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**Nature, Architecture, National Regeneration: The Airing Out of French Youth in Open-Air Schools 1918-1939**

This paper examines the history of French écoles de plein air as they developed in the early twentieth century, paying particular attention to the interwar years of 1918-1939, the period of their greatest architectural innovation. A curious hybrid of school and sanatorium, open-air schools provided children deemed ‘pre-tubercular’ with the same fresh-air and heliotherapy cure offered in tuberculosis sanatoria along with improved nutrition, medical supervision, and training in modern hygienic practices. Écoles de plein air were promoted during this period with an unabashedly utopian zeal by French politicians, hygienists, educators, and architects who believed such schools could help reverse negative demographic trends in France and ensure healthy, vigorous generations of children imbued with “the joy of living, the strength to work and, later, to fight.”

A window into the enthusiasm for these schools is provided by a 1912 lecture given at an international conference on demography and hygiene. There, Parisian architect Augustin Rey, a member of the Musée Social, a powerful network of hygienists, architects and statisticians in France, delivered a talk on “L’école de l’avenir,” or the school of the future. Beginning with a reference to

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Pasteur’s observation that, "in order to save a race that is threatened by an infectious disease, the best plan is to save the cocoon,” Rey drew a parallel to the terrible scourge of tuberculosis and the need to protect the children of France. Because of the contamination of working-class hovels and dark, overcrowded schools, Rey asserted that questions of ‘school hygiene’ were the most pressing of the day.

The solution, he declared, was to abandon old prototypes for schools which fostered deterioration among French children and create new buildings that would bolster children’s health by immersing students in a continuous bath of light and air.” The school building, he asserted,

… exerts a profound influence on the overall development of the race. [It] should, therefore, be like a nursery where the young plant develops and strengthens and not where it atrophies.3

The perfect model for this ‘greenhouse’ of the French race, he declared, was the école de plein air, or open-air school, because it provided greatest access to the ‘microbicidal rays of the sun.” In light of ongoing concerns about the enfeeblement and depopulation of the French people, the image of such a school had a seductive appeal.

This paper will seek to explain why such utopian eugenic aspirations, deriving from experts in a variety of fields, were brought to what was essentially a dubious and ill-defined project and how architecture took on the role of giving concrete form to these aspirations. It was ill-defined in terms of the lack of consensus about what physical form these schools should take. Open-air schools initially occupied a wide variety of makeshift spaces: abandoned alpine chalets, rooftops in cities, tents in public parks. Indeed, the makeshift nature of the project was part of its appeal. Open-air schools as a health-promoting project were dubious because, as many physicians suspected even during the interwar period, heliotherapy was neither an effective therapy nor a form of prevention for

3 Rey. —L’école de l’avenir”, 105
tuberculosis. After the 1943 discovery of streptomycin as an effective cure for TB, the schools rapidly fell out of fashion.

Nonetheless, during the interwar period in France, in the face of high expectations, conflicting medical theories, and widespread trauma in the wake of the Great War, architects were increasingly enlisted to define the type through architectural design. Their goal: to design schools that facilitated, rather than hindered, this peculiar goal of bathing children in a continuous bath of air and light.\(^4\)

While similar schools developed in other Western European countries during this period, the history of the école de plein air in France presents a unique object of study for several reasons. First, in addition to the ongoing crises of low birth rate and high infant mortality, France had the highest tuberculosis infection rate of any Western European country and a high mortality rate from tuberculosis.\(^5\) In response to these trends, a complex of state and philanthropic initiatives aimed at preventing the spread of tuberculosis developed in the late nineteenth- and early twentieth-century of which the open-air school was one.\(^6\) The open-air school, with its focus on the category of healthy but vulnerable children – rather than the already diseased-- allowed it to mesh perfectly with the many other French child-saving initiatives of the era.

Second, the development of the écoles de plein air in France provides a window into the increasingly medicalizing mission of the national educational system. As discussed in the previous chapter, the network of free public schools established in the 1880s by the Republican government

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4 Rey, "L‘École de l‘avenir," 104.


provided, among other things, sites in which children could be subjected to routine medical inspections and hygienic surveillance. The école de plein air represented the ultimate realization of the school as a medicalized, therapeutic space. It was designed as a place of pre-emptive medical care, thwarting the expression of disease in children whose weakly constitution had been revealed during medical examinations in normal schools.

Thirdly, and most significantly, an examination of écoles de plein air in France provides a window into the eugenicist intentions of many of the movement’s advocates, who were interested in the more ambitious goal of improving the quality of the French ‘race’. There was an explicit rhetoric of racial improvement and social control in the program of the écoles de plein air. The French League for Open Air Education, for example, declared that the goal of the organization was to contribute … to the restoration of the French race and to the fight against tuberculosis, alcoholism and the other causes of degeneracy.” Furthermore the League avowed a desire to,

«[R]aise strong and vigorous generations. Train well developed, active, determined young men and young women; men who love their country, are ready to serve and defend it…; women … who are attached to their home and prepared for their social role.”

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7 See for example organizations such as the La Ligue des Médecins et des Familles pour l’Hygiène Scolaire and L’Hygiène par Exemple, an organization which promoted a distinctly medicalized vision of health in the schools. By the early 1900s, delegates from these organizations were meeting hygienists from other countries at international conferences on school hygiene in Nuremberg in 1904 and in London 1907.


The founder of one school was even more direct, speaking of such strategies of tuberculosis prevention as a way to improve the quality of the families of tomorrow rather than encouraging misfits and malingerers to procreate.12

This chapter begins by establishing the context of the tuberculosis crisis in Europe and the new emphasis brought, at the beginning of the twentieth-century, to diagnosis and prevention in children. A series of preventative programs based on climate-therapy, of which the école de plein air was one, were utilized to compensate for the hygienic dangers of the working-class home. The second section, examines the development of the French open-air school in the immediate aftermath of the Great War. Devastated by widespread loss of life, the French turned to the open-air school with increasing fervor and organization. By the early 1920s, school hygiene organizations, including one founded by members of the Pasteur institute, were challenging architects to dream up innovative architectural designs for a model open-air school. The third and final section, examines the design and reception of what many hailed as the most innovative open-air school to date: the école de plein air of Suresnes (Fig. 1). Built in the years before the outbreak of World War II, it appeared to finally give concrete form to the utopian dream of a spectacular, hygienic, sun- and light- filled school. This hybrid "sanatoria-school" resembled neither newly built modernist sanatoriums nor traditional school buildings. With its eight individual pavilion classrooms, each with three retractable glass walls, it was hailed as a therapeutic, "greenhouse" of the French race and a model for the "school of the future". But was it a miracle school or merely a propagandistic symbol in a tense international climate? In these transparent glass schools France's children — the living, growing proof, that the nation was vital and "regenerating" — were quite literally, on display.

Figure 1: Open-Air School of Suresnes, ca. 1935
Part I. Therapy for „Pre-Tubercular” Children: The Road to the Open-Air School

Since the école de plein air was developed for an entirely new category of patients, „pre-tubercular“ children, an examination of the schools requires a broader look at the history of tuberculosis in Europe. This section will begin with a brief history of the threat of tuberculosis in Europe and illustrate how scientific advances led to the creation of a new, but vague, diagnostic category: „pre-tubercular.“ With no new therapeutic options, those so categorized — often poor, working-class children — were sent to places where they could receive climate-therapy for purposes of TB prevention. The open-air school was one of these prophylactic programs which, because of its simplicity and potential applicability to all school-aged children in France, physicians and educators alike embraced.

For most of the nineteenth century, tuberculosis was the primary cause of death in France and other European countries. Its causes and modes of transmission, however, were poorly understood, rendering the fight against the „white plague“ difficult. Discoveries by scientists in the late nineteenth-century radically altered understandings of contagion and ultimately led to the development of the germ theory of disease which attributed contagion to malevolent microbes rather than unhealthful airs or miasmas. In 1882, German scientist Robert Koch succeeded in isolating the tubercle bacillus, thus providing specific new information about TB’s etiology.

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In spite of these scientific breakthroughs, no new therapies were developed which could effectively cure the disease. At the turn of the century, the treatment protocol remained essentially unchanged: fresh air, a rich and varied diet, exercise, and hygiene were the main weapons in the war against tuberculosis. Throughout Europe during this period, sanatoria were established which isolated the sick, often in alpine locations, and provided climate therapy under the care of physicians. While originally most establishments were for adults, sanatoria devoted to the cure of children were eventually established in several countries including France and their treatment was handled much the same.

In the early 1900s, however, as a result of several scientific breakthroughs in diagnosis, the ideological emphasis in the international ‘war on tuberculosis’ gradually shifted from curing tuberculosis in adults, an uncertain science at best, to prevention in children. In 1903, German scientist Emil von Behring published work attempting to demonstrate that adult tuberculosis was caused by the reactivation of the *tubercle bacillus* acquired in childhood. Subsequent work by physicians conducting autopsies on children who had died from other causes, revealed that many children carried some latent, unexpressed form of the disease. In 1908, another German scientist, Clemens von Pirquet found that tuberculin, a derivative of the *tubercle bacilli* culture, could be used to detect infection in individuals who were not yet showing symptoms.

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17 For a historical document dealing with TB sanatoria in France see Frederick Walters, *Sanatoria for consumptives in various parts of the world (France, Germany, Norway, Russia, Switzerland, the United States and the British Possessions): a critical and detailed description together with an exposition of the open-air or hygienic treatment of phthisis* Swan Sonnenschein: London, 1899, pages 139-145.

18 Connoly, «Pale, poor, and Pretubercular”, p. 139.

19 Ibid.

20 Ibid.
Although the tuberculin test could demonstrate the presence of the *bacillus*, there was no clinical proof that this would eventually cause a child to develop tuberculosis. Thus the vague diagnostic category of “pre-tubercular” was applied to many children. They didn’t have tuberculosis, but they might develop it if general health deteriorated, and physicians such as Dr. A. Marfan declared that these children were at the greatest danger between birth and age 16.\(^{21}\)

Since more poor children tested positively than wealthy, a class dimension to contagion was confirmed in the minds of many physicians. This not only suggested a hereditary component to TB — easy to imagine in what was perceived to be an enfeebled working-class — but it also underscored the hygienic threat posed by the grim, dark, airless dwellings of the poor.\(^{22}\) As one physician declared, in an 1897 article in *La France Médicale*, few could have any idea of the disorder and repulsive filth that reigns in these dim recesses of our cities.” —This,” he continued,

…is where our patients cough,…where they waste away, and where they die…The consumptive is left alone all day: he coughs, he spits on the ground; it is easy then to understand the danger faced by the children coming home from school… This is the time when they pretend to clean the room. They sweep, and from dried sputum, the microbe is lifted up and suspended in the air.\(^{23}\)

At the turn of the century, many physicians and philanthropists viewed the working-class home as a hygienic heart of darkness. While it is true that young children residing in homes where someone had TB were at risk of breathing in infected dust particles, and that such risks might be heightened in homes that were overcrowded, as slums often were, there was also a transparent disgust at both the


\(^{22}\text{Marfan, « Preservation de l’Enfant », 255.}\)

\(^{23}\text{Quoted in Barnes, The Making of a Social Disease, 115.}\)
living conditions in slum housing and the inhabitants themselves that is revealed in such descriptions and which complicates our understanding of the nature of their reformist agenda. Was this a benevolent project of protecting the health of the young, or disciplining an impoverished, unhygienic class of people?

Regardless of such ambiguities, removing vulnerable children from the urban, working-class home — whether for years, weeks, or even mere hours each day — became the major focus of TB prevention programs. In the words of one promoter of such programs, the best way to fight against tuberculosis was to snatch away its prey. Armed with new diagnostic criteria, a sense of urgency as regarded early intervention, and access to poor children via in-school medical examinations, at-risk children thus ‘snatched’ were sent to a variety of open-air and country placement programs, from which the écoles de plein air emerged.

One of these programs, l’Oeuvre de la Préservation de l’Enfant Contre la Tuberculose, was established in 1903 by Dr. Jacques Grancher, a specialist in TB. The Oeuvre Grancher, as it was often called, removed ‘delicate children’ between 3 and 10 years of age from tubercular homes in some of the poorest quarters in Paris, and placed them with families of ‘healthy peasant stock’ in the countryside for a period of up to ten years. There, they would receive medical supervision from a local physician and enjoy the health-promoting benefits of exposure to sun, fresh air, and nourishing food. Although, undoubtedly, intentions were good and health improved for many, the program was


25 Connolly, ‘Pale, Poor and ‘Pretubercular,’’141.

intrusive in its removal of children from their families, and restrictive in terms of visitation policies.\textsuperscript{27} Parents were limited to four visits per year, and even then could only visit for two days at a time. Children would stay with their foster families until the age of thirteen and, as Grancher himself declared, would hopefully remain in the countryside to start their own peasant families as adults.\textsuperscript{28} Thus, in additional to a project of health protection, there was a concurrent social engineering project: by sending urban, working-class children to the country, they would eventually adopt a more ‘natural’ way of life.

As to the question of whether or not the program was voluntary, the record is unclear.\textsuperscript{29} Laws of 1889 and 1898 had rendered it legal to terminate the rights of parents who were found negligent, unfit or abusive.\textsuperscript{30} Although we must assume that the Grancher program was voluntary, awareness of these laws, and the pressure exerted upon parents to send their children away must have been extraordinary.

A less intrusive program that offered a similar break from urban life for underweight, malnourished, or pre-tubercular children were the colonies de vacances, or colonies scolaires: low-cost or free country retreats sponsored by various philanthropic societies.\textsuperscript{31} Children identified by the school doctor were sent to board for 3 weeks or more in the summer, where they received improved nutrition and physical exercise. Since the colonies de vacances had no special architectural

\textsuperscript{27} Ibid.

\textsuperscript{28} Grancher as quoted in Kingsley, ―Open-Air Schools in France,‖ 150.

\textsuperscript{29} Many of my sources dating from the period do not specify whether the program was voluntary or not.


requirements, they simply utilized available buildings and land in the countryside. Their success in bolstering the health of children in poor health was widely touted. “[T]he good results of this cure in the country translates,” one physician wrote in 1909,

—.. into the beautiful exterior appearance of the children, their color improves,. . . their weight and size augment . . . in the country, these children made in one month more than half of their annual growth.”

However exaggerated these claims might appear, it is doubtless that the focus on physical nutrition and exercise at these retreats improved children’s health.

The third program that developed to rehabilitate pre-tubercular children was the école de plein air: an institution that provided the fresh-air cure without disrupting educational or family life. In this case, France looked beyond its borders for inspiration. In 1904, in the town of Charlottenberg, a suburb of Berlin, a Waldschule, or forest school, pioneered by Dr. Adolf Baginsky was established to serve anemic children drawn from overcrowded districts in Berlin [Fig. 2].

“The hygienic aim,” in the words of one medical reporter describing the waldschule,

—was the strengthening and recovery of chronically unhealthy children by simple hygienic and medicinal means — residence in the forest and copious sunlight, strengthening diet and suitable bathing.”

“The pedagogic aim of the school,” he continued, “was to bring the children forward with their education as quickly as their bodily and mental condition allowed” so that they could ultimately return to a normal school environment. Successful in its efforts to simultaneously provide education and rehabilitate sickly children, the results of the Waldschule were widely reported in the literature on school hygiene and at international conferences on school health in 1904 in Nuremberg, in 1907 in London, and 1910 in Paris.


33 Kingsley, Open Air Schools, 9-11.

The idea of saving children, particularly those deemed delicate or pre-tubercular, by establishing open-air schools spread rapidly in an international community increasingly focused on issues of children's health. Part of the appeal was doubtless its simplicity. Since the main idea behind the open-air school was harnessing the positive effects of exposure to fresh air and sunlight, all that was required to establish one was outdoor space, lightweight, portable furniture, warm clothing, and crude shelters. Following the establishment of the German *Waldschule*, variations on
the type developed over the next decade in England, Spain, America, Switzerland, France, and the Netherlands.35

In France, the idea spread rapidly through a network of individuals already concerned with the health of French school children. After learning about the *waldschule*, for example, Grancher, the founder of the aforementioned child-removal program *Oeuvre Grancher*, delivered a paper on the topic at the French Academy of Medicine in 1906.36 Drawing on research which suggested that as many as 15% of Parisian school children were pre-tubercular, Grancher urged the establishment of these new types of schools throughout France.37 Believing that TB was curable in children if confronted early, he called for the establishment of “*sanatorium-school[s]*” where children would continue their studies under the close supervision of a doctor. “They might,” he declared, “be called *écoles de plein air*.”38

Inspired by this call Edouard Herriot, the progressive mayor of Lyon, established the first official open-air school in France in 1907.39 It was opened as a boarding school on a country property owned by the municipality for about 35 children chosen by the local physician for the office

35 Chatelet, “The International Movement for Open-Air Schools,” in *Open-Air Schools*, 31-35.

36 Grancher was likely directly inspired by the German waldschule after having attended the Second International Tuberculosis Congress in 1905 where it was discussed.

37 He told his audience that, after having conducted studies which revealed that 15% of 4,226 children screened in Paris schools that year showed signs of the disease, the need to create a new kind of educational establishment was pressing. “Tuberculosis among school children” *Le Bulletin Medicale*, 7 November, 1906, summarized in *Boston medical and surgical journal*, Volume 155, Issue 2, p. 696.


39 Vigne, « École municipale lyonnaise », 298-299. Herriot also had hired Tony Garnier to build many municipal buildings in Lyon.
of Hygiene. No new buildings were erected as it had formerly housed the summer residence of the mayor, and classes were held outside. It was, according to the supervising physician, already supplied with those most basic elements needed for an open-air school, conditions of “perfect aeration” and “distribution of light.”

At around this same time, in 1906, Gaston Lemonier, an educator who had already been experimenting with keeping classroom windows open continuously, regardless of weather conditions, at a school in Saint-Ouen, established the Ligue pour l’éducation en Plein Air. This organization, hereafter referred to as the French League for Open Air Education, whose founding members also included influential physicians such as Louis Dufestel and Albert Mathieu, began to lobby for the widespread establishment of écoles de plein air in France. The description of the schools, however, still reflected an ambiguous mélange of sanatoria, home, and vacation colony. They were, in Lemonier’s words,

sanitary establishments for prevention and recovery which provide a simplified primary education. …[C]hildren aged seven to fourteen, anemic, feeble, deficient, convalescent, rickety, [or] glandular… practice, under medical surveillance, a complete hygiene, corrective respiratory and physical exercise, a rational diet, promoted by exposure to the sun, showers, siestas, rest cure and silence.”

40 Ibid, 301-302
41 Ibid, 300, 299.
Although Lemonier described a type of school to be reserved for “feeble, deficient” children, promoters believed many of the nation’s children would benefit from attending them. This was both because of the general health-promoting benefits they provided as much as it was a reflection of the perceived sickness of the present generation.

Data routinely collected by municipal hygiene bureaus on the physical condition of the working-classes were deeply disturbing to those concerned with the future of the French state. Persistently low natality, high mortality and widespread alcoholism and venereal disease all indicated to many that the entire French people were physically deteriorating. In this climate, the reality of the poor children’s health and demographic statistics commingled with less-than-rational ideas simultaneously incubating in the popular imagination that not just the quantity, but the quality of the French race was in an active state of deterioration.

In spite of this gloomy prognosis, however, a widespread positivistic faith in science and improvement through environment allowed utopian ideas of regeneration to be projected onto the écoles de plein air. They were doubtless seductive as a simple, rational solution to a much larger problem plaguing society. Because of the persistence of neo-Lamarckian thought, which attributed a) a strongly influential role to milieu in forming the physical body, and b) promoted the theory of the heritability of acquired physical traits, the French had tremendous faith that improving the health of children would pay off in spades. Those children, grown stronger and fitter, would naturally bring fitter, stronger, and healthier children into the world. Exposure to fresh air and nature, and removal from the morally corrupt urban milieu, moreover, would improve their mental outlook which many believed could also be passed on hereditarily. At a time when fears that social unrest, poverty, and worker agitation were mounting, focusing benevolent attention on working-class children was an

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44 For more on the role of the bureau d'hygiene, see Lion Murad and Patrick Zylberman, “Experts et notables. Les bureaux municipaux d'hygiène en France (1879-1914) », Genèses, V. 10, Issue 10, pp. 53-73
uncontroversial choice for those who wished to morally and physically regenerate the poorer classes.\textsuperscript{45}

Ultimately, projects such as the \textit{colonies des vacances} and Grancher’s project of removing children from \textit{tubercular} homes, could only be enacted on a limited scale. The open-air schools, however, could be extended, hypothetically, to the entire school-age population and thus they were promoted with a great deal of enthusiasm by educators and physicians.

Still, in the era leading up to the Great War, the open-air school was not, as yet, seen as a particularly architectural problem and the involvement of architects in their design and establishment was minimal. All of this would change, however, in the aftermath of the destruction wrought by the Great War when even greater energy was expended to add the open-air school to the nations’ \textit{sanitary armament}.\textsuperscript{46}


\textsuperscript{46} M.M. Fuster, « La place de l’École en plein air dans l’armement sanitaire français, » Rapports du Premier Congres International des Écoles de Plain Air, p.24.
II. Open-Air Schools: Mobilizing in the Great War

Figure 3: Commission Américaine de Préservation contre la Tuberculose en France
During the war, the movement for open-air schools, like the children in the occupied territories themselves, essentially went underground. Although there were a few new attempts, most notably a rather grim looking open-air school created early in the war, in 1914, for war orphans in Paris [Fig. 4], there was generally little activity. The positivistic and optimistic spirit of the Belle Époque had dissipated and the war left a victorious, but physically and financially devastated France. Still, the war was peculiarly useful in resurrecting the open-air movement and providing the foundation for the extensive architectural experimentation and innovation that was to come.

Figure 4: Open-Air School for Orphans of the War, Established 1914 in Paris

As a result of the destruction of infrastructure, the loss of more than one and half million French citizens during the course of the war, and scores of orphaned children, numerous philanthropic societies sprang up, both in France and abroad, to provide assistance to French children.
and families. When the immediate trauma of war had passed, these organizations would end up
directly influencing the resumption of the école de plein air project.47

Revival of interest in the open-air schools, however, was nowhere in sight in the immediate
aftermath of the war. Until the German indemnity was paid, funds for rebuilding were limited and
few new schools were built. Many schools in occupied territories were makeshift, such as the
barracks in Lagny which served as a school once the German occupation had ended [Fig.5].

Figure 5: Lagny in 1918 after the German Occupation. Barracks constructed for the School and the Mayor’s
Office.

Still, the devastated French school buildings were an emotionally troubling reminder of war
and its impact on the young. One philanthropic organization, L’École pour l’École founded in 1919,

47 Jean-Bernard Wojciechowski, L’hygiène à l’école ou "l’hygiène par l’exemple": approche des rapports entre
différents courants de pensée ayant présidé à la constitution d’une association en faveur de l’hygiène au sein de
l’école au début du XXe siècle, Unpublished manuscript. 1991: 1-50There is a comprehensive list of philanthropic
organizations in this manuscript.
and which eventually became part of the open-air school movement, tried to use the crisis to drive the building of new schools. The organization sold post card images of France’s destroyed schools as a way to raise funds for rebuilding [Fig. 6] as well as to draw state and popular attention to the crisis.48

![Figure 6: Postcard of Destroyed French School Sold by l'École pour l'École.](image)

Yet the trauma of seeing school buildings destroyed by the war could not have equaled the trauma of seeing the physical toll the war had taken on French children apparent in reports of widespread malnutrition and disease. While nothing that could be done to reverse the grim statistics on war-time casualties, many hoped that children could be saved. Thus the continually plummeting birth rate in France and the deterioration in children’s health brought on by war-time deprivation solicited extreme concern in France. In 1919, noted French obstetrician Adolphe Pinard, who had been recently elected to the Chamber of Deputies, declared that “France is dying. She is not dead, but

48 Wojciechowski, *Hygiene à l'école*, 1-10.
it is necessary to repopulate the country. At the present rate of natality, France will soon be only an immense desert. Children! France must have children!“⁴⁹

The concern with French children’s health and well-being was echoed in international circles. A New York Times article from the twenties, for example, declared that “80 percent of the children,” in the formerly occupied territories of France were “physically or mentally defective.”⁵⁰ Still another New York Times article, entitled “Empty Schools Alarm in France,” described how “empty and depleted schoolhouses in many towns and communes have drawn public attention to….a shortage of children.”⁵¹ Another editorial promoting American involvement in rebuilding French schools, painted poignant wartime images of suffering French children. During the war, the author wrote,

“thousands of children in France were huddled in homes and schools … in barracks even — away from the open air because of the daily menace in the skies. Many lived in cellars or caves and many attended schools in subterranean places. Some had even to carry gas masks to protect them from poisons in the air on their way to school.”

These children, the author noted, were in need of rescue now from a much more insidious enemy, “the white plague of tuberculosis.”⁵²

While tuberculosis was an enormous problem for children, it was also so for the population at large. In 1919, the Honnorat law, named for its sponsor André Honnorat, called for the widespread establishment of sanatoria in France and state-subsidized treatment.⁵³ Funded in part by the state, municipal, and departmental resources, sanatoria building exploded in this period over the next

⁵³ See David Barnes, Making of a Social Disease, 247-248.
twenty years became an area of extreme architectural innovation. But in terms of prophylactic measures directed towards “pre-tubercular” children, estimated in the post-war era to number as high as 60%, spending was still limited.

1922 and the Revival of the Écoles de Plein Air

The year 1922, however, ended up playing a critical role in the resurrection of the long dormant project of establishing écoles de plein air. And because of the particular confluence of increased organization, increased funding, and increased propaganda during this year, the involvement of architects became significantly more pronounced. Three things happened. The first international congress for open-air schools was held, a powerful new organization took the promotion of open-air schools in France as its particular project, and the French Ministry of Public Education issued its first formal comment on the practices in and architectural programs of such schools.

In June 1922, the French League for Open-Air Education, originally established by a small group of enthusiasts in 1906, arranged the first international open-air schools conference in Paris. By this time, almost two decades after the establishment of the first German waldschule, the movement had taken on a life of its own and countries across the Western world had established similar programs. The conference brought together more than 200 French and foreign promoters of open-air education and provided a forum for the exchange of practical ideas and information.

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56 Chatelet, “The International Movement for Open-Air Schools,” Open-Air Schools, p.34
attendees also attempted to arrive at a more comprehensive and accurate definition of the establishments. According to conference proceedings, the open-air school was defined as an:

out-of-town educational establishment in good conditions of exposure and, for the present, reserved for children who are non-tubercular but who need special conditions of schooling and hygiene under medical supervision. It can be residential or non-residential.

Furthermore, the conference attendees agreed that, “it is desirable that these types of educational establishments be extended to the entire child population.”

Part of the reason that the French League for Open-Air Education was able to host this international conference, held at the prestigious Paris Academy of Medicine, was that it now enjoyed the backing of several powerful organizations in France. These included the Society of Public Medicine and Health Engineering, the Social Hygiene Alliance, and the Society of City of Paris School Medical Inspectors. The involvement of these organizations, and their representatives, powerful figures such as Georges Risler, Leon Bourgeois, and Henri Sellier, is significant as it brought the open-air movement into the fold of existing networks of the social hygiene movement.

Furthermore it signaled the beginning of increased involvement of architects in the open-air movement, although in 1922, it may have been more through association than practical hands on activity. The Social Hygiene Alliance, for example, one of the important backers of the open-air school conference, was part of the Musée Social — the first government-funded public policy ‘think tank’ devoted to solving the social problems in France. More than 20 architects, including Alfred Agache, Henri Prost, Robert de Souza, and Leon Jaussely, were members of the urban and rural hygiene section of the Musée Social’s Social Hygiene Alliance, and, through this connection, may have become involved with, or at the very least, been aware of the work of the French League for

57 Rapports du Premier Congres International des Écoles de Plein Air, pp. 43-44
58 Ibid., 3.
Open-Air Education. Architects Louis Bonnier and Augustin Rey, prominent in both architectural and social hygiene circles, along with the presidents of the Société Centrale des Architectes français and the Societe des architectes Diplomés par le Gouvernement, served on the Open-Air School Congress’s committee of honor, alongside governmental representatives from the Ministries of Education, Hygiene, and War.

In addition to the Conference on Open-Air Schools, another event in 1922 that fueled the revival of interest in open-air schools was the French Ministry of Public Education’s issuance of a circular recommending the establishment of open-air schools in centers of population concentration and soliciting feedback from educators all over the country about any such establishments in their region. Its content reflected many of the same suggestions and recommendations for establishing the schools that had been discussed at the congress on open-air schools and it was sent to all school administrators in France as well as to the École des Beaux-Arts and reprinted in journals devoted to the school hygiene movement.

It is interesting to note that, in spite of the fervor with which the écoles de plein air were greeted by hygienists, educators, physicians, and politicians, there was almost no initiative taken in the realm of architectural education. The école de plein air remained absent at this time from subjects given at the two primary schools of architecture in France, the École des Beaux-Arts and the École spéciale d’architecture. As architectural historian Michel Denés has demonstrated, the subject was not even broached at the more hygiene-minded École special until 1929, and even then, the basic

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61 *Circulaire du Ministre de l’éducation publique et des Beaux-arts, au sujet de l’éducation des enfants en plein air, 8 Septembre 1922*. 
contours of the program – the need for spaces for medical examination, facilities for hygiene – were entirely overlooked.62

Ultimately, the event of 1922 that may have fueled the most architectural innovation in the open-air school movement in France was generated not by the architectural community, but rather the appearance of the inaugural publication of a bi-monthly journal by the newly established organization, *l’Hygiène par l’Exemple*. Founded in 1921 by scientists of the Pasteur Institute, the organization was devoted entirely to the cause of improving the attention to hygiene and health-promoting practices in French schools. The organization represented a powerful collaboration between scientists, politicians, educators, and philanthropic groups. Among politicians, Léon Bourgeois, former Prime Minister of the French Republican Government and current president of the Senate, served as honorary president of *L’Hygiène par l’Exemple*. Philanthropic groups included representatives of the influential and well-funded Rockefeller Foundation, also known as the *Commission de Préservation de la Tuberculose en France*.63 The organization received financial backing from several governmental and philanthropic organizations as well as French banks including *Banque de France* and *Crédit Commercial de France*.64

Although *L’Hygiène par l’Exemple* was interested in the promotion of school hygiene generally, it took on the promotion of écoles de plein air in France as one of its primary goals.65 While other prominent organizations, such as the Alliance d’Hygiène Sociale, were also serious devotees to the école de plein air, discussing them again and again at conferences and in the pages of

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62 For more on the schools of architecture and their tentative forays, during the inter-war period, into the territory of the écoles de plein air, see Michel Denès, “Deux écoles d’architecture face aux écoles de plein air (1907-1939),” in Chatelet, eds. *L’école de plein air: Une expérience pedagogique et architecturale dans l’Europe du xxe siècle* », 325-332.
63 Wojciechowski, *L’hygiène à l’école 5*.
64 Ibid, 3.
65 Ibid, 500. The organization also outfitted more than 500 nursery and primary schools with modern showers, toilets and sinks in between 1920 and 1934.
their journals, *L’Hygiene par l’Exemple* stands out first for the singularity of its mission in focusing not on hygiene generally, but on hygiene in the schools and second, for its explicit interest in architectural designs.66

To that end, the organization played a critical role in bringing architects into the project of designing open-air schools. In April 1921, for example, the organization commissioned the architects Charles Duval and Emmanuel Gonse to design an open-air school for 500 children.67 Although the plans were not published in the journal, the design may well have inspired an article by the Secretary General of l’Hygiène par l’Exemple, physician Emile Marchoux, which ran in the inaugural issue of their bi-monthly journal.

In Marchoux’s article, entitled, “*É’ ir à l’École,*” he painstakingly described an ideal plan for an open-air school of the future. It is a remarkable article as it represents, in its 20 pages, the articulation by a physician of a complex architectural program. Marchoux, despite his lack of architectural expertise, elaborated upon every detail from its placement atop a hill outside an urban area, to the extensive medical facilities it would contain, to its individual pavilion classrooms, walled with glass on the south side and arranged along a covered gallery.68

Three more articles about open-air schools followed in the inaugural year of the journal including one by a Parisian educator about a “*Classe Aerée,*” or aired classroom, in the rue des Épinettes, which relied merely upon open windows in all weather [Fig.7], and another by the Departmental Medical Inspector of the Côtes-du-Nord that examined the various types of open-air

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66 For example the published congressional reports of the Alliance d’Hygiene Sociale show more that the topic was examined during more than a fifteen of their annual conferences between 1907 and 1935.

67 Chatelet, *Open-Air Schools*, 186. I have been unable to locate a copy of these plans in the HPE archives.

schools in his region. In December 1922, the journal reproduced the official Ministry of Education Circular on open-air schools which had been issued earlier in the year. Over the next 12 years, more than 30 articles related to the health benefits of écoles de plein air in France were published as the editors continued to grapple with the proper practices of hygiene in these schools, as well as possibilities for future designs.

A window into the range of architectural plans, grounds, and hygienic facilities of these schools can be gleaned from a survey of issues between 1922 and 1935. In spite of the extensive organization and consolidation of information that had occurred in 1922, however, the open-air schools remained essentially unchanged from the pre-war era. In some urban settings, without

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extensive access to open tracts of land for classrooms, educators merely kept windows open at all times to provide the fresh-air cure. Other schools were improvised in parks within the city limits [Fig. 8]. In these cases having portable furniture was important, and this was an area of innovation during the twenties [Fig. 9] and periodically discussed in the journal. The development of easily-dismantled wooden sheds and of lightweight [Fig. 10], portable furniture seemed to be the major areas of innovation.

Figure 8: Lightweight, Portable Furniture for an Open-Air School, ca. 1925 (Mnemosyne)

70 Mme Bazin, « La Classes Aerées de la Rue des Alouuettes », l’Hygiène par l’Exemple, #4, 1925, pp. 218-225.


These limited developments emphasize the itinerant nature of the open-air school project, which seemed less about *constructing a building* than *getting out of a building*. And therein lay the
inherently paradoxical nature of the open-air school project. Instead of being an attempt to construct an enclosure or an interior it was an attempt to construct an exterior – a particular experience or sensation of being outside. This phenomena is hinted at by a Rockefeller Foundation propaganda poster from the 1920s, where buildings are not apparent, only pedagogical or recreational ‘spaces’ constructed in relation to the outside.[Fig. 11] . The notable lack of innovative architectural design and the lack of interest in the project exhibited by the two major French architectural schools raises the question: was the open-air school truly an architectural problem at all?

![Fig. 11. Principes d’hygiène, fondation Rockefeller, commission américaine de préservation de la Tuberculose en France, Paris, 1920, p. 16, coll. privée C. Fouret](image)

A notable exception, however, to the lack of architectural innovation occurred with a building constructed in 1926 by the architect Henri Provost for a preventorium at Lunéville. Although preventoriums were considered slightly different from traditional open-air schools in that there was more emphasis on providing children with medical care and slightly less emphasis on their education — the design may have had some influence on école de plein air architecture.73 Provost

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designed an innovative but spare permanent structure: a large unheated and unglazed pavilion to provide aerated classroom space for children at the preventorium [Fig. 12].

![Figure 12: Lunéville Preventorium – 1926; H. Provost, Architecte.](image)

Although Provost’s preventorium classroom achieved the radical goal of offering a fully ventilated but permanent structural space, it was, unfortunately merely a single classroom. Connected by a path to a more traditional building in which were housed all of the supplemental facilities – spaces for medical examination and personal hygiene — it was far from realizing the dream of an open-air space that would provided every facility needed in one single, connected, comprehensive structure. Thus, the greater project of promoters of school health – creating therapeutic schools

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with total permeation of light and air and providing the requisite medical and hygienic facilities deemed necessary, had not yet been accomplished.

Another partially innovative design solution was offered at the École Desiré Verhaeghe in Lille [Fig.13], where architect René Delannoy created a traditional building in a regional style which utilized large glass windows extensively to effect the sun and air cure.75

Still, l’Hygiène Par l’Exemple continued to push in the pages of its journal for increased construction of open-air schools and increased architectural innovation in their design. Funding may have continued to be an issue in the post-war years, however, until 1928 when state funding for

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75 Archives]L'Hygiène par l'exemple:HPE3-Fonds iconographique de l'HPE:Album A Note de contenu : Mention originale de l'HPE : "Les baies vitrées de la façade sud, mues par un mécanisme spécial, s'ouvrent sans fatigue et font pénétrer à flot l'air du dehors". –Text from CEDIAS (Archives of Musée Sociale) website.
school reconstruction was increased.\textsuperscript{76} 1931, however, turned out to be a pivotal year for architectural innovation. Not only was the subject of open-air schools broached with increasing frequency — there were nine articles published during the course of that single year, whereas the previous five years had only covered the topic a handful of times — but the articles included examples of truly revolutionary architectural design.

In the January-February 1931 issue, for example, the first article was devoted to the innovative work of Jan Duiker, member of the De Stijl group, and his Openluchtschool, or open-air school, established in Amsterdam in 1930, (Fig, 14-15). Reproducing an article published by a Dutch journal, Periodique Zonnenstraal on September 13, 1930, entitled ―Open-Air School for Healthy Children,” l’Hygiéne par l’Exemple devoted eight pages to photographs and plans of the celebrated building.

![Figure 14: Figure from Article “École de Plein Air Pour Enfants Bien Portants”, Jan Duiker, 1931](image)

\textsuperscript{76} This is according to a 27August, 1928 Circular from the Ministry of Education reprinted in HPE. See Documents Administratifs. La nouvelle législation sur les constructions scolaires.” l’Hygiéne par l’exemple. # 6, Sept.-Oct. 1928, pp. 281-287
The school introduced an entirely new conception of the open-air school as one which could use the structure to actually supplement the ‘nature cure’ even in an urban, indoor space, by in a sense rationalizing and harnessing nature more productively. In another article, Duiker decried the current open-air schools in Amsterdam — often in parks where children in fur suits sat freezing in winter as the ice collected on their desktops [Fig. 16].

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The design introduced a new conception of the open-air school as one which did require a natural park-like setting but, rather, could be built in the heart of the congested urban milieu. The structure, Duiker claimed, harnessed natural sunlight more productively. Duiker advocated for the widespread use of modern building practices which allowed for the ‘dematerialization’ of construction.” Spaces, he added, could be heated while simultaneously providing full access to fresh-air and sunlight. Such a structure, Duiker noted while extending the argument to the creation of private homes for tubercular families, “in its basic construction, execution, and interior arrangement, is ‘sanitary.’” “It is a strong hygienic power that is influencing our life,” Duiker declared, “one which will develop into a style, a hygienic style!” Without elaborating on specific construction methods or materials, the extensive use of glass on this multi-story building, with very lightweight and almost visually ‘dematerialized’ structural elements seemed to define this new hygienic style.

Interestingly, the school appeared in the journal, HPE a full year before it was featured in a full page of the avant garde architecture journal, L’architecture d’aujourd’hui (Fig. 17). And the architectural journal, in this case, offered illustrations and plans but absolutely no mention of the unusual purpose of the school or its radical methods of construction.

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79 L'Architecture d'aujourd'hui, 1932, n°02, Chapitre 08A, p.32.
A few months after the HPE feature on the *Openluchtschool*, an article was published which included photographs and plans for the first purposively built école de plein air in France, the École Genevieve-Coulon built by the French architect Germain Debré for the city of Saint-Quentin (Fig. 18, 19).\textsuperscript{80} Because the school’s construction began in 1924, well before Jan Duiker’s

\textsuperscript{80} « L’École de Plein Air Saint Geneviève Coulon » *L’Hygiène par l’Exemple*, Issue #6, 1931 : 225-233.
openluchtschool, it is difficult to claim any direct influence from the Duiker project. The editors at l’Hygiène par l’Exemple greeted the building by Debré as a revelation, declaring that it was the realization of the same ideal plan sketched out by Dr. Marchoux in the journal’s inaugural issue, back in 1922.

Indeed the architect, according to the editors, apparently avowed taking the physician’s article “Air à l’École” as his inspiration. He had, the editors declared, “eliminate[d] from construction everything that was not necessary.”81 In the accompanying pages the architect, Debré, described how the southward-facing side of each classroom was completely covered in glass and opened to the exterior, and the north side equally so. The only form of partition is between the walls of individual classrooms.82 Again, as in the Duiker school, the extensive use of glass along with extensive modern, hygienic facilities appeared to be the critical factors in giving form to this ill-defined type: the open-air school.

Figure 18: École Geneviève-Coulon, Saint Quentin, Germain Debré 1931

As if to reinforce the point that everything that was necessary to know about this type of school could be revealed purely by a contemplation of its glass structure and its modern facilities, the Geneviève School was revisited in a 1933 issue of *l’Hygiène par l’Exemple*, this time only with photographs and no text whatsoever. Now, furthermore, the school — officially opened at this point — served as a reassuring backdrop for legions of disciplined and sanitized young bodies [Figs. 20, 21]. It was a journalistic strategy of representation that would be echoed in other features on open-air schools. [Fig.22]
Figure 19: École de plein air Geneviève Coulon, 1933, Published in *l’Hygiène par l’Exemple*

Figure 20: Boys seen showering in the École Geneviève Coulon, 1933, in *l’Hygiène par l’Exemple*
Although the open-air school movement had little chance to revive in the immediate aftermath of the war, it still captured the interest and imagination of physicians, educators, and architects. After the first international congress on open-air schools in France and the establishment of *l’Hygiène par l’Exemple*, which published images of novel buildings and solicited new designs, innovative buildings began to be constructed.

This led to the emergence of a new architectural type of the hybrid sanatoria-school: one that relied on glass walled classrooms and visually light structural elements. Their aesthetics of fragility and transparency bore resemblance neither to the massive, imposing architecture of newly built sanatoria, such as the children's sanatorium of 1929 at Roc de Fiz, France [Fig. 23] nor to traditional French school buildings. Thus out of the ruins of the Great War an entirely new architectural form had crystallized.
Figure 23: Sanatorium for Children at Roc des Fiz, in Passy (Haute-Savoire Region). Henry Le Même and Pol Abraham, architects.

In September 1934, the editors of *l’Hygiène par l’Exemple* devoted an entire special issue to “Open-Air Day Schools in France” [Fig.24]. In it, they compiled the more than thirty articles on open-air schools which had been published in the journal over the previous 12 years. All of this was a prelude, it would seem, to the real object under examination in the special issue: the open-air school of Suresnes. Three articles were devoted to a contemplation of the school, still under construction, but which the editors hoped would provide an encouraging “glimpse of the future.” Celebrating its retractable glass walls and apparently weightless steel frame the author of one article dreamed of the day when such a school, although costly, would be made available not just to the frailest and weakest children of France, but to all.83

In this final section, I will examine what can be seen as the penultimate example of the purposively-built école de plein air in France, the open-air school built in Suresnes, an industrial suburb of Paris, between 1934 and 1935 by architects Eugéne Beaudoin and Marcel Lods. Rather than situate this glass and steel structure where it has traditionally been discussed, in the context of European modernism, where the utilization of new building materials, prefabricated elements, and technical aspects have been the focus, however, I wish to examine it in the

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broader context of French society's ongoing anxieties about depopulation. As part of one of the many French ‘child-saving’ initiatives, we can see how the Glass School at Suresnes through its structure and aesthetics functioned as a therapeutic, propagandistic, and symbolically regenerative space.

The Suresnes open-air school was built at the behest of the commune’s socialist mayor, Henri Sellier, who was active in city planning, worker’s housing, and various health initiatives for the working-class inhabitants of the town. He sought out the high-profile architects, who had collaborated on a CIAM inspired worker’s housing project in France — the Cité de la Muette at Drancy - in part because of the notoriety and interest their fame might bring to the project. The result was a masterful realization of an earlier dream of an architecture of air and light.

The centerpieces of the structure were the eight individual glass pavilions [Figs. 25-26] which served as classrooms. Their glazed glass walls were entirely retractable on three sides, and the complex ventilation system allowed a curtain of warm air to protect the children from cold at all times. The pavilions were supported by a network of glass buildings which provided comprehensive facilities including areas for bathing, showering, medical visits, and gymnastics. [Fig. 27] The grounds, a former park in the city, were extensive and when weather permitted classes were taught under the tress outside, using portable aluminum furniture designed by Jean Prouvé. Physical education classes were held outdoors, and children rested and napped in the garden or the solariums [Fig. 28]. They were provided with rich, nourishing meals in open, airy rooms or on the lawns outdoors.

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85 Chatelet, ―Fr om Idea to Buildings,‖ in Open Air Schools, 187-188.
Figure 25: École de Plein Air, Suresnes

Figure 26: An Individual Classroom
Figure 27: Outdoor gymnastics at the open-air school in Suresnes, ca. 1935

Figure 28: Afternoon rest on the lawn at the open-air school in Suresnes, ca. 1935
While the open-air school at Suresnes was celebrated widely as the ultimate ‘rational’ structure with ‘everything designed scientifically’ according to one architectural critic, it was in fact precipitated on beliefs that would prove to be less than medically sound. A 1935 article in the journal *Urbanisme*, featured a photo essay and article about the school and revealed the extent, and the persistence, of the faith invested in the healing powers of écoles de plein air. The fight against the ‘diseases of darkness’, the author declared, listing debility, ‘physiological misery’, tuberculosis, anemia, and dystrophies among them, is possible only in the école de plein air, if you want to both save the child from disease and ensure normal intellectual development. The école de plein air renders the debilitated improved … [whereas] the ordinary school would have led to the sanatorium or hospital.”

It was a complicated kind of logic, to declare that attending an open-air school was the best way to avoid the hospital – when it itself seemed to be a kind of hospital space. How are we to understand the difference between the author’s conception of school-as-therapy and real medical establishments such as the clinic, the hospital, or the sanatorium? Perhaps the school, particularly the modernist school, had itself, to paraphrase historian Beatriz Colomina, morphed into a kind of therapeutic equipment. Indeed the 1934 article on the school in *L’Architecture d’Aujourd’hui* described the school as an “instrument” for improving delicate children’s health. The almost excessive number of technical drawings which accompanied the article seems to attest to this instrument-like quality (Fig. 30).

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88 As historian Beatriz Colomina has noted in relation to the early twentieth century modernist movement, “Modern architecture was unproblematically understood as a kind of medical equipment, a mechanism for protecting and enhancing the body.” Colomina,–The Medical Body in Modern Architecture”, 230.

89 Anonymous, –École de Plein Air a Suresnes, » L'Architecture d'Aujourd'hui, No. 10, 1934, pp.26-35
Still more interesting was the assumption, apparent in articles describing the school, that it would function not just as a rehabilitative, but as a regenerative space. The Suresnes school, in this sense, represented the crystallization of Augustin Rey’s vision, articulated decades earlier, of the “school of the future”. The ideal school, he had declared, would serve as a “nursery for the human plant” which needed above all, sun and air … [t]o grow and strengthen.” Furthermore, it would undo the harm inflicted by the dark, insalubrious private dwelling. “If we want to [understand] the root causes of our low birth rate” he declared, we must look at the “harmful habit of city residents to live almost buried in the dark folds of their house, far from salutary rays of the sun.”

The notion that sunlight, harnessed at the open-air school, would compensate for this dreadful darkness and inspire regeneration was echoed, more than two decades after Rey’s talk, in a

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description of the Suresnes school featured in the popular journal, *l’Illustration*. In the 1934 article, the author mused that

“One could be tempted to believe, at first glance, that the school is a vast greenhouse. It is indeed a greenhouse in effect, but instead of helping orchids and giant chrysanthemums to grow, there is grown there a plant equally precious: the child.”[^91]

This, of course, was a plant that withered and deteriorated in the dark and private recesses of the city.

If darkness was associated with disease, decrepitude and contagion, how much was this architecture of glass and light — apparent at Suresnes, at the École de Geneviève-Coulon, and even at Duiker’s Openluchtschool — in part a response to a fear of darkness operating at multiple levels: not only the dark, contaminated interior of the home, but the dark and contaminated interior of the human body itself? Did architects of glass buildings such as Suresnes, engage in a visual rhetoric of transparency, to counter the horrible opacity of the human body - now made visible, yet still mysterious, through new technologies [Fig. 31]?

What a building such as Suresnes provided to counter such mysteries was a structure that promised transparency and employed a reassuring rhetoric of cleanliness, safety, and purified air. It provided a spectacle of hygienic space that not only promised health but regeneration. It was, in this sense, not unlike the all glass incubator for premature infants, a scientific ‘technology’, which promised not only safety, but a potential regeneration for a weakened French ‘race’ [Fig. 32].

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92 I make a similar article about symbolic, regenerative function of the glass infant incubator.
And, also like the incubator, the open air school as a unique building type simply promised to do something which had perhaps been just as effectively accomplished with simpler means.

Although the Suresnes school included modern hygienic facilities and sophisticated temperature controls, perhaps its most important accomplishment was that it concretized what had seemed a utopian scheme. Since architecture speaks not only of style but of financial resources and power, the school, which was widely written about in the international architectural press, may have functioned as symbol of power to improve what it, in fact, the French community had been powerless to improve: the death rate from tuberculosis, the low birth rate, the high infant mortality rate, and the irretrievable losses from the Great War.

Thus we can see how images of transparent glass school buildings filled with healthy children, such as those from Suresnes, also functioned propagandistically by answering a desire in
France to see children "liberated from the constraints of the opaque wall." It offered a fantasized vision of liberation, when the reality of the open-air schools was a constant physical discipline and surveillance (Fig. 33). It provided a heroization of nature and relaxation, but always against the 'rational' background of the municipal and state-subsidized architecture which framed every view with its reassuringly encoded language of hygiene, modernity, progress.

Figure 33: Gardening Class at Suresnes, Open Air School, ca. 1935

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Conclusions:

Although it was a marginal phenomenon in the history of French education, its intersection with broader cultural and political trends makes the French école de plein air a rich object of study. Like most nations of Western Europe during this period leading up to and in between the First and Second World Wars, France walked a fine line between democratically expanding health care for working-class children and paternalistically imposing intrusive intervention and surveillance of these same children. They vacillated between fostering individual autonomy and subsuming individual rights to the greater political need of growing a soldiery. Eugenicist rhetoric embedded in the discourse of raising healthier, ‘improved’ generations in open-air schools also suggests the universal desire to improve the French ‘race.’

As the French nation tried to grapple with the problem of depopulation and high tuberculosis death rates, amidst a backdrop of international tensions, it increasingly turned to architectural ‘cures’ such as the école de plein air. While actual sanatoria may have been a somewhat depressing reminder of the toll of tuberculosis, the open-air school, with its promise to prevent and preserve, spoke of optimistic possibilities for future generations. With so much at stake, particularly after the first World War, the écoles de plein air began to appear to educators, hygienists, and politicians as the space in which the utopian project of ‘regenerating’ the French race could be carried out. Thus enthusiasm continued, unabated, until the end of WWII when, with the discovery of streptomycin as a cure for tuberculosis, enthusiasm for the open-air schools dissipated.

I have said that the later examples of open-air schools in France, through their aesthetics, functioned symbolically, therapeutically and propagandistically. Symbolically, the extensive use of glass, terraces, and removable walls implied a constant, unhindered connection to nature, in contrast to the nightmare of urban contamination, walled opacity, and decrepitude, and reassured an alarmed
population that its children were being saved. The payback for the government would be, ideally, a healthier generation of children, trained in discipline and hygiene, and ready to serve as productive and loyal citizens of the nation-state. The League for Open-Air Education in France, was, for example, not only "honoured by the high patronage of the Ministry of Public Instruction" but also, significantly, "approved by the Ministry of War." The promoter of a school in Nantes argued that bolstering children's health would, usefully...serve the fatherland, whose prosperity depends on the physical and moral value of its children."

Therapeutically, they represented the total realization of the school as a kind of rehabilitative instrument, revealing an absolute faith in the healing power of an architectural structure that placed children in a continuous bath air and light." Propagandistically, the schools provided reassuring images of the physical and moral regeneration of an enfeebled and degenerating race in a tense and complicated international climate. These three functions: symbolism, therapy, and propaganda, however, are almost impossible to separate out in an examination of the schools. The medico-scientific therapy relied on a kind of symbolism, the symbolism was a kind of propaganda, and, through the lens of the glass and steel architecture of the later écoles de plein air, these three functions were intertwined and on display on multiple levels and at all times.


95 Jean Noel Luc, "Open-Air Schools: Unearthing a History," in Open Air Schools, 19.