "congestion" and tenements. That these associations might have resonated with wealthy New Yorkers seems to be borne out by the lack of pay patients served by the hospital in its early years of operation. In 1904, the society reported that it had not yet opened its pay rooms for service, as they would need to have at least four rooms occupied at once to avoid a financial loss—a number they had not yet been able to reach.[38]

That such sentiments would surface in relation to a maternity hospital, in particular, is not incidental. Historians have long demonstrated broad tensions surrounding middle- and upper-class White women's perceived weakness, nervousness, and infertility as compared to poor White, Black, and immigrant women's purported robust health and fecundity in the turn-of-the-century United States.[39] As historian Tanya Hart posits, migrant women's diverse attitudes toward pregnancy and birthing comprised a central concern for the city's American- and Western-European-trained obstetricians, as well as public health officials and maternal healthcare advocates, especially from the 1880s through the passage of the 1924 Immigration Act. As Hart demonstrates, physicians and other agents framed these women's traditional modes of birthing as an impediment to combating maternal and infant mortality. But more than this, Hart argues that these authorities explicitly connected their "desires to correct the birthing methods of migrating women to issues of assimilation and Americanization."[40]

Not all groups of women, however, received the same kinds of attention. Women migrating to New York from southern, central, and eastern Europe were racialized by physicians through hereditarian beliefs that their health outcomes were inherently determined by factors such as skin color, nativity, and religion, and sustained by a White supremacy that privileged western Europe. Although these women were deemed racially inferior to western-European women, they were perceived to be White enough to assimilate into Anglo-American culture, should they relinquish traditional attitudes toward pregnancy and birthing, among other mores. At the same time, the racialization of Black women by these same actors instead emphasized their inability to assimilate. Health officials argued that high rates of infant and maternal mortality among the Black community were the result of emancipation and

the absence of White supervision, effectively deploying Black women's ill health to foster racism, paternalism, and proslavery apologia.[41] In fact, these attitudes toward Black mothers led to the development of experimental public health policies that White, Euro-American-trained physicians tested and refined in Black communities in New York City and then later enacted in southern European communities that they deemed more assimilable, such as two of the public health campaigns analyzed by Hart: a campaign initiated in 1917 in the predominantly Black Upper West Side neighborhood of Columbus Hill and the subsequent 1918 campaign launched in the predominantly Italian downtown Mulberry District.[42]

An analysis of the demographic details published in the society's annual report for 1902—the first year of the new building's operation—demonstrates how Hart's insights map onto patient experiences at the Lying-In Hospital of the City of New York. Describing the first nine months of operation, from January to September, the society reports that 875 women were treated in the new hospital; 725 of those patients represent confinements, or cases where patients delivered.[43] The financial situation of these patients ranged from "homeless" and "dispossessed" to women whose rent totaled over $50 per month, with patients' rents averaging around $9.69 per month (Table 1).[44] Patients' marital status and, for married women, their husbands' wages and occupations, were also dutifully recorded and published.[45] For patients whose husbands were employed, their average weekly wages totaled $9.26, a dollar under the average New York state resident's weekly income of $10.40 as reported by the 1905 Census of Manufactures (Table 2).[46] In addition to these figures, the annual reports also record maternal deaths and their causes; the character of the patient's home, namely whether it was in the front or the rear of the building and what floor it was on; the number of preceding living children; and the patient's place of birth.

This last demographic—which could potentially illuminate a patient's race, ethnicity, and/or status as immigrant or native-born—occupied the hospital a great deal. Returning to the 1902 report, 696 patients recorded their place of birth: 260 were born in the United States, while the remaining 436 had immigrated to the United States. Accompanying the statistical breakdown of the countries from which these patients indicated they had migrated, the society also reproduced the most recent "Report of Alien Steerage Passengers Landed at the Port of New York" (later titled the "Report of Aliens Admitted to the Port of New York").[47] This table listed the total number of men and women that had immigrated in the past year by nation of origin, allowing readers of the report—largely the society's wealthy benefactors and physicians—to easily ascertain whether or not certain immigrant groups were

Table 1. Rent Costs Per Month of Patients Treated at the Hospital (not including the Outpatient Dept.)

	TIERS OF RENT PAID	NUMBER OF PATIENTS PAYING THIS AMOUNT	GROSS AMOUNT OF RENT AT EACH TIER	
	$2	5	$10	
	$3	19	$57	
	$4	10	$40	
	$5	34	$170	
	$6	40	$240	
	$7	48	$336	
	$8	65	$520	
	$9	42	$378	
	$10	63	$630	
	$11	28	$308	
	$12	56	$672	
	$13	18	$234	
	$14	20	$280	
	$15	14	$210	
	$16	16	$256	
	$17	5	$85	
	$18	3	$54	
	$20	5	$100	
	$24	1	$24	
	$25	2	$50	
	$26	1	$26	
	$28	1	$28	
	$35	1	$35	
	$40	1	$40	
	$50	1	$50	
Total		499	$4,833	Average: $9.69

Figures taken from Society of the Lying-In Hospital, *Annual Report: 1902,* 59–60.

Table 2. Weekly Wages of Hospital Patients' Husbands

	TIERS OF WEEKLY WAGES	NUMBER OF EARNERS AT EACH TIER	GROSS AMOUNT OF WAGES EARNED AT EACH TIER	
	$2	5	$10	
	$3	11	$33	
	$4	26	$64	
	$5	36	$180	
	$6	39	$234	
	$7	37	$259	
	$8	59	$472	
	$9	62	$558	
	$10	86	$860	
	$11	9	$99	
	$12	77	$924	
	$13	8	$104	
	$14	20	$280	
	$15 or more	56	$840	
Total		531	$4,917	Average: $9.26

Figures taken from Society of the Lying-In Hospital, *Annual Report: 1902*, 63. Grouping all weekly salaries above $15 in one tier was the statistical methodology used by the society in its annual report, and was not the choice of the author. This makes the calculated average less accurate.

proportionally represented by hospital visits. For example, while the greatest percentage of women immigrating to the United States, according to the report, between June of 1901 and 1902 came from Austria-Hungary (28 percent), Italy (22 percent), and Russia (19 percent), Russian-born women represented just under half of the hospital's patients that were born outside the United States (46 percent), while German (32 percent) and Irish (30 percent) women were the second and third most likely to have used the hospital from January to September of 1902. The society also indexed this attention through regular references to ethnicity and nativity in individual short case reports from the Ladies' Auxiliary's philanthropic work with the Out-door Department (outpatient services), published in brief in these same annual reports. The first full page of cases from the 1902 report illustrates the point: of the seven cases described, three include references to the family's ethnicity and one explicitly describes the family's immigration status.[48] So it was that the description of the society's work at No. 184 Chrystie Street ran: "Seventh child. Italians; man a laborer out of work for past four months," where the interjection of "Italians" serves only to racialize the patient and reify stereotypes about migrating families.[49] The society's efforts to classify, record, and disseminate information related to patients' nativity were thus unflagging.

The wide range of demographics reported speaks, on the one hand, to the early twentieth-century shift in public perceptions of hospital care. While the majority of the hospital's patients were poor, middle-class women increasingly chose hospital delivery over confinement in the home. At the same time, the society's desire to collect and publish detailed records about patients' income, marital status, and country of origin betrays anxieties about the kinds of births in which it was or was not able to intervene. As Judith Walzer Leavitt has argued, hospital delivery by a male physician was unimaginable for many immigrant women. These women sought to maintain birthing traditions from their countries of origin, often seeking out midwives who shared their ancestry to attend their delivery.[50] The society's disciplined attention, then, speaks to two separate, if entangled, concerns. On the one hand, immigrant women who sought the care of midwives actively avoided the hospital's hygienic intervention. In so doing, they reduced the available clinical experiences for research and education. But more than this, they stymied Euro-American-trained physicians' purported efforts to counter maternal and infant mortality, and subsequently hindered the assimilationist aims of Americanization that ultimately, one might argue, served as instruments of both patriarchy and White supremacy.

These demographic reports thereby demonstrate a degree of control and regulation that the hospital's physicians and administrators sought to implement among the patient population. These same efforts, I argue, are built into the hospital's very plan, which fundamentally transformed patients' and healthcare workers' experiences of birthing and postpartum care. In order to clarify the movements of patients, physicians, nurses, and students through the building, as well as healthcare professionals' uneven access to particular floors and rooms, I turn to published

descriptions of the hospital's material composition and the plans of its eight stories, anchoring this analysis in primary and secondary sources that illuminate contemporary medical practice.

Navigating New Spaces: Working, Learning, and Birthing in the 1902 Hospital

Hospital staff recommended that patients apply for care at the hospital sometime during their pregnancy.[51] When ready for care, patients could approach the hospital in one of two ways depending on the urgency of their case. Patients physically able to travel after the onset of labor—whether or not they had applied—would arrive at the main entrance on Second Avenue. The entrance's location encouraged patients to pass by the fresh air and green space afforded by Stuyvesant Square and glimpse the building's Renaissance revival façade. Patients unable to reach the hospital on their own or in emergency situations could be transported by electric ambulance directly to the hospital via a driveway running beneath the first story (on the ground floor, referred to in the plans as the basement story) of the structure (Figures 3 and 4). The ambulance was even equipped to accommodate an emergency surgery or confinement, facilitated by the wide opening along one side of the vehicle and ventilation features in its roof.[52] While the medical board envisioned the ambulance being used only occasionally, its 1903 report indicates that it made thirty to forty trips per month, expanding the hospital's reach to populations unable to access the facility in any other way.[53]

The Second Avenue façade strategically combined aseptic and practical building materials with a moralizing aesthetic. Robertson incorporated both red bricks and Indiana limestone on the east-facing wall of the 150-foot steel-framed, fire-proof building. Red brick was, by the early twentieth-century, considered to be a pragmatic material for hospital construction; although its porosity allowed some water to be absorbed by the walls, it was considered durable, attractive, and reasonably priced, leaving the institution more money for the provision of healthcare.[54] Glass comprised the remaining major material of the façade; its qualities of transparency, seamlessness, and impermeability rendered it the "king" of aseptic materials, per architectural historian Jeanne Kisacky.[55] In addition to the pattern created by the bricks, limestone, and glass, Robertson's design featured decorative classical and Renaissance architectural elements, including columns, an arched entryway, a frieze, and a pediment. In a reference to Andrea della Robbia's roundels for the Ospedale degli Innocenti in Florence, Robertson included terra-cotta roundels with reliefs of swaddled babies on the spandrels and between the windows of the fifth and sixth stories (Figure 5). The specific allusion to the Renaissance Innocenti roundels points to the Lying-In Hospital's participation in broader networks of paternalistic, Progressive-era reform efforts, which were themselves coterminal with the accelerated collection, popularity, and subsequent canonization of Italian Renaissance art.[56] The same wealthy families funding social reform projects, often through gifts of civic buildings adorned with classical and Renaissance stylistic elements that increasingly signaled public beneficence,

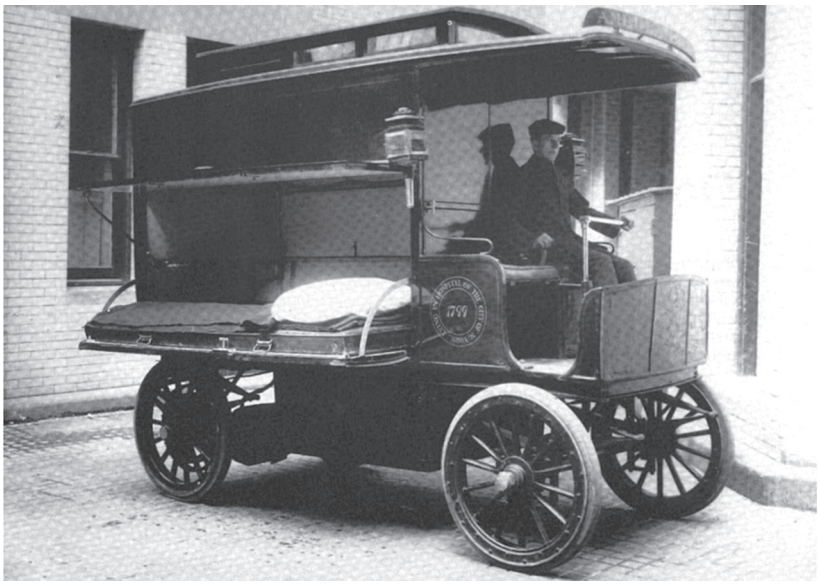


Figure 3. The Vehicle Equipment Co., based in Brooklyn, designed and produced the society's ambulance, which ran on electricity supplied by the hospital's own independent power plant. To facilitate the transfer of patients, loading occurs on the side of the ambulance. Per the *Electrical World and Engineer*, it could reach speeds of twenty miles per hour, and the design was so successful as to attract other buyers, including New York's Presbyterian Hospital as well as two hospitals in Paris and two hospitals in Boston. See "Hospital Electric Ambulance," *Electrical World and Engineer* 39, no. 18 (May 3, 1902):, 783–84. *Electric Ambulance of the Lying-In Hospital of the City of New York*, photograph ca. 1909, National EMS Museum, Tallahassee, Florida.

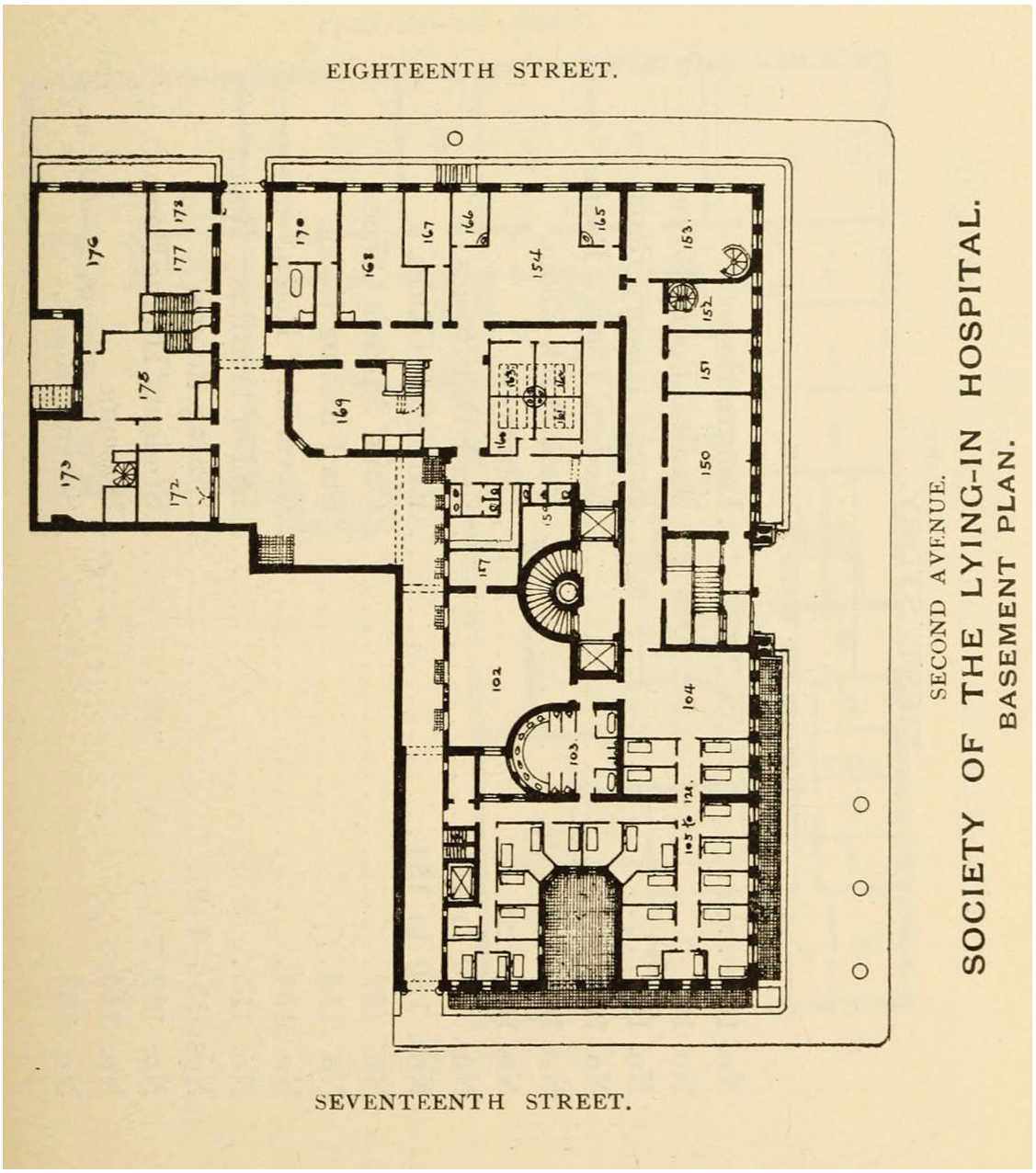


Figure 4. R.H. Robertson, *Basement Plan of the Lying-In Hospital,* ca. 1900, reproduced in Society of the Lying-In Hospital, *Annual Report: 1902*, 35. The path of the driveway to accommodate the ambulance can be traced along the left side of the plan. Other rooms are as follows: 102, students' history room; 103, students' lavatory; 104, students' sitting room; 105–21, students' bed rooms (except 113, trunk closet); 150, outpatient department physicians' office; 151, nurses' work room; 152, drug room; 153, clinical instruction; 154, waiting room; 157, assistant register's room; 159, linen room; 160–66, examination rooms; 167, isolating room; 168, storage room for patients' clothes; 169, receiving room for provisions; 170, patients' receiving room; 172, ambulance room; 173, autopsy room; 175, chapel; 176, curator's room; 177, porters' bed room; 178, porters' room.

were passionate collectors of della Robbia workshop reliefs—the Morgan family among them.[57] As David Silvernail posits, casts of the della Robbia family's work were called upon in the service of both public education and healthcare reform. The visual rhetoric of the Innocenti roundels was so pervasive in relation to these latter reforms as to be taken up by the American Academy of Pediatrics, whose logos from its founding through today have been stylized renderings of the della Robbia composition.[58]

Passing through the main doors, patients would enter a lavish marble foyer (Figures 6 and 7). The luxe and decoratively carved marble recalls Annmarie Adams's demonstration of the ways in which early twentieth-century hospital entryways mimicked those of hotels, thereby evoking the twinned qualities of hospitality and opulent domesticity.[59] On the left-hand wall, they could glimpse a large framed and illuminated representation of the Hippocratic oath, declaring in plain view that physicians would provide qual-

ity care "without fee or stipulation" (Figure 8). A patients' receiving room (room 170), storage room for patients' belongings (room 168), waiting room (room 154), and six examination rooms (rooms 160–66) were most conveniently located close to the ambulance driveway access point, but still accessible from the Second Avenue entrance via the building's main hallway (see Figure 4). Notably, an isolation room (room 167) was placed just next to the storage room, intentionally segregated from the waiting room and examination rooms by an extra hallway. While Lister's antiseptic techniques and Pasteur and Koch's germ theory circulated among physicians at this time, facilitating a shift to understanding microorganisms as the source of subsequent infections, Kisacky emphasizes that isolation facilities conceived at the turn of the century still focused on physically separating infected patients' air from that of uninfected patients.[60]

Admitted patients would be systematically cleansed and prepared for delivery. Records of the process at New York's Sloane Maternity Hospital from 1900 provide insight into the likely experiences of Lying-In Hospital patients. Physicians and nurses did the following for each patient upon admittance: administered an initial enema and antiseptic vaginal douche; washed the hair, nipples, and navel with kerosene, ether, and/or ammonia; and groomed the pubic hair (where the hair was clipped for paying patients and shaved for charity patients). Patients in labor received additional enemas every twelve hours and antiseptic douches at more frequent intervals.[61] Physicians claimed to practice these preventative measures to stave off infection—primarily septicemia, then sometimes termed puerperal fever. Physicians were beginning to understand and develop procedures accounting for the links between aseptic conditions, sanitation, and disease prevention. Such awareness at the Lying-In Hospital is clear from the early dispensary recommendations that attending physicians scrub their hands and forearms with a bichloride of mercury solution before all examinations as well as the inclusion of a septic ward in the new hospital. Yet prophylaxis also provided additional, less benevolent, opportunities for obstetric physicians and students. The overly frequent application of these procedures offered guaranteed examples of sanitizing and preparatory practices for clinical education, a significant resource for a budding school of obstetrics.[62] In fact, there was a clinical instruction room (153) located next to one of the examination rooms (165), connected to the basement-story waiting room (154), and easily rendered accessible, via spiral staircase, to the staff sitting room on the floor above (153 of first story) that might have been used for this purpose, among others (Figures 4 and 9).[63]

Figure 5. Roundel by R. H. Robertson, after della Robbia, Second Avenue entrance, Lying-In Hospital of the City of New York, ca. 1900. Photograph by the author.

Within the hospital, admitted patients would be taken—most likely by one of the centrally located elevators—up to the fourth, fifth, or sixth floors, where they would either enter the waiting

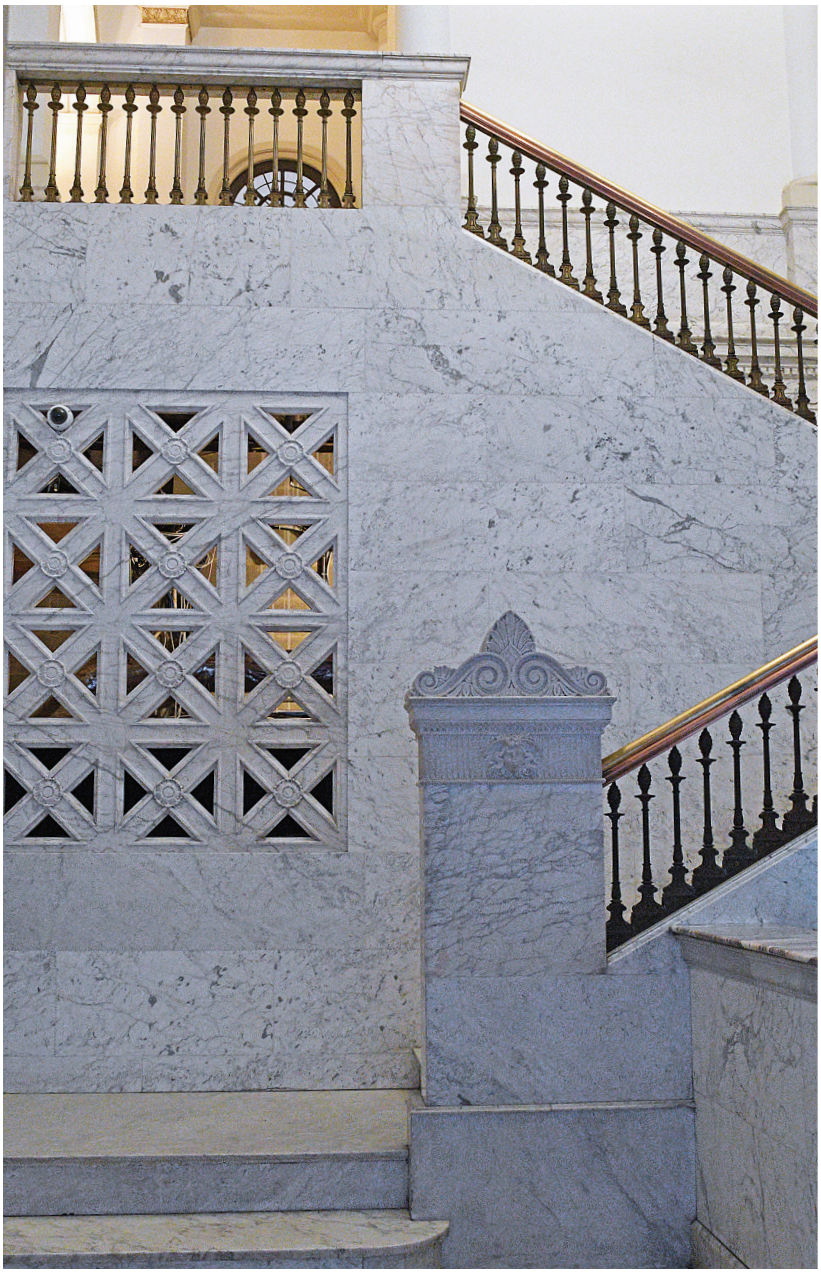


Figure 6. R.H. Robertson, 1983 restoration of the 1902 building's interior, Second Avenue entry, Lying-In Hospital of the City of New York. Photograph by Lester Pierce.

ward (room 457) or the labor room (room 455; Figures 10 and 11; the plans for these three floors are identical). Robertson placed these rooms beside one another and facilitated direct communication between them with a connecting doorway, yet they are fully circumscribed as discrete (and independently labeled, in published plans) spaces. The very fact of a labor room is revealing. Its presence is not self-evident, pointed up by a labor room's notable absence in the preceding Hamilton Fish hospital. Published plans of the refitted Hamilton Fish space did include, like the 1902 building, a waiting hall in close proximity to several examination rooms and spaces for physicians, such as the resident physician's office (Figure 12). Yet once admitted, the remaining spaces dedicated to patient care are uniquely generic wards, with the exception of one isolating ward (Figures 13 and 14). Some of these wards, by way of their location within the hospital, suggest that they may have been occupied by patients sharing particular experiences. For example, the second floor includes a ward in the northeast corner surrounded by the surgeon's room and the hospital's surgical suite (the sterilizing room, etherizing room, and operating room), the proximity between them intimating the ward's likely use by convalescing surgical patients (see Figure 14). Yet this specialized use is not indicated in the plans themselves. Departing from the Hamilton Fish plans, then, the 1902 hospital's built environment specifies labor as a distinct spatial and temporal experience.

Once determined to be in the later stages of labor, women would be transferred once again: into the delivery room (room 454; Figures 10 and 15). Delivery, more than any other stage of ante- or postnatal care, came to be the nexus of prophylactic techniques and professional posturing among physicians by the late nineteenth century. Historians of medicine often cite the contemporaneous professionalization of obstetrics and increasing use of interventionist delivery techniques by physicians in the United States as, at least in part, a response to another group who had long delivered pregnant people in the United States: midwives.[64] Seventeenth- and eighteenth-century American women's deliveries were often attended at home by a friend or local woman who had herself experienced childbirth, some of whom emerged as community midwives. By the end of the eighteenth century, physicians saw themselves as sharing the profession with midwives, who might have been men or women.[65] Such an understanding can be gleaned from the society's own early nineteenth-century policy of admitting women for instruction in midwifery.[66]

With the progression of the nineteenth century,

Figure 7. Flora Jo Bergstrom, *Lying-In Hospital, Interior of Entrance and Staircases*, 1920s–30s, photographic prints mounted in a scrapbook, accession number P-08557, archival location C1A. Courtesy of the Medical Center Archives of New York-Presbyterian/Weill Cornell Medicine. While Bergstrom took these photographs a number of years after the new building's construction, the diverse views give a sense of the prominence of the main entryway, as well as the path patients and healthcare workers might have taken to access the hospital's interior.

however, physicians began to frame midwives as competition that threatened their practices. Unlike various diseases or epidemics, childbirth was a dependable medical event through which doctors could not only sustain themselves financially, but also build a customer base by successfully and skillfully delivering patients in front of family and friends. Historians have argued that physicians' desires to persuade women that they were the more skilled birth attendants led to an increased use of physical interventions in childbirth, including the use of forceps, prophylactic

Figure 8. Illuminated representation of *The Oath*, ca. 1900, hung in the Second Avenue entryway of the Lying-In Hospital of the City of New York. Photograph by the author.

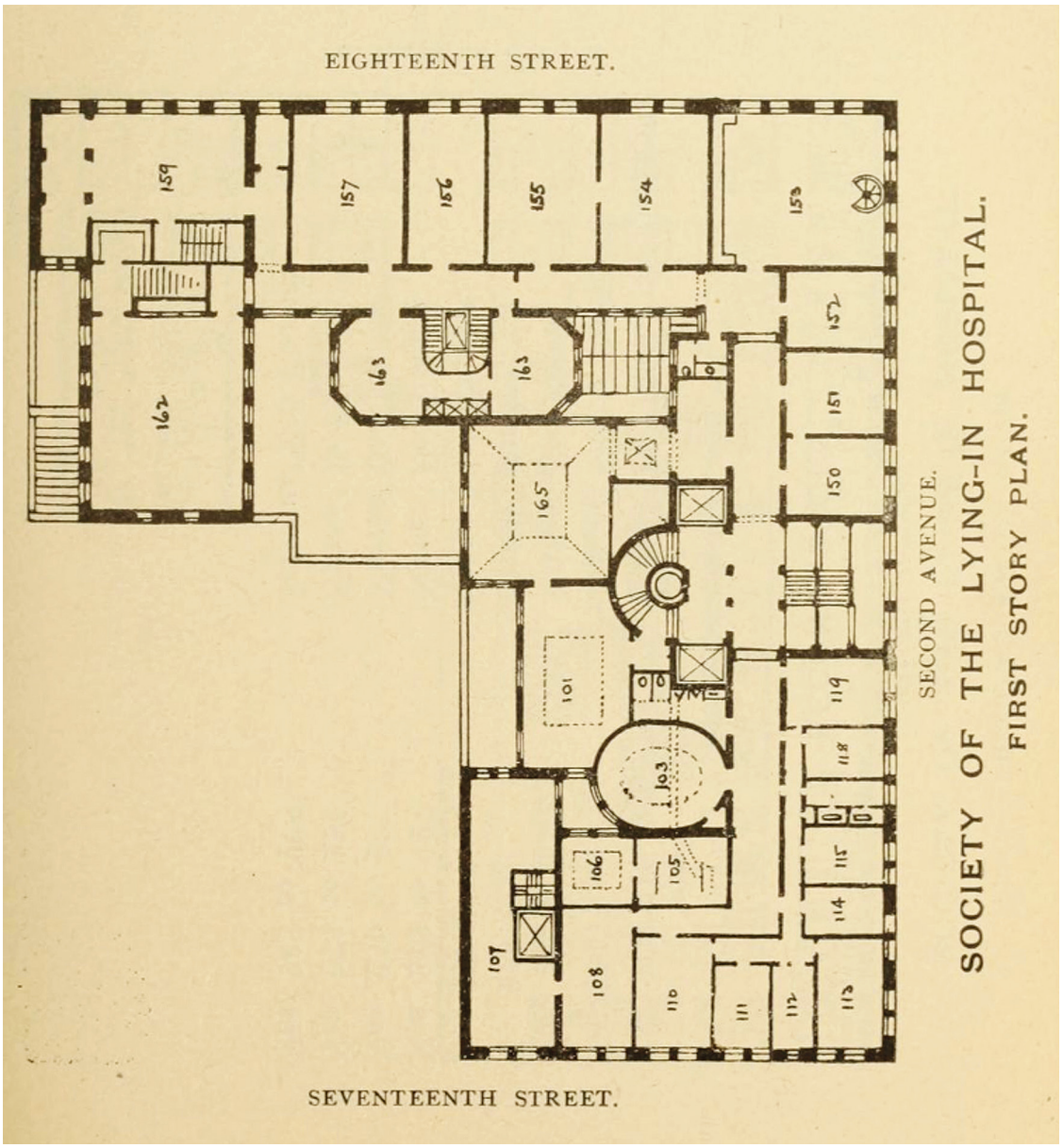


Figure 9. R. H. Robertson, *First Story Plan,* ca. 1900, reproduced in Society of the Lying-In Hospital, *Annual Report: 1901*, 39. Rooms in the plan are as follows: 101, lecture room; 103, medical board room; 105, bound history room; 106, medical clerk's room; 107, book stack room; 108, library; 110–15 and 118–19, staff [physicians'] bed rooms; 150–51, executive offices; 152, chief nurse's office; 153, staff sitting room; 154, governors' room; 155, Ladies' Auxiliary room; 156–57 and 159, dining rooms; 162, students' dining room; 163, serving room; 165, museum.

measures, and eventually, the cesarean section (although these interventions largely did not lead to improved maternal mortality rates compared to midwives).[67]

Space, too, occupied a central role in this debate. Physicians frequently decried the lack of control they had over and within pregnant patients' homes in relation to cleanliness, authority, and agency; they often drew linkages across the impropriety of such spaces and the unregulated work of the midwife. For example, in his 1906 study of maternal mortality in home confinements, Lying-In Hospital attending surgeon James Harrar writes that such patients,

> from the very nature of their surroundings, are particularly liable to septic infection. . . . Constant surveillance of the patient by the staff is of course impossible and the opportunities for septic infection are numerous. And if that were not enough, we have also to deal with the omnipresent "midwife," who is almost always at hand in the capacity of nurse and general adviser and does not hesitate to apply her arts at all times.[68]

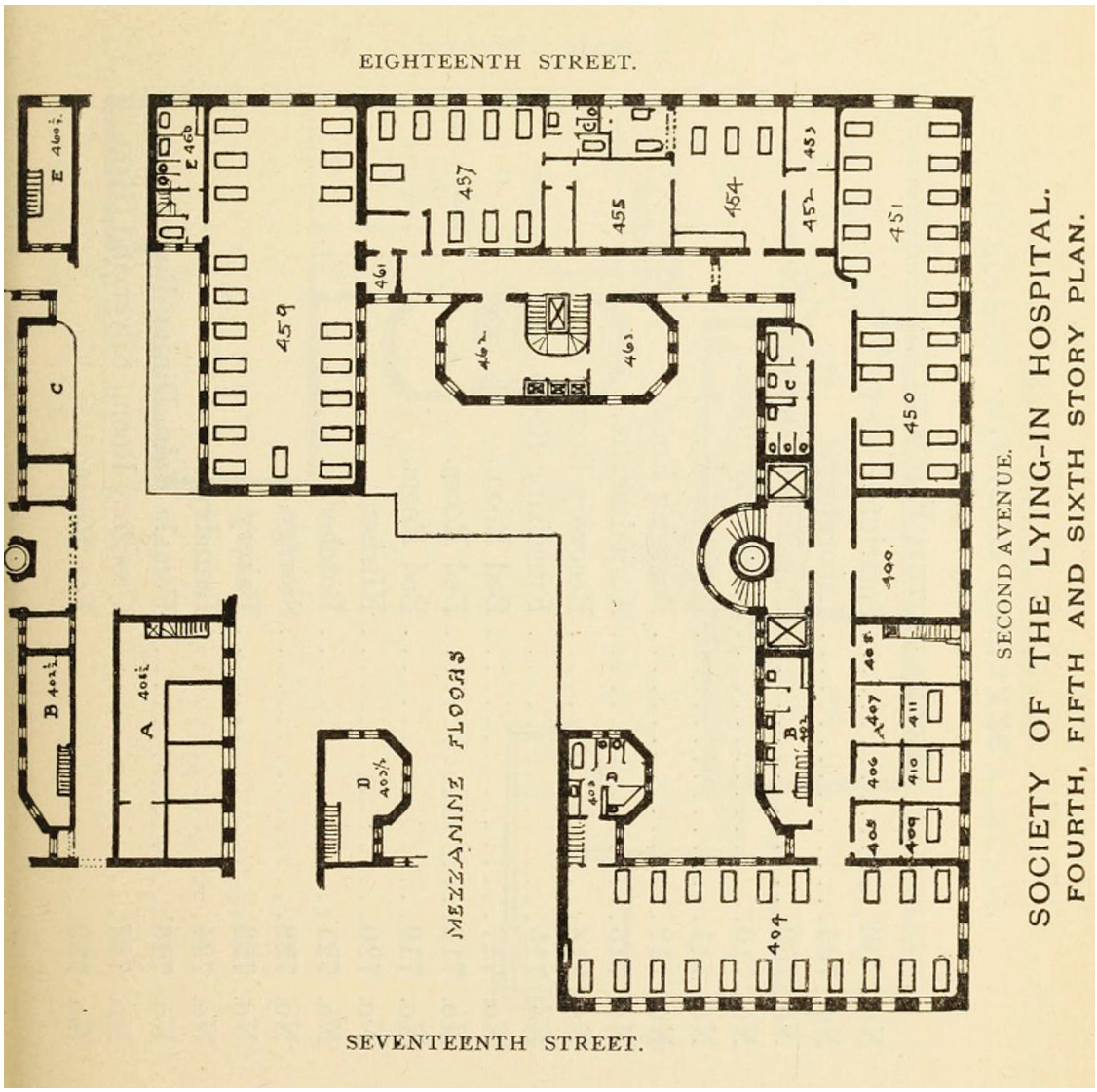


Figure 10. R. H. Robertson, *Fourth, Fifth, and Sixth Story Plan,* ca. 1900, reproduced in Society of the Lying-In Hospital, *Annual Report: 1903*, 49. Rooms in the plan are as follows: 400, day room for patients; 402 1/2, attending physician's office; 403 1/2, nurses' work room; 404, ward; 405–8, nurses' rooms; 408 1/2, linen room; 409–11, private rooms, special cases; 450, babies' ward; 451, ward; 452, students' lockers; 453, students' sitting room; 454, delivery room; 455, labor room; 457, waiting ward; 459, ward; 460 and 460 1/2, toilet and urine analysis room; 361, isolating room; 462, serving room; 463, dining room for ante partum ward.

Per Harrar, women's mutual support around birthing emerges as a most dire liability.

As delivery and obstetric care came to be seen as skilled labor requiring new specialized spaces, the occupation, like so many others, became gendered masculine.[69] Midwives, then, not only comprised a financial barrier, but also a population beyond the reach of developing regulations—including those articulated by the built environment of the hospital—in the increasingly regulated field of obstetrics. These factors, compounded by racialized concerns over high infant and maternal mortality rates and the perception of the obstetric specialty as less advanced than other medical fields, led social reformers, physicians, nurses, and public health officials to point to midwives' lack of training and oversight as the source of these problems.[70] Tensions were particularly acute in port cities like New York, where high numbers of immigrant women actively sought out midwives from their home country. The threat they posed to New York physicians was perceived to be so great that a bill limiting the practice of midwifery within the city to "legally authorized physicians" or midwives who "pass a strict examination before obtaining a license" was introduced into the state legislature in 1900, concurrent to the construction of the new hospital.[71] In its own writing, the society consistently disparaged the work of midwives, labeling

Figure 11. Flora Jo Bergstrom, *Lying-In Hospital, Delivery Room Area,* 1920s–30s, photographic prints mounted in a scrapbook, accession number P-08566, archival location C1A. Courtesy of the Medical Center Archives of New York-Presbyterian/Weill Cornell Medicine. While Bergstrom took these photographs about two decades after the new building's construction, these views, particularly the image in the upper right corner, give an idea of the spatial relationship between the labor room (from which the photograph was taken) and the delivery room, a path patients would have traveled.

them "abusive," "uncontrolled," and perpetrators of "malpractice."[72] With the assistance of bolded fonts, the society's annual reports regularly compared the rates of physician- and midwife-attended confinements, lamenting the instances when midwives out-delivered physicians. When reporting maternal deaths in the care of the hospital, the society consistently indicated how many of these cases of septicemia or hemorrhage were first attended—and, it is implied, mismanaged—by midwives.[73] The society even framed the elimination of these practitioners from the field as part of its charitable mission.[74] Despite various authorities' repeated claims that midwives were destroying the health of the women and children of New York, a state of the field study undertaken by Johns Hopkins professor of obstetrics Dr. J. Whitridge Williams in 1911 (perhaps inspired by the Flexner Report) found newly graduated obstetric medical students to be "no better than untrained midwives."[75] Further studies in the 1930s found that patients of im-

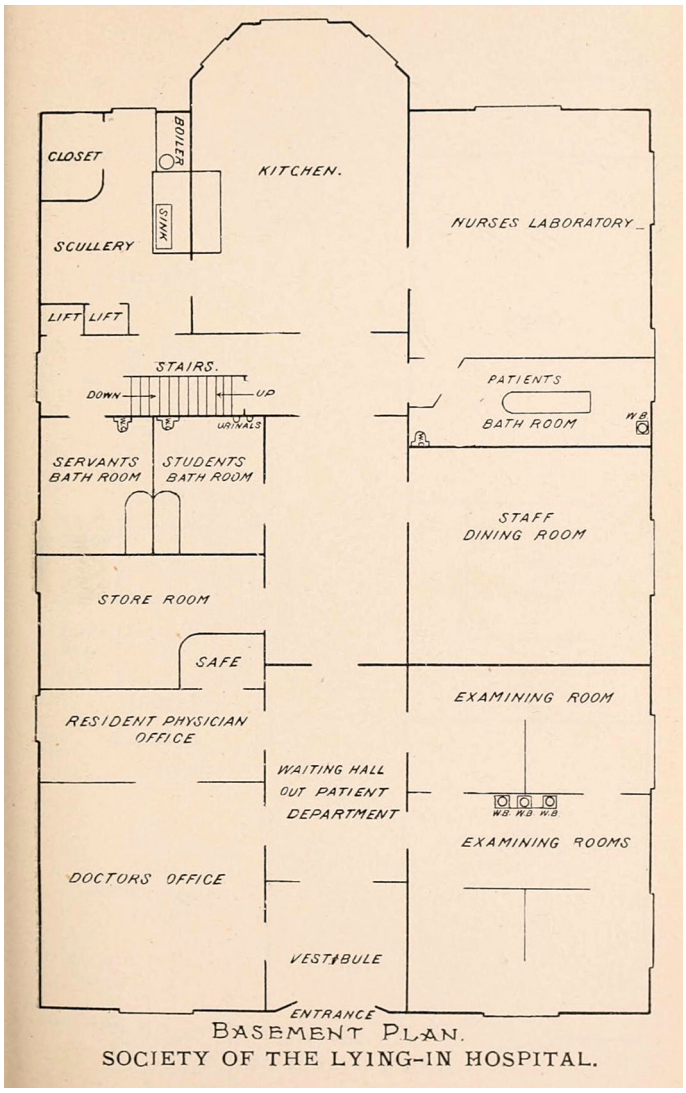


Figure 12. *Hamilton Fish Mansion Hospital, Basement Plan,* ca. 1895, reproduced in Society of the Lying-In Hospital, *Annual Report: 1896*, 43.

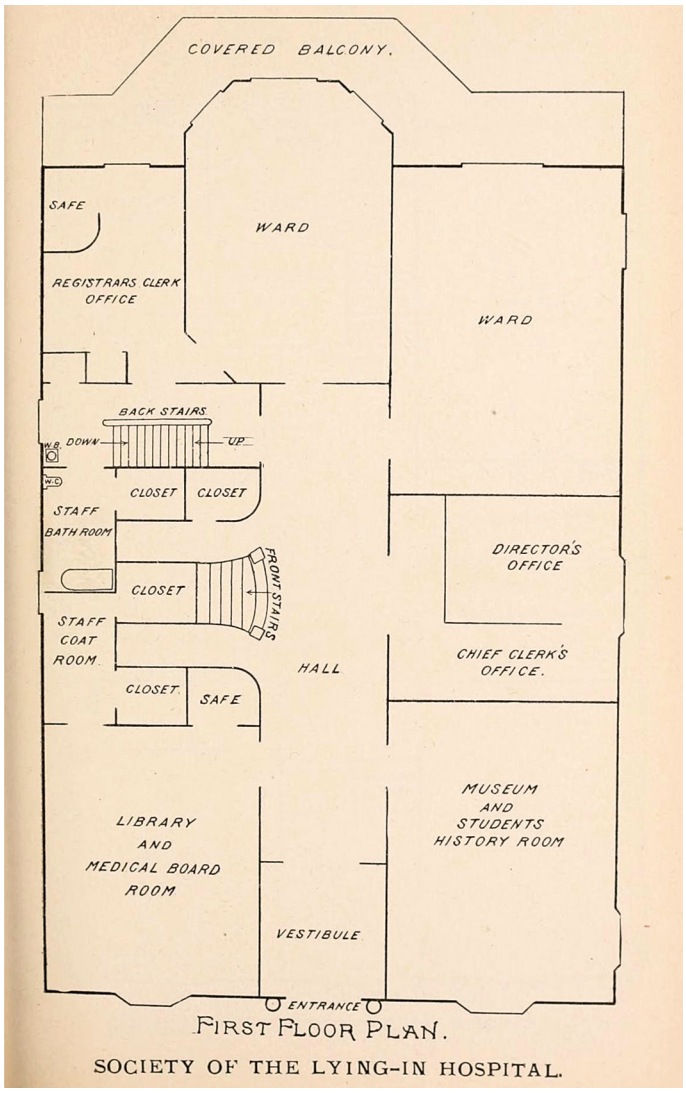


Figure 13. *Hamilton Fish Mansion Hospital, First Floor Plan,* ca. 1895, reproduced in Society of the Lying-In Hospital, *Annual Report: 1896*, 45.

migrant midwives practicing in New York had incidences of septicemia equivalent to those of physicians in both the home and hospital.[76]

Returning to the hospital's plan, after delivery, patients receiving free care would be transferred to one of nine main wards (three per floor; rooms 404, 451, 459) and newborn infants would be relocated to one of three babies' wards (room 450) or, likely when space required it, to a hanging crib attached to their mother's bed in the main ward (Figures 10 and 16). Pay patients would have been brought—most likely with their child—to their private room (Figures 10 and 17; rooms 409–11). Nurses' rooms (405–8) separated each private room from the corridor, providing an extra spatial buffer between paying patients and the rest of the hospital while also ensuring speedier and more consistent care for wealthier patients. During the remainder of their confinement, patients could take advantage of common rooms, such as the glass-roofed solarium on the seventh floor (rooms 702 and 704) that provided air and sun (Figure 18). Beyond these spaces, the hospital's designers had also accounted for the complications that could accompany birth or convalescence. If a patient developed septicemia

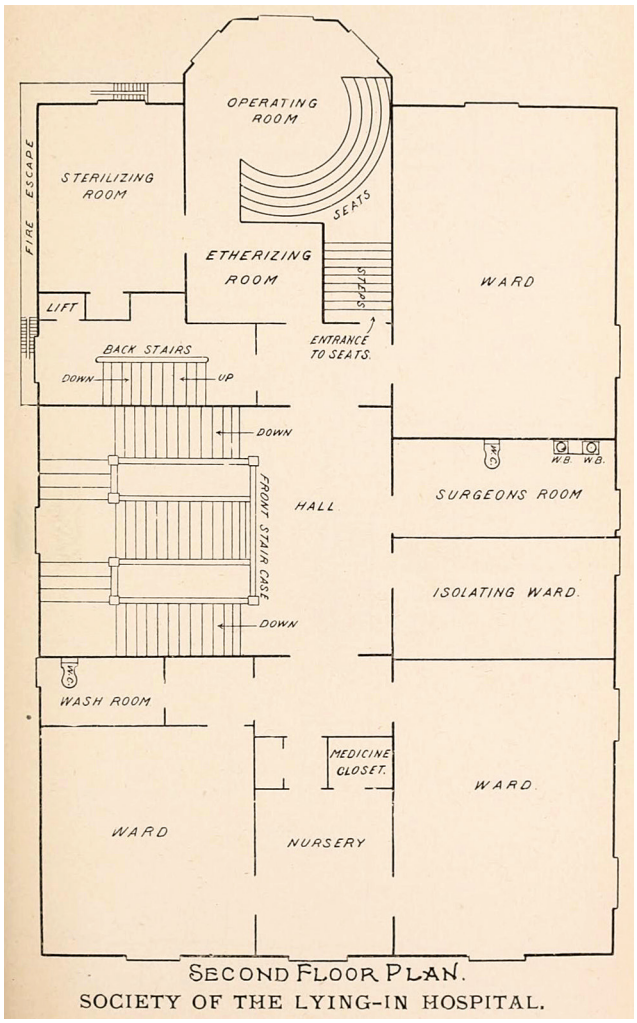


Figure 14. *Hamilton Fish Mansion Hospital, Second Floor Plan*, ca. 1895, reproduced in Society of the Lying-In Hospital, *Annual Report: 1896*, 47.

Figure 15. Wurts Brothers, *Lying-In Hospital, Delivery Room*, 1910. Courtesy of Wurts Bros., Museum of the City of New York. X2010.7.1.1499.

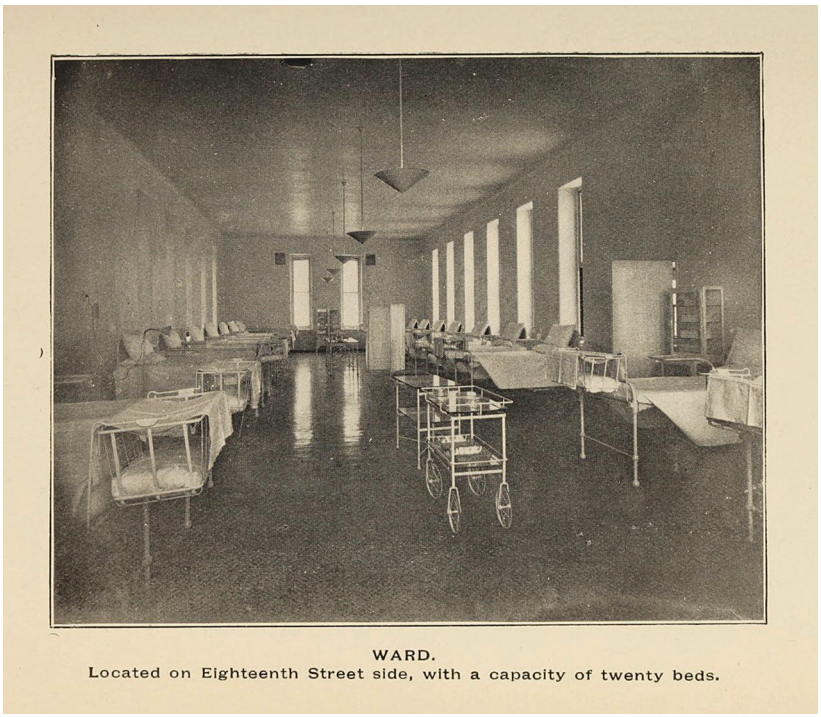
or another condition in the days following birth, they would be transferred to the septic department. If they required surgery during or after labor, the hospital contained two operating rooms, one on the seventh floor (room 713) and one on the third floor (room 320) within the septic department, demonstrating additional interest in spatially segregating sick patients (Figures 18 and 19). Robertson surrounded the seventh-floor surgical amphitheater (room 713) with additional and further deconstructed preparatory rooms, including the physicians' dressing room (709), the sterilizing room (710), the instrument room (712), the etherizing room (715), and the recovery room (714).

As this exploration of spaces included in the hospital's plan illuminates, Robertson, Markoe, and Lambert aimed to create a functionally fractionated built environment. Far from the single room of confinement often occupied by lying-in mothers birthing at home, or even the combination of waiting rooms and wards used in the Hamilton Fish hospital, the 1902 Lying-In Hospital comprises the opposite end of the spectrum: individuated spaces are here dedicated to both discrete components of professional activity and patients' graduated experiences of birthing, which were themselves becoming increasingly tethered. The proliferation of segregated, specialized rooms in the new hospital's plan atomized the process of childbirth. This was communicated to patients by their movements into new spaces for different stages of birthing. They now labored in the waiting ward, the labor room, or both, depending on their progress and how many other patients were at the hospital, moved into the delivery room for delivery, and convalesced in wards or private pay rooms.

But more than this, the above-described permanent allocation of space lent authority to the professional division of birthing into stages—stages whose dividing lines are not natural or fixed, but rather socially constructed and contingent. While midwives and pregnant people alike would have recognized physiological shifts as they navigated childbirth, by the late nineteenth century physicians and medical literature separated labor from delivery and recognized three

stages of the former. Significantly, the society's 1897 *Medical Report,* which extensively details its educational programs' curricula, specifies recognizing the three stages of labor as part of both clinical lessons and theoretical lectures.[77] The boundaries of these stages of labor, scholars have argued, were not placed in the interest of serving patients; rather, they maximized convenience and efficiency for the obstetrician.[78]

The hospital's plan accommodated and, in fact, strictly enforced, this mobility of patients' bodies. Returning to the identical plans of the building's fourth, fifth, and sixth stories, the northerly stair and elevator block (closer to Eighteenth Street) opens onto a hall that most easily leads to the waiting ward (room 457), or, with a bit more maneuvering, a small isolation room (461). The waiting ward directly abuts a small vestibule opening onto room 455, the labor room. The labor room is inaccessible from the hall, and



WARD.
Located on Eighteenth Street side, with a capacity of twenty beds.

Figure 16. *Ward*, photograph ca. 1902, reproduced in Society of the Lying-In Hospital, *Annual Report: 1902*, between pgs. 58 and 59.

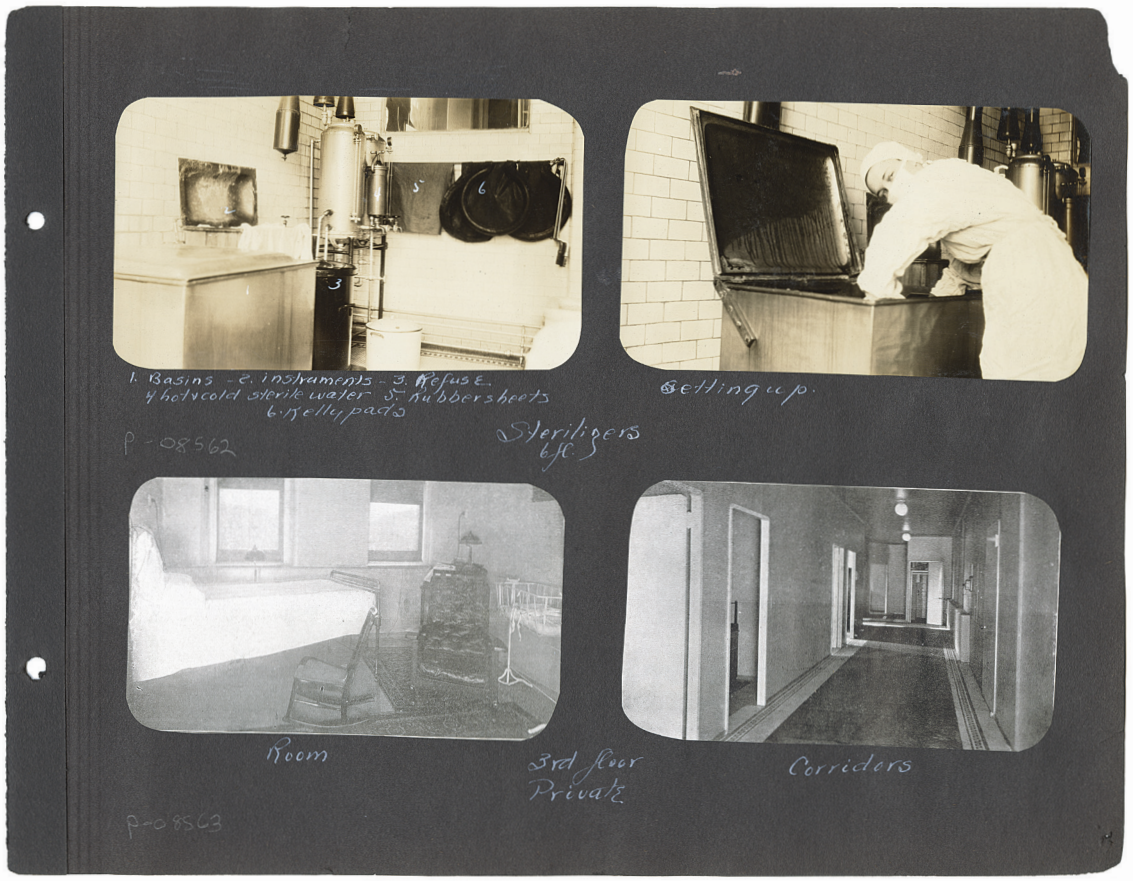


Figure 17. Flora Jo Bergstrom, *Lying-In Hospital, Private Room, Third Floor*, 1920s–30s, photographic prints mounted in a scrapbook, accession number P-08566, archival location C1A. Courtesy of the Medical Center Archives of New York-Presbyterian/ Weill Cornell Medicine. While Bergstrom's photographs were taken after the time period under examination, they provide insight as to the size of private rooms as well as how they might have been furnished.

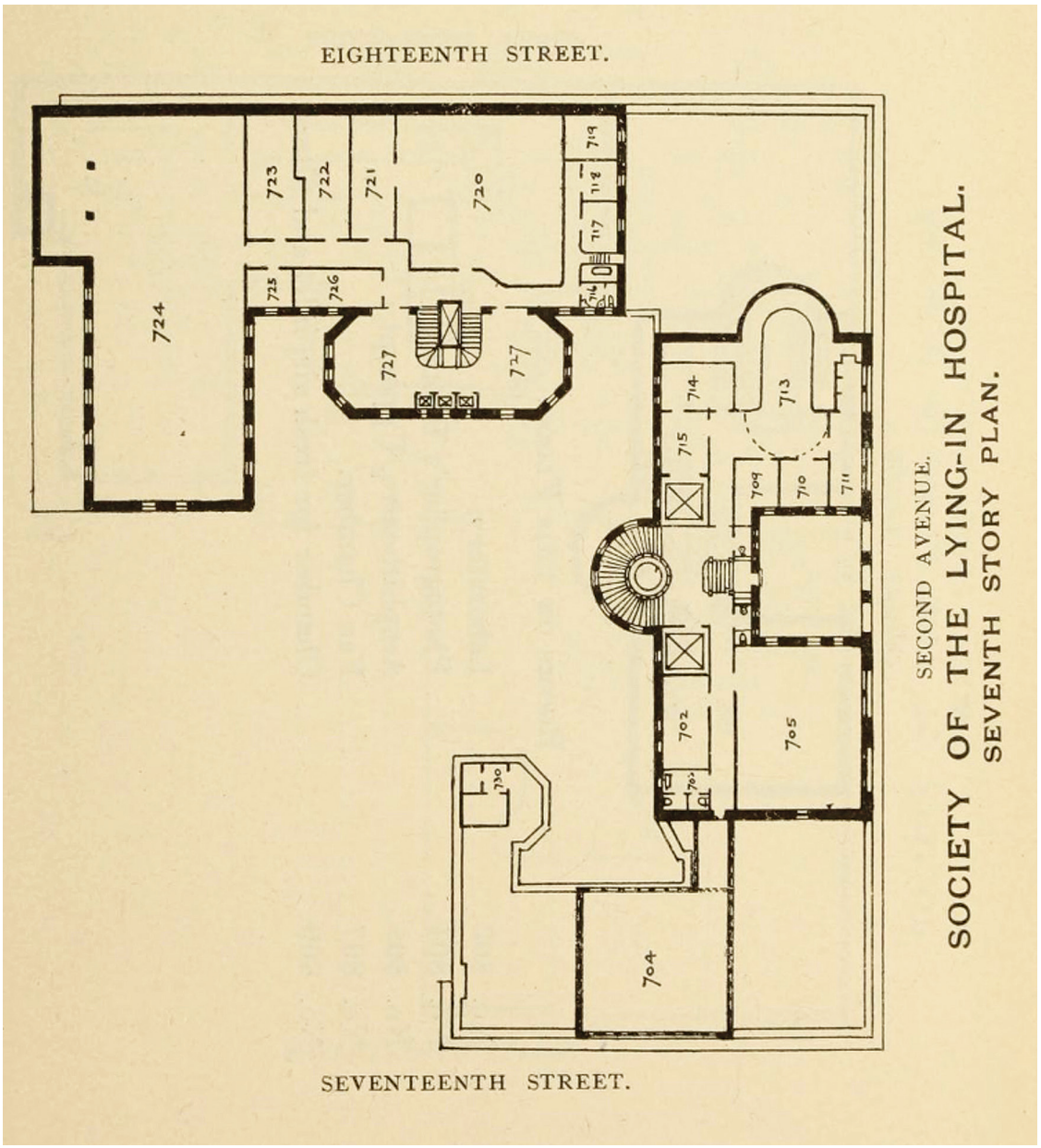


Figure 18. R. H. Robertson, *Seventh Story Plan,* ca. 1900, reproduced in Society of the Lying-In Hospital, *Annual Report: 1902*, 45. Rooms in the plan are as follows: 702 and 704, solarium; 705, laboratory; 709, physicians' dressing room; 710, sterilizing room; 711, instrument room (note: the *Annual Report* labels this room "Instrument and," which may be in error; alternatively, 712 is not labeled on the plan, so perhaps the "and" indicates that 711 and 712 are joined together. 712 might occupy the northern half of room 711, beyond the slight protrusion of a partial wall that might indicate a division of space); 712, dressing room; 713, amphitheater; 714, recovery room; 715, etherizing room; 717–19, bed room; 720, kitchen; 721, butcher; 722, storage; 723, bakery; 724, laundry; 726, "female help" and dining room; 727, crockery room, silver and glass; 730, fan room.

only admits entry via the waiting ward or delivery room (454). Similarly, the labor room leads directly to room 454, the delivery room, whose access via the main hall was likewise restricted. The delivery room opens out onto a hallway leading to convalescence wards for both mothers and babies, such as room 450 or 451. This cellular deconstruction of the maternity hospital coupled with its circumscribed directional flow naturalized the divisions of birthing only recently codified by nineteenth-century obstetricians. Notably, rooms for students—452, students' lockers, and 453, a students' sitting room—have direct access to the delivery room, demonstrating how the hospital's architecture encourages students to wait comfortably for and subsequently observe patients' deliveries. This constitutes a marked change from the Hamilton Fish hospital plans, in which spaces for students were both limited and distant from clinical spaces such as wards or examination rooms; student bathrooms appear at a remove from examination rooms on the basement floor, the student history room on the first floor abuts the south facing wall and opposes the

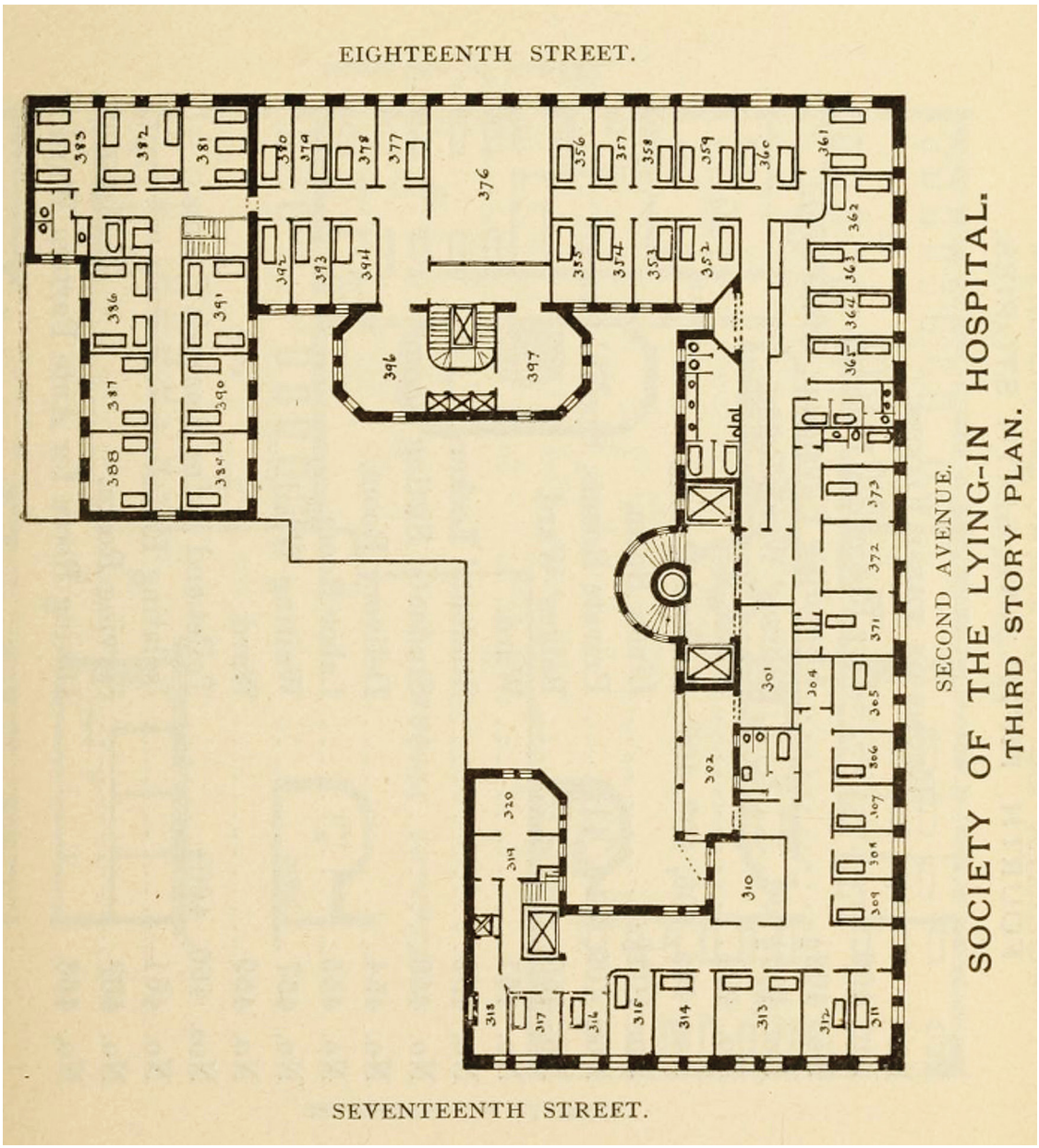


Figure 19. R. H. Robertson, *Third Story Plan,* ca. 1900, reproduced in Society of the Lying-In Hospital, *Annual Report: 1903*, 47. Rooms in the plan are as follows: 301, passage to septic ward; 302, open-air passage to septic ward; 304–20, septic department; 305–9 and 311–17, patients' rooms; 310, dining room; 318, serving room; 319, nurses' room; 320, operating room; 355–61, male graduate student bedrooms; 362–65, female graduate student bedrooms; 371–73, superintendent physician rooms; 376, female servants' dining room; 377–94, servants' rooms; 397, male servants' dining room.

north-facing wards on that floor, and students' only other dedicated space, the dormitory, was several stories away on the fourth floor (Figures 12, 13, and 20). The 1902 building's architectural encouragement of students' easy access to clinical experiences of labor and delivery thus substantiates the society's redoubled investment in specialized obstetric education, materially attesting to the priorities initially described by the society: "*First*—The establishment of a School of Obstetrics," "*Second*—The establishment of a centre [*sic*] of scientific research," and "*Third* —The perfection of charitable methods of dealing with poor women in their confinement."

It is also worth noting that mothers birthing at home would have been responsible for organizing and appointing the lying-in room themselves or alongside their families, friends, and/or midwife. This would have included selecting which room within the home was best positioned to serve for confinement and acquiring items that would facilitate birth, such as linens, spare clothing, and bedpans.[79] While factors like class would certainly limit the degree to which

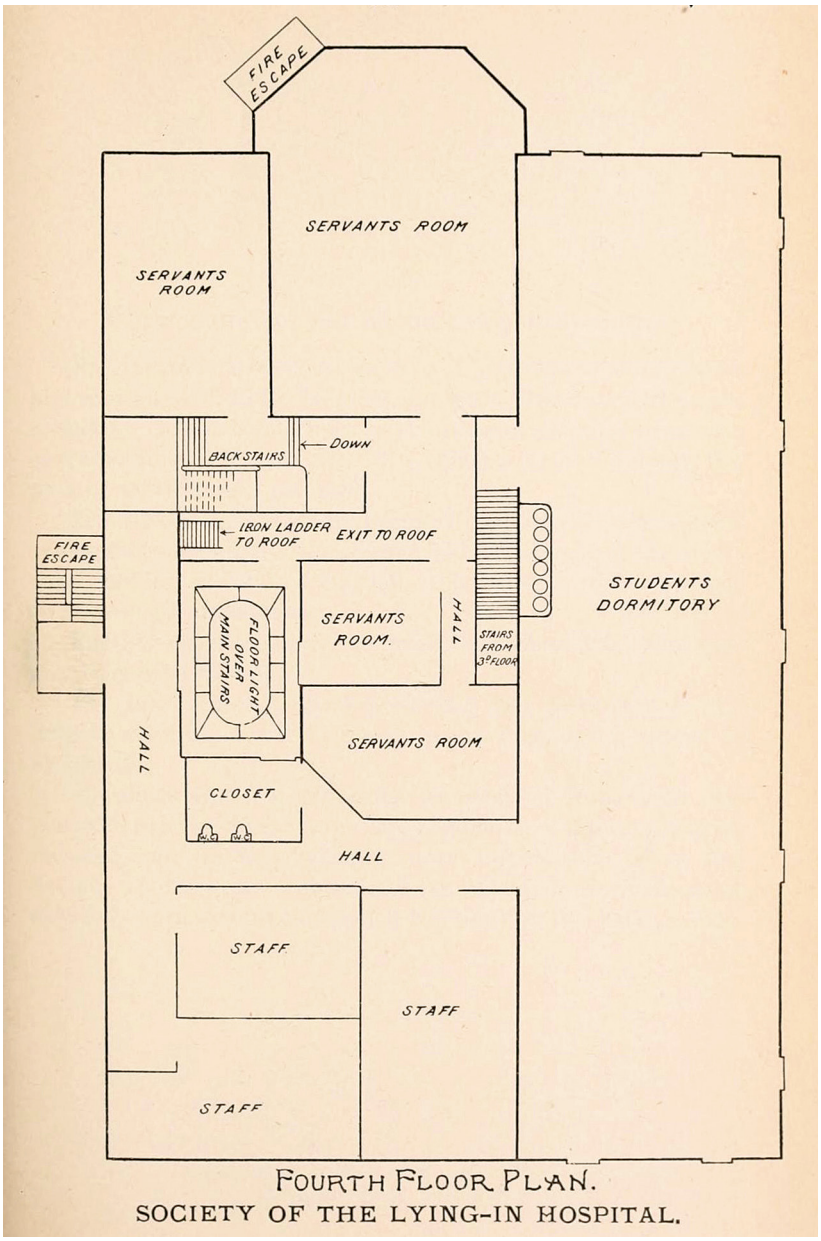


Figure 20. *Hamilton Fish Mansion Hospital, Fourth Floor Plan*, ca. 1895, reproduced in Society of the Lying-In Hospital, *Annual Report: 1896*, 51.

pregnant people had the time, space, or finances to make these choices, those laboring at home would likely have had at least some control over the room's appointment. By contrast, the spatial organization and accoutrements of birthing at the hospital were fixed, fairly uniform, and largely outside of the patient's control. This would have included standardized equipment, machines, and medications, including interventionist tools like forceps, but also furniture. Like the circumscribed divisions of labor, scholars have argued that standardized furniture, such as the birthing table, was designed to facilitate the professional engagement of physicians during hospital births, often at the cost of patients' bodily autonomy.[80]

In addition to the layout of rooms within each floor, the particular organization of the hospital's floors and the spatial segregation of various medical professionals similarly shaped circulation within the hospital as well as patient and staff experiences. Patients entered the hospital on the ground floor (see Figure 4). Taken as a whole, this level was largely dedicated to student use, containing sixteen student bedrooms (rooms 105–12 and 114–21)—cordoned off to the south end of the building—as well as the students' sitting room (104), lavatory (103), and history room (102). In fact, Robertson placed the students' sitting room (104) just north of student bedrooms and in immediate proximity to the main entrance, once again placing student waiting areas in close proximity to patients. Beyond student use, the outpatient department physician's office was also located on this floor (room 150), along with one single space—a workroom—designated for nurses (room 151). The first story was conceived as "given up mainly to the resident physician's [*sic*] rooms" (see Figure 9).[81] In addition to eight bedrooms for staff physicians (110–15 and 118–19), the floor housed the medical board room (103) and other administrative spaces, the lecture room (101), several dining rooms (156–57 and 159), the library (108), and the staff sitting room (153), which was connected by spiral staircase directly to the clinical instruction room below. Spaces set aside for nurses' use, conversely, were primarily located on the second floor, including a sitting room (201) and bedrooms (202–13, 216–17, 220–21, and 250–67), with an additional work room (403 ½) and the spaces buttressing private rooms (rooms 405–8) on the fourth, fifth, and sixth floors (Figures 21 and 10). Thus physicians, administrative professionals, and mostly male students had first access to incoming patients, especially urgent or complicated cases arriving in the middle of the night, while nurses' second, fourth, fifth, and sixth floor housing allowed easy, if secondary, access to incoming patients while remaining close enough to the main wards on the fourth, fifth, and sixth floors to perform more routine care. The imme-

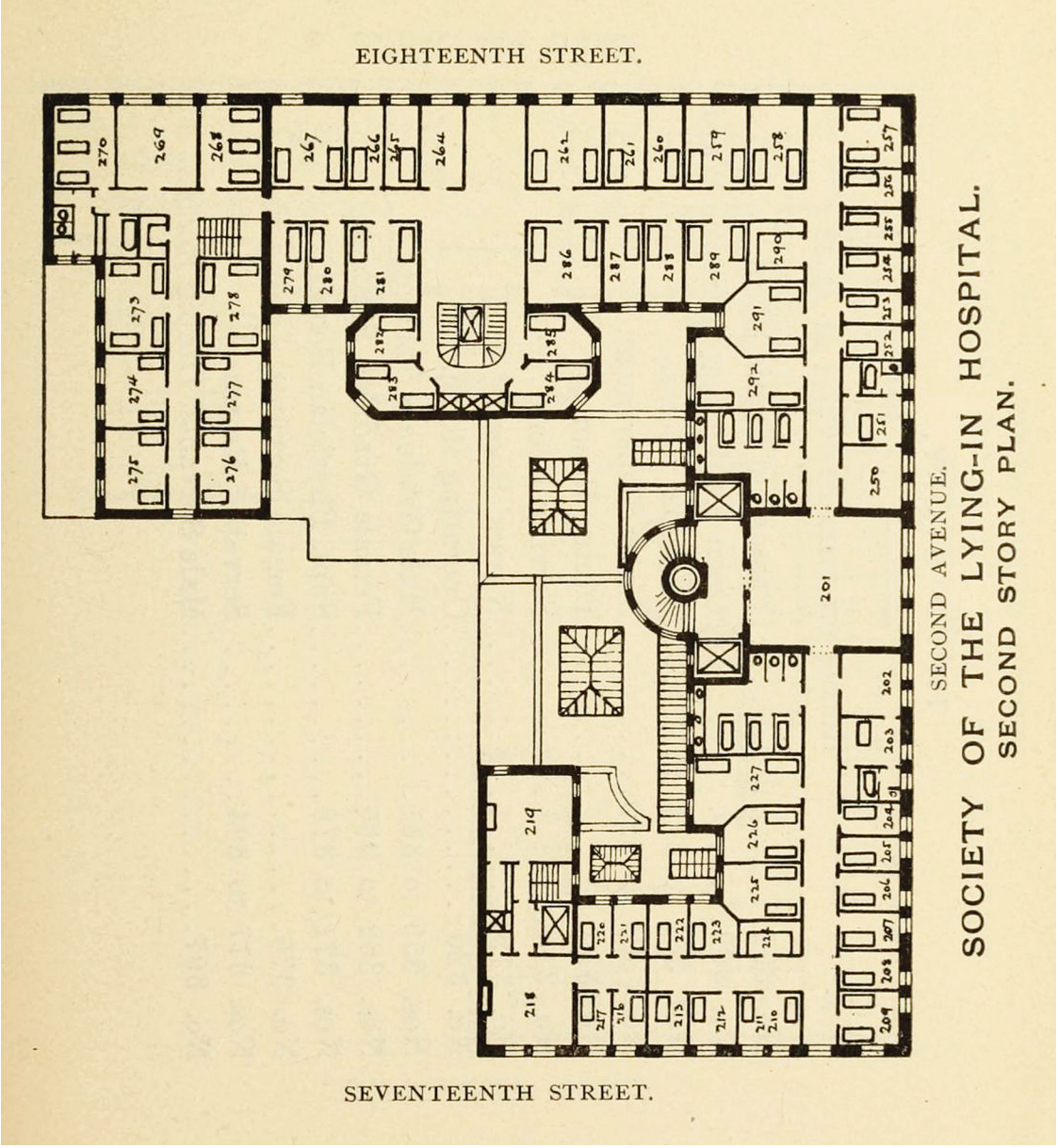


Figure 21. R. H. Robertson, *Second Story Plan,* ca. 1900, reproduced in Society of the Lying-In Hospital, *Annual Report: 1903*, 45. Rooms in the plan are as follows: 201, nurses' sitting room; 202–13, nurses' bedrooms; 216–17 and 220–21, nurses' bedrooms inside septic department; 218, septic laundry; 219, septic diet kitchen; 222–27, nurses' bedrooms; 250–67, nurses' bedrooms; 268–78, servants' bedrooms.

diate presence of physicians in moments of acute care, afforded by the organization of the hospital's floors, communicated associations between urgent intervention and physicians, on the one hand, and between nurses and less demanding day-to-day care on the other.

Obstetric nurses occupied a precarious position both within the hierarchy of Lying-In Hospital staff and the broader healthcare industry. Their role was initially conceived as a means of reducing midwives' practice. Obstetric nurses, or nurse-midwives, received more specialized training in obstetrics than general nurses. As superintendent of nursing at Bellevue Hospital Clara Noyes reassured in a public address, however, their education would not provide them with enough skill to "encroach upon the territory of the obstetrician. . . . If the midwife can gradually be replaced by the nurse who has, upon her general training super-imposed a course in practical midwifery, which has been clearly defined by obstetricians," Noyes continues, "it would seem a logical economic solution to the [midwife] problem."[82] Noyes presents the figure of the nurse-midwife

as *the* solution to the "midwifery problem": the obstetrician-designed curriculum prevents the nurse-midwife from practicing independently or from infringing on physicians' and students' access to clinical experiences.[83]

Although historian Laura Ettinger argues that the designation of nurse-midwife only entered the medical lexicon in 1914 and failed to attract implementation until 1923, it should be noted that less extensive obstetric nursing programs had been in operation for decades by the 1920s as part of nursing education.[84] The Lying-In Hospital offered two-month midwifery rotations for nurses training in nearby hospitals; lectures included lessons on the signs of pregnancy, identification of the fetus's presentation (vertex, breech, or shoulder), and aseptic technique and bacteriology.[85] Similarly, New York's Sloane Hospital opened a dedicated training school for obstetric nurses in 1887 that would also accept nursing students training at nearby hospitals.[86] While the programs at Sloane and the Lying-In Hospital were only three and two months in duration as opposed to the ten-month courses eventually offered to nurse-midwives in 1923, their availability speaks in meaningful ways to relationships between midwives, nurses, and doctors. Efforts to arm nurses with specialized obstetric training relieved physicians of some more routine specialized labor, creating more space for teaching and research. At the same time, they suggest that physicians may have envisioned obstetric nurses as buffers against midwives' encroachment well before the 1920s. While most physicians would certainly have looked upon nurses with greater approval than they did midwives, nurses' contentious association with the latter population, exacerbated by the gendering of both occupations, may have contributed to a degree of distrust of obstetric nurses.

A change to the Lying-In Hospital's course of instruction in 1897 speaks to this possible contention. In a report on nurses' instruction, the society's medical board admitted the "error" of "teaching the nurse too much theoretical medicine," which was evident in the way that "lecturers and classroom instructors . . . seem to look upon the pupil nurse much as they look upon the medical student."[87] The report went on to ask:

> Would it not be wiser to teach nurses just enough of the theoretical parts of the subjects upon which they are working to make it possible to do their work intelligently? Moreover, nurses are often forced to do so much arduous manual labor in the course of their daily work, that they are in no condition of mind or body to study during the time when their ward work does not occupy their attention. If, therefore, it is deemed wise to require nurses, in addition to their trying bedside work, to do much of the work of an orderly, they should not also be expected to commit to memory medical facts which are almost unintelligible to them.[88]

It is clear from the confession of this "error" that nurses with *too much* theoretical knowledge posed a problem. The suggestion that nurses are most useful when performing "bedside work," coupled with the claim that theoretical medical facts are "almost unintelligible" to the nurse's mind, betrays an effort to discredit the nurse as a competent medical caregiver. At the same time, it demonstrates a recognition that she, like the midwife, could encroach on physicians' work if equipped with too much knowledge or authority, lending greater significance to the spatial segregation of nurses from acute care.

A pattern mirroring the first- and second-floor divisions of doctors and nurses reappears on the hospital's third floor, which housed (with part of the second floor) the septic department (see Figure 19). Robertson included numerous barriers to restrict access to the department's spaces and isolate patients with communicable diseases. As Kisacky demonstrates, such barriers not only physically prevented contact, but also "function[ed] as procedural reinforcement," where thresholds and requisite movements from inside to outside reminded healthcare providers of the differences between patients within and without septic wards.[89] The third-floor spaces—including patient rooms (305–9 and 311–17), a nurses' room (319), an operating room (320), and a dining room (310)—could only be reached by

delimited points of entry. An elevator and stairway connected the open-air driveway at the basement level to the second floor of the department, which contained the septic diet kitchen (room 219), the septic laundry (room 218), and additional nurses' rooms (216–17 and 220–21), and which was isolated from the rest of the second floor by a dividing wall (see Figures 19 and 21). Staff could continue travel on this same stair and elevator block to reach the department's designated spaces on the third floor. Alternatively, the department could be reached through a series of indoor/outdoor passages on the third floor. The superintending physician's bedroom and office (371–73) directly abut this passage, and bedrooms for both male and female graduate students (355–61 and 362–65), where there was notably more space allocated for men than women, sit just beyond. Once again, physicians and graduate students had greater access to patients requiring specialized, often urgent, care than nurses, who would have had to pass through the laundry and wait for the elevator or climb the stairs before gaining access to patients.

Promoting and Managing "the Man Factory"

While Robertson, Markoe, and Lambert ostensibly developed the spatial organization of the 1902 Lying-In Hospital to implement state-of-the-art solutions for problems identified by physicians and administrators, the plan rendered the theoretical division and medicalization of childbirth physically manifest. The allocation of dedicated spaces for discrete stages of birthing both transformed pregnant people's experiences while also bolstering the very professional authority that had named and defined those stages. At the same time, the plan encoded hierarchies of professionalization—themselves gendered—by alternatively limiting or facilitating physicians', students', and nurses' access to patients requiring divergent levels of care. The society's founding was couched in a gesture of benevolence and, presumably, the desire to help poor women did comprise part of the motivation for the new hospital's construction. As has been demonstrated, however, the opportunity to teach future physicians the art of midwifery through the abundance of practical case studies afforded by such an institution was paramount, with obstetric specialism concretized in the very spaces of the hospital building.

Although these shifts were most immediately present in New York City, the building also served as a crucible for new thinking about maternity hospital design, clinical research, and obstetric education across the United States. This was in part due to the society's own promotion of the new building and its connection to clinical and educational innovation, perhaps most clearly articulated by the publication of the building's plans in each annual report, rendering them widely accessible. The medical board's establishment of a journal dedicated to disseminating new research from physicians and students affiliated with the hospital evinces similar desires. It published the first issue of the *Bulletin of the Lying-In Hospital* in May 1904, envisioning it as an extension of the hospital's reach, a valuable resource for "the profession at large."[90] Lying-In Hospital physicians also participated in the Clinical Congress of Surgeons of North America when the annual meeting was held in New York in 1912, at which "masters of their specialties" could demonstrate their work.[91] Tellingly, the pamphlet detailing the schedule of clinics at the Lying-In Hospital for conference participants also describes the hospital's educational programs, clinical research, and the 1902 building; photographs of select spaces, such as the operating room, a general ward, and the delivery room, further emphasize the hospital's newly constructed interiors.[92]

Beyond the society's self-promotion, newspapers that circulated during the hospital's early years of operation reveal widespread reporting on the new building. Feature articles appeared in papers serving such diverse cities as Springfield, Massachusetts, Des Moines, Iowa, and Santa Cruz, California.[93] Several of these articles include a photograph of the new building, delineate its scientific design, and/or describe its spatial organization, both in terms of the specific rooms included as well as the general purpose of each floor.[94] Several years later, James Markoe

was profiled in advance of the International Medical Congress held in Budapest in 1909 as a leading expert in his field of obstetrics. The resulting articles, which circulated in cities across the United States, point to the new building as central to Markoe's success and emphasize specialism and clinical research as markers of his innovation.[95] While the full effect of such coverage is difficult to measure, at least one direct node of influence can be clarified: the Wesson Maternity Hospital in Springfield, Massachusetts, commissioned in 1906 and completed in 1908 by Kendall, Taylor & Stevens. During its planning, Wesson Maternity's building committee traveled to New York to study the 1902 building and confer with Markoe.[96] While Wesson Maternity has been demolished, extant descriptions, plans, and photographs reveal several commonalities with the 1902 hospital, including a block plan with modified U-shaped footprint and separate labor, delivery, and convalescent spaces. Notably, Wesson Maternity's plan includes a doctors' waiting and dressing room that affords easy access to its two labor rooms and its delivery room via a central lobby. This replicates the Lying-In Hospital's inclusion of students' lockers and a students' sitting room facilitating access first to the delivery room and secondarily to the labor room, thereby functionally negotiating professional access to labor and delivery (in Wesson Maternity's case, prioritizing physicians' access).[97]

Lying-In Hospital administrators also promulgated their hospital's organization within international dialogues unfolding in specialist medical journals. In 1900, for example, Dmitry Oskarovich Ott, director of the Institute for Obstetrics and Gynecology in St. Petersburg, announced plans for a new hospital building, to be completed by architect Leonty Nikolaevich Benois, in the Berlin journal *Monatsschrift für Geburtshülfe und Gynäkologie* (*Monthly Review of Obstetrics and Gynecology*). Ott also solicited ideas for the new building from the journal's international audience of obstetric and gynecological specialists.[98] For its part, the society wrote to communicate to Ott their "principles of construction."[99] The journal subsequently printed this communiqué in its 1901 volume. The missive critiqued several elements of the proposed St. Petersburg plan, including the arrangement of pavilions and corridors (which would stifle airflow, particularly critical given the building's use of a modified pavilion plan), the failure to fully seal off the septic department, and the inclusion of bathrooms that open directly onto main corridors.[100] The society dedicated the remainder of the letter to a detailed description of its *own* innovative design; this not only included a general description of each floor, but also a notable passage outlining the particular arrangement of the labor room, delivery room, and student waiting area on floors four, five, and six, where these spaces are described as separate but joined by a "connecting door."[101] Certifying the value of this description, the letter concludes: the Lying-In Hospital is "a model for such institutions."[102] While published descriptions of the completed St. Petersburg hospital reveal several similarities to the New York building, it is difficult to ascertain Ott's response to the society's recommendations.[103] What remains clear is the society's efforts to capitalize on the international, specialist, and public venue afforded by the journal to argue for the vanguard nature of their designs.

In addition to transforming the experiences of both healthcare providers and pregnant patients and reifying discursive shifts in obstetric medicine in New York City and beyond, the 1902 hospital's design also encapsulates its physicians and administrators' anxieties at the intersection of nativity, race, ethnicity, sexual reproduction, poverty, morality, and perceived social degeneration. The new Lying-In Hospital, supported by ambulance transport, offered medical authorities expanded and increased opportunities to intervene in the pregnancies of poor migrant women who were often racialized to varying degrees—groups physicians, hygienists, and eugenicists often blamed for the degeneration of White, Western society at the end of the nineteenth century.[104] The hospital's division of spaces notably maximized the potential for surveillance and intervention, particularly as relates to patients' behavior and perceptions of pregnancy, childbirth, postnatal care, and even childrearing through prophylaxis, public health campaigns, and treatment. Recall-

ing Hart's poignant observation, many physicians explicitly connected their "desires to correct the birthing methods of migrating women to issues of assimilation and Americanization." It is also not surprising that this "assimilation and Americanization" would take the form of spatial and procedural atomization in the interest of efficiency, techniques clearly linked to the rise of Taylorism and Fordism, and which scholars have demonstrated to be increasingly present in hospital design in the early twentieth century.[105] The diction of a 1929 *New Yorker* article about the hospital, which the author terms "the man factory," evinces continued—and protracted—resonances between the mechanized space of the hospital and scientific management.[106] Given the new building's construction at a moment of intense migration to the United States and in a city whose port received the majority of these migrating families, we might understand the society's physicians and administrators as desiring to mediate—at a most fundamental level—the literal production and reproduction of new Americans.

AUTHOR BIOGRAPHY

Kathleen Pierce is a visiting assistant professor in the Department of Art at Smith College. She received her PhD in Art History from Rutgers University. Her research focuses on the intersection of art, architectural history, and medicine in the nineteenth and early twentieth centuries.

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NOTES

1. According to *Measuring Worth,* a website hosting a series of calculators for measuring relative worth created by economics professors Lawrence H. Officer and Samuel H. Williamson, Morgan's $1,000,000 donation would be worth $30,700,000 in 2019 dollars in terms of its "real wealth" value, or the generalized purchasing power of this gift. To contextualize the gift as the funding for a building project, the 1902 labor cost of a $1 million building project could range from $151 million to $219 million in 2019 dollars, depending on the number of skilled laborers involved and the compensation deployed. See Samuel H. Williamson, "Seven Ways to Compute the Relative Value of a U.S. Dollar Amount, 1790 to Present," https://www.measuringworth.com/calculators/uscompare/, 2020.

2. "J.P. Morgan's Big Gift," *New York Times,* January 14, 1897; Society of the Lying-In Hospital of the City of New York, *Annual Report: 1899* (New York, 1899), 9.

3. For a discussion of the social history of germ theory, see Nancy Tomes, *The Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge, Mass.: Harvard University Press, 1998); and Bruno Latour, *The Pasteurization of France,* trans. Alan Sheridan and John Law (Cambridge, Mass.: Harvard University Press, 1988). On turn-of-the-century understandings of hospitals, see Annmarie Adams, *Medicine by Design: The Architect and the Modern Hospital, 1893–1943* (Minneapolis: University of Minnesota Press, 2008); Jeanne Kisacky, *Rise of the Modern Hospital: An Architectural History of Health and Healing, 1870–1940* (Pittsburgh: University of Pittsburgh Press, 2016); Allen M. Brandt and David C. Sloane, "Of Beds and Benches: Building the Modern American Hospital," in *The Architecture of Science,* ed. Peter Galison and Emily Thompson (Cambridge, Mass.: MIT Press, 1999); and Charles E. Rosenberg, *The Care of Strangers: The Rise of America's Hospital System* (New York: Basic Books, 1987). On the professionalization of medicine, see, for a general conversation, Paul Starr, *The Social Transformation of Medicine* (New York: Basic

Books, 1982); for a discussion of the professionalization of obstetrics in particular, as well as changing cultural attitudes toward pregnancy and birthing, see Lara Freidenfelds, *The Myth of the Perfect Pregnancy: A History of Miscarriage in America* (New York: Oxford University Press, 2020); Judith Walzer Leavitt, *Brought to Bed: Childbearing in America, 1750 to 1950* (New York: Oxford University Press, 1986); Judith Walzer Leavitt, "The Growth of Medical Authority: Technology and Morals in Turn-of-the-Century Obstetrics," in *Women and Health in America: Historical Readings,* ed. Judith Walzer Leavitt (Madison: University of Wisconsin Press, 1999); Deirdre Cooper Owens, *Medical Bondage: Race, Gender, and the Origins of American Gynecology* (Athens: University of Georgia Press, 2018); Dorothy C. Wertz and Richard W. Wertz, *Lying-In: A History of Childbirth in America* (New Haven, Conn.: The Free Press, 1977); and Shannon Withycombe, *Lost: Miscarriage in Nineteenth-Century America* (New Brunswick, N.J.: Rutgers University Press, 2018). For discussion of the refractions of nineteenth-century shifts in twentieth- and twenty-first century Europe and the United States and Canada, see *Birth by Design: Pregnancy, Maternity Care, and Midwifery in North America and Europe,* ed. Raymond De Vries et al. (New York: Routledge, 2001).

4. While she does not focus on the history of the United States, Annmarie Adams cogently illuminates important aspects of the architectural history of lying-in in nineteenth-century Britain and interwar Montreal and lends great insight to the present article. See particularly her chapters "Childbirth at Home" in *Architecture in the Family Way: Doctors, Houses, and Women, 1870–1900* (Montreal & Kingston: McGill-Queen's University Press, 1996) and "Patients" in *Medicine by Design*. Jeanne Kisacky has also written compellingly about the 1902 Lying-In Hospital under consideration in the present article, although she trains her focus on what the building might reveal about cultural understandings of asepsis and germ theory rather than social histories of childbirth. See Jeanne Kisacky, "Germs Are in the Details: Aseptic Design and General Contractors at the Lying-In Hospital of the City of New York, 1897–1901," *Construction History* 28, no. 1 (2013): 83–106. Leslie Kanes Weisman also briefly addresses the maternity hospital as a case study in *Discrimination by Design* in a chapter centering public architecture. Because it is just one brief case in Weisman's larger project, however, the treatment of the maternity hospital is fairly general. Weisman does raise several important points discussed in the present article, including the factory-like efficiency of the hospital. Weisman's attention to hospital spaces, however, is fairly generic, largely because she analyzes "the typical layout of a conventional hospital" rather than examining a specific case study hospital. What's more, Weisman largely locates her discussion in the 1920s–70s; the present article thus locates an earlier and specific historical precedent for some of Weisman's discussion. See Leslie Kanes Weisman, *Discrimination by Design: A Feminist Critique of the Man-Made Environment* (Urbana: University of Illinois Press, 1992), 53 and 49–57. This material also appears, with some updates, in Leslie Kanes Weisman, "The Maternity Hospital: Blueprint for Redesigning Childbirth," *Motherhood and Space: Configurations of the Maternal through Politics, Home, and the Body,* ed. Sarah Hardy and Caroline Wiedmer (New York: Palgrave Macmillan, 2005), 73–86. Finally, while it does not primarily focus on architecture, Michelle Millar Fisher and Amber Winick's project *Designing Motherhood: Things That Make and Break Our Births* merits special mention. *Designing Motherhood* emphatically underscores the designed nature of everyday objects related to birth control, pregnancy, postpartum experiences, and reproductive health, such as forceps, the menstrual cup, and the breast pump. Millar Fisher and Winick subsequently argue through both an exhibition series (first opened at the Mütter Museum in May 2021 and later opened at the Center for Architecture and Design in September 2021, both in Philadelphia) and book featuring manifold critical vignettes, interviews, and visual essays that these designs play formative roles in both embodied experiences and cultural conceptions of reproduction and reproductive health. The sections "Designs for Grief," "Home Birth," and "Mamava Pod" specifically address space: intentional spaces in medical settings for families to experience and grieve the loss of newborns; the shifting politics and possibilities of birthing at home, including brief mention of the general shift of birthing from the home to the hospital in the U.S. context; and dedicated spaces for breastfeeding or pumping. See *Designing Motherhood: Things That Make and Break Our Births,* ed. Michelle Millar Fisher and Amber Winick (Cambridge, Mass.: MIT Press, 2021), 197–204, 209–12, 261–2.

5. Adams, *Medicine by Design,* xx.

6. Following the Cedar Street hospital's closure, the society operated out of a ward on the second floor of the New York Hospital between 1801 and 1827. At this facility, two midwives, who were women, handled day-to-day deliveries; physicians were called should labor become complicated. Notably, this ward comprised a rarity within medical education: male students were allowed to witness births and, therefore, partake in clinical training, an unusual opportunity for medical students before the late nineteenth century. From 1827 through 1890, the society did not occupy a physical space. For a discussion of the society at the New York Hospital, see James A. Harrar, M.D., *The Story of the Lying-In Hospital of the City of New York* (New York: Society of the Lying-In Hospital, 1938), 18–22; for the society's activities between 1827 and 1890, see Society of the Lying-in Hospital of the City of New York, *Annual Report: 1892* (New York, 1892), 5.

7. For more information about the New York Midwifery Dispensary, see Nancy Schrom Dye, "Modern Obstetrics and Working-Class Women: The New York Midwifery Dispensary, 1890–1920," *Journal of Social History* 20, no. 3 (Spring 1987): 549–64. Additionally, while the Midwifery Dispensary was founded at 312 Broome Street, the organization soon expanded to also occupy 314 Broome Street. It is this address that would remain with the society as a substation after the merger (and which accounts for conflicting addresses sometimes reported in sources). See Society of the Lying-In Hospital of the City of New York, *Report, with Historical Sketch: 1893* (New York, 1893), 9–10.

8. Society of the Lying-in Hospital of the City of New York, *Annual Report: 1895* (New York, 1895), 9–10. It was also through Morgan's assistance that the society first acquired the Hamilton Fish site; Dr. James Markoe served as Morgan's primary care physician and sought his financial intervention in both cases. See Jean Strouse, *Morgan: American Financier* (New York: Harper Perennial, 2000), 297–98.

9. Society of the Lying-in Hospital, *Annual Report: 1899,* 10.

10. Roy Rosenweig and Elizabeth Blackmar, *The Park and the People: A History of Central Park* (Ithaca, N.Y.: Cornell University Press, 1992), 24–25.

11. Society of the Lying-in Hospital, *Annual Report: 1899,* 9; Society of the Lying-In Hospital of the City of New York, *Annual Report: 1895* (New York, 1895), 18.

12. Society of the Lying-in Hospital of the City of New York, *Annual Report: 1897* (New York, 1897), 9; Kisacky, "Germs Are in the Details," 88. This pointed reference to the study of European medical establishments was strategic; as George Weisz has demonstrated, in the United States, signaling European influences—in one's medical education or in one's institutional organization—was a way of signposting investment in specialization and "scientific" medicine. See Weisz, *Divide and Conquer: A Comparative History of Medical Specialization* (Oxford and New York: Oxford University Press, 2006), 72–73.

13. "Mr. Morgan's Beneficence: What the Lying-In Hospital Will Do With $1,000,000," *New York Times,* January 15, 1897.

14. Robertson married James Markoe's sister, Charlotte, in 1874. He would go on to design two homes on a plot of land owned by Charlotte's father in Southampton, New York. Robertson constructed the first, known as Sunnymeade, for James and Charlotte's brother, Dr. Francis H. Markoe, in 1886–87; he then designed a second home for himself and Charlotte, known as Wyndecote, just next door to Sunnymeade in 1887–88. It is also clear that Robertson eventually became acquainted with Morgan himself, as the architect attended gatherings with James Markoe, Morgan, and others at James's home. For more on Robertson's connection to the Markoe family, see Gale Harris and Donald G. Presa, "Murray Hill Historic District Designation Report," New York City Landmarks Preservation Commission, 2002, http://s-media.nyc.gov/agencies/lpc/lp/2102.pdf; and Robert B. MacKay, Anthony Baker, and Carol A. Traynor, *Long Island Country Houses and Their Architects, 1860–1940* (New York: W. W. Norton), 365. For more on Robertson's relationship with Morgan, see Strouse, *Morgan,* 333.

15. Kisacky, *Rise of the Modern Hospital,* 176.

16. "Mr. Morgan's Beneficence."

17. Society of the Lying-in Hospital, *Annual Report: 1897,* 9–13.

18. Society of the Lying-in Hospital of the City of New York, *Medical Report of the Society of the Lying-In Hospital of the City of New York* (New York: D. Appleton & Company, 1897), n.p. That this phraseology was reiterated in reports describing the hospital's educational programs speaks to the idea's circulation among physicians. See, for example, Charles H. Bradley, "An Account of the Work, Including Obstetrical Technique,

at the Lying-in Hospital of the City of New York," *New England Journal of Medicine* 150, no. 11 (1904): 292. Notably, Bradley's report was also reprinted in the *Annals of Gynecology and Pediatry* 17, no. 3 (1904): 117–33.

19. Starr, *The Social Transformation of American Medicine,* 80–81; Weisz, *Divide and Conquer,* 71–72.

20. Kenneth M. Ludmerer, *Time to Heal: American Medical Education from the Turn of the Century to the Era of Managed Care* (Oxford: Oxford University Press, 1999), 4. For the original Flexner Report, see Flexner, Abraham, *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching,* Bulletin No. 4 (New York City: The Carnegie Foundation for the Advancement of Teaching, 1910).

21. Ludmerer, *Time to Heal,* 4–5.

22. In the late nineteenth- and early twentieth-century United States, undergraduate medical students referred to students in medical school, while graduate medical students referred to students who had completed medical school, but were engaging in formal educational programs, such as a residency. Graduate education was not required to practice medicine circa 1900 but was concomitant with increasing specialization and professionalization. See Ludmerer, *Time to Heal,* 7.

23. Society of the Lying-In Hospital, *Medical Report,* 2.

24. Society of the Lying-In Hospital, *Medical Report,* 2.

25. Society of the Lying-In Hospital, *Medical Report,* 3.

26. See, for example, Geo. W. Kosmak, M.D., ed., *Bulletin of the Lying-in Hospital of the City of New York,* vol. 5 (New York: New York Lying-In Hospital Press, 1909), 141–42; and Society of the Lying-In Hospital, *Medical Report,* 238.

27. Society of the Lying-in Hospital of the City of New York, *Annual Report: 1901* (New York, 1901), 31. As Ludmerer notes, medical schools' affiliation with a university emerged in the early twentieth century as a sign of its rigor and quality. The society's decision to publish the names and institutional homes of its students might be seen as establishing, if in a slightly different way, this kind of connection. See Ludmerer, *Time to Heal,* 4.

28. For a condensed discussion of the planning of the new building, see Society of the Lying-In Hospital, *Annual Report: 1899,* 19.

29. Society of the Lying-In Hospital, *Report, with Historical Sketch: 1893,* 11, 15.

30. Society of the Lying-In Hospital, *Annual Report: 1895,* 18–19.

31. Society of the Lying-In Hospital, *Annual Report: 1895,* 19–20. Emphasis in original.

32. Society of the Lying-In Hospital of the City of New York *Annual Report: 1896* (New York, 1896), 17.

33. Society of the Lying-In Hospital, *Annual Report: 1896,* 18.

34. Society of the Lying-in Hospital of the City of New York, *Annual Report: 1904* (New York, 1904), 9.

35. Robert L. Dickinson, "The New Lying-In Hospital in New York," *American Monthly Review of Reviews* 25, no. 4 (1902): 443.

36. Rosenberg, *The Care of Strangers,* 5.

37. "New Maternity Hospital: Fine Building Now Approaching Completion," *New York Tribune,* August 13, 1900.

38. Society of the Lying-in Hospital, *Annual Report: 1904,* 24–25. In this same report, however, the treasurer does note income from private patients in the society's financial statement. It seems likely, given the description of the difficulty of opening the pay rooms within the hospital, that this refers to the private patient work of the Out-door Department (largely the work of the dispensary). Private pay patients are not mentioned again until they briefly appear as a source of income in the treasurer's report in 1906, where it is not clear whether the report indicates patients staying in the hospital or the work of the Out-door Department. This has changed, however, by 1911, when the board of governors reports that increased demand for private rooms has allowed for the allocation of more space within the hospital for pay patients, which the board describes as the "private patients' pavilion." Such language suggests a larger and more physically separated space; any changes to special designations cannot be confirmed, however, as the hospital's plans are no longer published at the time of the 1911 report. See Society of the Lying-In Hospital of the City of New York, *Annual Report: 1906* (New York, 1906), 12; and Society of the Lying-In Hospital of the City of New York, *Annual Report: 1911* (New York, 1911), 9.

39. For an important discussion of this historiography, see Laura Briggs, "The Race of Hysteria: 'Overcivilization' and the 'Savage' Woman in Late Nineteenth-Century Obstetrics and Gynecology," *American Quarterly* 52, no. 2 (2000): 246–73.

40. Tanya Hart, *Health in the City: Race, Poverty, and the Negotiation of Women's Health in New York City, 1915–1930* (New York: New York University Press, 2015), 150; Tanya Hart, "Can Numbers Lie? Race, Data Collection, and Black and Italian Infant and Maternal Health Care in Early Twentieth-Century New York City," *Western Journal of Black Studies* 37, no. 3 (2013): 170.

41. Hart, "Can Numbers Lie?," 170–71; Hart, *Health in the City,* 110–11, 146.

42. Hart, *Health in the City,* 138, 188–93.

43. Society of the Lying-In Hospital of the City of New York, *Annual Report: 1902* (New York, 1902), 12, 56. The remaining 150 cases were for general treatment.

44. Society of the Lying-In Hospital, *Annual Report: 1902,* 59–60.

45. The reports give no record of patients' wages.

46. Society of the Lying-In Hospital, *Annual Report: 1902,* 59–63; *Census of Manufactures: 1905* (Washington, D.C.: Government Printing Office, 1908), 50. To more broadly contextualize the weekly reported earnings, a report published in 1903 cited the average weekly income (nationally) of surgeons at $37.73, masons and plumbers at $17.69, and butchers at $10, while a 1910 report on women and children wage-earners relayed that women employed in department stores in New York City earned between $6.00 and $7.13 a week. See Gilson Willets, *Workers of the Nation: An Encyclopedia of the Occupations of the American People and a Record of Business, Professional and Industrial Achievement at the Beginning of the Twentieth Century,* vol. 2 (New York: P.F. Collier and Son, 1903), 1047; and Charles Patrick Neill, *Report on Condition of Woman and Child Wage-Earners in the United States: In 19 Vols.,* vol. 5 (Washington, D.C.: Government Printing Office, 1910).

47. Society of the Lying-In Hospital, *Annual Report: 1902,* 65. The "Report of Alien Steerage" or "Report of Aliens Admitted to the Port of New York" appeared in every annual report between 1900 and 1905; see Society of the Lying-In Hospital, *Annual Report: 1900,* 62; *Annual Report: 1901,* 60; *Annual Report: 1902,* 65; *Annual Report: 1903,* 73; *Annual Report: 1904,* 78; *Annual Report: 1905,* 48.

48. Society of the Lying-In Hospital, *Annual Report: 1902,* 81–82. A typical case summary in this section of the *Annual Report* includes: the number of children in the family, the parents' occupations and employment status, the health of the postpartum patient, the relative cleanliness of their living quarters, and the tasks undertaken by the Ladies' Auxiliary.

49. Society of the Lying-In Hospital, *Annual Report: 1902,* 81.

50. Leavitt, *Brought to Bed,* 110, 114.

51. Society of the Lying-in Hospital, *Medical Report,* 21–22. Upon application, patients would receive an application card, on which medical staff would indicate a projected due date when they should return to the hospital. Interestingly, the cards were color-coded by the district of the city in which patients lived.

52. Society of the Lying-in Hospital, *Annual Report: 1904,* 19. The ambulance, it seems, was frequently used; the society reported that it had transported 548 women by 1904.

53. Society of the Lying-In Hospital, *Annual Report: 1903,* 20.

54. John Allan Hornsby and Richard E. Schmidt, *The Modern Hospital: Its Inspiration; Its Architecture; Its Equipment; Its Operation* (Philadelphia: W. B. Saunders Company, 1914).

55. Kisacky, "Germs Are in the Details," 90.

56. For a recent discussion of the popularity of the della Robbia family's sculpture in late nineteenth- and early twentieth-century America, and the particular role that reproductions and casts played in buoying it, see Catherine Kupiac, "Copies and Connoisseurship: Luca della Robbia's Visitation in America, 1888–1909," *Sculpture Journal* 28, no. 3 (2019): 381–96.

57. Richard Guy Wilson, "Expressions of Identity," in *The American Renaissance, 1876–1917,* ed. Dianne Pilgrim, Richard Guy Wilson, and Richard N. Murray (New York: Brooklyn Museum, 1979), 21; Abigail A. Van Slyck, *Free to All: Carnegie Libraries & American Culture, 1890–1920* (Chicago: University of Chicago Press, 1995), 27–30; Nick Yablon, *Untimely Ruins: An Archeology of American Modernity* (Chicago: University of Chicago Press, 2009), 250–51; David Silvernail, "The Reproduction and Dissemination of Della Robbia in Boston around 1900" (master's thesis, Boston University, 2015), 7.

58. Silvernail, "Reproduction and Dissemination," 3–4, 12–13; Paul W. Beaven, "The Origin and Significance of the Academy's Della Robbia Insignia," *Pediatrics* 17, no. 5 (1956): 765–66; Lawrence Kahn, "The 'Ospedale degli Innocenti' and the 'Bambino' of the American Academy of Pediatrics," *Pediatrics* 110, no. 1 (2002): 179. It is worth noting here that the roots of the modern pediatric discipline are in these same

Progressive-era reforms. See Annmarie Adams and David Theodore, "Designing for 'the Little Convalescents': Children's Hospitals in Toronto and Montreal, 1875–2006," *Canadian Bulletin of Medical History/ Bulletin canadien d'histoire de la médicine* 19, no. 1 (Spring 2002): 208.

59. Adams, *Medicine by Design,* 38.

60. Jeanne Susan Kisacky, "Restructuring Isolation: Hospital Architecture, Medicine, and Disease Prevention," *Bulletin of the History of Medicine* 79, no. 1 (Spring 2005): 39.

61. Wertz and Wertz, *Lying-In,* 138.

62. It is worth noting that although not necessarily captured in textual evidence or available archival sources, patients themselves seem to have registered resistance to these measures. Leavitt, for example, reproduces the physician S. H. Landrum's revealing warning to the colleague responsible for the prophylactic shaving of pubic hair: "He will find himself on his back out in the yard with an imprint of a woman's bare foot emblazoned on his manly chest." Landrum quoted in Leavitt, "The Growth of Medical Authority," 638.

63. The plan's repeated use of numbers in the 100s to label rooms on both the basement story (see Figure 4) and the first story (see Figure 9) causes some confusion. Here, rooms under discussion are on the basement story with the exception of the staff sitting room (153), which is one floor above.

64. See Wertz and Wertz, *Lying-In*; Laura E. Ettinger, *Nurse-Midwifery: The Birth of a New American Profession* (Columbus: Ohio State University Press, 2006).

65. Wertz and Wertz, *Lying-In,* 2, 40–44; Lyle Massey, "Pregnancy and Pathology: Picturing Childbirth in Eighteenth-Century Obstetric Atlases," *Art Bulletin* 87, no. 1 (March 2005): 73–74.

66. Harrar, *The Story of the Lying-In Hospital,* 21–22.

67. See Wertz and Wertz, *Lying-In,* 46–47; Leavitt, *Brought to Bed,* 57; Leavitt, "The Growth of Medical Authority," 638; Barbara Bridgman Perkins, *Medical Delivery Business: Health Reform, Childbirth, and the Economic Order* (New Brunswick, N.J.: Rutgers University Press, 2003), 45; and Charlotte Borst, *Catching Babies: The Professionalization of Childbirth, 1870–1920* (Cambridge, Mass.: Harvard University Press, 1995), 91, 139, 148–49. It should be noted that Borst locates geography and community as important contexts that might cultivate different models of professionalization and specialization departing from the highly interventionist strategies especially common in the northeast United States, particularly in rural spaces and the Midwest.

68. James Harrar, "Maternal Mortality in 32,000 Tenement-House Confinements," *Bulletin of the Lying-In Hospital of the City of New York* 2, no. 4 (March, 1906): 87.

69. Doreen B. Massey, *Space, Place, and Gender* (Minneapolis: University of Minnesota Press, 1994), 195.

70. Ettinger, *Nurse-Midwifery,* 10.

71. Society of the Lying-In Hospital, *Annual Report: 1900,* 15. While the Assembly of the Mayor of Greater New York supported the bill, it did not gain traction in the state senate.

72. Society of the Lying-In Hospital, *Annual Report: 1899,* 12.

73. Society of the Lying-In Hospital, *Annual Report: 1899,* 12; *Annual Report: 1901,* 52; *Annual Report: 1902,* 58; *Annual Report: 1903,* 65; *Annual Report: 1904,* 68; *Annual Report: 1905,* 40.

74. Society of the Lying-In Hospital, *Annual Report: 1899,* 12.

75. Wertz and Wertz, *Lying-In,* 146.

76. Wertz and Wertz, *Lying-In,* 127.

77. Society of the Lying-In Hospital, *Medical Report,* 58–60, 67.

78. Perkins, *Medical Delivery Business,* 43. These designations continue to impact how caregivers treat pregnant patients and the ways that pregnant people experience birthing. Laboring patients, for example, are still often told not to push—even as they experience an undeniable physiological urge to—because they have not yet officially reached the second stage of labor (often marked by dilation of the cervix to ten centimeters). Yet, as scholars have noted, the ten centimeter dilation marker can only be noted, without precision, by a manual examination, which will only take place occasionally. This means that most of the time, patients will only be recognized as having reached the second stage of labor after—not as—this marker has been met. Furthermore, the ten centimeter dilation marker is no guarantee that the patient is ready to push; sometimes pushing is appropriate earlier, while other times, a patient might reach ten centimeters, but pushing may still not be appropriate. As phrased by Barbara Katz Rothman, "Being in labor is an ascribed

status. It is a position a person is assigned by those in authority." See Linda Bergstrom et al., "'I Gotta Push. Please Let Me Push!' Social Interactions during the Change from First to Second Stage Labor," *Birth* 24, no. 3 (September 1997): 173–80; Barbara Katz Rothman, *In Labor: Women and Power in the Birthplace* (New York: W. W. Norton, 1982), 166.

79. Adams, *Architecture in the Family Way,* 115, 117.

80. Amanda Carson Banks, *Birth Chairs, Midwives, and Medicine* (Jackson: University Press of Mississippi, 1999), 68–71.

81. Society of the Lying-In Hospital, *Annual Report: 1900,* 13.

82. Clara D. Noyes quoted in Ettinger, *Nurse-Midwifery,* 14.

83. See Clara D. Noyes, "The Midwifery Problem," *The American Journal of Nursing* 12, no. 6 (March 1, 1912): 466–71.

84. Ettinger, *Nurse-Midwifery,* 14–15.

85. Society of the Lying-in Hospital, *Medical Report,* 72–73.

86. Harold Speert, M.D., *The Sloane Hospital Chronicle: A History of the Department of Obstetrics and Gynecology of the Columbia-Presbyterian Medical Center* (Philadelphia: F. A. Davis, 1963), 130–31.

87. Society of the Lying-In Hospital, *Medical Report,* 71.

88. Society of the Lying-In Hospital, *Medical Report,* 71.

89. Kisacky, *Rise of the Modern Hospital,* 187.

90. "Announcement," *Bulletin of the Lying-In Hospital* 2, no. 1 (June 1905), 2.

91. "New York Surgeons to Show Their Skill," *New York Times,* November 4, 1912.

92. Society of the Lying-In Hospital of the City of New York, *Clinical Congress of Surgeons of North America: Third Annual Session, New York City, November 11–16, 1912, Program of Clinics at the Lying-In Hospital* (1912), 3–6. Notably, the photograph of the delivery room reproduced in the pamphlet appears almost identical to the Wurts Brothers photograph reproduced in the present article as Figure 15.

93. "New York's Lying-In Hospital. The $1,250,000 Gift of J. Pierpont Morgan," *Springfield Republican,* January 24, 1902; "Mr. Morgan's Quiet Charity," *Tampa Tribune,* February 26, 1902; "A Million Dollar Gift," *Detroit Free Press,* February 9, 1902; "A New Charity Hospital," *Des Moines Leader,* April 13, 1902; "The New Lying-In Hospital in New York Which Was Built by J. Pierpont Morgan," *San Antonio Express,* February 9, 1902; and "Modern Building Marvels," *Santa Cruz Surf,* February 3, 1902.

94. Among this sampling, the *San Antonio Express* and *Detroit Free Press* articles reproduce a photograph of the hospital's façade. The *Santa Cruz Surf, Des Moines Leader, Tampa Tribune,* and *San Antonio Express* articles detail the building's technical innovations, such as its electrical wiring, plumbing, and ventilation features, as well as its scientific approach to cleanliness and dust management. The *Springfield Republican* and *Des Moines Leader* describe the hospital's spatial organization, in some cases repeating language also included in the society's annual reports. For example, the *Springfield* article reads: "The first floor is given up chiefly to the resident physicians' rooms, eight in number, the executive staff, library, medical board room, students' lecture-room, and dining-rooms for the superintendent and staff. The second floor is devoted almost entirely to the nurses' department, consisting of a large sitting-room and 44 bedrooms. . . ." This closely mirrors language from the society's description, which reads: "First Story—This floor on the south is given up mainly to the resident physician's rooms, eight in number. There is also a library and a library stackroom, medical board room, lecture-room for students, and the registrar's and bound history room. On the Second avenue side are the executive offices and sitting-room for resident staff. On Eighteenth street is located the Board of Governors' room, matron's office, and dining-rooms for superintendent, medical staff, nurses and students. Second Story—This floor is given up almost entirely to the nurses' department. It consists of a large sitting-room for the nurses, fronting on Second avenue, and forty-four bedrooms. . . ." Shared diction, including the somewhat idiosyncratic spelling of "lecture-room," "sitting-room," and "dining-room," suggests either the reporting of information from the society's annual reports or another common source. See Society of the Lying-In Hospital, *Annual Report: 1900,* 13.

95. E. J. Edwards, "The World-Conquest of America's Medical Scientists," *Cincinnati Enquirer,* August 15, 1909; E. J. Edwards, "How America's Medical Scientists Lead the World," *St. Louis Globe-Democrat,* August 15, 1909; E. J. Edwards, "American Medical Scientists Conquer the World," *Detroit Free Press,* August 15,

1909; E. J. Edwards, "The Conquests of American Medical Science," *The Daily Picayune—New Orleans,* August 15, 1909; "200 Sail to Report Medical Progress," *Boston Herald,* June 18, 1909; E. J. Edwards, "World Famous Conquest of America's Medical Scientists," *Oregonian* (Portland), August 15, 1909.

96. "New Hospital Dedicated. D. B. Wesson's Gift to Public. Modern Maternity Institution," *Springfield Republican,* November 21, 1908. On the same trip, the committee visited Sloane Maternity and the Manhattan Hospital (likely Manhattan General Hospital, which sometimes used the name Manhattan Hospital, although it is possible they visited the Manhattan Maternity and Dispensary, which had opened in 1905). They also took a second trip to Montreal to view several hospitals there, including the Royal Vic.

97. Wesson Maternity's plans can be found in Stevens' own volume: Edward F. Stevens, *The American Hospital of the Twentieth Century: A Treatise on the Development of Medical Institutions, both in Europe and in America, since the Beginning of the Present Century,* rev. ed. (New York: the Architectural Record Company, 1920), 134–35.

98. Dmitry Oskarovich Ott, "Zum Neubau des Kaiserlichen Klinischen Institutes für Geburtshülfe und Gynäkologie zu St Petersburg," *Monatsschrift für Geburtshülfe und Gynäkologie* 11 (1900): 809–20.

99. Society of the Lying-In Hospital, *Annual Report: 1900,* 22.

100. "Zur Diskussion über die Pläne für das neue Geburtshilflichgynaekologische Institut in St Petersburg," *Monatsschrift für Geburtshülfe und Gynäkologie* 14 (1901), 554.

101. "Zur Diskussion über die Pläne," 555. Original German text: "Der Kreisssaal enthält 3 Kreissbetten, von ihm durch eine Verbindungsthür getrennt einen Warteraum für 'Patients in labour' und einen für Studenten." Additionally, the use of a descriptive phrase to define the labor room's use rather than a specific term, coupled with the decision to leave "patients in labour" in English, is telling; together, they suggest that the very idea of a labor room has not yet sufficiently circulated as to have warranted new terminology.

102. "Zur Diskussion über die Pläne," 555. Original German text: "Das Lying-In Hospital zur New York erhebt wohl mit Recht den Anspruch, als Muster für derartige Institute angesehen zu werden."

103. For a published description of the completed building project, see August Martin, "Das Kaiserliche klinische Institut für Geburtshalfe und Gynäkologie für Ärzte verbunden mit einer Hebammensehule in St Petersburg," *Monatsschrift für Geburtshülfe und Gynäkologie* 19 (1904): 619–24.

104. A 1903 article describes the "territory" of the hospital as spanning from the Battery to Forty-Second Street—a sizable district indeed. See "New Hospital for City: Manhattan Maternity," *New York Tribune,* June 18, 1903.

105. See Nitin K. Ahuja, "Fordism in the Hospital: Albert Kahn and the Design of Old Main, 1917–25," *Journal of the History of Medicine and Allied Sciences* 67, no. 3 (July 2012): 398–427; Perkins, *Medical Delivery Business,* "Chapter 1: Introduction: Business Models and Medical Interventions," "Chapter 2: Academic Specialty Departments and Scientific Management," and "Chapter 3: Dividing Labor, Industrializing Birth"; Annmarie Adams, "Modernism and Medicine: The Hospitals of Stevens and Lee, 1916–1932," *Journal of the Society of Architectural Historians* 58, no. 1 (March 1999): 52, 56.

106. Morris Markey, "A Reporter at Large: The Lying-In Hospital," *The New Yorker* (October 19, 1929): 80, 83.