

Kinderbrutanstalt Leisure space and the Coney Island baby incubators

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Leisure cultivates a proliferation of spatialities and temporalities: grafting its enclaves onto urban spaces, crafting ingenious genres and artifacts for its manifestation, and everywhere enveloping its masses in the novel spectatorial position of the tourist. If 18th-century Europe saw the invention of the concept of labor (Lefebvre 1991:100), then the 19th-century United States witnessed the birth of the concept of leisure as a commodity exchanged in labor's shadow. Leisure ensured a rupture in labor's disciplined bodies, a seizure of muscles and nerves in their laxity and effervescent play, measured not through a time of standardized segments (the time of labor and history), but through a time of stoppages and intensities. Leisure's spatiality, too, unfurled in a system of uncoordinated routes differentiated from the spatiality of the factory or office. Leisure appropriated the image of the garden as its location: a world liminal to labor, but filled with luxurious and spontaneous productions.

From the mid-1800's to the early 1900's, urban zones of the

Between 1903 and 1943, Coney Island amusement parks included incubator displays featuring live premature infants. As a form of technoscience, incubators shared with leisure spaces (1) a violation of the line between public and private spheres; (2) a cyborgian synthesis of animals and machines; (3) an aesthetics of display and surveillance; and (4) the production of intensities (e.g. incubator heat, sensory stimulation). I argue that the displays' popularity marked a fusion of these four overlapping similarities, a fusion that sabotaged the incubators' legitimacy within medical discourse. My argument involves a theorization of class in terms of processual and experiential intensities, rather than an essentializing model of class fractions as social aggregates. Reproduction of social relations becomes a question of the spatial production, distribution, and consumption of phenomenological fields.

northeastern United States blossomed with leisure spaces and public parks; New York's blooms included Frederick Law Olmstead's Central Park (1858) and P.T. Barnum's American Museum (1842), and culminated in Coney Island's miniature urban enclaves dedicated solely to leisure. Paul Boyton's Sea Lion Park (1895) and Peter Tilyou's Steeplechase Park (1897) originated the amusement park form. Frederic Thompson and Elmer Dundy's Luna Park, opening in 1903, astounded the metropolis with its "lunar architecture" and innovations in mechanical amusement. Dreamland Park opened a year later. Taking the 1893 Chicago Exposition's Midway Plaisance and Court of Honor as their models, these first amusement parks established Coney Island as a permanent territory liminal to labor. Transforming coal-mining cars into roller coasters, Asian architectures into themed spaces such as the Japanese Garden and Chinese Theater, and urban conflagrations into disaster spectacles, Luna and Dreamland appropriated diverse practices and events, reconfiguring them into finely crafted leisure experiences. In Thompson's words, Coney Island circumscribed "a different world — a dream world, perhaps a nightmare world — where all is bizarre and fantastic" (Kasson 1978:66–68).

Within the garden of enchanting machines cultivated in Luna Park, a little German farmhouse topped with an artificial stork and nest invited leisuers away from the kinetic spectacles. Inside, Dr. Martin Couney managed an incubator display that treated premature babies from New York and its boroughs, free of charge to their parents. Paying a quarter, visitors entered the ward to peer in on sleeping infants in their heated, glass-fronted metal cabinets while Couney or an assistant explained apparatuses and practices surrounding the care of premature babies. Save for a brief break between 1939 and 1941, when Couney relocated to New York's Century of Progress fair, the incubator display operated from Luna Park's opening in 1903 to 1943, when Cornell University's New York Hospital finally opened the city's first neonatal ward. Between 1904 and 1911, Couney managed another display in Dreamland, adjacent to Luna. What accounts for the 40-year popularity of the solemn and scientific incubator displays within Coney Island's landscape of frivolity?

If Dreamland and Luna Park's leisure spaces generated a field

of shocks and intensities for wandering leisurers, then the incubators' novelty lay in their incommensurability with the visceral revelry outside. As fragile still lives in steel cocoons, premature infants struck visitors as a counterpoint to the perpetual motion of Coney Island's jarring rides and spectacles. From the perspective of anti-incubator-display pundits, Couney's ward was grotesquely out of place in Luna Park. Early on, the exhibit fell under the attack of the Society for the Prevention of Cruelty to Children; their anxieties circulated partly around the question of privacy and the violation of sacrosanct maternity, partly around issues of hygiene and the utility of incubator treatments. Historians of pediatrics like Bernadine Courtright Barr and Jeffrey Baker go so far as to say that the link between showmanship and incubators delayed the latter's integration into medical practice in the US (Barr 1995:35; Baker 1996:104), but without accounting for the circumstances that fused these forms together.

In what follows, I suggest that the 40-year popularity of Couney's displays marked a set of overlapping similarities between incubators and leisure spaces despite their seeming incommensurability, a relationship that sabotaged the former's legitimacy within medical discourse. As a form of technoscience¹, incubators shared with leisure spaces (1) a violation of the line between public and private spheres; (2) a cyborgian synthesis of animals and machines; (3) an aesthetics of display and surveillance; and (4) the production of intensities (e.g. incubator heat, sensory stimulation). Technical forms and artifacts — namely, the incubators themselves, their purified air, and practices of feeding and heating the infants — were constructed in the folds of their fusion with leisure, satisfying both medical discourse and Coney Island's textures of enchantment.

The "intensities" I address below are, following Gilles Deleuze and Félix Guattari, "energy transformation and kinematic movements" that displace habitual sensations and so disorganize the body; "organs appear and function here only as pure intensities" (1987:153). Heat, as an example, operates by degrees of intensity objectively measured by thermometer but subjectively registered by *moving* in skin as "heat waves." Skin and temperature are experienced as the same thing, as an "intensity" displacing the skin's habitual sensation of the body's heat.

From this perspective, Coney Island's machines, including its incubators, operated as a mode of production for circulations of intensity.

Kinderbrutanstalt

Dr. Martin Couney began his career displaying premature infants in incubators at the 1896 Berlin Exposition. Though he claimed to represent the French physician and incubator innovator Pierre Budin (Liebling 1939:22), himself a student of incubator inventor Stéphane Tarnier, Couney more likely worked for Alexandre Lion, a physician running storefront incubator displays-cum-charities in Paris much like the ones Couney would found at Coney Island (*Pediatrics* 1997:160). Lion's charity featured his own improved incubator design, manufactured by Paul Altmann. Apparently, Lion recruited Couney as manager for his exposition displays in order to promote the Lion incubator, but Couney claimed Budin as his mentor, as the latter pediatrician held more credibility than Lion in the US. Couney's claims in a 1939 New Yorker interview to have single-handedly invented incubator displays featuring live premature infants and to have exhibited in Berlin with Budin's support seem to be the idealized reminiscences of an old man weaving the narrative of his life in a public performance.

Couney called his Berlin display the *Kinderbrutanstalt*: the "child hatchery" (Silverman 1979:129) or the "baby-hatching apparatus" (Koolhaas 1994:51). Although his self-professed aim was to demonstrate scientific progress in the treatment of premature births, the display's name took on a life of its own, becoming "celebrated in comic songs and music-hall gags in Berlin even before the Exposition opened...What had begun as a sober scientific demonstration became a crowd show that outdrew the Congo Village, the Tyrolian [*sic*]Yodelers, and the sky rides" (Liebling 1939:22). From the beginning, Couney's career was situated at the intersection of medical progress, sideshow spectacle, and technical enchantment.

A Berlin hospital supplied premature babies to fill the incubators; because physicians expected the babies to die, Couney was not liable for the loan of life. But the Lion incubators demonstrated their proficiency in sustaining premature life through careful control of heat,

hygiene, and alimentation, and all of the preemies survived. A representative of the 1897 Victorian Era Exhibition at Earl's Court invited Couney and the Lion incubators to the upcoming London fair. Success at the Berlin exhibition firmly ensconced Couney's display in the global circuit of World's Fairs. By the end of his career, Couney had displayed in 22 expositions (Corby 1939). In 1898, he traveled to the Omaha Trans-Mississippi Exposition, back to Europe for the 1900 Paris Exposition, and once again to America for the 1901 Buffalo fair.

Also displaying in Buffalo, Thompson and Dundy's "A Trip to the Moon" cyclorama — an electroscenic mechanical illusion" (*New York Times* 1903:2) — caught the attention of Peter Tilyou, who invited the team to establish the exhibit at his Steeplechase Park. After 1902, they seceded to begin their own amusement center at Coney Island, Luna Park. Presumably impressed by Couney's Buffalo display, Thompson and Dundy invited him to create a permanent exhibit in their park. In 1903, Couney's display opened just days after Luna itself, a *Kinderbrutanstalt* installed in "a realm of fairy romance in colored light" traversed by "boat loads of screaming humanity" (*New York Times* 1903:2). The dream world of modernity's enchantment with progress embodied in the World's Fairs articulated with the "bizarre and fantastic" leisure space of Coney Island (Kasson 1978:66–68).

Scandal: Air

Contemporary accounts regarding premature baby exhibits in leisure spaces (most being written by pediatricians) remain ambivalent about the practice, calling it "strange," "bizarre," "curious," a "controversy." Some linger on the 40-year run of Couney's exhibit in Luna Park (Silverman 1979, Baker 1996), while others scrupulously avoid the topic while focusing on World's Fairs displays (Barr 1995). The constellation of humanitarian concerns that leaves pediatric historians repulsed by the idea of displaying premature infants to the public for a fee shares some similarities with the polemics against such exhibits at the turn of the century — namely, squirming at the discontinuity between "the serious business of saving human life" and the display of "the bearded woman, the dog-faced man, . . . marionettes, fat women, or

any sort of catch-penny monstrosity” (*The Lancet* 1898:390–391).

At the same time, contemporary accounts treat the technoscientific preoccupations at work in late 19th-century polemics surrounding incubator exhibits with a degree of critical distance. While evaluating the relatively unsophisticated techniques of their predecessors’ incubators, modern pediatricians appreciate the centrality of technical questions in arguments surrounding premature infant exhibits. Jeffrey Baker (1991) and William Silverman (1979) illuminate the degree to which turn-of-the-century pundits opposed to the displays preoccupied themselves with analyses of atmospheric sanitary conditions (miasma), nutrition, and proper regulation of temperature in the incubators. As technoscientific artifacts, air, heat, and milk engrossed physicians as much as did ethical questions surrounding the displays.

Medical discourse focused on air quality as a central concern. As spatial technology, incubators regulated air circulating within, but their polluted exteriors remained problematic. As one British physician complained about the proliferation of displays following the Earl’s Court exhibit of 1897,

the infants breathe the atmosphere of the interior of the Agriculture Hall, where, apart from the numerous visitors, the whole of Wombwell’s menagerie is kept. Just opposite the incubators there are some leopards and everyone is familiar with the obnoxious odor that arises from cages in which such animals are incarcerated. There is a similar exhibit at the Royal Aquarium, and we cannot think that the dust of bicycle racing, the smoking of the men, and the exhalations of the crowd of people who visit that resort are likely to constitute an atmosphere suitable for prematurely born infants. [*The Lancet* 1898:390–391]

In order to purify polluted air entering the incubators, physicians constructed an elaborate filtration system. Incoming atmospheric streams were “first moistened and washed by being passed through a layer of absorbent wool suspended over a saucer containing water or an antiseptic solution,” then filtered through a dry cool barrier to absorb noxious particles (dust and soot), heated in a passage of “hot-water coils,” and finally delivered to the infant across a disc which diffused the cur-

rent, so avoiding drafts (*The Lancet* 1897a:1491). Incubator air constituted a technoscientific artifact, mechanically produced from the raw material of the atmosphere. The incubators themselves marked a threshold of purity to be meticulously maintained and reproduced.

However, as an atmospheric artifact, incubator air was condemned as artificial, associated with the dangerously stagnant air of working-class tenements. As Baker notes, in the 1910s, pediatrician Henry Dwight Chapin condemned incubators' lack of fresh air in favor of exposure to open ventilation. Around the same time, a Boston hospital began drifting babies out to sea aboard "floating [hospitals]" for therapeutic and revitalizing fresh air (Baker 1991:658). Within this context of an early 20th-century revitalization of the theory of miasma, Couney's infant displays at Luna Park and Dreamland became scandalous for their outmoded reliance on incarcerating incubators.

When Dreamland burned down in 1911, the image of suffocating incubators found a perverse instantiation in an illicit newspaper report that the babies in Couney's exhibit had asphyxiated from smoke inhalation. The conflagration began (with enchanting coincidence) at a ride called Hell's Gate, adjacent to the incubators. Sparks from a burst bulb in Hell's Gate's elaborately lit facade ignited a pot of tar and quickly spread to the park's wood and staff structures. The *New York Times* reported, "Sergt. Klinck of the Coney Island Station thought of the babies as soon as he learned of the fire, and made a dash for the incubator show. He got in and managed to get three of the tiny children out, only to find that all three had been suffocated to death" (1911a:1). The following day, the paper unapologetically contradicted the tragic news: "Dr. S. Fischel, who had in charge the incubator babies, . . . ran to the incubator nursery and saw that the five babies and the nurses got out in safety" (*New York Times* 1911b:2).

The contradictory accounts, including the names of agents responsible for saving the infants, are complicated by Couney's narration of the fire nearly thirty years later. He claimed to have personally transferred the babies to the Luna Park display where they "had to double up in some of the incubators for a while, but preemies don't take up much room, anyway" (Liebling 1939:22). According to Baker, Fischel delivered the infants into the hands of the New York hospital

(1996:208, n52). Baker simply explains, “the 1911 blaze...created such panic and confusion that mistaken rumors of six infant deaths made the headlines...the following morning” (1996:98). There remains a possibility that the initial *New York Times* account correctly reported the events of 1911; if this is the case, then Fischel and Coney deployed the conflicting stories in an attempt to obfuscate a sorrowful event that would have devastated their exhibit and careers.

The catastrophe drew the wrath of the New York Society for the Prevention of Cruelty to Children (SPCC). John D. Lindsey, SPCC president and lawyer, berated Coney’s display in a letter to the *New York Times*, claiming that the babies survived the fire by chance, and that their very presence in Coney Island “violated every principle of medical or professional ethics” (Baker 1996:98). His protest failed to stop Coney, as his Luna Park exhibit remained open until 1943, but his critique raised into public circulation questions about the safety and ethicality of incubator displays.

Milk: Violated Privacy

Coney had faced opposition from the SPCC before; in 1903, the Society inquired into his medical license, the propriety of his methods for treating premature infants, and the larger issue of displaying babies to the public for a fee (McCullough 1957:177). Their last complaint tied into broader anxieties surrounding not only the displays, but also incubators themselves: should babies be taken away from mothers for intensive treatment in wards, or does this violate maternal sanctity? Do displays dismantle and make public a sentimentally private relationship? The overwhelming preference for home birth came up against incubators’ mechanically produced environments, their steel and glass surrogate wombs for premature life.

The technoscience of male physicians waged war against maternal nature. “Dame Nature might learn some valued lessons” from “ingenious devices” like the incubator; one day, “perhaps incubation will be found superior to a mother’s care” (Halstead 1904[2002]). A sensibility circulated in incubator displays in which industry superseded the productivity of nature and improved upon human maternity.

In the future, mechanized reproduction of bodies might progress the propagation of the species.

Interventions in maternal care of premature infants required simple machines controlling each environmental variable. As with air circulation and temperature, regimes for feeding premature babies entered into the circuit of technoscientific production. Wet nurses seem to have been treated like cattle, their milk a valuable commodity for successful treatment of the weak infants. Couney kept them on a special diet and fired nurses if he caught them eating hot dogs. His ward included a human milk factory: “wet nurses’ surplus milk, expressed by hand, [was] boiled to get rid of excess butter fat” (Liebling 1939:24). As laborers, wet nurses producing milk for Couney’s infants experienced a mediation of maternity that delinked the affinity between nipple and mouth and inserted stages of processing and mechanical administration of milk to infants.

Because preemies were too weak to undertake “the labour of drawing in the milk” (Smith 1896:773), wet nurses fed babies through a variety of contraptions. The gavage tube delivered milk directly into the stomach. Infants sometimes drank “by means of a tube, attached to the nurse, and placed in the baby’s mouth” (Smith 1896:773). Most notorious was the nasal spoon: a little bowl with a handle, folded up at the end for insertion into the nose. Nurses poured milk into the spoon and infants breathed it in drop by drop. Because this feeding method did not expose wet nurses’ bodies, visitors to Couney’s exhibit could watch nasal feeding through a glass window; doubtless, the spectacle captured their imaginations as a simultaneously advanced and freakish alimentary display. Breast-feeding, a process central to maternity, delivered itself to mechanical production and an aesthetics of display.

In that the technoscientific appropriation of maternity corresponded with a publicization of a private relationship, the incubators were right at home in leisure space. Amusement parks were notorious zones of contact between male and female bodies. As noted Coney Island historian John F. Kasson notes, rides like Luna Park’s “Tickler” uncontrollably jostled riders against one another, and Steeplechase’s “Barrel of Fun,” “a huge, slowly revolving cylinder which frequently rolled patrons off their feet,...brought strangers into sudden, intimate

contact” (1978:60). Park proprietors designed gimmicks to expose ladies’ ankles, like the “Blowhole Theater” at the end of Steeplechase’s mechanical horse ride: jets of air lifting skirts to the shins. In Kasson’s now classic analysis, leisure space amounted to a circumscribed working-class revolt against upper-class Victorian mores. The incubator displays’ technoscientific insurrection against the Victorian cult of maternity fell in line with Coney Island’s embrace of public and performative sexuality.

Egg: Machinic Animals

Housed behind the facade of a German farmhouse — exposed rough-hewn wood beams, delicately carved balustrades — Couney’s Coney Island *Kinderbrutanstalt* operated within an image of traditional animal husbandry. The farmhouse design paid homage to the technology of infant incubators, relinking their technical genealogy to chicken incubators. In 1878, French physician Stéphane Tarnier commissioned Odile Martin, mechanic for the Paris Zoo, to build the first infant incubator after viewing the Zoo’s chicken hatcheries. This original incubator, the *couveuse*, translates from French as both “incubator” and “brooding hen.” According to T.E. Cone, an early historian of pediatric care, the chicken incubator itself was a European adaptation of the Egyptian solar incubator (Barr 1995:21-22). In the early 19th century, shades of Orientalism lingered around the chicken incubator, though by mid-century it had been fully appropriated as a Western invention through switching from solar to steam heating. By its arrival in Coney Island, the incubators had more association with animal husbandry than with the Orient.

The German farmhouse mock-up worked as a narrative-generating device, parrying the inevitability of infant mortality through a story of enchanted innocence. On the farmhouse’s roof, a plaster stork tended its brood of babies in a bushy nest; but the structure’s interior abandoned storybook imagery to the clinical spatiality of an innovative neonatal ward. The barkers outside followed a strict script in a scientific register, never cracking jokes or suggesting that the premature babies were freaks of nature. On the roof, pigeons laid eggs in the

stork's nest, beside the plaster babies. Inside the technical and close to its warm metal, the image of humanity nestled up against the other animals. As a technology of animal husbandry was brought to bear on the human infant, it set off a secret resonance between species. Taken together, the incubator and the baby formed an egg — inanimate matter housing premature life. As spatial technology, incubators performed a mechanization of life-forms that blurred species boundaries.

Via technoscientific intercessions into incubation, eggs and preemies became subject to a quantification of life. Contemporary experiments with egg incubators stressed the economic yields of mechanized incubation. A 1903 *Scientific American* editorial boasted, “the average yearly yield at...scientific poultry farms is in the neighborhood of two hundred eggs from each hen, whereas under the old conditions the average yield per hen did not exceed forty eggs” (1903:432). In like manner, doctors experimenting with infant incubators stressed their success in saving lives, not in terms of yields, but of statistical salvation. Again, the *Scientific American* editorial: “Statistics show that only about 25 per cent of the infants prematurely born...live ordinarily, but by means of the baby incubator of to-day the lives of about 85 per cent are saved” (1901:68). The quantification of life familiar to poultry farmers accompanied incubator technology as it came to insulate human infants. The quantifying discourses of agricultural economics (yields) and medical sciences (statistical salvation) met up in the incubators designed for various species at the turn of the century. Likewise, they shared the theme of industrial improvements on natural processes.

These discursive overlaps find a corollary in the discovery of the “beehive incubator.” In 1905, “Henry Decker, of Rome, O., by repeated tests...demonstrated that a setting of eggs may be successfully hatched within an ordinary beehive as the incubator” (*Scientific American* 1905:488). Noting a similarity in the interior temperatures of his beehive and incubator after handling each, Decker tested the phenomenological evidence with a thermometer; his senses proved correct, and he came up with a combination beehive/incubator that hatched eighteen of the twenty eggs he placed inside. The relationship between beehives and eggs in Decker's device suggests a strikingly



THE BIRD OF THE INCUBATOR.

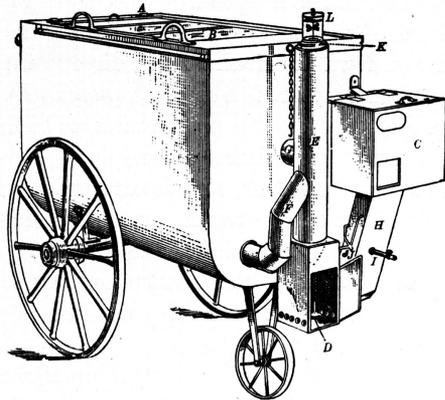


[Smith 81]

SPOON FOR FEEDING THROUGH THE NOSE.

[J'Anson 1873.]

Fig. 81



Top to bottom: The Lion Incubator (Smith 1896:773); “Spoon for Feeding Through the Nose” (Smith 1896:773); The Rotch Brooder (Rotch 1896:309).

unnatural symbiosis between species similar to that registered in the incubator as a device for warming both human infants and poultry eggs.² The *couveuse* (“brooding hen; incubator”) marked an unwinding of both the human and chicken that added spectatorial appeal to Couney’s incubators.

Beyond the overlapping scientific and economic discourses that quantified lives, I suggest that placing infants in *couveuses* positioned them on the edges of species differentiation. A device of animal husbandry historically preceded the incubator, and this precedence may have preempted the device as a machine for non-human animals in the imaginations of those visiting the Luna Park display. Other animals circulate around the image of the incubators: the stork on the roof, the brooding hen, the strange parasitism of eggs on bees in Decker’s invention. Some visitors to Couney’s display asked, “Where do you get the eggs?” (Woltman 1939). Articles on incubator exhibits routinely referred to the premature infants as “mites.” Following 1891, the physician Alexandre Lion introduced a fierce feline creature to the device with his technically superior Lion Incubator, the device Couney used at the World’s Fairs and Coney Island. The name of Couney’s first display in Berlin — *Kinderbrutanstalt*, the “child-hatching apparatus” (Koolhaas 1994:51) — linked human babies, feathered animals, and machines together in an enchanted constellation which would haunt the incubator exhibits throughout their operation at Luna Park. As liminal beings, the premature babies gathered non-human animal imagery around them, partly through (but despite) the historical trajectory of the technoscientific device itself.

Suspension: Aesthetics of Display and Surveillance

Organized by the technoscientific space of the incubator, gazes directed onto infants were split between the clinical and the scopophilic. While the devices produced an accumulation of time and life to deliver infants past the critical stage of prematurity, they also suspended infants’ lives in resonance with Coney Island’s human oddities and animal acts. The luxurious excesses of infantile existence — eating, defecating, and lying around — made the infants akin to their freak

show neighbors, without dislocating them from medical practice and discourse. Infants and incubators were suspended within two overlapping but qualitatively distinct spaces of technoscience and leisure, with overlapping gazes of surveillance and scopophilia.

Under Lion and his Parisian storefront displays, the incubator's form mutated to suit the expository aesthetic amenable to leisure space. Tarnier and his pupil Budin designed devices suitable for surveillance by physicians, the *couveuses*: boxes with glass tops based on the design of chicken incubators. The American physician Thomas Morgan Rotch borrowed from this form to introduce what he called a "brooder": a box warmed with hot-water bottles and mounted on wheels for home use, uncannily similar in appearance to a peanut roaster. Lion rotated the glass window from a horizontal to a vertical plane to reform the device in the likeness of a convection oven, allowing the infants inside to be seen from across a room. Rotch's device structured an intimacy in peering into the infant's lair suitable for a private setting; Lion's machine forced the infant into an enframing device positioned for a public, consuming gaze.

In that incubators necessitated surveillance by a caretaker, they were ready-made for minor adaptations to make them suitable for an aesthetics of display. Lion's vertical window deftly substituted the position of an intimate and private physician-surveillant for that of the scopophilic position of tourist. Like so many other displays in *fin de siècle* leisure spaces, the Lion incubators employed an expository aesthetic consisting of a vertical glass window looking into a dream world. Inside, things were miniaturized or stilled, in a state of suspended animation. As enshrined fetishes, the babies incarnated a fascinating premature humanity, like the jarred fetuses in Peter the Great's *Kunstkammer* (Gould and Purcell 1992:13–32).

As with such "chambers of curiosities," intellectual and ocular-visceral experiences circulated over the surfaces of display: "the incubators and the ventilating tubes are silvered, which gives them a bright and cheerful appearance, while the infants within look clean and comfortable, so that altogether it is a pleasant as well as an interesting sight" (*The Lancet* 1897b:161). Lion incubators included a clipboard over the glass doors with a graphic representation plotting out each

infant's progress, measured in terms of her or his daily weight and temperature. These charts were juxtaposed with the "skinny, uncanny bit of human skin and bones" that constituted the premature infant (Halstead 2002[1904]). Some visitors and pediatricians saw the babies as unformed beings, bundles of organs still liminal to the human form itself. The "bits" of humanity, like the graphic abstractions of weight and temperature, constructed a vision of the premature infant as a set of materials and intensities in a process of *becoming*, rather than a human-*being*.

Glass, graphs, and shining metal were instrumental in technoscientific practice, but simultaneously signaled advances in the same. As such, incubators directly fused practice and the dream world of abstract progress. Humanitarian concern for saving lives had captured a mechanical device to meet its ends; as Baker notes, the machines constituted a form of "technological optimism" (1991:656). But leisure space in return captured the image of progress and its articulation with premature life, playing on the similarities between the vantage points of the physician-surveillant and the scopophilic leisurer in relation to the Lion incubator's vertical glass. The mechanical, juxtaposed with human flesh and intensities, formed a cyborg compound in a fundamentally dehumanizing operation.

Heat: Intensity Machines

As infants were subject to incubators, visitors to Coney Island were subject to amusement machines. These devices took up human bodies, disorganized their parts, and subjected them to a production process by generating intensities and stoppages across a phenomenological field. The "Shoot-the-Chutes," in which boats careened down a steep ramp to skip across a lagoon like stones, brought leisurers into intensified relation to speed and gravity. The "Tickler," a pegged slope traversed in a sliding barrel, punctuated movement with jarring bumps. Fits of screaming and laughter sustained intensities of fear and humor; bodies knocked and swung about, caught in mechanical manipulations of the gravitational field, registering stoppages in muscular agency. Coney Island deployed technology for the production of experience,

an accumulation of shocks to the disciplined bodies of labor.

Spatiality orchestrated the machines, bodies, and sensations of this productivity. Henri Lefebvre's urgent appeals for a critical study of spaces aptly illuminate a number of issues involved in turn of the century Coney Island.

The problematic of space, which subsumes the problems of the urban sphere (the city and its extensions) and of everyday life (programmed consumption), has displaced the problematic of industrialization. It has not, however, destroyed that earlier set of problems: the social relationships that obtained previously still obtain; the new problem is, precisely, the problem of their reproduction. [Lefebvre 1991:89]

As a machine for the reproduction of social relations, Coney Island broke apart the continuity of everyday life within a framework of programmed consumption that simultaneously produced and consumed experience itself.³ Because leisure operated in an enclave, segregated from labor and living spaces, the experiences engendered there remained liminal to life. This segregation provided a solution to the problematic of social relationships under industrialization by making a space for conspicuous consumption and democratizing the status of the leisure class. Since the parks at Coney Island circumscribed a world of working-class entertainment, intensities and stoppages endemic to class privilege found a route of circulation for a mass public without endangering the hierarchy of taste formerly constitutive of "abstentions from labour" (Veblen 1934:38).

Lefebvre's emphasis on space allows a theorization of class in terms of processual and experiential intensities, rather than an essentializing discourse on class fractions as social aggregates. Reproduction of social relations becomes a question of the spatial production, distribution, and consumption of phenomenological fields. Spaces instrumentally deploy technoscience as means for surveillance, intervention in physiological processes, the activation of desires, the satisfaction of pleasures, and the display of progress.

Inserted into the midst of the leisure enclaves of Luna Park and Dreamland, Coney's infant incubators developed a novel mode

of technoscientific intercessions in spaces and the reproduction of social relations. Their heat production corresponded with amusement machines' generation of intensities. Heat linked into a discourse on class and justified a governmental intervention into the working-class family: because poor households lacked adequate temperatures for the survival of premature infants, Couney justified his temporary adoption of these babies as an act of charity. Within this rhetoric, displaying the infants and machines for a fee simply covered the costs of saving lives.

Apparatuses for heating infants amounted to a technoscientific solution to the social problem of the differential access to heat; as such, technology operated as inhuman agent protecting human lives with its enchanting devices. Lion incubators produced heat through a **W**:

incubator temperature is automatically maintained at the required heat by a specially constructed thermostat. This is made in the shape of a **W** composed of two metals, the one being quick to expand and the other to contract... When the temperature inside the incubator is beginning to exceed the limit for which the apparatus has been set — and this limit can be varied according to circumstance — the **W** thermostat expands and so works on the levers [so] that the chain is drawn upwards, and by this action the gas or the lamp is turned down and the supply of heat to the boiler is decreased. The temperature within the incubator consequently begins to go down. [*The Lancet* 1897a:1491]

In the *Lancet* description, thermostats take on a dense technical personality, becoming automatons in the service of sustenance. Measuring heat through contractions and expansions, the **W** extended the infant's nervous system, which itself had been calibrated according to perceived thermal needs by the physician-surveillant. A model laborer, the **W** worked the levers to maintain the limits of an intensity in degrees Fahrenheit.

The incubator's heated space marked out a zone of intensity antithetical to the spaces of working-class tenements. With Barr, I assume "that few incubator babies came from well-to-do families, for families in comfortably-heated houses customarily took care of pre-

mature infants at home” (1995:18). In her study of the 1904 St. Louis Exposition incubator display, Barr draws on notes of the exhibit’s manager, John Zahorsky, to conclude that most of the infants in his ward were children of working-class parents (1995:31). Heat and cold in homes indicated class relations in terms of intensities; physicians positioned incubators as a corrective measure for disparities in classed intensities, a redistribution of heat.

Barr neglects an analysis of premature birth rates according to socioeconomic factors involving (home) employment and diet during pregnancy. Studies indicate that among working-class mothers, premature births generally occur 2 to 3 per cent more often than among middle- or upper-class mothers (Silverman 1961:18–27). Not only were working-class parents more likely to institutionalize their babies in incubator charities; they were more likely to give birth to premature infants in the first place. With its tenements and concentrations of working-class families, metropolitan New York stimulated both the reproduction of premature births flowing into Coney’s exhibits and the desire for sociality offered in Coney Island’s leisure spaces.

According to Coney, the demand for his incubator services outpaced the space available in his wards. In an apocryphal anecdote, Coney described a “gangling fellow” showing up at his exhibit with a hatbox after closing time (Liebling 1939:23). He turned him away, but the man returned the next day, handing over the hatbox. “Here is a baby my wife had yesterday about twenty miles from here. I been sitting up with it in the park” (Liebling 1939:23): an infant asleep in a hatbox. Coney’s tales elaborated an image of a pathological working-class parent nonchalantly handing over his baby to a stranger. Coney complained that he had difficulties returning babies to their parents once they had passed the threshold of prematurity. The stories worked to situate Coney as an altruistic “patron of the premies” (Liebling 1939) struggling against but for working-class parents and their backward ways of raising children.

The “agencies of political power and...their mechanisms of control” (Lefebvre 1991:89) at work in Coney’s displays mitigated social relationships with a technoscientific solution to classed intensities of heat, patrolling working-class families through governmentality

via the pathology of premature births. In this sense, premature infants of working-class mothers, displayed to working- and middle-class leisurers at Coney Island were themselves artifacts positioned in the intersection of humanist discourses and leisure's spatiality. Multiple overlaps between technoscience, an aesthetics of display, and the disputed boundary between public and private spheres coalesced in incubator displays, for a time capturing and perverting prenatal care as leisure spectacle and the reproduction of social relations.

NOTES

1. Following Donna Haraway, the fuzzy territory "technoscience" constitutes itself in "dense nodes of human and non-human actors that are brought into alliance by...material, social, and semiotic technologies"; the term technoscience "mimes the implosion of science and technology into each other in the last two hundred years around the world" (Kirkup 2000:xiii). Haraway privileges the ontological space of the cyborg as that which "gives us our politics" in the technoscientific territory — a space of "both imagination and material reality, the two joined centers structuring any possibility of historical transformation" (Haraway 2000:50–51). While an incubator and a baby form a cyborg, my focus positions that cyborg into the technoscientific territory of their emergent discursive and spatial coordinates. In this sense, Coney Island became a location of technoscience even as it perverted the seriousness of technoscientific discourses.

2. One wonders if Couney contemplated replacing his Luna Park incubators with beehives to better suit the fantastic and enchanted cadences of Coney Island without losing sight of the interests of medical science and his humanitarian concerns. Especially enticing would be the yields of honey sold as a unique Incubator concession.

3. I want to clarify a stance against an approach to leisure as latter-day "mythification." John F. Kasson makes a case that "the importance of sustaining the illusion of anarchic freedom and heedless release beneath the underlying reality of control underlay all of Luna Park and Coney Island as a whole" (1978:82). I remain unconvinced that working-class visitors to the parks were duped into a state of alienated leisure. The "reality" of Coney Island is more complex than Kasson's vision allows; release and control are not a bipolar compound, and controlled release does not manufacture a phantasm of freedom. Rather, control and release, like illusion and reality, are enfolded within and constitutive of one another. On principle, an analysis of the real is always embedded in an enchanted world fascinated with textuality and authenticity.

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