

VICTOR HORTA'S HÔTEL TASSEL

THE SYMBOLISM OF THE GLASSHOUSE AND VEGETAL LIFE

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Abstract, English

The Hôtel Tassel (1893-1895) by Belgian architect Victor Horta is an iconic building in the history of architecture. Its interior décor, especially its sky-lit staircase and a mural depicting plant-like motifs rising from a dark bottom towards the light, has a unique evocative power, yet what it attempts to convey is not immediately evident. The dissertation seeks to grasp this space by identifying a series of connections to elements in the history of ideas, architecture, and design which may be brought to bear upon its meaning. These are contexts in which a new environmental awareness arises in the nineteenth century and they include real and imaginary glasshouses, evolving visions of nature and even the space of masonic rituals. The dissertation traces them in their historical development and establishes their pertinence to the work and its agents. Horta had previously been involved in the design of glasshouses, but it is Émile Tassel, the client and a scientist, who followed most closely recent discoveries, theories and images of nature conjured in the sciences of life and in modern art. Horta's and Tassel's involvement in disciplines exploring similar themes, their fondness for the art and the philosophy of nature in what was then called the "Far East" facilitated the creation of poetic images in the interior of a house where life unfolds in communion with the forces of nature.

Résumé, français

L'Hôtel Tassel, conçu par l'architecte belge Victor Horta, est un des bâtiments clefs dans l'histoire de l'art et de l'architecture. Son décor intérieur est célèbre. L'escalier est particulièrement évocateur avec sa peinture murale représentant des lianes s'élevant du bas vers la lumière en haut. Sa signification n'a jamais été expliquée par Horta ou son client Émile Tassel. Elle hante l'imagination des historiens depuis lors. Cette thèse vise à saisir les significations de l'espace en établissant une série de connexions avec l'histoire des idées, de l'architecture et de l'art : les serres au dix-neuvième siècle, les visions changeantes de la nature, et l'espace du rituel maçonnique. Horta, l'architecte, avait déjà travaillé sur des projets de serres. Tassel, le client et l'homme de science, suivait de près les découvertes et théories récentes dans les sciences de la vie et dans l'art contemporain. On retrouve les mêmes thématiques dans des domaines différents qui étaient, à leur tour, connus d'Horta et de Tassel. Leur intérêt pour la philosophie de l'art et de la nature en « Extrême-Orient » facilita la transition de ces idées en des images poétiques pour le décor de la maison Tassel, évoquant l'expérience d'une vie en contact avec les forces de la nature.

Foreward

My interest in Art Nouveau began from the first year of my undergraduate studies at the faculties of architecture of the Universities of Parma and Iuav in Venice, Italy. In the beginning, it did not concern Horta specifically, but the broader phenomenon about which I read in histories of architecture, and which I was able to see throughout the façades and in few interiors in the city Brussels during my first trips in 2006-2007. Art Nouveau architecture lay largely outside the university coursework material, but I pursued this keen interest on my own. One of the first readings that drew me to this architecture was Kenneth Frampton's chapter on Henry Van de Velde and the abstraction of empathy in his *Modern architecture*, and later on, Lieven De Cauter's chapter on "Walter Benjamin on Art Nouveau" in a 1996 monograph on Horta. In Brussels, I was captivated by Art Nouveau as an urban phenomenon, an art of architectural detail which spread throughout the city. I was fascinated by the unusual imagery and its unique evocative power as I would put it today, but also by the peculiar historical course of this short-lived endeavor. Its place in a broader cultural history of the close of the nineteenth century rendered it all the more interesting. The fascination with the phenomenon has persisted. Art Nouveau and nineteenth-century Belgium remained a source of great interest and research since.

The historical significance of the phenomenon was easier to define in its aftermath. Why it appeared at that place, at that time, and above all, in such imagery, seemed harder to grasp. I was grappling with an interpretive problem. In my early studies and in the beginning of my doctoral research I had collected a plethora of images and documentary sources on Belgian architecture. I lacked, however, the knowledge of the material necessary to formulate the significance of these

forms, which was what I was truly after, and, as I realized later, I could only find by reading outside architectural history proper. In my doctoral research, I expanded the inquiry into other disciplines and focused on the one building where it all began: Victor Horta's Hôtel Tassel.

Many of the themes that guided my research were inspired from discussions in a seminar of architectural theory at the school of the architecture of McGill University during the winter of 2014, led by Martin Bressani. The subject of that seminar was the 1851 Crystal Palace in London, re-read as the construction of an atmosphere and the new environmental awareness embedded in it. A SSHRC-funded research project at the School of Architecture, "Architecture and the Environmental Tradition: the Atmospheric in British Architecture, 1750 to 1850," became an opportunity to explore related themes that proved helpful in my own doctoral research. Crucial in the early stages of my doctoral research was the decision to explore the literary field, encouraged by my dissertation supervisor. It allowed a deeper understanding of Horta's context, providing ways to interpret the architecture of the Hôtel Tassel.

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1. Introduction: The Vanished Wintergarden of the Hôtel Tassel

1.1 Introduction

The Hôtel Tassel was designed by architect Victor Horta for his friend and engineer colleague Émile Tassel between 1893 and 1895. A townhouse in Brussels, it has become a canonic work in the history of architecture. The photograph of its famous staircase opens a new chapter in Ernst Gombrich's *Story of Art* and in many other histories of architecture and design. Laden with a *fin-de-siècle* atmosphere, this interior has a unique evocative power. The building initiated a radical shift in Horta's career, and it marked the beginning of a new, if short-lived episode in architectural history: Art Nouveau. Within the historiography, the townhouse represented the sudden flare of individual creative genius, capable of providing the impulse to an entirely new, yet brief stylistic era. Yet, paradoxically, Horta's building and the broader endeavor which it initiated also marked the end of an age, the soft ochre hues of the Hôtel Tassel's staircase mural appearing as the last glow of the twilight of the nineteenth century.

The most celebrated image of the house shows its staircase, a mural in the background and a portion of the interior (Fig. 1.1). This image encapsulates Horta's creative efforts and the most peculiar aspects of this architecture, whose salient characteristic is the pervasive use of decorative motifs. Highly evocative, they are also elusive. They seem to point to a thought, an idea, or an overriding theme that is not immediately evident and elicit an interpretive question: what was their

meaning in the original design? From the early years of the Hôtel Tassel this unresolved question has accompanied its acclaimed image.

The first known photograph of this part of the house was taken in 1899 for the German editor Ernst Wasmuth who included it in the following year in an album of modern architecture (Fig. 1.13-1.18).¹ It became the iconic image of the building in architectural history until 1986 when Jean Delhayé, Horta's former assistant in the 1930s, restored the house relying on Wasmuth's plates and published its first colour photographs.² With slight variations in angle and field, Wasmuth's images and recent photographs show a large decorative mural flanking the stairway, a balustrade, portions of the floor, an iron column in the foreground and parts the metallic frame and vaulted ceiling it supports. An ornamental leitmotif unifies the whole: wrought-iron bars of the balustrade rise in curves, tendrils spring from the capitals of the columns reaching the girders of the

¹ *Neubauten in Brüssel* (Berlin: Wasmuth, 1900). The staircase mural is shown in plates 10-12. *Neubauten in Brüssel* appeared in the series *Moderne Städtebilder* which documented modern architecture in European cities.

Dirk Van de Vijver has traced the first publication of the mural photograph in Wasmuth's edition and its subsequent place in architectural history in his article "Victor Horta's staircase '12 rue de Turin': Genesis, canonization and readings of an iconic architectural interior view," in *Proceedings of the conference Interpretaciones / Interpretations* (2016): 200-207.

² François Loyer and Jean Delhayé, *Victor Horta: Hôtel Tassel 1893-1895* (Bruxelles: Archives d'architecture moderne, 1986), p. 140. Wasmuth's photograph remained the iconic black-and-white image of the staircase of the Hôtel Tassel until 1986. The mural itself disappeared under a coat of paint in the 1950s, when the house was divided into rental studios by new owners and a large part of the original decoration was destroyed. Jean Delhayé (1908-1933), Horta's former student at the academy in 1929-1933 and his assistant in 1934, purchased the house in 1976 with the intention to restore it. He relied on historical photographs of the interior and the surviving paint traces under the later coat. An unnamed folder of photographs in Horta's archives, previously managed by Delhayé, contains Wasmuth's detached sheets which are the only ones in the folder showing the mural. Since the restoration, the interior has appeared in colour photographs which convey its atmosphere, though the paintwork is no longer original. Loyer and Delhayé's *Victor Horta: Hôtel Tassel 1893-1895* was the first book dedicated to the house, published immediately after the restoration. It featured the first coloured photographs of the restored interiors, historical photographs, measured drawings, an interview with Delhayé describing the works and an essay by the architectural historian Loyer, biographer of Paul Hankar (an odd combination of the two text, for Loyer makes an implicit argument that Horta's new architecture was inferior to Hankar's, whereas Delhayé argues the lack of originality of the latter).

main framework and the stairway underside, linear decoration in the vaulted ceiling spandrels suggest seamless transition from the ironwork, and floors swirl with ornamental patterns. The mural, the most prominent component, shows plant-like motifs rising in coiling movement towards the light. Branches of denser masses depicted in shaded areas nearer the base and under the projecting gallery of the upper floor rise off-centre against a graded background. Only the main stems reach the top. Shadow, light, and rising movement reflect the material reality of the interior: darker areas correspond to the shaded parts of the staircase, the lighter portion corresponds to the source of real light from the glazed roof above. The movement of the painted lianas follows the light source as does the ascension of the stairway.

For many decades, historians sought to understand this décor by identifying Horta's sources, and they based their quest upon the famous photograph. The underlying assumption was that the origins of Horta's motifs from would explain what they were about. However, focusing on this one corner of the house limited the understanding of this space and could prove misleading even for single components, such as the mural. This image conveys the unique character of the house, but it does not show a key aspect of this part of the interior. In fact, the staircase belongs to a much larger space at the centre of the house, extending from one party wall to the other, comprising, on the opposite side, a wintergarden where Émile Tassel placed his potted palm trees. Lined with a continuous mirror along the party wall, the wintergarden reflected the painted mural on the opposite side, creating a complex intertwining of spaces, bringing together real and fictitious plant forms (Fig. 1.2, Fig. 1.14). The staircase is only one part of this unusual central hall which merges several typologies: a stairway, a hallway, a wintergarden, an internal glazed court—a *cour vitrée*—all combined into a single open area at the center of the plan, lit from two light wells on each side. The

mural, the tendrils springing from the iron columns, and the sinuous lines of the floor mosaics are all components of this space, provided with with glazed roofs, mirrors, and the modern technology of heating and ventilation. Marble bands on the floor divide the area into three bays—the staircase, the main landing, and the wintergarden proper, which is lower by one step. The space combines many typologies but resembles none in particular. This is not a typical hallway, but rather one which doubles as a wintergarden. Yet it is not a typical nineteenth-century wintergarden, but a sky-lit space which doubles as a work-space with a few palm trees on stands. Images of vegetal life and the wintergarden itself are more fictitious than real. Horta referred to it in French as the “*milieu*” of the house, in the sense of being in the middle. But the French word *milieu* also means environment, at once the centre of the house and the locus of a special ambiance.

Tassel’s house appears all the more innovative when considered alongside conventional Belgian residential architecture. At 7.79 m wide and 14.5 m deep, the Hôtel Tassel occupies a lot on a street opened only a few years earlier perpendicular to the avenue Louise. The narrow lot is typical of the Belgian townhouse, but the interior configuration devised by Horta is radically different. Usually, the plan of Belgian townhouses comprises a narrow corridor about 1.5 m wide on the main floor flanking a sequence of rooms *en enfilade* raised above the basement, with the drawing or smoking room on the street side, the dining room in the middle, and occasionally a verandah attached to the back facing the garden which occupies the rest of the lot. The corridor contains a longitudinal staircase which gives access to the upper bedroom floors and services below. A small vestibule with a short flight of steps separates it from the main entrance of the house, either on the left or the right side of the façade.

Horta transformed this conventional organization. In section, the Hôtel Tassel consists of two separate volumes, one on the street side, the other on the back, leaving an open area in the center—the *cour vitrée*—supported by an iron frame (Fig. 1.5). In plan, the spaces are laid in an axial sequence, beginning from the main entrance up to the dining room (Fig. 1.6-1.7). All doors and entryways being placed on this axis, it is possible to grasp the succession of spaces from one end of the house to the other. Upon entry, a small hall, square in plan, leads through a double stained-glass door into the main octagon-shaped vestibule that features floor mosaics. A flight of seven 1.8 m-wide steps leads from the vestibule to the main landing of the central hallway already described above. Double-glazed doors then allow access into the drawing room that is divided by glazed partitions following a zig-zag pattern running the entire width of the building. The glass panes allow views from the drawing room into the adjacent wintergarden, although photographs of the original period show them fitted with semi-transparent calicos which left only the upper part transparent (Fig. 1.12) The drawing room, 4.25 deep across the centre and 3.3 m in the narrow flanks, is divided by thick curtains from the narrower dining room which concludes the sequence of the ground floor. This last room, 4.5 m wide with two service rooms on each side, overlooks the back garden through a five-sided projecting window. The main staircase leads to a mezzanine level comprised of the smoking room and three smaller ancillary rooms, and to the upper floor where a narrow hallway between the two light wells connects Tassel's office with the back of the building. The mezzanine opens onto the main floor with a view stretching from the vestibule through the main landing of the central hallway to the drawing room.

Soon after the house was completed in 1895, a short article on Victor Horta published in the Belgian newspaper *Le Petit bleu* described the novelty of the Hôtel Tassel. The journalist praised the

architect who “builds and decorates extraordinary houses,” observing that “it is not without effort that [Horta] found clients who trust his talent and give him a free rein: the first ones to approach him hesitated to approve plans in which the wintergarden, for instance, is placed in the middle of the house and occupies half of the lot, or in which the typical vestibule is eliminated. A house without a ‘corridor.’”³ Photographs of the interior were first published in the Belgian architectural journal *L'Émulation* the same year, but instead of showing the staircase mural that would later become iconic, they illustrated a corner view of the wintergarden as well as a few other spaces (Fig. 1.8-1.12).⁴

In 1897, French art critic François Thiébault-Sisson wrote a description of the Hôtel Tassel in the prominent and progressive Parisian *Art et Décoration*, stressing the unprecedented configuration of the house with the “glazed court” at its center and the stunning décor:

Exposed metallic skeleton, reinforced by *colonnettes* here and there, whose light green coloration and its thoughtfully-conceived form concur advantageously with the general effect. With its slender stems, leafy at the top, as if rising from a stalk at the base, they

³ [Ce n'est pas sans peine qu'il a pu arriver à découvrir des propriétaires assez confiants en son talent pour lui laisser carte blanche ; les premiers qui se sont adressés à lui hésitaient à approuver des plans de maisons où le jardin d'hiver, par exemple, situé au milieu de l'habitation, prend la moitié du terrain, ou bien encore où le classique vestibule est supprimé. Une maison sans “corridor”]

“Un bruxellois par jour: Victor Horta,” *Le Petit Bleu du matin*, 21 May 1895.

All translations from French sources into English are mine, unless otherwise indicated.

⁴ *L'Émulation* (1895), plates 39-42. Two plates show plans, two show views of the interior, and one contains a photograph of the façade. There is no accompanying text, except the captions of the images, “Maison rue de Turin 12 à Bruxelles, Architecte Victor Horta,” and indications on the function of the rooms in the plans. The interior views are the “Landing of the first floor,” looking towards the statue of David in the niche of the main staircase, the “View of the glasshouse” [*vue de la serre*], taken from the vestibule below, showing only a narrow view of the corner between the central flight of steps and the drawing room glazed partition, and a full-plate “View of the dining room towards the vestibule,” showing the sequence of rooms that runs from the dining room to the stained-glass doors of the small entrance hall and the iron balustrade of the mezzanine above. *L'Émulation* was the official organ of the Société centrale d'architecture and the only specialized architectural periodical in Belgium. Horta had joined the society in 1882 and became its president in December 1894. He had previously published two articles in the journal and had his academic projects reviewed by its editors from 1884. In 1895, he was both president of the society that published the journal and author of the published work, which suggests that he closely controlled the way his work was shown.

sustain to the eye in the most charming way the sensation of greenery and freshness in which the wintergarden immerses us. And it is marvelous to see running on the walls, in capricious arabesques of colors, a sowing of stylized leaves which extends the illusion, merging in harmonious combinations to the supple iron foliage.⁵

These two brief descriptions reveal how the unusual aspect of the house stems from an interrelated set of innovations: the configuration of plan, the exposed iron construction and the décor. The three aspects merge seamlessly: the central, interiorized hall, lit from above thanks to its iron skeleton, liberates a space for the deployment of an unusual vegetal décor. It is the latter that creates a special atmosphere: strange energy-laden motifs which transform objects, seamlessly transitioning from freestanding solids to surface patterns, rise from darkness to light. The unusual and slightly ambivalent ambiance did not belong to traditional domestic architecture.

Horta's recent biographer, Michele Goslar, describes Horta as pursuing "strange novelty."⁶ Horta's contemporaries did not use the attribute of a strange modernity to describe his architecture, but they frequently applied such epithets to other creators and works of the time, such as Hector Guimard's Castel Bèranger, inspired by Horta, which appeared *étrange et étrangère* [strange and

⁵ [Charpente métallique apparente, renforcée ça et là de colonnettes, dont les colorations d'un vert clair et la forme soigneusement trouvée, concourent à l'envie à la décoration générale. Tiges légères, feuillues par le haut, s'élançant comme d'un stipe à leur base, elles continuent d'une manière charmante pour l'œil la sensation de verdure et de fraîcheur dont le jardin d'hiver vous imprègne. Est c'est merveille de voir courir sur les murs, en capricieuses arabesques de couleur, tout un semis de feuillages stylisés qui prolongent encore l'illusion et se marient en combinaisons harmonieuses aux rinceaux du fer assoupli] François Thiébault-Sisson, "L'Art décoratif en Belgique, un Novateur: Victor Horta," *Art et décoration* 1 (January 1897), p. 14.

⁶ [faire preuve de nouveauté étrange] Michèle Goslar, *Victor Horta, 1861-1847: L'Homme, l'architecte, l'Art Nouveau* (Bruxelles: Fonds Mercator, 2012), p. 75.

foreign],⁷ Maurice Maeterlinck, the “strange and anxious poet” of the *Serres chaudes*,⁸ and the “supremely original, strange and novel” poetry of Georges Rodenbach.⁹ Strangeness is a mode of originality which literary critic Harold Bloom ascribes to canonical work and explains as an “uncanny startlement rather a fulfillment of expectations” which we feel when confronted with the artwork. It arises from those aspects of the artwork which cannot be assimilated nor assimilate us so that we cease to see them as strange.¹⁰ Horta’s design motifs would not be assimilated over time. The sense of the evocative power and the inaccessible nature of this strange modernity persists.

What was the meaning of these images when they first appeared, asked Franco Borsi and Paolo Portoghesi in 1969, in the opening page of the first major monograph dedicated to Horta.¹¹ They saw a double meaning: psychological and political. The character of his images was essentially musical, the decorative style inspired from nature in a vitalistic conception of form, and their political connotations progressive. Borsi and Portoghesi remarked that Tassel “accepted and maybe wanted a spectacle-house,” and they wondered to what extent he, the client, understood the

⁷ Monique Eleb has included a few quotes from art critics of the time in her *L’Invention de l’Habitation moderne, 1880-1914* (Paris, Hazan, 1995), p. 450.

Guimard’s changes to the design of the Castel Béranger after his visit to Belgium in 1895 are a well-known episode in the history of architecture. He acknowledged his debt to the Belgian architect in interviews and in the opening speech of the 1899 exhibition of his own works held at *Le Figaro*, and he sent Horta the published album of his Castel Béranger. On these exchanges see Françoise Aubry, “Hector Guimard et la Belgique,” in *Guimard, Colloque International* (Musée d’Orsay, 1992), eds. Philippe Thiébaut and Claude Frontisi (Paris: Spadem, 1994), and Philippe Thiébaut, “La ‘ligne belge’ et la création française,” in *Paris-Bruxelles, Bruxelles-Paris réalisme, impressionnisme, symbolisme, art nouveau*, eds. Anne Pinget and Robert Hoozee (Antwerp, Fonds Mercator, 1997).

⁸ [poète étrange et inquiet des *Serres chaudes*]

Valère Gille, “Littérature française,” in *La Patrie belge* (Bruxelles: Rossel, 1905) p. 127.

⁹ [suprêmement originale: elle devait attirer par son étrangeté même et sa nouveauté l’attention du public parisien]

Ibid., p. 125.

¹⁰ Harold Bloom, *The Western Canon: The Books and Schools of the Ages* (New York: Harcourt Brace, 1994), p. 3.

¹¹ [che senso ebbero queste immagini al loro apparire]

Franco Borsi and Paolo Portoghesi, *Victor Horta* (Rome: Edizioni del Tritone, 1969), p. 15.

intentions of his architect, and in what way he decoded the selected signs. They were right to leave the open possibility that Tassel “maybe wanted” such a house. His role in the configuration and décor of this space is larger than what has been traditionally understood, and not only would he have accessed the meaning of the imagery deployed in his house, but he played an essential role in its genesis in the first place.

Tassel recedes into the background in Horta’s biographies as the progressive client who allowed him to deploy a set of innovations in design which he developed individually, finding inspiration elsewhere. Tassel is further removed to the margins in the historiography of Art Nouveau which sought to establish links between an array of sources and Horta’s new style in design. Scant biographical information about Tassel has made it harder to assess his design ideas. Yet, not all aspects of the Hôtel Tassel can be explained following Horta’s individual development. As the following chapters will show, this architecture is enmeshed in Horta and Tassel’s combined intentions. Ideas behind the forms deployed in his house can be traced with historical certainty to Tassel, rather than Horta, and it is crucial to include him in the quest for the meaning of the interior’s imagery.

Historical circumstances surrounding the early reception of the house and Horta’s approach complicated subsequent interpretive efforts (which are detailed in Appendix 1). There are no known records of Tassel’s ideas about his house. Two years before his death, Horta sold as scrap paper a large part of his archives. The only surviving original drawings of the Hôtel Tassel are the building permit applications, submitted to the City authorities in August 1894 at a stage when the decorative program was probably not even conceived yet (Fig. 1.5). Surviving agenda notes establish a rough chronology of the progress of the building site between the summers of 1894 and 1895, but any

associated drawings or other records were lost with Horta's archives. In his memoirs and other archival notes written in his late years Horta sought to recast the project which marked a radical turn in his career in a new light. With a good dose of disingenuity, he attempted to convince the reader that all innovations in the architecture of the Hôtel Tassel stemmed from practical considerations. Yet, not even the configuration of the house plan can be explained in purely practical terms, let alone the décor. He was largely silent on matters of décor, never mentioned the wintergarden, and it appears that on several occasions he sought to remove from critical attention the mural, the work that became the iconic image of his architecture.

By the mid twentieth century the Hôtel Tassel's wintergarden had physically disappeared with the new house ownership. Its presence was all but forgotten in the historiographies of Art Nouveau and Victor Horta which sought to grasp isolated components of the house's décor (detailed in Appendix 2). Tassel remains in the background of the house's history as the progressive client who gave Horta a free hand until the most recent monograph by Goslar, but the wintergarden returned as an object of attention for historians after the restoration of the house in the 1980s. In 1986, François Loyer noted the wintergarden and observed that Horta's intention behind the "*envahissant décor spatial*" was to suggest the vegetation of the tropical greenhouse.¹² But he saw no broader significance in the feature, concluding hastily that its only function was to minimize the transition between the potted plants, placed on pedestals, and the rest of the house, as was common in nineteenth-century conservatory design.¹³ In 1996, Alfred Willis described the décor as "a magnification through art of the atmosphere of the greenhouse," which he contrasted to the tectonic sobriety of the upper

¹² Loyer and Delhay, *Victor Horta*, p. 21.

¹³ Ibid.

floors.¹⁴ In 2006, Amy Kulper saw the fusion of two typologies in Horta's project, the glasshouse and the townhouse, and she associated the new décor with the idea of a volitional, generative or emergent nature in nineteenth-century philosophy and natural sciences.¹⁵ This dissertation attempts to shed further light on this central area of the Hôtel Tassel combining the staircase, the central stair-landing, and the wintergarden. The inquiry begins from the aesthetic experience, from the visual contact with Horta's architecture, but it also draws from domains outside architecture that are related to the genesis of the house. The ultimate aim is to qualify the motifs, motives and meaning of *this* architecture, and illuminate the series of relationships which it sets into play.

¹⁴ See Alfred Willis, "Mannerism, nature and abstraction: The early architectural designs of Victor Horta," in *Horta: Naissance et dépassement de l'Art nouveau*, eds. Françoise Aubry and Jos Vandenbreenen (Bruxelles: Palais des Beaux-Arts, 1996).

¹⁵ Amy Kulper, "From will to wallpaper: Imaging and imagining the natural in the domestic interiors of the Art Nouveau," in *Visions of the Industrial Age, 1830-1914: Modernity and the Anxiety of Representation in Europe*, eds. Minsoo Kang and Amy Woodson-Boulton (Burlington, VT: Ashgate, 2008) and Kulper, "Art Nouveau gardens of the mind: Bell jars, hothouses, and wintergardens—preserving immanent natures," in *Phenomenologies of the City*, ed. Henriette Steiner (Burlington, VT: Ashgate, 2015).

1.2 Meaning, motifs, and motives in the architecture of the Hôtel Tassel

The interior of the Hôtel Tassel seems to communicate something meaningful. The décor “sets in motion” a series of associative images in the mind of the viewer. Above all, it evokes a special form of vegetal life—the idea of a life driven by inner forces, manifest in the vivid patterns of movement of lianas or vines, or even a principle of “animal energy” as architectural historian David Hanser has suggested.¹⁶ What were these ideas in the original design, how did these motifs operate and how did they gain their various meanings and associations therein? Everything in Horta’s architecture has, “if not its own utility, its proper signification,” his friend and art critic Sander Pierron remarked in 1903.¹⁷ That “proper signification” is far from self-evident.

“Architecture can only speak a plastic language,” writes Eugène-Emmanuel Viollet-le-Duc in his sixteenth *Entretien sur l’architecture*. This passage, transcribed in a long handwritten résumé, was kept in Horta’s papers.¹⁸ At the turn of the 1890s, Horta was exploring precisely this “plastic” problem when he sought to invent a new, expressive form in collaborations with sculptors from the Academy and in the first commissions from Jeff Lambeaux, Eugène Autrique and Tassel. In this passage of the *Entretien*, Viollet-le-Duc argues that the language of the “plastic domain,” which is also the architect’s domain, can only convey a limited set of simple and clear ideas; unlike poetry or other forms of expression, it is ill-suited to metaphysical or philosophical thought, or nebulous or vague ideas. If someone attempts to render such ideas in iron or stone, Viollet-le-Duc warns, he is compelled to forsake practical necessities and norms of propriety for a form of philosophical

¹⁶ David Hanser, “The early works of Victor Horta: The origins of Art Nouveau architecture,” PhD diss. (University of Illinois at Urbana-Champaign, 1994), p. 510.

¹⁷ Sander Pierron, “Victor Horta,” in *Études d’art* (Bruxelles: Havermans, 1903), p. 67.

¹⁸ A.H. XVI. 31, Résumé of *Entretien* 16, page VII.

thinking which nobody is able to penetrate, whose explanation would require endless pages of text. Yet, despite Viollet-le-Duc's warning, Horta sought to explore this unknown territory when he pushed the boundaries of what architecture may look like and what it may express. He was able to walk a thin line because he created forms that seem to communicate a difficult thought without forsaking practical necessities. In this too lies his great talent. But penetrating the thought of his architecture is difficult and indeed, after decades of scholarship on Horta and endless pages of text written, in accordance with Viollet-le-Duc's warning, the puzzle persists.

Architectural historian David Hanser included a short chapter titled "The meaning of the Tassel decorations" in the closing pages of his 1995 dissertation, where he remarks that the new ornaments "adorn, but like all great art, they also seem to communicate something significant." The mural, the largest of them, leaves him puzzled and he feels that its "meaning seems to be drawn from the unconscious, something abnormal and vaguely unsettling,"¹⁹ but he did not settle the interpretive matter which lay outside, if not in contradiction, to the scope of his dissertation: to prove that all innovative aspects of the Hôtel Tassel could be accounted for by developments within a rationalist lineage in the architectural discipline.

For many decades, the central question among historians has been that of origins: identifying Horta's sources of inspiration was the key to understand the meaning of his architecture, and, consequently, of Art Nouveau as a whole. Given that Horta himself provided but few clues, a series of historical formal inquiries arose. Despite a growing body of knowledge and a deeper understanding of Art Nouveau in general, the question of origins could not be settled. The historian confronted a plethora of floating references, without being able to assert the "right" or "primary"

¹⁹ Hanser, "The early works of Victor Horta," p. 510.

one. The problem was not merely the lack of primary documentation in the particular case of Horta, it was also methodological: the notion of sources was implicitly understood to work in causal fashion, one source leading to the other in a narrative of art historical progress. Horta, as the author, was influenced by objects of intentional visual or conceptual interest which he then transformed in his own creative process. These sources belonged to a multitude of areas: British Arts and Crafts, French rationalism, and Symbolist art, alongside other nineteenth-century fields such as Japanese art, the neo-Rococo, etc. In 1958, Henry Russell Hitchcock reviewed these possible sources, but he found that whether taken separately or combined, they could not account for the sudden emergence of the new architecture, and he concluded with resignation, “why the Art Nouveau should have been initiated full-fledged by Victor Horta in 1892 remains a mystery.”²⁰

Instead of attempting to identify an origin and thus conceive Horta’s architecture as developing genetically from a single source, we may identify a series of horizontal connections set into play by his work—connections between the design’s aspects and motifs, and elements from external forces brought to bear upon the work. We may think of the work as a discrete plurality that establishes relationships to a number of contexts. This sequence leads to a series of meanings.

Already in the mid twentieth century, literary critic Northrop Frye has argued that units isolated for critical attention in literary pieces—units which he calls “symbols”—cannot be decoded as signs representing a definite idea with a precise verbal denotation.²¹ Frye proposed a scheme to interpret them: symbols are elements from a larger body of meaning that point to things outside;

²⁰ Henry-Russell Hitchcock, *Architecture: Nineteenth and Twentieth Centuries* (Baltimore, MD: Penguin Books, 1958), p. 287.

²¹ Northrop Frye, “Ethical criticism: Theory of symbols,” in *Anatomy of Criticism* (New Jersey: Princeton University Press, 1957), p. 71.

rather than represent, they connect.²² Grasping their multiple meanings, therefore, implies identifying this broader set of connections to which they are linked. In this respect, and despite Frye's idealism, he may be seen to anticipate the theory of networks of relations that Bruno Latour developed, initially with regard to the history of science. In a rich literary work, Frye observes, we seem to see an enormous number of converging patterns of significance.²³ Meaning or meanings emerges in the sequence of relationships in which the work is placed. Today, we may wish to leave aside Frye's focus upon ideal archetypes and think instead of the work as a dynamic play between its inherent structure and a wider cultural and material context.

Seen in this light, the historian's quest is to uncover the multiple contexts to which the artwork, its motifs, and its authors are connected. In the Hôtel Tassel, they include contexts drawn from currents of thought and aspects of the history of architecture and other domains related to one another, and to the genesis of its interior, including the wintergarden. These are chains of connections to "work done" elsewhere, to employ Gerard De Vries's recent rendering of Latour's theories,²⁴ work which then undergoes a process of assimilation in the artwork being interpreted. If some striking motifs of Horta's décor at the Hôtel Tassel evoke the general idea of vegetal life, such as the vague idea of inner life or the concrete image of lianas, then their significance corresponds to these ideas and images, pertinent to the more immediate context of the Hôtel Tassel's wintergarden. This means identifying the historical links which existed between these ideas and images, Horta, Tassel, their wintergarden, and us. Pertinence is essential because the sequence of relations cannot be simply assumed. It must be grounded in a historical reality.

²² Ibid., p. 72.

²³ Frye, "Polemical introduction," in *Anatomy of Criticism*, p. 17.

²⁴ Joseph Scheider, review of *Bruno Latour* by Gerard de Vries, 2016, *Contemporary sociology*, no. 3 (2018), p. 92.

In this light, the glazed court and the wintergarden at the center of the house must first be placed in the context of the nineteenth-century vogue for conservatories and verandas that expresses a desire to bring fragments of the tropical atmosphere of glasshouses²⁵ into the residential interior. This fusing of two largely-incompatible environments into a single living quarter was an impractical idea which botanists and horticulturists had yet long aspired to. The tendrils of the two iron columns protruding under the girders reveal a new significance when related, for instance, to earlier efforts of creating immersive environments in glasshouses by employing crawling plants to dissimulate bare iron supports or design ornamental motifs that evoke their movement. Motifs suggesting vegetal, animal or even ambiguous life begin to acquire a new meaning when they are related to primordial images of nature conjured by evolutionary theory in works such as Gaston de Saporta's 1879 book *Le monde des plantes avant l'apparition de l'homme*. Having worked for Alphonse Balat, the main figure of the Belgian classicism in the latter half of the nineteenth-century and architect of the King Leopold II who designed his glasshouses at the royal domain of Laeken, Horta was able to make such connections between themes developed in glasshouse design and his own wintergarden. However, it is Tassel who provides a link to the broader, late nineteenth-century understanding of the primordial world of plant life. Contrary to the leading assumption that Horta developed his design motifs individually, the historical threads we will follow show that Tassel not only facilitated Horta's development of a new decorative style by giving him a free hand, but that he

²⁵ Throughout the text I have maintained the term "glasshouse" instead of the equivalent "greenhouse," and have employed it in a similar way as the French "*serre*," as a comprehensive term that includes and is interchangeable with the sub-categories of conservatory, wintergarden, hothouse, forcing-house—types which differ from each other in size, function, and environmental-control conditions. I have used these terms instead of the comprehensive "glasshouse" when they appear in the original English sources or when an accurate designation is necessary (as, for example, in the lean-to forcing-houses in the glasshouses of the Botanical Garden of Brussels, whose key feature was to combine different types in a single monumental building).

may have provided a set of inspirational connections. Tassel, not Horta, connects with historical certainty the house to images of primordial nature provided by the natural sciences, the Symbolist interpretation of the glasshouse and vegetal life.

The Hôtel Tassel is connected to a multitude set of historical realities of turn-of-the-century Brussels—its urban real estate economy, for instance, or the material culture of the construction industry. But if the house can be situated in many different contexts, not all of them were equally pertinent to its author and to the present quest. This brings us to a second matter: authorial intentions. Frye advanced the notion of contexts and sequences of relationships in 1958 in large part because he was trying to avoid the so-called “intentional fallacy,” a subject of debate among literary critics at the time of his writings and in the following decades. To Frye, motifs in an artwork cannot be decoded as signs with a precise denotation in the author’s mind and we should not ask what the author intended to mean by them because the creative process is never fully conscious. Horta himself provides evidence confirming this assertion. Although he wrote little about matters of form, he stated on several occasions that elements of his architecture often came from intuition. Responding to the often-repeated question about the origins of the Art Nouveau curve, he stated that it was his non-conformist intuition which led him to choose the curved line over the straight one.²⁶ On another occasion, he wrote that the eighteenth-century *hôtels particuliers* at Ghent marked him profoundly in his childhood and that he had transposed aspects of their architecture onto the Hôtel

²⁶ [une intuition non conformiste/conforme (original corrected), qui dès que cela me fut possible, me fit préférer entre tout autre, le plan courbe au plan droit/la ligne courbe à la ligne droite (original added in pencil)]
A.H. XXIV.8.2, Speech to the Société centrale de l’architecture de Belgique, “Hommage à V. Horta, 6 Janvier 1946, nommé président de la SCAB.” Horta made an analogous claim on the origins of his curve in his memoirs, writing that it was already present in the Pavillon des Passions humaines (1890), where all profiles are curved, and that it came from his intuition. See Victor Horta, *Mémoires*, ed. Cécile Dulière (Bruxelles: Ministère de la communauté française de Belgique, 1985), p. 16.

Tassel without being aware of it. When Paul Hankar derided the Hôtel Tassel's façade as "*Louis XV sans sculptures*," Horta considered it an irrelevant statement at first, but many years later he could see an element of truth in it.²⁷ He could accept how he had been influenced by eighteenth-century façades or by the Rococo iron balustrade of the stairway of the Hôtel Falligan in Ghent, a work which marked him profoundly and which bears obvious connections with his own staircase of the Hôtel Tassel (Fig. 1.15).

In *Patterns of Intention, On the Historical Explanation of Pictures* (1985), Michael Baxandall observes that the aspects that we find most worthy of critical attention may not have been as important to the author at the time, a further reason why he may not have fully conceptualized them.²⁸ Yet, in an interesting twist to the question of authorial intentions, aesthetic philosopher Noël Carroll more recently argues that artworks are intentional doings even if intentions are only partially conscious, the critic requiring a sense of what the artist is up to, giving access to the purpose of the work and to what it communicates.²⁹ Carroll emphasizes the communicative dimension of the artwork and he observes that it is a natural human tendency to seek intentions in the agent's mind when we attempt to understand an expressed thought. This is even more so when we find this thought puzzling. To Carroll, interpretation is a hypothesis that accounts in terms of meaning or significance for the presence of elements or combinations of elements in an artwork, where the presence of the pertinent element is not immediately evident.³⁰

²⁷ Horta, *Mémoires*, pp. 15-16.

²⁸ Michael Baxandall, *Patterns of Intention: On the Historical Explanation of Pictures* (New Haven: Yale University Press, 1985).

²⁹ Noël Carroll, *Beyond Aesthetics, Philosophical Essays* (Cambridge: Cambridge University Press, 2003), p. 184.

³⁰ Noël Carroll, *On Criticism* (New York and London: Routledge, 2009), p. 177.

In short, we should not seek a precise verbal denotation to the motifs of the iron columns, the mural, or the balustrade, but there was agency and purposefulness to their creation. Gaining a sense of what Horta and Tassel were up to thus helps us access the purpose of the work, what it brings into play, and what it communicates. Baxandall defines the account of intentions not as a narrative of what went on in the author's mind, but an analytical construct about his ends and means, as we infer them from the relationship of his object to identifiable circumstances.³¹ These are circumstances that we attach to the motifs under consideration. In this sense, they are similar to Frye's contexts in which symbols draw their meaning. But they are also attached to the author and his mind. In these circumstances lie ideas and cultural determinants which we invoke in the process of interpretation because we infer a relationship to the work and its author, and this relationship cannot be simply assumed, but requires documentation and historical thinking.

In this respect, the quest for meaning through contexts resembles a search engine in which single components of the architecture are entered and the results filtered down to those that are pertinent to the agents and the work under consideration. It is the previous interests, activities, affiliations and personal connections of the agents which create these connections. Earlier studies have placed the architecture of the Hôtel Tassel in several contexts, such as the Baroque conception of form, Symbolism, or nineteenth-century philosophies of nature, based merely on suggestive visual analogies without establishing any links between these contexts and the agents who produced the work. Missing the specific cultural and artistic channels by which connections existed, these studies sometimes fall prey to the abstraction of a metanarrative that floats high above the material under study. The author or authors should be conceived as agents, positioned *inside* the web of

³¹ Michael Baxandall, *Patterns of Intention*, p. 109.

connections. Eighteenth-century aristocratic architecture becomes one of the numerous, converging contexts at play and it is possible to explain how it engages the design of the Hôtel Tassel, specifically the façade and the iron balustrade, based not on visual similarities alone but through how the architecture of the *ancien régime* reverberates with progressive bourgeois aspirations in early 1890s Brussels as well as the evidence of Horta's own statements and his earlier works.

In *Patterns of Intention*, Michael Baxandall provides a useful observation on the dynamics of sources and influence. He argues that influence never operates in isolated channels, but rather as references and cultural determinants that interact and affect each other. For example, Cézanne exerted an influence on Picasso, but the way the Spanish artist drew from the Frenchman's art was determined, amongst other factors, by the former's previous references to African art. In other words, African art affected the way Picasso saw Cézanne and how Picasso understood Cézanne's influence on him, so that Picasso drew from one aspect rather than another of the French artist's work. Baxandall's field of art resembles a billiard game: once a ball has moved, the position of all other balls and their relationship to one another changes. In the same way, references and sources change their positions each time a new element comes into play. To take the example of Horta's columns, their form was influenced by French rationalism, but also by their presence within a wintergarden, flanking the main stairway landing and a processional route from the entrance towards the drawing room, in the heart of a house owned by Tassel, a professor, scientist and Freemason. The abstract, vegetal décor of the interior was conditioned by what were then considered the dominant traits of natural landscapes, including movement, but also by the interest in Japanese art and Horta's previous exposure to eighteenth-century ornamental work which affected the way he selected and rendered one theme over another. Not only sources and channels of influence, but

multiple patterns of significance converge. Elements that were pertinent to the design belong in more than one relevant context and this contemporaneous presence affects their meaning. As in Baxandall's scheme, they stand in relation to one another, to the work, and to the artist, in a positional game.

1.3 Chapters outline

The following chapters will leave the Hôtel Tassel in order to explore some of the various nineteenth-century contexts which the house itself brings into play, tracing their historical development and their links to the work and its two agents. These are mainly contexts in which a new awareness of the milieu arises: in the culture and design of glasshouses, in the sciences of life, in architectural theory, in the artistic, literary and philosophical interpretations of vegetal life, in the space of the masonic ritual, and in the language of the plastic domain shared by sculpture and architecture. Each chapter will focus on one area, but there are also important threads running from one into the other, such as authors or projects whose work was seminal in more than one context. Facts about Horta and Tassel's activity will allow to establish the links between these external elements and the work itself.

The chapters reconstruct a body of historical developments, ideas and artefacts, starting from the early nineteenth century to the turn of the 1890s. Chapter 2 places Tassel's wintergarden in the first place and for the first time in the context of the rising Belgian horticulture and botany, in the profusion of glasshouses from commercial establishments and private estates to townhouses. The general phenomenon belongs to second quarter of the nineteenth century when Belgium, and in particular, the city of Ghent, become a major center of international commercial horticulture. In the following decades, plants and modest horticultural constructions spread to residential architecture. Chapter 2 traces material developments, but also the movement of ideas. Of particular importance are discussions about the experience of tropical forests, of glasshouses and landscape design and their implications for residential architecture. They include visions of future developments that did not

occur, but which suggest a new sensibility towards the idea of the *milieu* with important consequences in the design of artificial environments.

Chapter 2 identifies patterns that are specific to Belgian architectural history and to Horta's career, which link the worlds of horticulture and architecture, and which facilitated the transition of ideas and design solutions from one discipline to the other. Two key projects reveal these connections: the glasshouses of Botanical Garden of Brussels, a project which drew Horta's critical attention in the 1930s, and the complex of glasshouses at Laeken, designed by his master Balat. Chapter 2 covers a topic that has received little critical attention and no dedicated study before: Horta's concrete involvement in the glasshouse design before the townhouse wintergardens of the latter 1890s and his later ideas on these typologies.

Chapter 2 looks at nineteenth-century glasshouse typologies. The premise is that the existing types are at the basis of a radical transformation which occurs in the Hôtel Tassel. Tassel's wintergarden bears little resemblance to the typical models, but, establishing its premises is essential to grasping its nature. The subsequent chapters explore the themes underlying this radical transformation in the symbolism vested upon glasshouses and vegetal life in the domains of horticulture and botany, in architectural theory, in the natural and social sciences, in philosophy, and finally, in the literature and literary criticism of the late century. The inquiry follows a chronological line, from the early to the late century, and it also transitions moves from real glasshouses and plants to fictitious ones—worlds under glass and the imagery of vegetal life vested with meaning in the writings of the time.

Chapter 3 covers botany, architectural theory, the sciences of life and the new social sciences, tracing common themes that run from one domain to another. Themes drawn from observation of

vegetal life migrated into architectural theory. Themes drawn from natural sciences migrated into the emerging social sciences. Chapter 3 establishes how these themes were pertinent to Horta and Tassel through more than one channel. It traces, for example, the notions of inner forces that drive movement and growth from observations in natural sciences to architectural theories, themes in glasshouse design and finally in the Hôtel Tassel. The figure of Ernest Solvay who was busy developing universal theories at the time and hired Tassel to assist him, provides a further connection between the movement of ideas and the agents of the Hôtel Tassel. The group of progressive clients around Solvay has traditionally been understood as supporters of Horta's career, who made commissions and appreciated his modern style. Chapter 2 moves beyond this general observation and looks at specific ideas from the natural and social sciences which, through Tassel—a member of this group—became concrete motifs in Horta's architecture.

Chapter 4 continues the investigation into the Belgian letters of the end of the century. It follows a transition from descriptions of the glasshouse as a real object, to literary tropes that expresses the inner states of artist. The artistic tropes are well-known in the history of literary Symbolism, but Chapter 4 attempts to establish links between the world of letters and Tassel's interior. Schopenhauer is one of the prominent names that permeates the Belgian *fin-de-siècle*. His influence on Belgian poets is well-known and discussed by literary and art historians of the period. Chapter 4 will look at additional channels through which his philosophy reached Belgium and Tassel.

Chapter 5 brings us closer to the time and agents of the house. It follows Horta's activity in Brussels in the 1880s when he enters the Academy, joins Freemasonry and a progressive circle of friends and clients, and develops his keen interest in Japanese art. These affiliations bring about

personal connections, whereas the collaboration with sculptors and contacts with avant-garde art in Brussels underlie a new plastic sensibility. These aspects of Horta's early career have been discussed in his recent biographies, but gaps remain. This period is generally regarded as a lead-up to the major turn of Horta's career and a field of inquiry for his sources. Although this dissertation does not trace the genesis of Art Nouveau as a style developed and deployed individually at the Hôtel Tassel, it shares with this developmental line several episodes which allow a better understanding of the Hôtel Tassel, and it touches upon some historical problems which have arisen in the traditional historiography. It holds a position on previous conflicting interpretations of established episodes, and it brings forth new elements in unclear ones. For instance, it brings Horta into the salons of Les XX with historical certainty, not only as a visitor, but as a participant in 1891. Following Horta's early career, the inquiry places special importance on his glazed iron structures in built and unbuilt projects in which he confronted these typologies before the Hôtel Tassel wintergarden, and it adds to these precedents the residence of the Prince de Ligne, a commission which has never been mentioned in Horta's studies. The last two sections of Chapter 5 cover the art and philosophy of nature of Japan, a passion which Horta shared with Tassel. The reception of Japanese in Belgium provides an additional set of themes relative to nature and techniques of representation which, in many areas, converge with the ones traced in the other chapters.

Chapter 6 focuses on Freemasonry, a key affiliation in which Horta and Tassel crossed paths. Freemasonry provided a philosophy of the world and the built environment, recreated as fictitious, symbolic décor. Many of its themes converge with the pursuits of the letters and modern art which explored the symbolic, affective milieu, natural and artificial. The interior of the Hôtel Tassel has been traditionally considered as an architecture devoid of masonic references. Chapter 6 shows that

such references are not only present, but that a set of ideas from masonic architecture was transposed into the house.

Chapter 7 concludes the dissertation joining the key threads traces in the previous chapters, describing how they reverberate in the experience of the house in the late 1890s.

2. The Glasshouse in Nineteenth-Century Belgium

2.1 The rise of Belgian horticulture

“Isn’t it curious and meaningful to see this industrial and naturalist century crown its white hair with a wreath of fine leaves and head for its tomb with a spray of blooming flowers in its hands,” writes the Belgian botanist Émile Rodigas in his 1886 article “Le règne végétal et les Beaux-Arts.”³² He is referring to the proliferation of ornamental plants in private and public spaces, to the regular exhibitions of amateur horticulture associations, to glasshouses in vast commercial establishments, scientific institutions, countryside mansions and townhouses, and he seeks to understand in what ways the rise of modern horticulture has influenced contemporary arts and architecture, a topic that occasionally attracted the attention of botanists and artists.

Part of this phenomenon was the widespread fashion for conservatories and verandahs attached to townhouses. Since the late 1830s, scientists and amateurs of horticulture who remarked on the proliferation of exotic plants in residential interiors wished to see these new spaces develop further. Some hoped they would merge with the house interior so that the tropical environment of the glasshouse and the house’s everyday atmosphere would blend into one, bringing the vivid, fairy-like spectacles of nature into the dwelling. They predicted that the glasshouse would become the new drawing room and horticulture would join the fine arts in the house interior, transforming the

³² [n’est-il pas curieux et significatif de voir ce siècle industriel et naturaliste couronner ses cheveux blancs d’élégants feuillage et s’en aller vers sa tombe une gerbe fleurie à la main]
Émile Rodigas, “Le règne végétal et les Beaux-Arts,” *L’Illustration horticole* (1886), p. 100.

residential architecture of the nineteenth century. These prophecies were not fulfilled. Architectural historian Vincent Heymans notes that ornamental plants, verandahs and conservatories proliferated in the 1880s (and were later expunged in the interwar decades), but they remained mere additions to the conventional house with no significant impact on the architecture.³³ At the close of the century, Horta's wintergardens come as a significant exception to this observation, and they crown the long-developed predictions of botanists who reflected on the relationships between modern horticulture, fine arts, and architecture, and wished to see the exchanges between these fields transform the architecture of the townhouse. The Hôtel Tassel's interior is embedded in these exchanges and the culture of exotic plants which caught Rodigas's attention and profoundly marked nineteenth-century Belgium.

The rise of Belgian horticulture is a phenomenon of the second quarter of the nineteenth century. The Low Countries had a long gardening tradition dating back to the sixteenth century, but the key developments that bolstered botany and horticulture occur in these decades, resulting from combined scientific and commercial pursuits: the proliferation of local amateur associations, specialized periodicals and books, and most importantly, the foundation of commercial establishments with supply links across the world. The government and private firms supported early expeditions to establish new commercial outlets and help research in natural sciences, goals which would benefit the national economy. Rare and exotic plants began to arrive regularly from tropical America or via England. Each wave fueled the vogue for exotic novelties, establishing an ever-

³³ Vincent Heymans, *Les Dimensions de l'ordinaire: La maison particulière entre mitoyens à Bruxelles: fin XIXème-début XXème siècle* (Paris: L'Harmattan, 1998), p. 118. Heymans's book is based on his doctoral dissertation, *Architecture et habitants: Le quartier des squares* (Université Libre de Bruxelles, 1995), a detailed survey of residential architecture in the North-East quarter in Brussels, built in the latter nineteenth century.

growing demand for rare, expensive specimens that drove commercial horticulture. Commercial establishments and private collections sent to floral exhibitions showed thousands of specimens to an eager public. Activities related to horticulture such as exhibitions or the arrival of new specimens became important events in city life. Specialized firms made available vast quantities of ornamental, industrial and edible plants, but it was above all exotic ones that caught public interest. Prices were initially prohibitive, yet large-scale cultivation made available to the middle class exotic plants which had previously only been found in the exclusive and luxurious collections of the landed nobility. Exotic ornamental plants reached the interior of the bourgeois house. By mid-century, Belgium became a major centre of commercial horticulture and amateur activity in continental Europe.³⁴

³⁴ Denis Diagre-Vanderpelen's doctoral dissertation, "Le jardin botanique de Bruxelles, 1826-1912," PhD diss. (Université libre de Bruxelles, 2006) provides a rich historical panorama of Belgian botany and horticulture through the nineteenth century which complements his main subject, the Botanical Garden of Brussels, founded in 1826. His "Les 'plant-hunters' belges durant le règne de Léopold 1er (1831-1870): succès et paradoxe," *Circumscribere, International Journal for the History of Science* 9 (2011): 78-99 focuses on the role of Belgian explorers in the rise of commercial horticulture, an aspect which he also traces in his doctoral dissertation in greater detail. Nicole Ceulemans's *Jean Linden: Explorer, Master of the Orchid* (Brussels: Fonds Mercator, 2006) documents the activity of one of the key names of early expeditions and commercial horticulture. Regarding this first wave of explorers, Claude Wey's "Chasseurs de plantes, botanistes et naturalistes luxembourgeois au Brésil (XVIIe-XXe siècles)," *Bulletin de la Société naturelle de Luxembourg* 115 (2014): 11-78 documents the activity of Linden and Nicolas Funck (1816-1896), natives of Luxembourg who settled in Belgium. The development of Belgian horticulture and the role of the early explorers is well-documented in numerous nineteenth-century sources by authors who were directly involved in the movement or witnessed its rise. François Crépin, director of the Botanical Garden in Brussels, in his *Guide du botaniste en Belgique* (Bruxelles: Gustave Mayolez, 1878) traced in detail the Belgians' explorations from early in the century until his own time. In the first half of the century, Charles Morren in his *Palmes et couronnes de l'horticulture de Belgique* (Liège, Direction générale de la Belgique horticole, 1851) sought to define the cultural significance of a phenomenon that combined science, commerce and the arts, and he gave detailed accounts of the floral exhibitions, major events in Belgian cities which fueled the ever-increasing demand for exotic plants. His son Édouard Morren in his *Histoire et bibliographie de la botanique horticole en Belgique au XIX siècle* (Ghent: Annoot-Braeckman, 1876) and *Notice historique, économique, et statistique sur la floriculture en Belgique* (Liège, Boverie, 1881) traced a consolidated development whose economic significance had become clear. The central role of the city of Ghent in this activity is highlighted in J. Van Damme-Sellier's *Histoire de la Société royale d'agriculture et de botanique de Gand* (Ghent: Van Doosselaere, 1861) and Émile Rodigas's "Casino de Gand," *L'Illustration horticole* (1893): 31-39. Although these publications focus on the *Société royale* and its exhibition building named the "Casino," they reconstruct a broader historical context and trace the origins of a movement. Van Damme-Sellier, for example, explains how the supply chains from the American

In 1860, the botanist Édouard Morren underlined how commerce and science dovetailed the interest in plants. Many scientific discoveries would not have been possible without the practice of floriculture in art, commerce and industry, whereas commercial expansion would not have been possible without the assistance of botanists. He explained:

What we call horticulture is not only the art of cultivating gardens; it is an entire science which concerns botany so closely that they are often confused with each other. It is the knowledge of living plants which we have brought from all regions of the world, and which we have gathered in Europe over several centuries. It is, furthermore, the knowledge of their vegetation, their mode of growth, their multiplication and generation, and in general of all the conditions necessary to their development.³⁵

The city of Ghent, Horta's hometown, became the centre of the international commerce and amateur horticulture. It boasted the most important horticultural association in the country and the largest concentration of commercial establishments, the two types of organization driving these interrelated movements. The Société d'agriculture et de botanique, founded in 1808, grew through the 1820s-1830s into an international network connecting hundreds of local amateurs, botanists and horticulturists with counterparts abroad. It set numerous initiatives to advance the culture of industrial and exotic plants, such as prizes and the Floralties, international plants exhibitions held

continent functioned, from the discovery of new specimens on the ground to their propagation in Belgium. These source also convey the scale and importance of horticulture-related activities in Belgian cities. H. Van Dievoet's "Histoire de l'horticulture bruxelloise et de la banlieue de 1800 à 1875," *La Tribune horticole*, no. 67 (5 October 1907): 578-580 includes anecdotes. Finally, the report of the American consul in Belgium, Henry C. Morris, "Horticulture at Ghent," in *Consular reports*, no. 184 (Washington: Government printing office, 1896) points out the role of the city in of the international luxury horticulture.

³⁵ [ce que l'on nomme l'horticulture n'est pas seulement l'art de cultiver les jardins, c'est toute une science qui touche de si près la botanique, qu'elle se confond à chaque instant avec elle. C'est la connaissance des végétaux vivants que nous sommes allés chercher dans toutes les contrées du monde, et qui se sont accumulés en Europe depuis des siècles: c'est en outre la connaissance de leur végétation, de leur mode de croissance, de leur multiplication et de leur génération, et en général de toutes les conditions extérieures nécessaires à leur développement]

"Notice sur Charles Morren," *Annuaire de l'Académie royale des sciences, des lettres et des Beaux-Arts* (1860), p. 216.

twice a year from 1809 onwards (in the exhibition of 1834 there were about 3000 plants,³⁶ and in 1893 over 100 000 different specimens³⁷). In 1836, it commissioned its own exhibition building from the local architect Louis Roelandt (1786-1864), a facility that went on to be expanded several times. It launched the tradition of scientific horticulture and botany journals, publishing initially, with the city's Société des Beaux-Arts, the *Messenger des Sciences et des Arts*, which until 1830 was the only scientific journal in Belgium,³⁸ and from 1845 its own *Annales de la Société d'agriculture et de botanique de Gand, journal de l'horticulture et des sciences accessoires*, a luxurious publication under the direction of the botanist Charles Morren. The French botanist Camuzet noted in a glowing report to the Société royale horticulture de Paris in 1837 that Ghent was the seat of the "empire of the flora."³⁹ By the end of the century, the city maintained this status in the international exotic plant trade as the American consul Henry Morris noted in an 1896 report to the State Department.⁴⁰

³⁶ Van Damme-Sellier, *Histoire de la Société royale d'agriculture et de botanique de Gand*, p. 83.

³⁷ Henry C. Morris, "Horticulture at Ghent," p. 53.

³⁸ Van Damme-Sellier, *Histoire de la Société royale d'agriculture et de botanique de Gand*, p. 86.

³⁹ Camuzet, "Tournée horticole faite en Belgique," *L'Horticulteur belge* (1837), p. 370.

These reports constitute another group of historical sources on the early rise of Belgian horticulture and its place in the European panorama, starting from the late 1820s. They also contain information on the state of glasshouse construction and some of the most important collections of the time. Neill Patrick's *Journal of a Horticultural Tour through some Parts of Flanders, Holland, and the North of France, in the Autumn of 1817* (Edinburgh, 1923) describes the poor state of the plants collections at Laeken at the time of his visit. Joseph Knight's report, published in Belgium as "Courte relation d'un voyage en Belgique fait en 1833," *L'Horticulteur belge, journal des jardiniers et amateurs* (1834): 126-131 finds Belgium less advanced than England, the state of the Botanical Garden of Ghent deplorable, and remarks upon the visit at Laeken that the new Belgian King Leopold I has brought along his English gardener and plans to expand the gardens. Rohault de Fleury's "Des serres," *Revue générale de l'architecture et des travaux publics* (1849): cols. 254-58, 332-35, 414-14, inquired into the latest technological advancements in Belgium. After de Fleury was appointed architect of the glasshouses of the Musée d'histoire naturelle in Paris, he travelled to England and Belgium where he visited the botanical gardens of Brussels and Ghent, and Jacob-Makoy's firm in Liège. Karl Koch's "Relation d'une excursion en Belgique et dans les Pays-Bas au printemps de 1862," *La Belgique horticole* (1862): 263-269, 327-340 reports on the zoological park in Brussels where Koch praises the collections in Linden's glasshouses but finds Alphonse Balat's *Victoria Regia* unimportant for its contents.

⁴⁰ Morris explains that contrary to the common assumption, exotic plants and seeds imported into the United States did not come from warm-climate countries, but from cities in northern Europe specialized in the trade of different cultures, such as Dresden, Leipzig, Hamburg, Paris, Orleans, Angers, and Ghent,

The early expeditions to the Americas and the Far East were crucial factors initiating the vogue for exotic plants. England had long been the main exporter of rare and exotic plants, but several expeditions from the 1830s allowed Belgians to establish their own direct supply networks. The first expeditions were joint ventures sponsored by the government, wealthy amateurs and private firms. They returned with new specimens and most importantly, first-hand experience of the atmospheric conditions of foreign flora. Then, the most successful explorers set up their own establishments, with direct supply links from three continents and a network of clients throughout Europe and the United States. Their glasshouses influenced the way the public perceived plants and their tropical environment. Two figures from the first wave of explorers played key roles in the thriving commerce in Ghent and Brussels: Louis Van Houtte and Jean-Jules Linden, who together founded companies that became the largest plant suppliers in the country alongside Verschaffelt in Ghent and Jacob-Makoy in Liège, and who expanded their activity into publications, horticultural training, and glasshouse design. Soon they came into contact with architects, including Alphonse Balat.

Louis Van Houtte (1810-1876) established the pattern of explorers who started their own businesses in Belgium after their travels, becoming one of the leading horticulturists in Continental Europe. After his first trip to South America in 1834, he served briefly as commercial director of the Botanical Garden in Brussels, then set up his own establishment in Gentbrugge, near Ghent, in

which was the main commercial center for azaleas, palms, and araucarias (Morris, "Horticulture at Ghent," p. 51). He reports that by 1896, the number had risen to about 366 establishments and 2535 glasshouses, of which 22 were large establishments possessing 70 to 72 glasshouses each, with a total glazed surface of around 370.000 m², an invested capital esteemed between 23 and 87 million francs (ibid., p. 61). As a comparison, in the 1850s Ghent counted over 200 establishments of horticulture and over 600 glasshouses of tremendous financial value (Van Damme-Sellier, *Histoire de la Société royale d'agriculture et de botanique de Gand*, p. 290).

1838. His business grew fast with an international network of suppliers from Mexico, Guatemala, French Guiana, Chile, the Antilles, the Indies, the Sonde Islands, and western Africa.⁴¹ By mid-century, Van Houtte's cultivated operations included a long alley over 1 km in length for outdoor cultures and over fifty glasshouses of different types.⁴² The main tropical glasshouse, about 3 m high and 83 long, was kept half-shaded and decorated with crawling plants which created the striking interior effect of a "vault of plants" in twilight.⁴³ A circular glasshouse for *Victoria Regia*, brought to Belgium from England, comprised an elliptical dome, about 11 m in diameter, raised on a masonry parapet around the interior basin and topped by an octagonal lantern with four gas jets (Fig. 2.5-2.6). Its installations were a technological feat which drew visitors and long lines of carriages in the days after inauguration.⁴⁴ Van Houtte founded one of the two horticultural schools in the country and he published the journals *Horticulteur Belge* in 1832, and *Flore des Serres et des Jardins d'Europe*, a lavish publication which appeared between 1845 and 1883.

Jean-Jules Linden (1817-1898) travelled to Brazil for the first time in 1835, to Cuba and Mexico the following year, and returned to the Americas in the 1840s with a long list of orders for new plants. Once the commerce of plants was strong enough, Linden, like other horticulturists, sent his own trained agents abroad. By 1894, his establishment had seven ongoing expeditions throughout the world.⁴⁵ Linden shared with Van Houtte a scientific passion for botany and the understanding of its commercial potential. After shipping thousands of specimens which did not survive a voyage, he gathered further technical knowledge for cultivation and transportation along

⁴¹ Decaisne, "Notice sur l'établissement horticole de M. Louis Van Houtte," *Revue horticole* (1846), p. 218.

⁴² Roze, "Rapport sur la visite faite aux grands établissements d'horticulture et au jardin botanique de Gand," *Bulletin de la Société de la botanique de France* (1873), p. XCIII.

⁴³ Decaisne, "Notice sur l'établissement horticole de M. Louis Van Houtte," p. 215.

⁴⁴ Buyssens, *Louis Van Houtte* (Ghent: Hoste, 1913), pp. 16-17.

⁴⁵ Rodigas, "Jean Linden," *L'Illustration horticole* (1894), p. 113.

with his first-hand experience of the climates of the regions he had visited. Linden opened his first company specialized in tropical plants in his native Luxembourg in 1845, then returned to Brussels where he opened his new firm by the Schaerbeek Gate and joined the venture of the new zoological garden at Léopold Park as shareholder and scientific director in 1851. This commercial establishment displayed animals alongside novel plants in an open-air park dotted with glasshouses, an orchestra stand and other leisure facilities. On the zoological garden's surveillance council Linden met Louis Fuchs, the renowned German landscape architect,⁴⁶ Charles-Etienne Guillery, a French medical scientist who had moved to Brussels and had recently turned to architecture, and Alphonse Balat.

Balat had recently moved to the capital and was building a successful career working for important associations. In 1852, he was appointed architect of the Duke of Brabant who ascended the throne as King Leopold II in 1866. He had previously worked for the old nobility and new wealthy families in the Walloon region during the 1840s, at the estates of Jeahay-Bodegnée and Beauraing in the region of Liège, and at Presles, near Charleroi, which belonged to King Leopold I.⁴⁷ His restoration projects in these estates included adding new glasshouse. In Brussels, the venture of Leopold Park brought him in direct contact with the main figures of horticulture and botany, exploration, landscape design, and, in the case of Guillery, medical science inquiring into the effects of atmospheres on public health. The zoological garden did not grow into a successful affair and

⁴⁶ The German landscape architect Louis Fuch (1818-1904) arrived in Belgium in 1845. His dense activity includes parks and landscape projects in Brussels, supported by Leopold II, and the floreal expositions setups for the Société royale de Flore. He taught garden architecture at the horticultural school at Vilvorde from 1859, and he received several titles from Leopold II. His son, F. Fuchs, was magistrate in the Free State of Congo, then vice-governor general. See Denis Diagre-Vanderpelen, "Le jardin botanique de Bruxelles," pp. 392-393.

⁴⁷ See Olivier De Trazegnies, "Presles, un château du temps de Léopold I," *La maison d'hier & d'aujourd'hui*, no. 40 (December 1980).

Balat's contribution remained modest, limited to the entrance grill and a circular Victoria Regia erected to rival Van Houtte's, but it is significant as a meeting place of different disciplines, and a starting point for the development of glazed iron structures. A small but sophisticated structure, Balat's Victoria Regia was based on intersecting Gothic pendentive rib vaults, raised on an octagonal masonry base (Fig. 2.8). It served as a model for the vast wintergarden erected for King Leopold II at Laeken twenty-five years later. We shall return to this structure briefly because Horta dealt with it too and he singles it out in his unpublished notes.

Linden's own firm, "Établissement pour introduction des plantes nouvelles," operated successfully, attached to the zoological garden (which it incorporated after the zoo went bankrupt in 1868). In 1862, the German botanist Karl Koch was impressed by its collections and reported 14 glasshouses of different types.⁴⁸ In 1870 Linden bought out Verschaffelt's firm in Ghent, an establishment founded in 1825, which boasted the richest collection of palm trees in the country up to that time.⁴⁹ By 1873, Linden's firm offered over 380 species of palm trees and the largest collection of orchids in the world.⁵⁰ Subsequently, Linden gathered his collections in Brussels and inaugurated a new recreation ground in Leopold Park named "L'Horticulture internationale." On the inauguration day of 10 May 1888, it drew over 17,000 visitors in a ceremony presided over by the royal family.⁵¹ The new installation, designed by Linden himself, comprised different types of glasshouses connected to one another, which allowed indoor circulation (Fig. 2.4). A glazed gallery

⁴⁸ Koch, "Relation d'une excursion en Belgique et dans les Pays-Bas au printemps de 1862," pp. 334-340.

⁴⁹ See "Établissement horticole d'Ambr. Verschaffelt," *L'Illustration horticole* (1854), pp. 121-122, and Van Damme-Sellier, *Histoire de la Société royale d'agriculture et de botanique de Gand*, pp. 280-286.

⁵⁰ Édouard André, "M. J. Linden et ses établissements d'introduction et d'horticulture," *Bulletin de la Société botanique de France* (1873), p. CV.

⁵¹ Rodigas, "L'Établissement de la Société l'horticulture internationale à Bruxelles," *L'Illustration horticole* (1888), p. 37.

with an octagonal pavilion at the center joined at one end a large wintergarden that served as the entrance to the site and as a permanent exposition space. Linden's compound was a commercial outlet, but also a major attraction in the capital in which large crowds came to see the novelties shown in an exotic environment. Linden's company also published its own journal, *L'Illustration horticole*,⁵² and offered several services, including an architectural office specialized in horticultural constructions. In Belgium, the most prestigious client who requested his advice was King Leopold II, who at the close of the 1860s decided to build a monumental wintergarden and a cluster of glasshouses which would rival all private glasshouses in the country.

⁵² *L'Illustration horticole* was originally published by Verschaffelt, before it was taken over by Linden in 1870, who brought Édouard André to the editorial committee. In 1887, *L'Illustration horticole: Revue mensuelle des plantes les plus remarquables, des introductions nouvelles et des faits les plus intéressants de l'horticulture* entered its 5th series, edited by Lucien Linden and Émile Rodigas.

2.2 The Botanical Garden of Brussels: Glasshouses by Belgian architects

The new Botanical Garden of Brussels was founded in 1826, and it is illustrative of the intertwining of science and commerce, and of public and private interests underlying the rise of Belgian horticulture.⁵³ Run by the Société royale d'horticulture, a shareholders' company subsidized by the government, it gathered a group of amateurs, scientists and influential citizens who sought to set up a profitable institution while promoting botany among the larger public. Louis Van Houtte was appointed briefly as director in 1836, to "propagate the exotic plants that recently arrived in Europe and in the garden through gifts to amateurs, exchanges and commerce."⁵⁴ Before the founding of large companies, the Botanical Garden played a key role in the diffusion of foreign plants in the capital.⁵⁵ The Botanical Garden's *bazar* sold rare plants that came from government-sponsored expeditions which, through this channel, reached smaller horticulturists and households. Floreal exhibitions drew large crowds, and rewarded novelties and efforts at cultivation. Its glasshouses were used as a venue for parties, balls, conferences, and occasionally the triennial Beaux-Arts exhibitions. In 1832, Charles Morren criticized these activities and the company's plans which focused on

⁵³ Brussels's first botanical garden dated back to a 1797 French decree which established the *écoles centrales* in the administrative departments, equipped with gardens and cabinets for the natural sciences. It was located on the former gardens of the palace of the governor general on the Coudenberg and it gathered plants from the collections of the landed nobility which had fled the country. In 1826, when the Coudenberg walls were demolished, a group of influential citizens decided to save its collections and build a new botanical garden by the Schaerbeek gate, run by the Société royale d'horticulture, a company of 100 shareholders. The founding members included the Baron Louis de Wellens, president of the *Société* and mayor of Brussels, the Baron Joseph Van Volden, member of the Regency council, Jean-Baptiste Meeus, uncle of Ferdinand Meeus, future director of the *Société générale*, the botanist Pierre-Auguste Drapiez and his collaborator the abbey Pierre-Corneille Van Geel.

⁵⁴ Louis Van Houtte, "Notice sur quelques plantes nouvelles, cultivés au Jardin Botanique de Bruxelles," *L'Horticulteur belge* (1836), p. 248.

⁵⁵ Diagre-Vanderpelen in his "Le jardin botanique de Bruxelles" has noted the importance of the Botanical Garden in the diffusion of foreign plants, and the ensuing conflict with local horticulturists who complained of the unfair competition from the government-subsidized establishment.

marketable plants and favoured the accessibility of the *gens du monde* over the rigour of a scientific garden. The *Gardeners' Chronicle* remarked critically on the glasshouses as a “fine range, the architectural pretensions of which are greater than its qualifications for plant growing,” “built for show rather than for cultivation.”⁵⁶

The Botanical Garden becomes important in the history of architecture because of this reversal of priorities. It was conceived firstly as a public monument. The glasshouses were commissioned to an architect, Tilman-François Suys (1783-1861), former Prix de Rome and architect to King William I, who provide a neoclassical scheme with a central rotunda, two wings, and two end pavilions combining glazed Ionic peristyles with lean-to glazed frameworks, the whole raised on a platform overlooking the garden and the city boulevards (Fig. 2.1). Several types of glasshouses were integrated between the masonry blocks of the main building and the platform terraces in a single structure. Specialists were critical of the state of its collections, but most visitors were impressed by the architecture which combined monumentality with a novel, airy quality. They noticed this especially at night. Gérard de Nerval described them as “a fairy-tale palace of tinted, glowing glass panes [*dont les vitres teignent des ardents lueurs de soin*].”⁵⁷ A. G. Baron, in his 1844 survey *La Belgique monumetale, historique et pittoresque*, praised the glasshouses as the most elegant and harmonious architecture to have appeared in Brussels over the previous forty years, and remarked on the unique spectacle that the building offered at night:

But it should not be admired only in daylight: the night sometimes confers to it a new splendor, when, under the glimmer of a half-light, it balances on the horizon as an airy building [*aux lueurs d'une clarté douteuse il se balance à l'horizon comme un édifice aérien*],

⁵⁶ ‘The Rambler,’ “Brussels botanic garden,” *The Gardeners' Chronicle* (19 May 1877), p. 623.

⁵⁷ For a survey of contemporary descriptions, including de Nerval's, see Diagre-Vanderpelen, “Le jardin botanique de Bruxelles,” p. 345.

or when, decorated with light garlands whose colors sparkle in the shadows, it seems to invite the joyful city to the fêtes of a fairy-like palace.⁵⁸

The classical building could not later escape Horta's consideration, who, in the 1930s, wrote two studies on the Botanical Garden and praised the same quality of the glasshouses, which he described as "*grâce aérienne*."⁵⁹ The Botanical Garden is therefore significant not only for its role in the growing appreciation of exotic plants in the first half of the nineteenth century, but also for the close connections between glasshouse design and architectural practice. In Belgium, the design of glasshouses, considered utilitarian structures for the horticultural domain, became an architectural problem in projects of this kind, contributing to exchanges between architecture and horticulture.

This pattern of Belgian architectural history goes back to the 1700s when Laurent-Benoît Dewez (1731-1812), architect of the court in Brussels, rebuilt the glasshouses of the University of Leuven's botanical garden in 1766. In 1821, Charles Vander Straeten, architect of William I, who designed the new orangery at Leuven, a building combining half-circular glasshouses attached to the main masonry block, reminiscent of the austere classicism of the time. This was followed by Suys's work, who succeeded him as architect of William I and then fifty years later, Balat, architect of Leopold II. In the nineteenth century, glasshouse design was influenced by the approach of architects trained in the classical traditions. On the other hand, architects were exposed to innovations in construction, environmental control and landscape design developed by

⁵⁸ [Mais ce n'est pas seulement de jour et aux rayons de soleil qu'il faut l'admirer: la nuit lui prête quelquefois une nouvelle splendeur, soit quand aux lueurs d'une clarté douteuse il se balance à l'horizon comme un édifice aérien, soit quand décoré de guirlandes de lumière dont les mille couleurs étincellent dans l'ombre, il semble convier la ville joyeuse aux fêtes d'un palais des fées]
A.G. Baron, *La Belgique monumentale, historique et pittoresque* (Bruxelles: A. Jamar et Ch. Hen, 1844), p. 205.

⁵⁹ Horta, "Étude objective sur les auteurs des serres du Jardin botanique de Bruxelles," reprinted in Victor Horta, *Questions d'architecture et d'urbanisme* (Bruxelles: Académie royale de Belgique, 1996), p. 80.

horticulturists in England, France and Belgium. The botanist Paul-Émile De Puydt remarked in 1877 that luxury horticulture had given the *thermosiphon* to industry and dwellings.⁶⁰ Ideas and design solutions spread through architectural circles.

In this respect, Belgium differs from England, the country leading horticultural design, where the most important horticultural structures came not from architects with conventional profiles, but designers who had begun their activity as gardeners and risen to renown in the field such as John Claudius Loudon or Joseph Paxton. In England, exchanges between architectural and horticultural disciplines could run in the opposite sense than in Belgium: Loudon's *Encyclopædia of Cottage, Farm and Villa Architecture* (first published in 1833) and the *Suburban Garden and Villa Comapanion* (1838) became handbooks in architectural offices;⁶¹ and in 1851, Paxton designed the Crystal Palace, assisted by engineers in the structural design and architects in the interior decoration. A commission of this kind would have been given only to an architect holding an official title in countries such as France and Belgium.

Suys's 1826 glasshouses and Balat's 1876 wintergarden for Léopold II were both designed by masters of classicism who also held the office of King's architect. They mark two stages in the evolution of the architecture of a type which saw significant technological progress and different approaches to design, but there are also elements of continuity between the two. Both architects sought to weld the evolving canons of classicism of their time with glasshouse construction and confer architectural character and a monumental aspect to a type that was devoid of it. At the close

⁶⁰ *Patria Belgica*, ed. Eugène Van Bommel (Bruxelles: Bruylant-Christophe 1877), p. 595.

⁶¹ Loudon's influence in architectural, interior, and furniture design is well known. His *Encyclopædia* and the expression "let's look it up in Loudon" became common in architectural offices, as his biographer John Gloag notes in *Mr Loudon's England: The Life and Work of John Claudius Loudon, and his Influence on Architecture and Furniture Design* (Newcastle upon Tyne: Oriel Press, 1970), p. 88.

of the century, a Belgian architect who dealt with the typology could look at this long design tradition within his own discipline.

This pattern of Belgian architectural history explains, in part, Horta's involvement with glasshouse design from his early career. Horta did not design large structures like the King's architects, but he worked with this type before and after the Hôtel Tassel's wintergarden, and he returned to the glasshouse as a historical subject in the 1930s. Horta entered Alphonse Balat's office just when the latter was adding new glasshouses to Leopold II's vast complex in Laeken in the 1880s. A few rare, unpublished study sketches by Balat kept in the Horta archives show the connections between the iron structure and masonry entablatures as well as the spandrel ornamental motifs at the Laeken glasshouses (Fig. 2.39).⁶² Balat's studies on the masonry entablature and iron construction sought to resolve the thorny issue of wedding the classical order, still at the core of the architectural discipline in the 1880s, with the new iron architecture. Horta mentions in one unpublished archival document that during this period he was assigned to re-draw the plans of Balat's Victoria Regia glasshouse,⁶³ a structure which inspired his own unexecuted designs for the Pavillon du Congo in 1898, and which was modelled on intersecting pendentive vaults at a larger scale. In his early career, Horta first faced the problem of adjoining glazed structures to neoclassical architecture in the hôtels particuliers of the Prince de Ligne and Henry Van Cuyck in 1889-1890. He designed conventional solutions before later approaching this combination in a way which radically changed the classical architecture of the house and of wintergardens, first in the Hôtel Tassel, then in the Hôtel Van Eetvelde two years later. Finally, he discussed the Victoria Regia episode in an unpublished archival

⁶² A.H. Box "Dessins de Balat."

⁶³ A.H. Box "Le Palais de Justice II," manuscripts and typescripts "Le dome du Palais de Justice" (1939).

note and he published two dedicated studies on the Botanical Garden when he returned to the glasshouse topic.

Although these texts were prompted by architectural authorship polemics, they offer an opportunity to learn about Horta's ideas and his close involvement with this nineteenth-century type. In the first case, the note on the Victoria Regia was prompted by a controversy on author and form—not Balat's initially, but Joseph Poelaert's Palais de Justice. In 1871, the government took charge of the Botanical Garden of Brussels. In 1881, in the period when Horta was working in Balat's office, the Victoria Regia was transferred from Leopold Park to the Botanical Garden. The department of the Bâtiments Civils in the Ministry of Public Works was in charge of the transfer, and had the plans drafted by its chief architect Wellens (Fig. 2.9), who was also in charge of the building site of Poelaert's Palais de Justice. In 1939, the Victoria Regia was dismantled and re-assembled once again when the collections of the Botanical Garden were moved to the Bouchout estate at Meise, on the outskirts of Brussels (today's location). In the same year, Horta was working on his study of the Palais de Justice when he saw a brief notice in *La Gazette* of 2 and 4 June 1939 about the shape of its dome. It stirred an old controversy in architectural and judicial circles as to whether Poelaert had originally intended the dome to be rectangular, or circular, as it was built by Wellens. Horta joined the polemic arguing that, in the first place, such controversies arise because at some point in an historical assessment of architect, earlier commentators confuse the author of a building with the ones who draft and execute plans, believing they are the same person. They attribute the results of the latter to the intentions of the former, though they may be different. He argued that the same mistake had occurred in Poelaert's case and pointed to Balat's Victoria Regia which had also been misattributed in the official paperwork of the Bâtiments Civils—a technicians'

office that rarely bothered to distinguish between the “inspired” drawing of the architect and blueprints. What is more important here is how Horta’s ramblings become an occasion to learn about his ideas and his own involvement in glasshouse design:

Thus, while researching the documentation for my study on the botanical garden, I discovered, stunned, that the paternity of the glasshouse of the water plant “Victoria” was, in the reports of the works executed at the garden, attributed to the same inspector general Wellens. It is indeed under his directorship that it was executed, but it was King Leopold II’s request at the time that all drawings of the Bâtiments Civils be submitted and corrected by Balat. Not only I reproduced Balat’s hand-drawings, but it is through them that the latter made his corrections to the drawings of the Bâtiments Civils [...] This glasshouse is so clearly related to the ones in Laeken, and moreover, it is exceptionally beautiful [original underlined] with its light iron trusses in the exterior [under the glazing, to avoid oxidization in the interior], that it would not be an exaggeration to classify it as a masterpiece of elegance. The [railway] junction will unfortunately demolish it, and who knows whether we’ll ever see it again.⁶⁴

In the second case, Horta’s studies on the Botanical Garden were also prompted by a similar authorship polemic which had persisted in architectural circles since Suys’s commission in 1826 and had resurfaced in the inter-war years. In some texts and in a 1910 commemorative plaque the glasshouses were attributed to the painter decorator Pierre-François Gineste (1769-1850) who had drafted the final plans—simplified versions of earlier proposals, including Suys’s. In 1933, the

⁶⁴ [C’est ainsi que recherchant ma documentation pour mon étude du jardin botanique j’ai découvert, à ma stupéfaction, que la parenté de la serre qui abrite la plante d’eau “Victoria” était dans le rapport des travaux effectué au botanique, attribué au même inspecteur général M. Wellens. C’est en effet sous son directorat général qu’elle fut exécuté à la [?] imposée par le Roi Léopold II, que les dessins en fussent soumis et corrigés par Balat. Or c’est non seulement moi qui reproduisit les dessins à la main fait par Balat, mais ce fut par leur intermédiaire que Balat fit ses corrections aux dessins des bâtiments civils. Cette serre est si caractéristiquement apparenté à celles de Laeken et de plus elle si exceptionnellement belle, avec ces charpentes exposés au dehors (au dessous du vitrage pour éviter l’oxydation à l’intérieur) qu’il n’est pas exagéré de la classer comme un chef d’œuvre d’élégance [?] La jonction va malheureusement [?] la démolir et qui sait si on reverra jamais.]

A.H. Box “Le Palais de Justice II,” manuscript “Le dome du Palais de Justice,” 1939. There are several versions of this text, manuscript and typed, with slight variations. The quoted passage on Balat is drawn from the handwritten manuscript, which is the longest of the versions.

Wellen’s plans are held at the A.J.B., signed by the architect on 24 December 1881.

architect Paul Saintenoy (1862-1852) published a study which sought to restore Suys's name as author of the building, prompting Horta's response in his "Étude objective sur les auteurs des serres du Jardin botanique."⁶⁵ Horta argued that a building which was modified by several actors and which is clearly inferior to an original proposal could no longer be considered Suys's, and he took the opportunity to defend the merits of the masters of nineteenth-century classicism: Suys had

⁶⁵ See "Exposé des motifs pour le maintien intégral du Jardin botanique de la Ville de Bruxelles," and "Étude objective sur les auteurs des serres du Jardin botanique de Bruxelles," reprinted in Horta, *Questions d'architecture et d'urbanisme*, and Paul Saintenoy, "Tilman-François Suys: Architecte des serres du Jardin botanique de Bruxelles," *Académie royale des sciences, des lettres et des Beaux-Arts de Belgique, Bulletin de la classe des Beaux-Arts* 25 (1933): 149-163. On the 1826 events, see also Anne Van Loo and Éric Hennaut's chapter "Un temple de flore pour Bruxelles: Heurs et malheurs d'un bâtiment modèle" in *Le Botanique*, ed. France Borel (Bruxelles: C.F.C. Éditions, 1993), and Diagre-Vanderpelen's doctoral dissertation "Le jardin botanique de Bruxelles" (2006). The later studies trace approximately the same course of events as Horta and Saintenoy, but leave the matter unresolved: Between the months of March and September 1826, the administration board of the Société royale d'horticulture solicited several design entries before hiring Suys. After months of negotiations, Suys's proposal remained above the budget, so the board decided to proceed with a set of plans drafted by the painter-decorator Gineste. Jean-Baptiste Meeûs (1779-1856), member of the board, played a key role throughout the entire process, from the purchase of the terrain to the negotiations with Suys and the final management of the building site, and provided sketches of his own ideas on several occasions. The polemic revolves around these names, and were by fueled by the personal connections of the people involved, the incomplete documentation, but also the overlaps in the roles of client, contractor, architect, draftsman and manager throughout the process. Suys's project was published in 1826 in an engraving which showed a building that was similar but superior in detail to the one built on Gineste's plans. In 1910, solicited by Gineste's daughter, the local administration put a commemorative plaque honoring his role as "author of the plans of the building." Upon hearing the news, the architect Jules Brunfaut (1852-1942) visited Mme Gineste hoping to see the original plans, but was only shown a painting of the glasshouses, as Saintenoy reports. When Saintenoy took up the polemic prompted by the plaque and Brunfaut's visit, he pointed to the fact that Suys had published the engraving to claim a design which, as he also bemoaned among colleagues, was stolen from him (Saintenoy's father and father-in-law were both Suys's students). It proved that the "conception" of the building belonged to Suys, whereas Gineste merely simplified and executed his plans, essentially plagiarizing them. Horta dismissed Saintenoy's "workshops hearsay" (*les dires d'atelier*), arguing that the "author of a concept" and the "architect of a building" are different notions. The comparison with the 1826 engraving merely showed to Horta a building that is clearly inferior in design skills, whereas Suys's own project may have been developed from an earlier proposal by the gardener Petershem and de Meeûs, so Horta concludes that the glasshouses should be considered a collective work. Horta also traced the wrong attribution to Barthélemy Dumortier, powerful political figure and government commissioner at the Société royale. Writing a report in 1871, Dumortier had found Gineste's name in the archives and listed him as architect of the glasshouses because, not being a specialist himself—Horta laments—he could not tell the difference between an architect and a draftsman-decorator!

preceded Balat in this role, and Horta saw his own work in this lineage whereby the new iron architecture is domesticated by the classical discipline.⁶⁶ Combined with glazed iron framework, the neoclassical composition of the Botanical Garden's glasshouses gained the magical "*grâce aérienne*." This airy grace added to an already brilliant scheme which took advantage of the terrain slope to fit the glasshouses onto a platform and create a monumental ensemble. These novel features of the project became enduring values.

However, in the nineteenth century, experiments in glasshouse design evolved quickly and schemes such as Suys's, rooted in the conventions of *convenance* and the technological possibilities of his day soon appeared obsolete. The airy and fairy-like quality remarked on by Horta, as well as contemporary visitors of the early years, was, above all, an impression of the exterior.

In his monumental scheme, Suys combined masonry structures with lean-to, narrow glasshouses, based on two horticultural building types that were used either separately or combined at the turn of the century: orangeries, masonry blocks with glazed frontages on the southern sides used for the conservation of potted plants and for public events such as fêtes, and narrow glasshouses, usually glazed wooden frameworks facing the south and leaning on a wall on the

⁶⁶ Horta's interests in this polemic do not appear to be limited to the narrow history of the Botanical Garden. The shadow of Van de Velde lurks behind his statements once again. First, Horta's insistence on the role of the architect, distinct and superior in qualification to the artist-decorator (Gineste), makes indirect allusions to Van de Velde's claims on his role in the architectural developments of the 1890s. Second, Horta's arguments on the notions of authorship, design and execution in architecture follow an earlier notorious dispute: After Auguste Perret took control of the building site of the Champs Elysée Theatre in Paris in 1913 and modified Van de Velde's original plans, their professional rupture grew into an international debate on who was to be considered the author of the building. In the press, Horta supported Perret, dismissing the idea that the author of a "conception" may also claim the authorship of an actual building. Horta's third concern in the Botanical Garden was to preserve the glasshouses which had come under threat in the 1930s. At the time, proposals to build a national library on the site were gaining support in powerful circles, including King Leopold III, who, it was rumored, was being influenced in favour of this idea by no other than Van de Velde (See Horta's letter to Lucien Solvay, 9 April 1936. A.H. XV.S.9.12).

northern side, dedicated to cultivation, and limited in size by the technology of the time (Fig. 2.1-2.2). In Suys's own, unbuilt design, the rotunda was coffered and supported by a circular screen of columns in the interior. Suys's chief innovation consisted in combining these structures in a single building that had both the appearance of a public monument and a novel airiness. By mid-century, however, glasshouses had developed into full-fledged structures which, for the first time, allowed visitors to experience the fairy-like quality of their atmosphere not from the outside, but inside a vegetal mass under a glazed dome.

2.3 Tropical atmospheres under glass: New themes in design

As the rising trade in exotic plants and technological advances in glazed iron construction and environmental control transformed narrow, lean-to glasshouses into spectacular glass enclosures, horticulturists and amateurs increasingly sought the creation of an immersive environment that could convey the idea of the forests in which plants originally were found. By mid-century, the recreation of such total environments was a central concern entailing two design considerations: the arrangement of plants in irregular layouts and the dissimulation of elements such as structural posts and beams, heating pipes and containers, by recasting them in vegetal form and blending or hiding them behind creepers and other plants (Fig. 2.15-2.16). Architecture could enhance this artificial environment, its expression derived from the character of nature wilderness.⁶⁷

⁶⁷ The history of glasshouses from the Renaissance to the late nineteenth century is well documented and continues to receive new perspectives. Yves-Marie Allain's *De l'Orangerie au palais de cristal: Une histoire des serres* (Versailles: Quae, 2010) traces a general developmental line. George Kohlmaier and Barna von Sartory, *Houses of Glass: A Nineteenth-century Building Type* (Cambridge, Mass.: MIT Press, 1986) is divided into two parts, with a general history of glasshouses followed by a catalogue of the most important structures in Europe featuring technical drawings, photographs and written descriptions. In architectural history, studies on nineteenth-century glasshouses have traditionally placed them in the broader field of glass and iron construction, focusing on structure and rationalist readings. More recently, the focus has shifted to the atmosphere created inside. In the broader field of iron and glass construction, recent studies such as those by Jasper Cepl, biographer of the German architect Richard Lucae (1829-1877), have uncovered previously overlooked themes in the design and reception. In his "Richard Lucae and the aesthetics of space in the age of iron," in *Function and Fantasy: Iron Architecture in the Long Nineteenth Century*, eds. Peter Sealy and Paul Dobraszczyk (Brookfield: Taylor and Francis, 2016), Cepl argues that Lucae developed a new understating of the spatial experience of nineteenth-century iron and glass buildings in which architectural space was primarily defined not by the iron frame, as in the conventional historical understanding, but by form, light, scale and color which produce distinct atmospheres. Lucae was one of the visitors to Paxton's Crystal Palace in 1851, which he described as a "cut-out segment of atmosphere," where the barrier between interior and exterior, people and the landscape had blurred. This quote and similar atmospheric descriptions from contemporary visitors, such as Mrs. Merrifield who wrote of the Crystal Palace as "the only building in which atmosphere is *perceptible*," are included in a special section of John McKean's book *Crystal Palace: Joseph Paxton and Charles Fox* (London: Phaidon, 1994), p. 34. These contemporary descriptions suggest a growing awareness towards the notion of atmosphere perceived in the new environments of glasshouses. Dustin Valen's "On the horticultural origins of Victorian glasshouse culture," *Journal of the Society of Architectural Historians* 75, no. 4 (2016): 403-423

Each plant acquired a role and several connotations in this landscape. They evoked distant worlds as if they were “in exile,” as Charles Morren described banana trees.⁶⁸ Palm trees, “the princes of the forests,”⁶⁹ were the most admired, and according to Alexandre von Humboldt, they dominated the physiognomy of the tropical environment.⁷⁰ Lianas represented the ever-growing, pervasive aspect of tropical vegetation. English horticultural journals provided the latest glasshouse layouts with perspective views. Belgian explorers who had established their own companies described the distant landscapes they had seen during their journeys and set up artificial equivalents for their clients at home. Verschaffelt's *L'Illustration horticole* featured illustrations of the regions from which newly introduced plants originated. Van Houtte published accounts of his travels to South America where he discovered the specimens sold by his establishment. The series of articles in his journal *Flore des serres et des jardins d'Europe* in 1847 described the sense of awe and mystery that he experienced in the virgin forests of Brazil, where “under eternal and somber vaults, a few scarce rays of sun filter through the fit crown of trees, reaching the ground like trembling golden lines;” palm trees are “slender columns, swinging their plumes in the clouds;” ferns present “palm-shaped trunks, terminating in a vast lace grid of airy vegetation which undulates gently at the slightest breeze;”

points out how glasshouses and periodicals of the field became a locus of environmental thought which found wider applications.

Despite the country's preponderant role in international commercial horticulture, a history of glasshouses in Belgium is yet to be written. Erik Geytenbeek, “Les orangeries et leur histoire,” *La Maison d'hier et aujourd'hui*, no. 92 (1991): 41-47, Béatrix Baillieul and Wim Oers's articles “La culture d'orangers dans la région gantoise,” *La maison d'hier & d'aujourd'hui*, no. 87 (1990): 44-53 and their “La culture en orangerie, élan des Floralies Gantoises,” *La Maison d'hier & d'aujourd'hui*, no. 85 (mars 1990): 59-65, focus on the early nineteenth-century orangery type, widespread in the countryside mansions of the Ghent region. The main sources which allow to trace the subsequent development of glasshouses in Belgium are reports and descriptions in nineteenth-century periodicals. They show developments which follow general European trends.

⁶⁸ Charles Morren, *Fleurs éphémères* (Bruxelles: Librairie Encyclopédique du Périchon, 1845), p. 94.

⁶⁹ Paul-Émile De Puydt, “Les plantes d'appartement et leur culture,” *L'Illustration horticole* (1881), p. 65.

⁷⁰ Charles Morren, “Les formes végétales donnant à la nature sa physionomie,” in *La Belgique horticole* (1851), p. 163.

lianas are "vegetal snakes, soaring onto the tree trunks towards their top, and from there, dropping in garlands and fascia;" and the overall atmosphere is one of silence.⁷¹

Van Houtte's company and the other establishments in Ghent and Brussels drew large crowds seeking the experience of the tropical forest that such descriptions conveyed. In contemporary accounts, the success of a glasshouse became synonymous with the extent to which it re-created the tropical atmosphere. In 1862, Karl Koch praised a large glasshouse of the Linden company that was filled with "ingeniously arranged" palm trees and extraordinary ferns, which resembled a tropical forest.⁷² Jules Putzeys, a civil servant and plants collector in Brussels, recalled his trip to the second Linden establishment in Ghent as a true journey to a tropical forest, except that he simply took the train, avoiding the risks of a harsh sea voyage, alligators and yellow fever. He described Linden's main wintergarden as a "virgin forest under glass."⁷³ The following issue of *L'Illustration horticole* published an engraving of the wintergarden, clearly exaggerating its proportions to dramatize the effect after Putzeys's description (Fig. 2.3).⁷⁴

As both the technological possibilities and the general expectations of the glasshouse experience evolved in this direction, classical precepts became less and less relevant to monumental projects. It was possible to move beyond the coffered masonry dome resting on a circular screen of columns, and build a glass dome. A glass roof allowed light to penetrate through the framework and

⁷¹ Van Houtte, "Courte excursion dans les montagnes des orgues et dans les forêts vierges au Brésil," *Flore des serres et des jardins d'Europe* (1847), p. 282.

⁷² Koch, "Relation d'une excursion en Belgique et dans les Pays-Bas au printemps de 1862," *La Belgique horticole* (1862), p. 333.

⁷³ Jules Putzeys, "Voyage dans une forêt vierge," *L'Illustration horticole* (1881), p. 11.

⁷⁴ L[uicen]. L[linden]., "Vue intérieure du jardin d'hiver," *L'Illustration horticole* (1881), p. 89.

The dimensions of the glasshouse were 9 m high at the ridge of the roof, 30 m long and 16 m large. The iron structure was raised on a masonry base, forming five bays, with a higher central nave covered by a roof in the shape of an ogival vault and side aisles covered by sloping and curved glass panes.

the dense foliage of large trees, showing to the visitor below occasional patches of blue through the leaves in the image of "the impenetrable domes of the new world,"⁷⁵ conjured by descriptive accounts and illustrations of palm trees and lianas which fascinated the public. Suys's 1826 rotunda at the Botanical Garden in Brussels, an object of admiration for many years, appeared in the 1880s "grave-cold in its silence," in the words of botanist Charles de Bosschère (1850-1935).⁷⁶

Most new ideas about glasshouse layouts came from England. In 1834, *L'Horticulteur belge* published an article on modern English conservatories, an innovative building type with removable glass panes on all sides that the journal found was destined to revolutionize horticultural constructions.⁷⁷ The new type of conservatory reversed the old practice of transporting potted plants outdoors during the warmer seasons: plants would now remain in place, the glass panes on all sides being removed during the warmer seasons and reinstalled to protect the interior in winter. This new solution allowed rooted plants instead of potted plants, entirely changing the disposition of the interior which, until then, consisted of pots arranged in parallel lines. The new arrangement combined large rooted trees with other forms of vegetation such as ferns, vines, and creepers, creating a total environment of luxurious tropical vegetation which showed the "full beauty of the plants" for the first time. Creeping plants contributed to this landscape in the warm months, and they additionally disguised the supports of the conservatory,

with their dense leaves and flower garlands [they] hide from view the disagreeable bare supports, turning them into flowering arcades. The passion vines, which may be thus cultivated, mix the red and blue of their brilliant corollas to the clusters of a Lilla [...] thus bringing the tribute of their ever-blossoming flowers and their scents.⁷⁸

⁷⁵ Henri Lecoq, "Scènes du monde animé," *Flore des serres et des jardins de l'Europe* (1852-53), p. 214.

⁷⁶ Charles de Bosschère, "Exposition de la société royale de flore à Bruxelles," *L'Illustration horticole* (1882), p. 84.

⁷⁷ Maddison, "Des conservatoires," *L'Horticulteur belge* (1834), p. 222.

⁷⁸ *Ibid.*, p. 224.

In 1850, Van Houtte's *Flore des serres et des jardins de l'Europe* reprinted an earlier article by the English designer Noel Humphrey on "The picturesque in the architecture of glasshouses," in which he argued that the purpose of glasshouse architecture was to relieve the visitor from the impression that he is walking under glass and enhance the impression conveyed by the plants around him that he is in a tropical environment, an effect nevertheless weakened by the presence of glass and iron.

Humphrey proposed to make

the framework or skeleton for receiving the glass, of irregular forms, resembling interlacing branches of trees, which would greatly tend to encourage the illusion that the openings between the branches were actual openings, and not glazed. This effect may again be considerably heightened by training climbing plants over some of the framing branchwork, as though climbing the trunks of natural trees, while others of the simulated branches should be left bare.⁷⁹

Humphrey's radical proposal of an interlacing framework was not practical, but the impressions of an encompassing environment became central to travel accounts of real tropical forests and in descriptions of the atmosphere of glasshouses.

By the 1870s, the theme of the tropical environment was well established in the general imagination and in the specialized literature. The trade of exotic plants continued to grow. However, these developments had not yet found an adequate translation in architecture: the glasshouses of the large Belgian establishments were impressive for their number and their collections, but as structures they remained modest in comparison to the contemporary feats of structural design in England and France. Their form and dimensions were optimal from the environmental-control point of view, serving the commercial functions of cultivation and display, not the reception of large crowds.

⁷⁹ Noël Humphrey, "Le pittoresque dans l'architecture des serres," *Flore des serres et des jardins de l'Europe* (1850-1851) : 270-272. Published originally in English as "On the Picturesque in hothouses," *Gardener's Magazine of Botany* (1851): 1-4. The quote above is from the original English publication, p. 2.

Belgium was leading the luxury horticulture industry on the continent but it possessed no equivalent to Paxton's conservatory at Chatsworth (1839) or his palm house at Kew (1848), nor to the Jardin des plantes in Paris (1849) or the 1851 Crystal Palace, or the 1867 International Exposition in the French capital, which was laid out in concentric galleries as a sort of inventory of the regions and climates of the world. Wintergardens in the private establishments of Vershaffelt, Van Houtte and Linden, or in the countryside estate of the count de Kerchove near Ghent, boasted extraordinary collections and notable improvements in environmental control, but their structures had not inspired monumental architectural designs. Van Houtte's main tropical glasshouse was 83 m long, but only 3 m high. Linden's ranged between 3 and 9 m in height, and the Ghent wintergarden, which Jules Putzeys described as a virgin forest under glass in 1881, was under 9 m high. The wintergardens of the families de Kerchove de Denterghem⁸⁰ and of Ghellinck de Walle in the region of Ghent, and of Warocqué at Mariemont contained renowned private collections. Nevertheless, in these glasshouses, the "impenetrable domes of the forests of the new world" were fitted under hip roofs and in square building plans. The Victoria Regia glasshouses were curiosities for their shape, the technology of the basin, the water gush and gas jets, but they lacked an imposing character.

Suys's glasshouses, rooted in the monumental expression of his time, did not have an equivalent in the latter half of the nineteenth century before King Leopold II stepped in. Deeply fond of exotic plants, landscape design and monumental projects, he commissioned the largest wintergarden in the country on the royal domain of Laeken, placing both this structure and himself at the top of the rising Belgian horticulture. In the present inquiry, his realizations are less important for their scale than for details in design. The ideas proposed by English landscape designers to

⁸⁰ See "Le jardin d'hiver du Comte de Kerchove de Denterghem (bourgmestre de Gand)," *Revue de l'horticulture belge et étrangère* (1875): 84-85.

enhance the effects of a tropical scene might have remained a conversation topic among horticulturists, buried in specialized periodicals, but, in Balat's complex of glasshouses at Laeken they found a fully realized expression, and they became pertinent models to architects and the larger public who visited the glasshouses. Such "highly placed examples" [*des exemples venant de si haut*] could only exert an edifying influence, remarked one of the visitors to Leopold II's wintergarden in 1882.⁸¹ The complex of glasshouses was indeed influential for architectural developments of the present inquiry, though not always in the ways Balat, the King, or the 1882 visitor had intended.

⁸¹ H. J. Van Hulle, "Un second coup d'œil dans les serres royales de Laeken," *Revue de l'horticulture belge* (1882), p. 133.

2.4 The complex of glasshouses at the royal domain of Laeken

The king enjoys walking in this charming environment which is ornate with the most admired and most sought-after plants from all tropical corners of the globe. These plants live here, not in the state of specimens imprisoned in pots which parsimoniously measure their food, but in freedom, their roots in a fertile soil and their tops in a temperate atmosphere, well-protected against all the elements. In this monumental temple, the calm and nature, the freshness of the vegetation affect the soul as much as the grandeur of the plants, the beauty of forms and the majesty of the place. The glasshouse of Laeken is the most beautiful monument erected to the honor of exotic botany...⁸²

So writes Édouard Morren on Leopold II's wintergarden in 1883, three years after its inauguration.

From the late 1870s, Alphonse Balat, followed by the architects Henri Maquet and Charles Girault, worked closely with the King to develop a complex of interconnected glasshouses, pavilions and galleries connected to the château of the royal domain of Laeken, a network running hundreds of meters and covering a surface of 6 ha.⁸³ Leopold II described it as his *œuvre personnelle*, unique in the

⁸² [Le roi se promène volontiers dans ce séjour enchanteur orné des végétaux les plus admirés et les plus recherchés de toutes les contrées chaudes du globe. Ces végétaux vivent là, non pas à l'état de chétifs échantillons emprisonnées dans des pots qui leur mesurent parcimonieusement la nourriture, mais, comme en liberté, les racines dans un sol fertile et la cime dans une atmosphère tempérée bien protégée contre toutes les intempéries. Dans ce temple monumental, le calme de la nature, la fraîcheur de la végétation impressionnent l'âme autant que la grandeur des végétaux, la beauté des formes et la majesté du lieu. Cette serre de Laeken est le plus beau monument qui ait été construit en l'honneur de la botanique exotique] Édouard Morren, *Les Serres du château royal de Laeken* (Ghent: Annoot-Braeckman, 1883), p. 11.

⁸³ Edgard Goedleven, Bruno Fornari, and Jos Vandenbreeden, *Les Serres royales de Laeken* (Bruxelles: Inbel 1988) is a thorough study of the complex by a group of architectural and art historians. It traces its development with extensive illustrations, though important gaps remain. Charles De Bosschère's *Les Serres royales de Laeken* (Bruxelles: Van Oest & Cie, 1920), a book which Horta had in his library, is one of the earliest monographs with a preface by H. Carton de Wiart and a study by the botanist De Bosschère which focuses on cultures, not the constructions. The more recent small book by Irène Smets, *Les Serres royales de Laeken* (Ghent: Ludion, 2001) serves as a guide to the different cultures in the glasshouses. Liane Ranieri's *Léopold II urbaniste* (Bruxelles: Hayez, 1973) is the first large study of urban and architectural projects commissioned or supported by Leopold II, including his glasshouses. Thierry Demey's *Leopold II (1865-1909): La marque royale sur Bruxelles* (Bruxelles: Badaeux, 2009) covers the same material with extensive contemporary illustrations. On the early history of the Laeken domain before Leopold II's ascension, see also Wim Oers, "Capability Brown's design for Schöenberg at Laeken, near Brussels, 1782," *Garden History: Journal of the Gardens Trust* (Capability Brown: Perception and Response. A Global Context. The

world.⁸⁴ It was the creation of a King who acquired the Congo, a territory sixty times larger than Belgium, as his personal property. The tropical environment enclosed under glass in Laeken was an extension of both his personal domains and his ego. In Belgium, his glasshouses were the most prominent example of a fully realized artificial world attached to a residence, created for one man. The wintergarden was the first and largest complex structure developed for the King's personal enjoyment; it was also calculated to charm and subjugate the guests at his receptions.

Balat developed the largest part of this complex between 1874 and 1892, starting with the wintergarden erected between 1874 and 1879 (Fig. 2.18). In the early schemes, he designed an enlarged version of his Victoria Regia glasshouse, with a central plan covered by interesting arches reminiscent of Gothic pendentive vaults, which he then developed into the final version of a circular dome (Fig. 2.26-2.27).⁸⁵ The wintergarden has the form of a cupola, supported by 36 iron ribs rising from a circular masonry base to a lantern at the top, and an interior circular masonry colonnade which supports the upper drum at the intermediate level (Fig. 2.21-2.23). The 36 columns, about 1 m in diameter each, support a thick entablature on which rests the ribs of the main iron structure. They form a circular colonnade that separates the central space under the main cupola, 30 m high

Proceedings of an ICOMOS-UK Conference held at the University of Bath, 7-9 September 2016), no. 44 (Autumn 2016): 101-113; and Anne Van Ypersele de Strihou and Paul Van Ypersele de Strihou, *Laeken, un château de l'Europe des Lumières*. Paris: Duculot, 1991.

⁸⁴ The note was originally published in G. Stinglhamber, *Léopold II au travail* (Bruxelles: Les éditions du Sablon, 1945), p. 253, and quoted in Jean Stengers's *Combien le Congo a-t-il coûté à la Belgique* (Bruxelles: Académie Royale des Sciences coloniales, 1957), p. 200.

⁸⁵ A.P.R. Fond 84.B, Cartes et Plans. The Archives du Palais royal in Brussels hold the surviving plans and drawings for the glasshouses. They range from undated proposals of the earlier nineteenth century to a Garden Party plan of 1938, and include Balat's plans for the main wintergarden. The two portfolios contain plans that allow to determine the key stages of the projet, many published in Goedleven, Fornari, and Vandenbreeden's *Les Serres royales*, but the documentation is incomplete. An early, unsigned and undated proposal, "Plan No. 1 du domaine royal de Laeken" attaches a horseshoe-shaped wintergarden to the rear of the existing orangery, communicating with the masonry building on one side and ending in a curved apse on the opposite end, following the tradition of glazed structures attached to masonry blocks.

and 42 m in diameter, from a perimeter gallery, about 8 m high and 8 m large. Balat placed the wintergarden immediately behind the old orangery (97 m long, 32 m large, 8 m high) first built by the architect Ghislain-Joseph Henry (1754-1820) for the Dutch King William I in 1818, then transformed with a frontage of 26 Tuscan columns fitted with glass panes (Fig. 2.20). They are structured on the same axis (15 m long, 6 m wide and 3.5 m high), forming a pointed arc in section. On this axis, Balat added behind the wintergarden the Serre du Congo, a monumental glasshouse laid on a 30 m-large square plane, conceived in 1886 for concerts, and the Serre de l'Embarcadère which doubles as an atrium for guests, 36 m long and 4.6 m wide, with a cloakroom, restrooms, and concealed rooms for the heating equipment, all placed under a glass roof. L'Embarcadère completes the group of glasshouses, occupying a lower part of the terrain and connected to the château with a "souterrain vitré" 4 m high and 179 m long adorned with creeping ficus plants (Fig. 2.19).⁸⁶

From the late 1880s, Balat and the King developed a second cluster of glasshouses on a higher elevation of the estate. It included the palm house, the Pavillion des palmiers—a small residence of 1880 connected to the main gallery—a smaller glasshouse for acclimatizing newly-arrived palm trees, the Débarcadere that was designed in 1890 to provide access from the Laeken Road, a sacristy, and an iron church inaugurated in December 1893. A long gallery, on average 2.7 m wide and less than 3 m high, connected the two sites (Fig. 2.33). Designed by Balat in December 1888 and built by Willbroeck's firm, it runs for about 300 m. Its last underground section reaches the northern corner of the Embarcadère, accessed from below by a double flight of steps at a right angle which leads into the glasshouse (Fig. 2.34). The gallery combines partially underground

⁸⁶ A.E.B, Dep. III, 611, Fond "Léopold II - 40 lettres autographes de Léopold II à son architecte Balat," letter of 2 April 1877. This is one of the two archival collections which contain the surviving correspondence between the King and his architect Balat. The second group of letters is held at the A.P.R. Fonds Balat Fologne.

sections covered by a glazed double-hip roof as well as longer, gradel-level portions with vertical glass walls. Guests arriving at the Débarcadere would pass through the palm house and walk down the long gallery before they reached the Embarcadère, the Congo glasshouse, the wintergarden, the orangery, and the château, all connected. In the “Garden Party” of 27 April 1891, guests followed this route towards the tropical vegetation, where a hidden orchestra played music, then through the glazed tunnel they proceeded to the château’s central circular salon which overlooked the estate’s vast park and the city skyline.⁸⁷ In the “Garden Party” of April 1892, illustrious guests included Henry Morton Stanley, the explorer who helped Leopold II turn Congo it into his personal domain.⁸⁸

⁸⁷ “Garden Parties,” as they were called in French by the English name, were organized regularly twice a year and on special occasions. Special events were held for members of associations such as the Cercle artistique et littéraire or La Grande harmonie. The royal family had attended their balls since the 1830s.

⁸⁸ “Never was an empire so cunningly and as it were anonymously created,” writes Ludwig Bauer in *Leopold the Unloved: King of the Belgians and of Wealth* (Boston: Little Brown, 1935), p. 14. Léopold II’s acquisition of the Congo was an extraordinary operation of political, financial and public relations moves lasting for decades. After many unsuccessful inquiries in Asia and Central America where no territories were available, Central Africa remained his last resort. He was following closely the news from explorers when Henry Morton Stanley, thought to be lost for many years, completed his dramatic journey from east to west along the Congo river, reaching the Atlantic coast in September 1877. He sent his emissaries to persuade the explorer to work for him. With the British uninterested in the territory, Stanley eventually agreed. The key steps were to establish a presence, raise capital from private investors to start the exploitation, build political support, claim the territory and gain the official recognition of the great powers. While this was underway, it was essential to mask the whole operation as a philanthropic mission. The King convened in Brussels the International Geographical Conference, the International African Association, the Committee for the Study of the High Congo, and the International Association for the Congo, organizations with confusing names shielding future shareholder companies. On the international scene, Leopold II managed to play the rivalries of the Great Powers when they recognized his claims at the 1885 Berlin conference. The first country to recognize Leopold II’s Free State of Congo were the United States, in 1884, after intensive lobbying efforts by his emissaries. In Europe, France, Germany and England would not concede the territory to one another, so they agreed to let Leopold II take over, expecting him to fail and thus return to the negotiating table soon, a decision that they certainly regretted when the Congo turned profitable. The reason the territory had not been accessed earlier and the greatest obstacle to exploitation, which made the perspective of profits bleak, was the last section of the Congo river, a non-navigable 300-km stretch of rapids which separated the Atlantic Ocean from the interior basin. After this stretch, the river offered a navigable waterway running thousands of kilometers inside the continent. Until a narrow-gauge railway to circumvent this section was completed in the late 1890s with a toll of thousands of dead, and until rubber prices soared on the markets from 1892, after the invention of pneumatic tires, Leopold II’s colonial venture remained precarious and he could only rely on substantial loans from the Belgian government. But, he began planning further expansion into Eritrea and the Nile

Leopold II's glasshouses combined his passions for flowers and monumental architecture with his political agenda. He was truly fond of his plants and long strolls in glazed galleries, and he loved projects with winding circulation, bridges, tunnels and a sense of mystery. He used the complex of glasshouses for receptions, royal balls, and other ceremonies, and he sought to project the image of an enlightened monarch with a keen interest in the scientific exploration of the flora of distant regions. He led every stage of the project, laid out his ideas and supervised the works' progress. He described to Balat his idea of a "subterranean glasshouse" connecting the orangery to the château as a passage covered with glass, conceived as a salon or a museum illuminated from above, with small domes at each turn in direction.⁸⁹ In the main gallery connecting the two sites, he recommended turns, changes of level and openings to avoid "the excessive monotony of a 300 m long corridor."⁹⁰

In the late stages of the this project, after Balat passed away, the King hired Chares Girault, who was recommended to him by Honoré Daumet (1826-1911), architect of the château de

valley after the turn of fortune—this time the ventures were cut short by the Great Powers. The tremendous profits pouring in from the Congo turned the Domain of the Crown, the body running his affairs, too powerful within the Belgian state. The international outcry around the atrocities taking place put further pressure on the Belgian government to step in. It was a condition of its loans that if the venture failed, or in any case, after the King's death, the government would take over the colony. In 1906, three years before his death, Leopold II signed the convention for the transfer of the colony to the Belgian state, effective in 1908. In three decades of exploitation, the scramble for loot, forced labor, and cruelty of Leopold II's "*œuvre coloniale*" had left millions mutilated or dead.

⁸⁹ [Devant le château et devant l'orangerie on pourrait couvrir le corridor avec du verre visible de l'extérieur et le traiter dans ces deux parties comme un salon éclairé du haut, lui donner la plus de largeur, en faire un musée et n'aurait de véritable corridor que les trois sections, celle qui sort de château et celles qui passent dans les pavés les cotés de pelouse. Je serais pas contrarié d'une large bande vitrée dans la pelouse devant le château, on parviendrait à lui mettre un cadre de fleurs puis viendraient les petits dômes aux changements de direction avec leur verdure de fleurs. Devant l'orangerie le corridor peut-être très élargi et traité en serre souterraine]

A.E.B. Dep. III, 611, Fond "Léopold II - 40 lettres autographes de Léopold II à son architecte Balat," letter 2b of 19 February 1876.

⁹⁰ A.E.B. Dep. III, 611, Fond "Léopold II - 40 lettres autographes de Léopold II à son architecte Balat," Letter 2b, of 19 February 1876.

Chantilly which the King admired.⁹¹ Girault's 1902 project was to transform Laeken into a Palace of the Nation, which the King described as "a place of gathering of important congresses, of sumptuous fêtes of the nobility and the bourgeoisie and even the people, since every day the Sovereign-King generously throws open to the people his glasshouses—his *œuvre*, the most important in the world."⁹² A special underground railway line was to reach the domain and connect the glasshouses to the outside world. The rail line was never completed and the rest of Girault's project was discontinued after the King's death. Following his will, the glasshouses remain open to the public for two weeks every year, but the image of a generous ruler was never to enter history.

When Octave Mirbeau (1848-1917) travelled to Brussels in 1905, he learned from one high society lady that guests of the Garden Parties felt as if they were at a funeral because of the King's obnoxious behavior and his habit of making disagreeable, if not humiliating remarks.⁹³ His *œuvre* remained inextricably associated with the character of a voracious King that Mirbeau learned about, and that the latter summed up as "*fleau d'humanité*" [a scourge of humanity], "an extremely manipulative mind that swindles people and states, a wild imagination in business affairs, an insatiable greed and megalomania that have turned the royal palace into a warehouse where he trades in everything, including scandals."⁹⁴

⁹¹ Demey, *Léopold II*, p. 432.

⁹² Stinglhamber, *Léopold II au travail*, p. 253.

⁹³ [vous n'avez pas d'idée de ce qu'est une fête à la cour du roi Léopold [...] On y a toujours l'air d'enterrer quelqu'un]

Mirbeau, *Bruxelles* (First published in 1905, Paris: Magellan, 2001), p. 85.

⁹⁴ Ibid., p. 80. Leopold II was subject of scathing criticism in caricatures, articles and biographies from the turn of the twentieth century. Biographies that appeared during and after his reign remarked his cunning and avidity driving ambitious projects which they praised or condemned. In later biographies, Barbara Emerson's *Léopold II, le royaume et l'empire* (Paris: Duclot, 1979) portrays a visionary king; Adam Hochschild's *King Leopold's Ghost: A Story of Greed, Terror, and Heroism in Colonial Africa* (New York: Houghton, 1998) reconstructs the life at Laeken and the acquisition of Congo in the form of a compelling narrative with a central cruel character. Ascherson's *The King Incorporated: Leopold II in the Age of Trusts* (London: George Allen and Unwin, 1963) looks at the practical considerations behind the apparent

The notorious King was responsible for scandals, but also tragedies on his private domains: the atrocities taking place in Congo and for the unhappy lives of the royal family. To his daughters, the years at Laeken were a “sorrowful youth that predestined an even more sorrowful future.”⁹⁵ The gardens and the glasshouses became a place of respite and escape from the grim life of château. The King himself himself sought haven in his glasshouses and long glazed galleries for he seldom enjoyed being at Laeken.⁹⁶ He died in the Pavillon des palmiers, a small building attached to his glasshouses.

voracity: the King realized that as a constitutional monarch of a small country faced with hostile, rising republican forces and powerful neighboring empires, wealth was one of the few remaining guarantees of political power for himself and his dynasty.

⁹⁵ Stephanie of Belgium, *I Was to Be Empress* (London: Ivor Nicholson & Watson, 1937), p. 55. Leopold II's marriage to Marie-Henriette was a terrible mismatch of characters. After the death of their only son and heir apparent at the age of 9 in 1869, Leopold II grew completely alienated from his wife and his three daughters Louise (1858-1924), Stephanie (1864-1945), and Clémentine (1872-1955).

⁹⁶ Stories about the notorious King provide an additional insight into the gardens and glasshouses. G. Freddy's *Léopold II intime* (Paris: Librairie Félix Juven, 1905) contains numerous episodes about the royal family, mentioning, for example, that the Queen spent her time in the château, surrounded by animals, or riding horses, whereas the glasshouses were the King's. The King's valet, Henri Bataille, in his *La Vie cachée de Léopold II* (Bruxelles: Éditions Jourdan le Clerq, 2004) recalls the episode of the Garden Party of the Grand Harmonie in 1909, organized as a repetition of their previous ball where the King had noticed a young woman and, wanting to seduce her, invited all the members of the association to his glasshouses, causing another scandal in the capital (ibid., pp. 160-161). The autobiographies of his two daughters, Louise of Belgium, *My Own Affairs* (New York: Doran, 1921), and Stephanie of Belgium, *I Was to Be Empress* provide a chilling account of their early lives at Laeken. In an episode that combines the King's notorious parsimony, his alienation, and his fondness for his gardens, Louise recalls that he counted the peaches on his garden-walls, as she realized on one occasion when she picked up one, was discovered by the King and punished the day after (Louise of Belgium, *My Own Affairs*, p. 45). When she returned to Laeken for her father's funeral, she found the little garden that she and her brother had tended many years before, preserved in its original state by the King, possibly as a sign of remembrance (ibid., p. 51). Leopold II's last mistress Caroline Delacroix, whom he married on his deathbed, is arguably the only female author to have warm recollections of his company, walking together in his glasshouses while outside it rained, and inside “reigned eternally a humid and hot atmosphere which evoked the enervating climate of Ceylon” (Baroness De Vaughan, *A Commoner Married to a King*, pp. 76-77 [New York: Yves Washburn, 1937]).

New design themes in the quest for artificial environments: Balat *malgré lui*

Balat had come to the attention of the Duke of Brabant (future King Leopold II) with his early work for the fêtes of the Cercle artistique et littéraire. He was appointed as the Duke's architect in 1852.⁹⁷ After Leopold II ascended the throne in 1866, his task was to give expression to the King's monumental vision, starting with the royal properties and a wintergarden. Fifty years after Suys employed the Pantheon dome and a five-part palatial scheme in the Botanical Garden, Balat was faced with the old problems of wedding classical orders to glasshouses so that he could confer

⁹⁷ A native of Gochenée, near the city of Namur, in the French-speaking Walloon region, Alphonse Balat (1818-1895) was trained at the academies of Namur and Antwerp. After a brief stay in Paris in 1839, Balat returned to the region to work for the old landed nobility and the new wealthy class, restoring their countryside châteaux and mansions. He moved to Brussels in 1846 and joined the Cercle artistique et littéraire, the most refined of the associations of the capital in which the old nobility and the upper bourgeoisie intermingled, inspired by the English club. His décor for the fêtes of the Cercle brought him to the attention of the future King Leopold II, for whom he worked until his last years. Scholarship on Balat remains limited despite his central role in Belgian architecture. There is not even a full monograph dedicated to him, so the main sources are a few short biographies and mentions in studies of larger projects in which he was involved. Information about Balat's work for Leopold II appears in monographs on the King: Liane Ranieri, *Léopold II urbaniste* (Bruxelles: Hayez, 1973); Thierry Demey, *Léopold II, 1865-1909* (Bruxelles: Badaeux, 2009), and Goedleven, Fornari, and Vandenbreeden, *Les Serres royales de Laeken*. The biographical contributions on Balat were written by his friend and colleague Henry Rousseau, and the architect Gédéon Bordiau. A third study by Jules Clement, who was also Horta's student, appeared in 1955, but it provides little new information after the former two. These studies appeared in the bulletins of the institutions where Balat was involved: Rousseau's "'Alphonse Balat" in the *Bulletin des Commissions royales d'art et d'archéologie* (1895): 59-75; Bordiau's "*Notice sur Alphonse Balat*" in *Annuaire de l'Académie royale de Belgique* in 1903, then as a short opuscul published by Hayez, Imprimeur de l'Académie royale de Belgique; Clement's "Alphonse Balat. Architecte du Roi (1819-1895)" in *Mémoires* of the Académie royale in 1956, then as a small book. Rousseau stresses the positive traits of Balat's character, as they had appeared in their personal relations and in professional circles. Bordiau recounts several of Balat's ideas on the history of art and classical architecture, which he had expressed during their conversations. Although general in nature, these remarks are crucial because Balat wrote little on his principles. Bordiau's quotes cover the relations between architectural forms and traits of civilizations across history such as the religious ideas, the warrior spirit and the pursuit of beauty; the relation between monuments and their urban surrounding, and Balat's famous dictum to simplify. Another source on Balat's ideas are his own reports on the Fine Arts Museum, which he presented to the academy in 1875, and his remarks on this project, published in the proceedings. In contrast to the larger commission for the Museum of Fine Arts, there is little documentation on private commissions such as the numerous restoration and transformation works in châteaux in the 1840s-1850s. It is possible to compile a list of them from the biographical articles, but the exact nature of Balat's interventions is less clear.

architectural character to a building type devoid of any. In the intervening decades, the canons of classicism had evolved and a new sensibility towards the glasshouse has arisen, the design of the artificial environment being motivated by the quest for the immersive experience of the tropical forests. The dissimulation of constructive members and the implementation of the picturesque schemes prescribed by horticultural literature were central, yet they could not meet all of Balat's concerns. In the wintergarden, he combined these design strategies not with the usual attempt to dissimulate the metal frame, but with an even stronger awareness of the iron structure and classical orders. In other glasshouses, ornament as dissimulation of the structure takes precedence. Over three decades at Laeken, Balat struggled to adapt the architectural character of neoclassical design to the quest to recreate tropical environments. Three distinct projects in the Laeken complex demonstrate these shifting approaches: the wintergarden, the palm house, and the Embarcadère.

The sequential disposition of the wintergarden and the old orangery follows the historical continuity between the two types, from the earlier masonry conservatory where potted plants were kept in winter and where guests were occasionally entertained, to the year-round tropical environment in a glass and iron structure that succeeded it. But it is also representative of the persistent classical precepts. The central axis structured the sequence, offering a view running from the orangery's entrance to the marble stairway of the Embarcadère, and which Balat described as a "perspective that continues beyond the colonnade of the rotunda and achieves a great effect of the ensemble."⁹⁸ Inside the wintergarden, the central pathway laid with mosaics divides the dense vegetation into two regular half-circles framed by the colonnade. This wide passage served mundane functions, accommodating crowds, seating and the orchestra, but it also offered an encompassing

⁹⁸ A.P.R. Fonds Balat Fologne, Letter of 25 April 1889.

view onto the surrounding vegetation and the colonnade screen supporting the iron-and-glass dome. These constructive members and architectural components are not dissimulated, but, to the contrary, become prominent. Thus, the powerful environment of the tropical forest is subjected to an even more powerful iron structure, a modern building supported by a historicist colonnade (Fig. 2.25).

It is the prominent constructive system and in particular, the colonnade, which drew the attention of architects and horticulturists. As early as 1876, when construction was still underway, *The Gardeners' Chronicle* published an engraving, lamenting that "the effect of the building as a whole is somewhat marred by the unnecessary massiveness of the ironwork."⁹⁹ Upon the building's inauguration, the journal returned even more bitterly to the problematic relationship between structure and vegetation, commenting disapprovingly on the wintergarden which

resembles a huge dish-cover or some trophy of the confectioner's art, and despite its great height and imposing dimensions, is heavy and oppressive. The circle of massive stone columns looks strong enough to support the great Pyramid. The palms, noble specimens as they are, look dwarfed and lost in the great vault.¹⁰⁰

Balat's contemporary Gédéon Bordiau saw the colonnade as a solution to diminish the industrial effect of iron and confer architectural character to the glasshouse.¹⁰¹ To Horta, writing in the early twentieth century, the admirable structures at Laeken were the first opportunity for Balat to abandon conventional forms and follow his own inspiration using iron, a material that the Greeks did not

⁹⁹ "The King of the Belgians' conservatory at Laeken," *The Gardeners' Chronicle*, no. 150 (11 November 1876), pp. 613-614.

¹⁰⁰ "Laeken," *The Gardeners' Chronicle*, no. 347 (21 August 1880), p. 237.

¹⁰¹ Bordiau, *Notice sur Alphonse Balat*, p. 17.

have. Yet the colonnade proved that Balat's historicism was tenacious, even when he sought to give an original solution to a modern type.¹⁰²

Suys's unexecuted project for the Botanical Garden contained a round colonnade supporting the coffered dome of the main rotunda, eliminated in the simplified, built version. The round colonnade returned at the center of Balat's wintergarden, but the significance of employing an architectural order had changed. Placed in the midst of luxuriant vegetation, Balat's colonnade begins to evoke the ruins of a tholos invaded by plants (Fig. 2.24-2.25). Thus, the meaning and associations of architectural elements change when they are placed in the tropical scenery of the glasshouse atmosphere. Balat's intentions behind the colonnade are unclear, whether he had in mind a tholos in ruins or a way to diminish the industrial effect of iron, but it is clear that forest imagery changed the sense of the classical order.

The same phenomenon occurs in Balat's decorative iron scrolls, flame-like and sinuous lines whose sources date back to the elaborate eighteenth-century schemes. When they are applied as ornament in the midst of vegetation, in the infills of girders and in the iron flying buttresses of the wintergarden, they begin to resemble plant form. It is possible, then, to associate these forms to idea of nature's hidden forces which animate plant and animal life (Fig. 2.28, Fig. 2.31-32). When combined, actual plants and decorative ironwork enhance the idea of an immersive environment in the glasshouse. They indicate a new formal means to suggest vital forces and vegetal life which can be used outside of horticultural buildings.

Balat explored these devices in the other glasshouses. The 1884 palm house is considerably smaller than the wintergarden, but the design of the interior as a tropical environment has two

¹⁰² Édouard Ned, *L'Énergie belge: Opinion d'une élite, 1930-1905* (Bruxelles: Librairie Albert Dewit, 1906), p. 50.

points of interest: the picturesque layout and the disguise of constructive elements, two key considerations in glasshouse design. Noel Humphrey's 1850 article addressed the problem of mitigating the presence of glass and iron, industrial materials which undermine the impression of being in a tropical environment. He proposed the original idea of an irregular glazed framework resembling tree branches which blend with the interior scenery, in addition to plants creeping up iron members and a picturesque layout of plant arrangements. Balat's design addresses the same problem, though without going as far as Humphrey proposes. The cruciform plan of the palm house is regular, but the layout follows a picturesque landscape design: the main pathway is laid with slabs and its edges follow irregular lines; the parapets and bed curbs are masked behind natural-looking accessories such as fragments of trunks and branches, or they are covered with vegetation.

The framework's ornamental iron members also seek to enhance the impression of a tropical environment. The architect has clearly taken into consideration ways to mitigate the diminishing effect of iron members in the creation of the tropical environment with ornamental motifs that seek to disguise structural members. In the palm house, the main ribs supporting the curvilinear roofs are vertical and inclined iron girders which spring from the masonry base, rise along the vertical glass walls, then curve to support the secondary sashes, forming a pointed arch section in the main nave and a lower arc in the transept. The girders are formed by two joined T-beams, joined at regular intervals by small bars. Balat inserted his signature ornamental pattern—a diagonal line splitting the area in two halves and a rosette in one of them—and he added a novel element: an iron strap containing sinuous forms which resemble stems, and which join the diagonal line to the rosette (Fig. 2.28).

The most original effort to disguise the structural member is in the lower section of the ribs, between the masonry base and the arc impost, whose section increases upwards forming a triangle (Fig. 2.28). In these sections are inserted flat iron sheets, with cut-outs in the shape of tulip buds and sinuous stems rising from the base along the rib itself. This motif, "in negative," continues above the flat iron sheet with curved iron work; "in positive," it continues the movement of the cut-out stem, branches out and adjoins the rosettes in the girders. Balat applies this ornament only in the lower section of the iron ribs, where their profile expands to accommodate the compression forces. This height corresponds to the average height of the vegetation in the glasshouses, with which the ornamental forms seek to blend.

The strap-iron forms that rise and branch out in undulating movements in the palm house are similar, though smaller, to those inserted at the base of the iron flying buttresses of the wintergarden which are larger and more powerful (Fig. 2.21, Fig. 2.32). At the base of the flying buttresses too, there is an analogy between the nascent, natural-looking motifs, and the ribs springing from the same base. In both cases, the symbolism of these motifs—atypical in conventional ironwork—shifts towards the vegetal life they seek to evoke. They do not actually dissimulate the structure, which in itself is an impossible task, but they suggest a deliberate attempt to engage the structure in the creation of an environment as well as a new sensibility in design towards this kind of space.

This quest is particularly significant in details of the Embarcadère, a glasshouse which lacks dense vegetation. Its pathways and flower beds do not follow a picturesque layout, but a rectangular scheme which allows easy circulation towards the main marble stairway from the three main entrances and the underground glazed gallery (Fig. 2.35), with plants rooted in the soil or in Chinese

vases from Leopold II's collection. In 1891, the Électricité et Hydraulique company of Charleroi, headed by engineer Julien Dulait,¹⁰³ installed the electric light cables and fixtures following Leopold II's wish to add the latest technological wonder to his glasshouses (Fig. 2.37-2.38). On this occasion, the Embarcadère saw some of the most interesting efforts to design industrial members that engage with the glasshouse milieu.

Leopold II had followed the latest experiments in interior electrical lighting in the 1880s and received brochures from new companies advertising their installations: in 1882, he received news about the foyer of the Opéra in Paris, lit for the first time by the Brussels company Lampe-Soleil. It created an extraordinary effect that Charles Garnier himself praised as "the finest light ever employed

¹⁰³ Julien Dulait (1855-1926) is one of the pioneers of electricity in Belgium. Based in Charleroi, his activity was related to the industries of the region. His father was an engineer in metal furnaces, whereas his wife's family belonged to a line of renowned glass-making masters. Julien was trained as an engineer, and his early interest was in hydraulic-power machines. He led his first experiments in the 1870s in a small workshop attached to his house. Soon he turned to electrical inventions, interested, in particular, in employing these machines to generate power. His first electric installment was in the kitchen of his house in Charleroi, where he installed 10 Swan lamps of the 10-candles power each, fed by a motor attached to a water-tap. After the invention of the incandescent lamps, patented by Edison in 1878 and improved by Swan, and the arc lamp, invented by the Jablochhoff, Lucien Nothomb, a graduate of the military school in Brussels, launched a new version of the arc-lamp, commercially available, and founded his "Compagnie générale d'électricité" in 1881. In 1883, Dulait joined Nothomb's company, focusing on the lamp arcs, alimentation and supply circuits. Their collaboration continued until 1886 when the company, faced with expensive lawsuits from gas companies holding the lighting monopoly, blocked its expansion. In 1886, Dulait founded his own company, "Électricité et Hydraulique" in Charleroi, which grew considerably, expanding its activity abroad. The most important installations were electrical networks for tramways. At the turn of the century, Dulait also experimented with automobiles. Dulait participated with Nothomb's company at the expositions of Amsterdam (1883) and Antwerp (1885), and with his own company at the expositions of Paris (1889) and Brussels (1888), visited by Leopold II, who had long been interested in mechanical inventions and industry. At Laeken, Dulait initially installed two dynamos, of 60 kw each, feeding 40 arc-lamps and 1000 incandescent lamps. He displayed these machines at the Antwerp exposition of 1894. See Jacqueline Looze, "Julien Dulait et ses entreprises (1878-1926)," Master thesis, supervised by Jean Stengers (Université Libre de Bruxelles, 1971); Alexis-Michel Terlinden, *Julien Dulait, 1855-1926: Inventeur, entrepreneur audacieux, principal constructeur électricien de Belgique à l'aube du 20ème siècle* (Bruxelles: Cercle de l'Histoire de l'Electricité, 2005); Armand Dulait "Recits à mes arrière-petits-enfants," unpublished manuscript A.B.C.

for the lighting of art works and luxurious galleries.”¹⁰⁴ The King went to the Royal Library in Brussels to inspect the electrical lamps which were being tested in 1882.¹⁰⁵ At first, he decided to install electrical light in the royal palace and in the château of Laeken after the 1890 restoration, then extend it to the glasshouses of the lower part of the site, which were originally lit by gas.¹⁰⁶ He corresponded with Dulait and received the plans for the electrical installations in the four glasshouses next the château, signed by Dulait and the engineer Maurice de Welz in July 1891.¹⁰⁷ On 24 December 1891, towards 4:30 pm, the glasshouses were lit for the first time in a public ceremony. In March 1892, the king received the Cercle artistique et littéraire in another Garden Party inside the glasshouses. Charles de Bosschère described the atmosphere of the Laeken glasshouses lit by electrical light as fairy-like.¹⁰⁸ The fairy-like effects of the electric light added to those of the exotic vegetation, as described by the nineteenth-century public. One of the electricians who was present described the first test in 1891: "the lamps reflecting their light on the luxuriant ferns and the large palm trees of the tropical zone; one believed to be transposed at the heart of one of the fantastic palaces seen in the fairy-tales of a thousand-and-one nights."¹⁰⁹

Leopold II was satisfied with the effect, and advised Dulait to design lamp fixtures with better artistic taste.¹¹⁰ In the Embarcadère, the electrical installations raised the old problem of

¹⁰⁴ [la plus belle lumière qui puisse être employée pour l'éclairage des œuvres d'art et des galeries de luxe] A.P.R. Fonds Balat Fologne, Brochure, "L'ingenieur-conseil" no. 18 (Bruxelles: Imp. A. Lefèvre, 30 April 1882).

¹⁰⁵ Charles Mourlon, *Les Débuts de l'éclairage électrique en Belgique* (Bruxelles: Bothy, 1923), p. 24.

¹⁰⁶ He discussed the light installations in the orangery, wintergarden and the theatre with Balat from 1876. A.P.R. Fonds Balat Fologne, letters of 13 August 1886 and 2 september 1876.

¹⁰⁷ A.P.R. Fond 84.B, Cartes et Plans, plan signed by Dulait, 16 July 1891.

¹⁰⁸ Report on a visit on 13 April 1892, De Bosschere, "Les serres du domaine royal de Laeken," *Revue de l'horticulture belge et étrangère* (1892), p. 177.

¹⁰⁹ Reported by Charles Mourlon, quoted in Terlinden, *Julien Dulait*, p. 13.

¹¹⁰ Ibid.

industrial accessories that diminish the glasshouse atmosphere. How were cables and fixtures to be disguised in the fairy-like atmosphere of the glasshouse by day and when the lights were lit at dusk? In the Embarcadère, light is clearer and the vegetation not dense so that it was not possible to simply hide the electrical fixtures behind plants. Two solutions to dissimulate the exposed lamp fixtures and the cables were put in place. First, lamp fixtures took the form of curving stalks, branching into scrolls. They were bolted to the vault ribs, immediately above the brackets over the cast columns.

The second solution sought to dissimulate the present electrical cables, and it incidentally yielded far more abstract and suggestive forms. Cables spring from the masonry impost in bundles that branch out in several lines to feed lamps suspended under the vault (Fig. 2.29-2.30). They are painted green. At their springing and in their trajectory in space, they are reminiscent of the movement of creepers, one of the plants that defined the tropical environment and the atmosphere of the glasshouse, as Van Houtte, Rodigas, and André had stated. Evoking their movement, the electrical components seem to be driven by the same forces which underlie movement and growth in the vegetal world, vital forces which define the tropical landscape and pervade the atmosphere of a glasshouse. In the Embarcadère, these installations are only a detail, but they are highly significant of the new suggestive imagery responding to old concerns in glasshouse design.

The smaller glasshouses of the complex such as the Embarcadère and the palm house have traditionally been overshadowed by Balat's monumental wintergarden. Architectural historians have focused on this building to discuss the general problem of iron construction in the nineteenth-century and the influence of Balat's experiments on the future generation, including his assistant Horta. Traditionally, they have related Horta's architecture to Balat's glasshouses on account of the exposed, metallic structure which revolutionized the architecture of the twentieth century. This was

Giedion's main interest in the innovations of the Hôtel Tassel which opened the way to major transformations in architecture. Authors have also sought possible sources of his iron motifs in the main wintergarden, relying on easily-available photographs and drawings of the famous structure. Giedion was the first to draw this relation too, and he indicated the strap-iron ornament of the wintergarden flying-buttresses as direct sources for Horta's iron ornament in the Hôtel Tassel.¹¹¹ However, the similarity in form is even stronger in other details of the smaller glasshouses which not were not known to Giedion and later authors.¹¹² Most importantly, what joins the motifs of the two architects is less the actual iron forms than the underlying quest to design ornament that participates in the glasshouse environment—forms suggesting the dominant traits of the surrounding vegetal world: movement and growth.

Horta has not mentioned any of these considerations in his own writings, and he stressed the role of iron as a revolutionary material when he discussed the legacy of Balat's glasshouses, describing an innovative work of reasoned *hardesse* which influenced future developments in ways the old master had not intended: "They were, the first stage toward a renaissance of architecture, of which the master could only see the dawn before he closed his eyes. Balat was, *malgré lui*, the protagonist of

¹¹¹ Siegfried Giedion, *Space, Time and Architecture: The Growth of a New Tradition* (Cambridge, MA: Harvard University Press, 1946), p. 233. Giedion's illustrations showed Wasmuth's photograph of the mural and the iron column, and a detail drawing of Balat's flying-buttresses ornamental work, derived from the plates in Arthur Vierendeel's *La Construction architecturale en fonte, fer et acier* (Bruxelles: Lyon-Claesen, 1897-1902).

¹¹² Hanser had not visited the complex and based his analysis on photographs of Balat's wintergarden. He related Balat's ornamental motifs not to the iron column tendrils at Tassel's, but to the flat decorative motifs of the transom panel of the Matyn House, built by Horta in 1890 (Hanser, "The early works of Victor Horta," p. 105). (That panel is most likely a later addition to the house, purchased on the market and not designed by Horta.) Hanser also mentioned the examples of English glasshouses, in which iron is cast to resemble plant-forms. He could not establish a link between these designs and Horta's, and this was not a primary area of his inquiry. His aim was to read the ironwork of the Hôtel Tassel as logical architecture, rooted in the French rationalist theory.

a renewal in architecture.”¹¹³ Charles Buls observed that many decades before, the convinced classicist had unintentionally fuelled the vogue of the Flemish neo-Renaissance when he restored the countryside châteaux in the 1840s, inspiring the following generation of architects to return to local forms and call for a national style.¹¹⁴ At Laeken, it seems that history echoed itself as his projects inspired the next generation of architects in ways that Balat had not intended, and which Horta himself did not acknowledge. The liberated iron structure was topical at the time of Horta’s statements and for a large part of the twentieth century, but it was not the only lesson to be learned from Laeken. The later perspectives on the lessons of Balat’s wintergarden have always focused on the relationship between his colonnade and his iron dome, the former rooted in the past, the latter, pointing to the future, and offering valuable lessons to the following generation of architects who surpassed the master’s historicism and liberated iron structures.¹¹⁵ They have not considered a different relationship which emerges in this glasshouse, between the colonnade and the pervasive vegetation. Guillery, Balat’s former colleague in the administration board of Linden’s zoological garden and influential voice in architectural theory in Belgium, had previously suggested that the crawling vegetation could vivify architecture because imbues with life everything it invades. Combined with vegetation, the classical orders suggested new ways to renew and vivify architecture. The combinations in the glasshouse certainly suggested ways to create an immersive environment. It

¹¹³ A.H. XVII.5.5, "Propos sur l’architecture en Belgique," manuscript with pencil annotations by Horta, including a rephrasing of this passage on Balat.

¹¹⁴ Charles Buls, "Revue de l’architecture en Belgique," *Journal of the Royal Institute of British Architects*, no. 19 (1897), p. 451.

¹¹⁵ After Giedion, Marcus Binney’s little-known articles "Art Nouveau in Brussels," *Country Life* 155 (28 March 1974): 724-725, and "The mystery of the style Jules Verne: Victor Horta and the origin of Art Nouveau," *Country Life* 147 (2 January 1970): 130-133 sought to establish a relationship between Horta’s and Balat’s exposed iron structures. Aubry has maintained the traditional reading of Balat’s wintergarden in her numerous contributions.

seems that, *malgré lui*, Balat had suggested to Horta ways in which architectural motifs could attain a new, evocative power.

In the interior of the Hôtel Tassel, Horta was faced with an analogous task, designing iron ornamental work which evoked vegetal life and participated in the creation of a fictitious nature and a glasshouse atmosphere. Light fixtures were among these components too. In the main hallway, they descend from the ceiling and branch out in the form of stalks, each containing electrical bulbs. Reflected in the mirror of the wintergarden, it is possible to see how their vegetal-inspired form blends with the lianas of the mural, the tendrils of the column and the decorations of the ceiling spandrels in one single plane. In the hallway of the second floor, connecting Tassel's office to the back of the house, the prominent lamp post stands on the parapet of the second staircase ramp. It is also designed to evoke vegetation in abstract forms, with the form of a main stalk and its branches, each containing the bulb fixtures, though here it is an isolated object in a hallway, not a component of the glasshouse environment. Horta continued to design vegetal-inspired light fixtures in his later townhouse, but the 1895 plates in *L'Émulation* confirm that this motif was born at the Hôtel Tassel. Giedion related Horta's ornamental ironwork to the strap iron motifs of the flying buttresses of Balat's wintergarden. Horta's tendrils atop the two columns are even closer to the lesser-known detail of the electrical cables in the Embarcadère, which spring from the masonry cornice. Even more fundamental than the visual similarity is a quest common to both motifs: the suggestion of vegetal life.

2.5 The glasshouse atmosphere in the townhouse

In Brussels, “balconies are turned into greenhouses and miniature stoves, gay with the brightest and greenest foliage,” writes Henry T. Williams in the 1878 edition of his popular *Window Gardening*.¹¹⁶

The rise of Belgian horticulture in the nineteenth century found a monumental expression in Leopold II’s designs, but it also permeated modest townhouse interiors. Linden’s *L’Illustration horticole* remarked that plants were “the best understood modern luxury” [*le luxe moderne le mieux compris*] of the day, and that glasshouses had become an indispensable accessory to the château and the hôtel particulier.¹¹⁷ Plants sold at Linden’s establishment were indeed, a luxury. Orchids and palm trees were in high demand for exorbitant prices.¹¹⁸ But, smaller glasshouses became frequent additions to modest townhouses too. In 1874, *L’Émulation* described the architecture of modern bourgeois house, listing in the layout two rooms on the ground floor, the salon at the front, and the dining room at the back with a *serre* attached to it.¹¹⁹ The *serre* was a verandah, a room with a large glazed opening facing the garden. Horta himself mentioned the optional *verandah* at the back as one of the few variables of the plans.¹²⁰

Articles on indoor horticulture with advice on cultivation, new specimens and decorative arrangements were a regular feature of the horticultural press, in addition to specialized treatises and

¹¹⁶ Henry T. Williams, *Window Gardening* (New York: Office of the horticulturist, 1878), pp. 5-6.

¹¹⁷ “Notice” on the Compagnie continentale d’horticulture, *L’Illustration horticole* (1882), p. 160.

¹¹⁸ Nicole Ceulemans in her *Jean Linden: Explorer, Master of the Orchid* reprints a n1890 bill sent by Linden to G. Warocqué, at the château de Mariemont. There are three species of orchids with the prices of 100 fr, 200 fr, and 670 fr. per unit. The total amount of the bill is 23.800 fr. (ibid., p. 109). Around that time, Horta’s salary as an intern at Balat’s office in 1886 was 200 fr. per month (Goslar, *Victor Horta*, p. 44).

¹¹⁹ E[rnest] A[cker] “L’architecture contemporaine dans nos habitations [suite],” *L’Émulation*, no. 4 (1874-1875), col. 19.

¹²⁰ A.H. Memento for the year 1895.

The “Mementos” are short commentaries on the office agendas which Horta began writing two years after he undertook the project of his memoirs, in 1939.

books. The *Revue d'horticulture belge et étrangère*, for example, discussed extensively the indoor cultivation of plants, alongside innovations in small glazed constructions attached to houses in England, France, and Germany, including glasshouses fitted on balconies, rooftops, or a recent model from Germany in which a narrow glasshouse was fitted between a double door opening onto the drawing room and an external glazed frame (Fig. 2.17).¹²¹ A conservatory model produced by the French firm of Eugène Couchu measured only 15 m and was suited to smaller properties. It could be fitted with a series of accessories, such as rocks, cascades and aquariums. Rodigas presented this project to the Belgian public in 1896, remarking that it allowed everyone to recreate in their homes the impressive feats they had seen at Linden's horticultural establishment.¹²² Linden's company in Brussels had its own design office specialized in glasshouse construction. Horticultural journals in these years featured full pages of advertisements for firms specialized in constructions of this type, tailored for country mansions and townhouses.

The vogue had begun with the massive flower exhibitions: the eager public wanted to bring home not only single plants, but larger fragments of the verdant environment, and, with it, the symbolism of the tropical vegetation. Travelers' accounts and the imagery of glasshouses and exhibitions provided a series of attributes, based on appearance and behavior, which was then transposed into hallways, salons and conservatories in the house. Palm trees, the "princes of vegetation," as Carl Linnaeus called them,¹²³ became "princes of our salons," to Paul-Émile De

¹²¹ Fr. Burvenich, "Des vases à fleurs et de garnitures de salons," *Revue de l'horticulture belge et étrangère* (1878), p. 166.

¹²² Rodigas "Constructions Horticoles, Serres et Conservatoires," *L'Illustration horticole* (1896), p. 139. Among earlier ideas, see Rodigas, "Ornementation floreale des salons," *L'Illustration horticole* (1880): 60-64.

¹²³ Charles Morren, "Horticulture de la demeure: Les palmiers des jardins d'hiver," *La Belgique horticole* (1855), p. 24.

Puydt, writing in 1881.¹²⁴ The botanist de Vriese remarked the vigor and vital energy of the palm trees, which allowed them to face harsh conditions in their new life as ornamental objects in domestic interiors, at the mercy of architects who took little care of the proper environment for their culture [*conditions culturelles*].¹²⁵ Palm trees determined the physiognomy of tropical forests and they maintained such powerful associations in the glasshouse or as isolated elements in the drawing room.

Contributors to the horticultural press discussed the diffusion of plants in domestic interiors, in the existing living areas and in new glazed structures built for them. The French landscape architect Édouard André remarked briefly on the vogue of attached conservatories in his *L'Art des jardins* (1876). He noted that the *serre-salon* had been long present in house architecture in England because the English *home* has always received greater attention and the climate of the country offered few other distractions. In recent years, the vogue had spread throughout the continent. André suggested recreating in the house the character of tropical landscapes which he had seen first-hand during his journeys and in botanical gardens described in his treatise. He recommended avoiding regular rows of pots in the layout, creating instead “tropical scenes,” however imperfect the setup might be. Then, “how enjoyable family life would be in this corner of luxuriant nature, where the atmosphere, purified by the respiration of the leaves, would pour out a salutary oxygen.”¹²⁶

Belgian horticulturists and botanists of the nineteenth century promoted indoor plants and conservatories, stressing the beneficial effects of their atmosphere in home life. In the 1850s, Charles and Édouard Morren remarked that rare plants were spreading from floral exhibitions and the

¹²⁴ De Puydt, “Les plantes d’appartement et leur culture,” *L’Illustration horticole* (1881), p. 65.

¹²⁵ H. De Vriese, “Jardins d’hiver modernes,” *Revue de l’horticulture belge et étrangère* (1891), p. 250.

¹²⁶ [Avec quelle satisfaction se passerait la vie de famille dans ce coin de nature luxuriante, où l’atmosphère, épurée par la respiration des feuilles, verserait en abondance un oxygène bienfaisant] André, *L’Art des jardins*, p. 192.

collections of the landed nobility into residential interiors for the first time in history, and they enthusiastically described conservatories communicating freely with the drawing room as successful efforts to “bring the glasshouse into the apartment and the apartment into the glasshouse.”¹²⁷ In 1852, Morren published in *La Belgique horticole* a project by Humphrey, to which he referred with the interchangeable terms of “*conservatoire*,” “*jardin d’hiver*,” and “*serre d’intérieur*.” It stood at the end of a drawing room, covered by glazed ribbed vaults on slender, double iron columns that served as support to crawlers which formed the décor of the interior, along with potted plants and artworks (Fig. 2.10). It was a rich and rare project, of the kind that Morren wished to see spread in residential architecture. In the same year, he showed a recent zinc glasshouse designed by Saint-Paul de Sincay of the Vieille-Montagne firm near Liège.¹²⁸ It was a semi-cylindrical structure, attached to a villa, less elaborate than Humphrey’s fascinating proposal, but much closer to the conservatories erected at the time (Fig. 2.12). Three years later, Édouard Morren published a project by the English architect Edward Buckton Lamb, close collaborator of Loudon, in which a drawing room “in the Greek style” communicated freely with the glasshouse (Fig. 2.11):

At the back of the glasshouse there are mirrors which reflect the flowers during the day, enhancing considerably the effect of the perspective, and at night, they repeat the lights of the salon. It is possible, as the drawing indicates, to place a water fountain in the middle of the glasshouse; it cools the atmosphere. The furniture of the salon thus disposed must be very simple. The walls must not be covered with hangings, but oil-painted or paneled. One must be parsimonious with textiles because the humidity that the plants exhale will soon be harmful. Everything must breathe freshness and countryside; simplicity is the best tone because embellishments must be borrowed only from nature.¹²⁹

¹²⁷ Édouard Morren, “Les serres et les salons,” *La Belgique horticole* (1855), p. 245.

¹²⁸ Charles Morren, “Les serres de zinc,” *La Belgique horticole* (1852), p. 393.

¹²⁹ Édouard Morren, “Les serres et les salons,” p. 246.

Edward Buckton Lamb (1806-1869) landed his career as the principal illustrator for Loudon’s 1833 *Encyclopædia of Cottage, Farm and Villa Architecture* and the 1838 *The Suburban Garden and Villa Companion*, the commercial catalogue of all building types in all styles. His designs for interiors attached to conservatories reached Belgium through English horticultural journals. As John Gloag notes, Lamb was

The Morrens did not express any opinion on styles, but they were enthusiastic at the idea of adjoining the glasshouse to the house interior. In their own city, the designer Wiot of the Jacob-Makoy horticultural establishment built a new conservatory attached to the house of Lambinon in Liège (Fig. 2.13). It communicated with the dining room through large doors, whose frames were fitted with mirrors to reflect the flowers and multiply the views, a remarkable effect which prompted Édouard Morren's glowing review:

It is plainly wrong to build glasshouses in a corner of the garden, far from the house. It is hard to attend to them and the service is poor. It is a nuisance to go to the glasshouse, often walking on damp ground or mud, exposed to the rain or frost; so that very often one just stops going there. Build the glasshouse attached to the house, not as a covered hangar, narrow or patched up, but a pretty, cool apartment which communicates with the others, at least with the dining room or the salon where the family gathers regularly. Mr Lambinon's hothouse plants are no doubt the richest ones, especially since there is a great number of them whose leaves are colored like the most beautiful flowers, which makes the latter appear slightly neglected; but it possible to give the same distribution to the collections of a tempered glasshouse.

In the winter-garden, everything seems natural, there are no pots to be seen. It is not because all plants are rooted in the earth—far from that—because that would have severe consequences; it is almost always necessary to limit the development of some species by pots, but these are dissimulated under the moss and their surface is covered by *Selaginellas*; the floor is heated from below, and consequently, always lukewarm and humid, the best conditions for vegetation.¹³⁰

Lambinon's natural-seeming wintergarden corresponded to Morren's prescriptions. By the mid nineteenth century, solutions to creating natural-looking environments in glasshouses were commonly discussed and occasionally carried out. To André, such artificial landscapes ought to bring the character of the tropical forest into the house. Concealment of industrial members and picturesque schemes for the overall arrangement were the most common solutions. These solutions

prepared to "design anything in any style," but he remained by preference a Gothicism, which would account for the "clumsiness" of his classical designs (Gloag, *Mr Loudon's England*, p. 158 and p. 174).

¹³⁰ Édouard Morren, "Architecture horticole: Des jardins couverts en général et particulièrement de celui de M. Lambinon à Liège," *La Belgique horticole* (1860), p. 236.

were initially discussed in the design of large glasshouses, but they gradually extended to the townhouse conservatories. Both Morrens welcomed this kind of ambitious project. However, project and discussions often remained on paper, and they did not correspond to the reality of the widespread verandahs and conservatories in the 1880s.

In 1881, Linden complained that the design of attached conservatories was not sufficiently considered by architects, who only focused on the purity of style, neglecting the environmental needs of plants which ended up having a hard life in their new homes. Yet, he observed, it should be easy to combine horticulture with architecture.¹³¹ True to Linden's remarks, references to the profusion of ornamental plants, recommendations on indoor cultivation and news about recent inventions are frequent in horticultural literature, but concrete examples of wintergardens attached to houses inspired from these articles are rare. A reason for this imbalance is that this building type remained a relatively utilitarian construction outside the architect's consideration, despite the efforts to promote the cultivation of plants and render these structures more "artistic."

The 1880 National Exposition in Brussels included a special section on models of glasshouses attached to salons, which was part of the furniture department. After his visit, De Puydt remarked the great development of indoor horticulture, but also the inherent obstacles.¹³² The cultivation of exotic plants in apartments could only be a limited practice because they required an environment that was not suited to the inhabitants' daily life. The model of the attached conservatory was a partial solution, because this annex was nevertheless separated by doors which ensured the necessary environmental conditions on each side. The plant had a different relationship

¹³¹ L[ucien], L[linden]., "Vue intérieure du jardin d'hiver," *L'Illustration horticole* (1881), p. 89.

¹³² De Puydt, "Les plantes d'appartement et leur culture," *L'Illustration horticole* (1881): 1-4, 17-19, 33-34, 49-51, 65-70.

to the environment: the glasshouse was a shed, adapted to plant life and built to create the environmental conditions that it required. In an apartment, it was the plant which needed to adapt to the regular atmosphere of the house. There were a few remedies for those who wanted to keep tropical plants, such as selecting specimens that adapted more easily, employing zenithal light and modern heating systems, but to De Puydt, it was ultimately impossible to fully reconcile the respective environments for tropical plants and daily home life.

The Hôtel Tassel's wintergarden has a distant ancestor in the nineteenth-century fascination with the "impenetrable domes of the new world," which first spread under the iron and glass domes of northern Europe, then into the townhouse interior—the three stages of Belgian horticulture traced in this chapter. But, the Hôtel Tassel's wintergarden also bears a connection to De Puydt's dilemma about how to merge two irreconcilable environments—of the tropical vegetation and of the townhouse. Horta and Tassel merged the two environments, but the resulting space was no longer the conservatory of luxuriant vegetation described by horticulturists. They did not bring into the house a corner of luxuriant nature. They did not recreate a miniature of Leopold II's wintergarden, as the proposals of André and the recommendations of the Morrens implied. Instead, they created a fictitious glasshouse in which the virgin landscapes described by André and other travelers are grasped in dominant traits and rendered as abstract décor. Van Houtte's account of his personal experience under the silent impenetrable domes of the new world was essentially the description of a communion with the forces of nature where he observed, among other things, lianas which, like vegetal snakes, soared onto the trees. Lianas in the silent tropical forest embodied the mysteries of plant life, movement and growth. Designers such as Maddison and Humphrey first proposed to employ them to conceal the iron supports of the conservatory and enhance the illusion of a tropical

environment, then ironwork was cast to suggest their movement. Dulait's electrical cables at the Embarcadère suggested their form and the idea of the forces driving their movement. Bringing nature into the house could mean, not physical plants, but their symbolism and the dominant traits of their life, expressed in abstract forms, recreating in this fictitious environment the experience of a communion with the forces of nature. It is a process of transformation that begins with real plant and real glasshouse, and it involves more ideas on their symbolic meaning developed in philosophy, art, and the so-called sciences of life.

3. The Symbolism of the Glasshouse Atmosphere and Vegetal Life: The Sciences of Life

3.1 Charles Morren and his son Édouard: Botanists and amateurs of architecture

“The unfortunate seed which Goethe sowed,” remarks Robert Harvey-Gibson in his *Outlines of the History of Botany* (1919), “sprang up with sad rapidity; and next to Schlegellism, we owe it to him that, in botany, whims of imagination have taken the place of earnest and acute investigation.”¹³³

True to his remark, many nineteenth-century botanists believed that objective inquiry and imagination should go hand in hand. Decades of scientific discovery and philosophical speculation, and the exchanges between these domains fueled associative imagination in the approach to vegetal life.

Whereas vegetal life has attracted philosophical thought since time immemorial, nineteenth century botanists could probe the mysteries of vegetal life and reflect on its meaning in a new environment: the glasshouse. Some botanists extended their quest for a deeper meaning from the plant itself to these modern enclosures which lend themselves well to imagination. Enclosing a portion of nature that is at once natural and artificial, exotic and local, physically affective and mentally stimulating, glasshouses fascinated the large public, artists, and botanists alike. The Belgian botanist Charles Morren, an enthusiast of these modern inventions, extended his investigation from

¹³³ Robert Harvey-Gibson, *Outlines of the History of Botany* (London: A&C, 1919), pp. 58-59.

the vegetal world to the glasshouse itself, and he joined objective inquiry and poetic imagination. On Belgian soil, Goethe's and Schlegel's seeds germinated in the works of Morren during the first half of the nineteenth century.

A native of Ghent, Charles Morren (1807-1858) obtained his degrees in physical, mathematical, and natural sciences, and, in 1834, a second degree in medical science, although he never practiced as a doctor and gradually focused on botany.¹³⁴ He taught physics, then geology, zoology, comparative anatomy, botany and physiology at the Industrial School and the Faculty of Sciences in Ghent. Morren dealt with most branches of the natural sciences before he discovered his true passion, and in 1835, finally obtained the chair of botany at the University of Liège. Morren was active in the two other Belgian centres of horticulture and botany, Ghent and Brussels. He joined the Société royale d'Agriculture et de Botanique royale d'Agriculture et de Botanique of Ghent as its honorary secretary. In Brussels, he was a member of the Académie des sciences et des Beaux-Arts from 1835 and the Cercle artistique et littéraire which he joined in 1848, two years after Balat. He had an impressive editorial activity, working initially for Louis Van Houtte's *Horticulteur belge* (founded in 1833), *Annales of the Société royale d'Agriculture et de Botanique* of Ghent between 1841-1845, before he finally published his own journal, *La Belgique Horticole* in Liège, a successful periodical that appeared in 1851 and under his son Édouard until 1885.

Charles Morren stands out for his important scholarship at the outset of Belgian botany and horticulture, and also for his keen interest in architecture and the applied and fine arts, a lesser known aspect of this work.¹³⁵ In his writings, Morren sought a primordial principle that bound

¹³⁴ For a detailed biography see the text of his son, Édouard Morren, "Notice sur Charles Morren" in *Annuaire de l'Académie royale des sciences, des lettres et des Beaux-Arts de Belgique* (1860): 167-251.

¹³⁵ Morris writes in his 1895 report that Morren is the only Belgian author who really produced anything original, "Horticulture at Ghent," p. 55.

together all creations in nature and art—the eternal and temporal works of creation. Theories linking human creativity with the works of nature were common among Romantic writers and art historians of the turn of the nineteenth century, but Morren offers a curious insight from the opposite perspective of a botanist who explored the relations of his field to art. In the first decades of the nineteenth century the rise of commercial horticulture and specialized fields of botany were a new phenomenon, whose significance was yet to be grasped. In the 1830s, Morren reflected on these developments and sought to define horticulture and its principles, and he also took this opportunity to formulate its links with the fine arts. He identified glasshouses among the most important manifestations of this phenomenon. They affected, he believed, the understanding of nature, but also the future development of architecture and the arts.

His reflections on glasshouses are perhaps the most interesting part of his thought on architecture. He did not deal with a theoretical subject only, but was concretely involved in practical inquiries and design. Soon after he obtained his chair, Morren supervised the expansion of the Botanical Garden of the University of Liège and the construction of the new glasshouses. He travelled to the United Kingdom to check the latest constructions and the modern methods of classification at Kew, Chiswick, Claremont, Belfast, Dublin, and other places.¹³⁶ In 1838, he

¹³⁶ See proceedings of the meeting of 3 November 1838 in *Bulletin de l'Académie royale des sciences, des lettres et des Beaux-Arts de Belgique* (1838), pp. 672-673, and Charles Morren's manuscript, "Rapport sur le plan scientifique du nouveau jardin botanique de Liège, soumis à l'avis de l'Académie royale des sciences et Belles-Lettres de Bruxelles, dans la séance de 3 novembre 1838," A.E.B., Folder "Enseignement Supérieur, Ancien Fonds, 832."

Morren's glasshouses appeared in the unauthorized edition of Durand's *Recueil et parallèle des édifices de tout genre, anciens et modernes* (Liège: D'Avanzo, 1830ca) along Suys's Botanical Garden in Brussels and other modern buildings in Belgium. True to his method, Durand showed a complete project that did not correspond to the actual building. At the time, only a portion of the glasshouses was completed. In Brussels, Durand showed a building that corresponded to Suys's 1826 engraving, not the actual glasshouses based on Gineste's plans.

presented the plans of the botanical garden to the Academy in Brussels. He had collaborated with the municipal architect J. E. Remont to draft the plans, inspired by English models and the Museum d'histoire naturelle in Paris. The project was ambitious project but it suffered perennially from the lack of government funding and was not completed under his supervision, despite his tremendous efforts. Morren petitioned the government for support, pointing out its more advanced counterparts in Brussels, Leuven and Ghent, and stressing the role of these institutions in the advancement of science, industry and the fine arts, fields in which the employment of the new plants benefited the whole country. By 1862, when the German botanist Koch visited Liège on his way to Brussels and the Floraries of Ghent, only a third of the planned glasshouses was complete. Only in 1883, the glasshouses and a larger horticultural complex were finally inaugurated. They included the new Institut de botanique under the directorship of Morren's son Édouard.

Édouard Morren (1833-1886) was one of the five children who continued in his father's path. Though he studied law and his father wanted him to have a career in diplomacy, he turned to botany as well. Attached to the house of the Morrens in Liège were the glasshouses where Édouard "learned to probe the mysteries of plant life," as *L'Illustration horticole* wrote in his obituary in 1886.¹³⁷ He succeeded his father at the chair of botany at the University of Liège and continued his prolific editorial activity: he joined *La Belgique horticole*, publishing his own articles from 1855, and edited the journal after his father's death in 1858. *La Belgique horticole* was a major publication for amateurs and scholars, alongside the *Flore des serres*, *L'Illustration horitcole* and *Revue de l'horticulture*—the journals of the major commercial establishments in the country. Édouard Morren published numerous scientific papers, became a member of the Academy in Brussels in 1871, and

¹³⁷ Obituary of Édouard Morren, *L'Illustration horticole* (1886), p. 48.

participated actively in associations and government activities related to horticulture, including his role as commissioner of the Belgian participation at the International Exposition in Paris in 1867 and president of the International Congress of Botany at Antwerp in 1885.

Édouard Morren belongs to the same generation as Leopold II. They crossed paths on several occasions as the King's monumental, architectural and colonial projects affected Belgian horticulture. The Belgian monarch visited regularly in the horticultural section at the 1867 Paris International Exposition, and he began planning his own wintergarden soon after.¹³⁸ In 1883, Morren published one of the earliest reports Leopold II's wintergarden in *La Belgique horticole* and as a separate brochure.¹³⁹ In 1885, the King was patron of International Congress of Botany at Antwerp which purported to lay the foundations for the scientific exploration of the Congo. It was part of a well-orchestrated campaign set up by Leopold II to present the exploration of central Africa as a scientific and humanitarian endeavor, begun with the Brussels International Geographical Conference in 1867. Morren, president of the congress, was "to contribute to the theoretical, regular, and scientific organization of the Congo as Leopold II envisions it," as his student G. Jorissenne wrote in 1885.¹⁴⁰ Already in poor health and unable to attend all the sessions, Morren died a few months later and did not see what truly lay behind Leopold II's plans.

¹³⁸ There is a reference to Leopold II's 1868 decision to build a wintergarden and consult Linden in Goedleven, Fornari, and Vandenbreeden, *Les Serres royales de Laeken* (1988), p. 107; in Demey, *Leopold II*, p. 441, who probably follows Goedleven, and in Lauriks Leen and Ine Wauters's paper "Balat's Wintertuin te Laken" (2008), p. 8, indicating the date of 15 May 1868, but none provides the source for this date. It is reasonable to assume that Leopold II began inquiring into a new wintergarden around this time. He began transforming the royal properties after his visit to the Paris International Exposition the previous year. Another historical circumstance may have contributed to his decision: Curiously, in 1868 the price of cast iron in Belgium dropped to the lowest level since the beginning of the century (see annex of prices in Wibail "L'évolution économique de la sidérurgie belge de 1830 à 1913," *Bulletin de l'Institut des sciences économiques*, no. 1 (November 1934), p. 52.

¹³⁹ Édouard Morren, *Les Serres du château royal de Laeken*.

¹⁴⁰ G. Jorissenne, "Ch.-J. Édouard Morren," *La Belgique horticole* (1885), p. 362.

Édouard Morren worked on topics of great interest to his generation, such as plant acclimatization, motility, the influence of the light or the life of single-cell organisms, but he shared with his father a profound interest in glasshouses and the indoor cultivation of plants. The two Morrens reported regularly on glasshouses in the country—at Liège, Laeken, at the Botanical Garden in Brussels and private estates around the city of Ghent. They introduced recent inventions in construction and glasshouse design in England, the leading country at the time, but also France and Germany.

Works of nature and works of art

Charles Morren saw the development of glasshouses in the larger context of rising Belgian horticulture, part of a cultural phenomenon across Europe. *La Belgique horticole* reported regularly on the indoor cultivation of plants in glasshouses and apartments, in a dedicated section of each issue under the varying titles of horticulture and botany *de la demeure, d'appartement, de salon*. They covered extensively the architecture of gardens, decorative accessories, and glasshouses, with frequent reviews of recent innovations in construction and technology which usually came from England. The topics were common in horticultural literature at the time, but Morren explored them further to include topics of architectural history and theory.

At the time, the investigation of vegetal sources in medieval architecture and modern design were central in architectural discussions of the time, but Morren joined the forum from the opposite side, as a botanist writing about architectural theory. He believed that architects lacked rigorous knowledge and that he could contribute further. From 1853 he published a series of articles under

the novel titles of "*Horticulture des Beaux-Arts*" and "*Botanique architecturale*," which discussed architectural character and ornament drawn from vegetal motifs, hence the links between the "science of plants" and the "science of stone" as he described them.¹⁴¹ The articles were prompted by the work of the English architect William Pettit Griffith (1815-1884),¹⁴² whose general ideas on the relationship between nature and art in the course of history and, in particular, his analysis of plant sources for architectural ornament had caught Morren's attention. During a banquet of the Academy, the Ghent architect Roelandt suggested to Morren to write a review of the English author, and shared his own ideas. Roelandt argued that local flora was responsible for the distinct character of the architecture of different regions and epochs more than other factors, as it had developed in Egypt, Greece, Rome, in the Gothic of northern Europe and the Renaissance in the south. The form of trees in the region, not the proportions of the human body, accounted for the columns of the Greek orders, for example. Griffith had developed such ideas into an elaborate historical system, arguing that architects of different ages had imitated the laws underlying the structure of plants with different goals in mind, but with the common ideal of art as a representation of nature. The Gothic, for example, drew from the forms and structure of plants, such as the symmetry of flowers and

¹⁴¹ Charles Morren, "Horticulture des Beaux-Arts," *La Belgique horticole* (1853), p. 186.

¹⁴² William Pettit Griffith, architect and archeologist, was brought up to the profession by his father John William Griffith. He contributed articles and designs from 1835, and he supervised the restoration of churches from 1845. The focus of his work was medieval architecture, and he was particularly interested in the relation between nature and art as several publications and designs attest: In 1855 he wrote the award-winning "Essay on the principles or laws which govern the formation of architectural decorations and ornaments" accompanied by four sheets of drawings entitled "Classification of mediæval ornaments" and "Designs for mediæval ornaments from the vegetable kingdom; arranged geometrically and conventionalized." At the Liverpool Architectural Society, he read "Proportion, its practical application to architecture and the fine arts" in 1857, and "Of the resources of design in the natural kingdom" in 1860. His publications include *The Geometrical Proportion of Architecture* (1843), *The Natural System of Architecture* (1845), *Ancient Gothic Churches* in 3 parts (1847-8-52), and *Architectural Botany* (extracted from part 3 of *Ancient Gothic Churches*). See "Griffith, William Pettit," by Bertha Porter in *Dictionary of National Biography*, vol. 23 (1885-1900).

leaves, as well as their figures, employed decoratively. Morren reproduced examples of these applications to cornices, capitals, rosettes, pendentives, panels, consoles and crosses in several installments of his article. Griffith had coined the term "architectural botany" which Morren defined as the "application of the science of plants to the science of stone."¹⁴³ Morren pointed to the work of another renowned British author, neo-Gothicist architect A.W.N. Pugin, who had conducted a similar analysis on the derivation of the Gothic foliage from nature.¹⁴⁴ Pugin found that medieval artists drew their carving models directly from nature, and, in Morren's words, they were copying not their predecessors, but the eternal works of creation [*les œuvres éternelles de la création*].¹⁴⁵ Pugin acknowledged in a short introduction that he was "unfortunately not sufficiently learned in botany,"¹⁴⁶ and that he was using a 1590 book *Tabernae montanus eicones Plantarum* for the

¹⁴³ Charles Morren, "Horticulture des Beaux-Arts," *La Belgique horticole* (1853), p. 186.

¹⁴⁴ Morren confuses the title of Pugin's book with Griffith's when he writes "the famous Pugin had similar ideas and wrote on this subject an ex-professo book: The natural method of architecture (*The natural system of architecture*)" [le célèbre Pugin eut des idées analogues et écrivit sur cette matière un livre ex-professo: la méthode naturelle de l'architecture (*The natural system of architecture*)]—indicating in parenthesis the original English title. Morren then adds that the title is drawn from the language of the natural sciences, and specifically the "*méthode naturelle*" which studies beings based on relations of similarity. However, this is not the title of Pugin's book. Morren is certainly referring to Pugin's *Floriated Ornament* (London: H. G. Bohn, 1849) published with 31 plates and a short introduction. In fact, Morren discusses the opening of *Floriated Ornament* in which Pugin explains that his interest in the role of botany first arose in the studio of Frans-Andries Durler, who was restoring the Antwerp cathedral. Pugin was stuck by a plaster cast that he thought to be of the thirteenth century, and was surprised to find out that Durler had modelled it from foliage in his own garden. This episode changed his view of medieval carving and convinced him that foliage of Gothic buildings were all approximations of nature. He developed this subject in his *Floriated ornament*. "The natural system of architecture," on the other hand, is the title of Griffith's 1845 book, so Morren confuses the two.

¹⁴⁵ Charles Morren, "Horticulture des Beaux-Arts," p.187.

¹⁴⁶ Pugin, Introduction to *Floriated Ornament*, n.p.

nomenclature of plants, an outdated work, for which Pugin drew the mild criticism of *The Ecclesiologist*,¹⁴⁷ and gave an additional reason to Morren to join the discussion.

Morren corrected and complemented the English authors by identifying other specimens in the decorative motifs of medieval architecture and their significance. He shared with Pugin his religious thought. But he also advanced his own principles. He pointed out, for example, that in order to understand the derivation of models from nature, before the analysis of form, one should start from the first principle among medieval artists: the principle of *election*. Medieval artists selected one plant rather than another because of the symbolism they saw in it. This symbolism, which Morren describes as the language of flowers [*langage des fleurs*], was of two types: Christian or communal. The hop and the ivy were two plants that appeared frequently in architectural ornament: the hop, the plant of beer and of all persons, rich and poor, stood for the people; its five foils stood for the five plagues of the Savior; the alternating small and larger lobes, symbolized the succession of prosperity and adversity in life. As an ornamental pattern, the hop could be extended indefinitely, representing the Christian idea of infinity. The ivy, on the other hand, was a providential plant, product of the Belgian soil, symbolizing freedom; unlike the hop, the ivy did not follow a fixed mathematical curve: it climbed and invaded its support in all directions. It was a moral plant which symbolized freedom, to which the people are profoundly attached. Ornate with these plants, the hop or the ivy, the walls *spoke* their language.¹⁴⁸

The language of plants in medieval ornament was only one instance of the deeper symbolism of nature which artists transferred from the eternal works to their temporal creations. Moreover, symbolism was only a manifestation of the hidden laws governing all creations in nature and linking

¹⁴⁷ Review of "Pugin's floriated ornament," *The Ecclesiologist* (1849-1850), pp. 324-326.

¹⁴⁸ Charles Morren, "Horticulture des Beaux-Arts," p. 186.

them to the Creator. Rooted in the common laws were grand harmonies, and the principles of order and symmetry. The observation of nature revealed the great principles and the fundamental links between divine works and human thought, which bind together all the creations of Morren's "organized beings," whether flowers or human bodies. Science and art were thus two ways of approaching nature, one concerned with research, the other concerned with impressions. They were both legitimate approaches, bound by a common end to their pursuits: the divine design.¹⁴⁹

Thus, Morren defined science as the knowledge of what is, and poetry as the feeling of what is and what may be.¹⁵⁰ Science operated through logic and analysis, poetry through feeling and synthesis, but they both sought to attain the divine truth. For example, Morren observed that trees, plants and flowers always had a poetical charge: since antiquity they were attributed a language and life, before science recently formulated the notion of vegetal animation. Therefore, poetry and science had attained the same truth through observation. Goethe had discovered in his *Metamorphosis of plants* the unity underlying the variety of forms in nature. "A beautiful theory," discovered by a poet, which to Morren proved that scientific enquiry should not exclude imagination.¹⁵¹ Imagination, then, lay at the origin of inquiry and the creative process.

Morren was concerned with the nature of creation for yet another reason. In his early years in Brussels, he painted and wrote poetry. Drawing was an essential skill for botanists. Between 1824-1825 he wrote volumes of poetry, *Mes loisirs* which remained unpublished, and in the 1840s, a volume of poetry which was composed initially for his close circle of friends and family, then published in 1843 as *Fleurs éphémères*. The poems, written in the open air, were grouped in five

¹⁴⁹ Charles Morren, Preface to *Fleurs éphémères* (Bruxelles: Librairie Encyclopédique du Périchon, 1845), p. 8.

¹⁵⁰ Ibid.

¹⁵¹ Ibid., p. 10.

thematic groups—Friendship, Love, Fatherland, Science, and God—and included pieces dedicated to scientists such as the French naturalist Georges Cuvier (1769-1832) or the Swedish botanist Carl Linnaeus (1707-1778), as well as poems on specific plants such as the banana tree. The poems are probably devoid of literary merit, but its preface offers a valuable insight into Morren's ideas on art. He was well-aware of the national literary pursuits at the time and the ongoing debate whether there existed a Belgian literature, distinct from the French one. He hoped that his book would add a "modest stone to the edifice of a national literature." Then, he explained how the ends of poetry and science were nature as an emanation of the divine, another reason why he rejected the contemporary schism between science and imagination. Linnaeus and Goethe had shown him how science and poetry could go hand in hand.

As Édouard Morren pointed out in a detailed biography of his father, Goethe's elementary theories on the physiology of plants were dominant when the elder Morren obtained the chair of botany at Liège, and Morren helped propagate the ideas of the German poet in Belgium.¹⁵² But Charles Morren was also heavily drawn to Goethe because of the universality of his figure, uniting science and art. In his "Horticulture and philosophy" conference at the Société d'horticulture of Liège in 1838, Charles Morren mentioned Goethe's remark that all true talents have something universal, adding the example of doctors who engage with passion in architecture, horticulture, and industry. Morren pointed out Claude Perrault in France and Joseph Guislain in Belgium, author of several medical illustrations and winner of several awards in architecture. That medicine and

¹⁵² Édouard Morren, "Notice sur Charles Morren," *Annuaire de l'Académie royale des sciences, des lettres et des Beaux-Arts* (1860), pp. 209-210.

architecture are closely bound together was indeed true, for “healing is putting in harmony all parts of our body, this most complex living building.”¹⁵³

The glasshouses of modern horticulture

In his quest for a universal bond, Morren moved into the creative fields of architecture and the fine and applied arts. At the intersection of horticulture and architecture, science and art, works of the natural and temporal creation, modern glasshouses became central in his reflections. The type was developing fast, accompanying the rise of horticulture. Morren’s thoughts on the topic constitute perhaps his most original contribution.

In the opening article of *Annales de la Société royale d'agriculture et de botanique* in 1845 Morren sought to formulate a philosophy of botany and horticulture. The new journal was the offspring of the *Messenger des Sciences et des Arts*, which the association had published jointly with the Beaux-Arts society of Ghent, and which symbolized “the happy and moving union” [*l'heureuse et touchante union*]¹⁵⁴ between natural sciences and fine arts, as Morren remarked. He explained that horticulture was not only a new division of commerce and industry, but also a branch of the fine arts:¹⁵⁵

it rests, as painting, sculpture and architecture do, on the sentiment of the beautiful, of the convenient, of the harmonious and the useful; like the most incontestable of the fine

¹⁵³ [guérir, c’est mettre en harmonie toutes les pieces de notre corps, edifice vivant des plus compliqués] Charles Morren, *Horticulture et philosophie* (Liège: Dessain, 1838), p. 7.

¹⁵⁴ Charles Morren, Opening article of *Annales de la Société royale d'agriculture et de botanique* (1845), p. 1

¹⁵⁵ Ibid.

arts, it demands a delicate feeling, an elevated judgement, and good taste which detects the exquisite impressionability of a well-reared soul.¹⁵⁶

Through these remarks, Morren sought to define "horticulture," a relatively new word for a rising practice.¹⁵⁷ He distinguished between botany, which was concerned with truth, and horticulture, which was concerned with the beautiful.¹⁵⁸ In "Principles of horticulture" he offered an analogy that stemmed from his religious thought and that ultimately saw nature as an emanation of the divine. Based on the statement of the French naturalist Henri-Marie de Blainville (1777-1850) that "zoology is the idea of God expressed in animals," Morren added that botany is "the translation in flowers of God's thought," whereas "horticulture is the translation in gardens of God's thought."¹⁵⁹ In the polarized social and political life between Catholics and Liberals in nineteenth-century Belgium, the book of nature could be read in different ways. To the Liberals, in particular after Darwin's works, nature could appear as a manifestation of the spirit of the competition and selection; to the Catholics, as a page in God's book. To Morren, horticulture carried out a biblical ideal by placing all plants of the earth in a confined space. Specifically, the invention of glasshouses realized the primordial biblical condition of paradise on earth, "by transporting the tropics and the

¹⁵⁶ Charles Morren, Review of Floralties d'Anvers, 8-10 June 1845, in *Palmes et couronnes de l'horticulture de Belgique* (Liège, 1851), p. 27.

¹⁵⁷ Charles Morren, "Principes d'horticulture," *Annales de la Société royale d'agriculture et de botanique* (1845), p. 1. Morren attempts to define the term and the principles of the modern practice which has replaced traditional gardening, writing that the word "horticulture" has not been accepted by the Académie française. However, "horticulture" is present in the sixth edition of the *Dictionnaire de l'Académie française* of 1832-1835.

¹⁵⁸ Charles Morren, *Palmes et couronnes*, p. 59

¹⁵⁹ Charles Morren, "Principes d'horticulture," *Annales de la Société royale d'agriculture et de botanique* (1845), pp. 10-11.

equator to the pole, putting China, Japan and the New World in Europe."¹⁶⁰ Thus, horticulture was attributed with higher credentials and a noble, divine character.

Religious figures proved handy to describe horticultural feats. In 1845 Morren published an account of the countryside estate of the Chevalier Heynderyck, Senator and vice-president of the Société royale d'agriculture et de botanique of Ghent. Heynderyck's estate included an Italianate villa, raised on a gallery that doubled as an orangery and was flanked by a double ramp, and a detached building of glasshouses (Fig. 2.7). Morren described it as combining Italian and English landscape design, and focused on the orangery and the glasshouses designed by Heynderyck himself, whose "talent as architect was no less remarkable than his talent as horticulturist."¹⁶¹ The building of the glasshouses combined several types in one structure, a common scheme of the earlier nineteenth century (Fig. 2.7). The central masonry block of the orangery with three arched openings was flanked by two glasshouses, raised on a vaulted platform. Attached to the base were four low forcing-houses whose height reached the main floor. To each side, the glazed iron structure had a curved profile at each end, which gave to the building the form of shell. The French botanist A. Raffeneau-Delille visited the estate in 1838 and described this form as a capsized boat.¹⁶² Morren saw it as Noah's ark, capsized on Mount Ararat, strengthening his analogy between the animals of the ark and the numerous specimens under glass.¹⁶³

¹⁶⁰ Ibid., p. 11.

¹⁶¹ Charles Morren, "Notice sur le château, les serres et les cultures de M. Le Chev. Heynderyck," *Annales de la Société royale et de botanique de Gand* (1845), p. 205.

¹⁶² Raffeneau-Delille, *Notice sur un voyage horticole et botanique en Belgique et en Hollande* (Paris: Germer-Baillière, 1838), p. 11.

¹⁶³ Charles Morren, "Notice sur le château, les serres et les cultures de M. Le Chev. Heynderyck," *Annales de la Société royale et de botanique de Gand* (1845), p. 203.

Glasshouses were a modern invention, but, according to Morren, they were inspired by the primordial ideal of gathering all plants in one place. Commercial horticulture spread plants from the collections of a few countryside estates into the townhouses of the middle class. The rubrics of Morren's journal under the titles of *floriculture* and *horticulture d'appartement* and *de salon* followed this development with notices on recent construction, new plants, and advice on indoor cultivation. Morren saw that this movement brought town dwellings in direct contact with nature. In interiors, it brought horticulture in contact with the fine arts, the two branches of the same tree. Potted plants appeared indoor and glasshouses appeared in townhouses as attached conservatories and glazed balconies. Although designs combining residential spaces with glasshouses were not widespread yet, Morren saw their significance for future developments and was always keen to point out innovative constructions in gardens and townhouses. Most of the proposals came from England, but there were also Belgian firms in Liège which designed new conservatories. Commercial horticulture drove the demand: fascinated by the vegetal world as they saw it in large exhibitions, the public wanted to recreate in their dwellings fragments of the exhibition atmosphere.

As early as 1848 Charles Morren described the effects of that year's floral exhibition in Brussels which gathered the latest introductions of the explorers Linden, Funck, Gihesbreght and Verheyen, the renowned orange-trees of Laeken, and the palm trees of the most prominent collections in the country—Verschaffelt, Desaeghere and Van Hulle of Ghent, Vandermaelen and Galeotti of Brussels, and the botanical gardens of both cities. "Everyone wanted to take home the image of this fairy-tale spectacle," he remarks.¹⁶⁴ Fragments of these environments were gradually spreading to townhouses. Morren observed that palm trees, once the exclusive possession of royal

¹⁶⁴ Charles Morren, *Palmes et couronnes*, p. 142.

palaces, large establishments subsidized by the government or large associations, had now moved into the *hôtel particulier* in the city. Built in the latest fashion, residences often included glasshouses for the palm trees, "*plantes si poétiques*" [highly poetical plants].¹⁶⁵

In 1851, Morren published a compendium titled *Palmes et couronnes de l'horticulture de Belgique*, which included a detailed overview of the development of horticulture in Belgium. He observed the technological advancements in construction which accompanied the proliferation of glasshouses, conservatories, glazed galleries and repositories dedicated to ornamental cultures in the townhouses of the middle class. These structures and the rising culture of plants had brought "the vivid image of nature and its beauties," which appealed to the eyes and to the mind, and carried a thorough artistic ideal—"l'art considéré dans son idéalité,"—transforming the atmosphere of everyday life:

the glasshouse is often the boudoir, the drawing room of society games, songs and music, a reading-room and even a smoking room, that is, the home [*foyer*] where life unfolds between feelings, conversations, the frank or dream-like thoughts [*l'esprit naturel ou d'emprunt les rêves*], passions or heavy smoke.¹⁶⁶

In these environments, daily activity and the atmosphere of plant life merged into one. The design of glasshouses was key in setting up this environment because it altered the effects of the interior and it affected the life of plants, "destined, in these prisons, to clothe themselves with charm and beauty,"¹⁶⁷ but also that of the inhabitants. An example of the importance of specific choices in

¹⁶⁵ Charles Morren, "Horticulture de la demeure: Les palmiers des jardins d'hiver," *La Belgique horticole* (1855), p. 24.

¹⁶⁶ [La serre est souvent le boudoir, le salon de jeu, de chant et de musique, la salle de lecture, voire même le fumoir, c'est-à-dire le foyer où la vie se passe entre les sentiments, la conversation, l'esprit naturel ou d'emprunt les rêves, les passions ou la fumée]
Charles Morren, *Palmes et couronnes*, p. 419.

¹⁶⁷ [La vie des êtres destinés à devoir, dans ces prisons, se couvrir de toutes leurs charmes et revêtir de toute leur beauté]

design was the layout of sashes or the glass tint: Morren observed that parallel sashes gave the idea of a prison; white or rose tinted glass was detrimental to plants; and if the glass was coated with limewater, its effect would be healthier but then, the glasshouse "loses its poetry."¹⁶⁸

The affective power of the glasshouse atmosphere had caught the attention of the Morrens. They realized that this effect was both physical and psychological. The physical conditions of the environment—the temperature, humidity, and light—affected the life of plants but also the body and mind of humans who shared their atmosphere. These considerations were even more important when the atmospheric conditions of the glasshouse were recreated in the home interior. Morren had always stressed the happy union between the fine arts and horticulture which occurred when plants were cultivated indoor and he remarked that the decorative plants were transforming the house. But this was not only a matter of beautification. The cultivation of plants indoor purified the air and brought light to the interior, making houses healthier for everyday life.¹⁶⁹ There was an additional, psychological charge in the new atmosphere: concealing industrial components only enhanced this effect, which is why Morren favored picturesque design schemes.

Charles Morren's remarks on the effects of tinted glazing and the iron frame layout on the life of plants but also on mood show that his great interest in the affective role of atmospheres. These aspects of glasshouse design had drawn him to the work of his contemporary in Brussels, Charles-Étienne Guillery, a scientist with a background in medical science and with a recent strong interest in architecture. They had both joined the *Observateur médical belge*, in which Morren published in 1834 his studies on the influence of light on the life of elementary organisms. Morren's later work,

Ibid., p. 427.

¹⁶⁸ Ibid.

¹⁶⁹ Charles Morren, "Horticulture de la demeure: Les palmiers des jardins d'hiver," *La Belgique horticole* (1855), p. 24.

“Recherches sur la rubéfaction des eaux” of 1841, written with his relative August Morren who later became a dean of the faculty of sciences at Marseilles, was often quoted in the hygiene manuals—Guillery’s field of expertise as a consultant for the Belgian government.

Morren praised Guillery’s ideas in the article on glasshouses attached to townhouses, in one of the few instances in which he was able to refer to innovative works that were not from England, but Brussels.¹⁷⁰ His interest in Guillery must have been twofold: not only in the emphasis on the importance of the modern type, but also in Guillery’s broader ideas on the role of nature at the origins and evolution of architecture, ideas that must have fascinated the Belgian botanist who had long explored these topics as he sought to formulate his own philosophy of nature and art.

¹⁷⁰ Charles Morren, "Perfectionnement dans les vitres des serres" in *Palmes et couronnes*, p. 427.

3.2 Charles-Étienne Guillery: Movement in nature and architecture

Charles-Étienne Guillery (1791-1861) had turned to architecture by the mid-nineteenth century, after a long activity in the humanities, natural sciences and medicine. In a way, he exemplified the universal talent and the dual approach to nature, at once scientific and poetical, which Morren admired. Guillery was born in the town of Versailles in 1791 and received his early education at the College Louis le Grand where, according to his biographer and former student Dr. R. Gorrissen, he showed his double aptitude towards letters and science.¹⁷¹ Later, he taught at the school and became a protégé of the count Saint-Simon, for whom he worked as secretary, and his thought always kept some of his mentor's utopian aspirations. In 1820 Guillery moved to Belgium. He taught natural sciences—mathematics, physics, chemistry, mechanics—at the Athnécée royale, the military school, the Free University of Brussels which he joined upon its foundation in 1834 and the school of Vandermaelen, the largest geographic and horticultural establishment in the capital. He worked for the government as an expert in education and applied sciences—chemistry, physics, mechanics and medicine, including projects of public health—and he taught the course of pharmaceutical chemistry at the Faculty in Medicine in Brussels.¹⁷²

In 1845 Guillery published a book of essays, *Lettres sur l'architecture*, and three years later he founded the periodical *Journal de l'architecture* together with the architects Marchand and Dekeyser.¹⁷³ Although the *Journal* appeared only for a few years, it was the only architectural

¹⁷¹ R. Gorrissen, *Notice nécrologique sur Charles-Étienne Guillery* (Bruxelles: Gustave Mayolez, 1871).

¹⁷² Ibid., p. 5.

¹⁷³ *Journal de l'architecture et des arts relatifs à constructions, Revue des travaux exécutés en Belgique* was edited by the architects Marchand and Dekeyser, and by Guillery who taught at the Athenée and the Free University of Brussels at the time. It appeared until 1853, when the founding committee was dissolved and its name changed to *Journal belge de l'architecture et de la science des constructions: Revue des travaux exécutés en*

periodical in the country before *L'Émulation*. Guillery's works in architecture, combined with his background in public health and his connections with the Liberal and masonic circles of the Free University of Brussels brought him in contact with the founders of the zoological garden at the Léopold park in Brussels in 1851. He joined the venture holding the title of architect, alongside Fuchs and Balat.

Guillery's approach, especially in the *Lettres*, stemmed from his own background as a scientist, the utopianism of Saint-Simon and the progressivism of Léonce Reynaud which resulted in a history of architecture attuned to structural developments.¹⁷⁴ He argued the scientific character of the discipline and the conscious, intellectual process at the roots of conception and the later appreciation: art begins when we seek intellectual gratification from the act of creation.¹⁷⁵ He covered a wide array of historical subjects with a global outlook and a focus on medieval architecture, in particular, the problem of the origins of the pointed arch which was broadly discussed at the time. According to Guillery, its origin lay in a scientific process: the tracing of the cycloid line which was transmitted through the masonic lodges before it was lost.¹⁷⁶

Guillery discussed nature in the *Letters* and his articles in the *Journal de l'architecture*, and it is perhaps these writings that caught Morren's attention. In the 14th chapter of the *Letters*, he was particularly interested in the way architecture drew its models and principles from nature, and how in this respect it differed from painting and sculpture. Whereas the latter fields use models from nature in the process of mimesis, architecture does not. It is related to creations in nature through

Belgique, which continued to appear until 1856. Guillery's *Lettres sur l'architecture* was published in 1845 by Parent in Brussels.

¹⁷⁴ Martin Bressani, "Science, histoire et archéologie: Sources et généalogie de la pensée organiciste de Viollet-le-Duc." PhD diss. (Université de Paris-Sorbonne, 1997), p. 372.

¹⁷⁵ Charles-Étienne Guillery, *Lettres sur l'architecture* (Bruxelles: Parent, 1845), p. 166.

¹⁷⁶ Martin Bressani, "Science, histoire et archéologie," p. 373.

fundamental principles, one of which is symmetry, which lies at the foundations of architecture, animal and human bodies. Symmetry conveys the idea of repose, which man expects from buildings, whereas painting and sculpture seek to express *movement*. To Guillery symmetry is above all an essential need that man projects onto architecture and the decorative arts because, his own body, which is "organized" symmetrically with two eyes and two hands, pushes him to establish the same arrangement to his left and to his right. He projects this exigency to the large masses of architecture, and when he is not able to, to smaller items such as furniture or fireplaces because the spirit of architecture pervades such objects and the decorative arts.¹⁷⁷ The process is nevertheless intellectual and Guillery specifies that "symmetrical parts in man are, above all, those related to the soul, the animal life, such as the organs of the senses, speech, the lobes of the brain and the nerves descending from it, but symmetry disappears from what is only related to organic life, such as the heart or the intestines. These organs are not subdued to reason, but to instinct,"¹⁷⁸ and he concludes with his final argument: if God the architect has created the symmetrical arrangement in matter, there is no reason to doubt that he has not done the same in the intellectual order.¹⁷⁹

The vivid forces of nature were the subject of a full article four years later, in the *Journal de l'Architecture*. Articles in the previous issues by Guillery, "On the causes of change in architecture" [*Sur les causes des changements dans l'architecture*] and "On progress in architecture" [*Du progress en architecture*], Marchand's "On the movement of contemporary art" [*Du mouvement de l'art architectural contemporain*] had all employed the notion of movement to describe contemporary changes and past developments in the history of architecture. In 1848, Guillery wrote his new article

¹⁷⁷ Guillery, *Lettres sur l'architecture*, p. 165.

¹⁷⁸ Ibid., pp. 165-166.

¹⁷⁹ Ibid., p. 170.

"On movement in architecture" [*Du mouvement en architecture*] in which he used the dual meaning of the word to describe an aspect of nature's appearance and the development of architecture through a common principle which could now help architectural renewal.

In his reflections on movement and growth, Guillery observed that nature imbues with life everything that is massive and still. He pointed to ancient monuments invaded by living nature [*nature vivante*] as the most significant example, and recommended crawling plants as decorations because they could impart life onto buildings. Guillery's idea arose from his joint interest in architecture, natural sciences, and the philosophy of nature in his time and it altered the image of pervasive vegetation combined with architectural fragments. From symbols of decay in a previous age that was fascinated by ruins, the interest in the workings of nature transformed the image of architecture invaded by plants into works imbued with life. It turned creeping plants—or their image—into a medium to renew architecture by making it appear alive (Fig. 2.14).

3.3 Vital forces in French architectural theory

Guillery believed that the movements of contemporary architecture could benefit from the hidden laws of nature once architects learned to discern them. What interested him the most was movement, one of the manifestations of those hidden forces called developmental or vital. It is important to note that Guillery, a French national, had a background in medicine, before he expanded his inquiries into an array of scientific fields and architectural theory.

In his *Short history of medicine* (2007), F. Gonzalez-Crussi has traced two opposed viewpoints at the heart of all inquiries into the origins and manifestations of the phenomena of life, mechanism and vitalism, pointing out that the latter had great resonance in eighteenth-century France. The mechanical viewpoint contends that all forms of life can be explained by physical causes, whereas the contrary one alleges that the activities of the body are directed by a special force that is unique to living beings, and which is most commonly named “vital principle.”¹⁸⁰ This opposition dates back to ancient philosophy, but each viewpoint was reinvigorated at some point in history, following a discovery, new theory or philosophical system. According to Gonzalez-Crussi, vitalism found a foremost champion in the works of the German physician and chemist Georg Ernest Stahl (1600-1734), whose ideas spread throughout Europe. They became particularly influential in eighteenth-century France, where the vital principle made inroads in the natural sciences and in schools of medicine, and remained in wide circulation at the turn of the following century.¹⁸¹

A second development helped propagate these ideas: Romanticism. Stéphane Schmitt in his notes that the investigation of “hidden forces” underlying the appearance of things was characteristic

¹⁸⁰ F. Gonzalez-Crussi, *A Short History of Medicine* (New York: Modern Library, 2007), pp. 51-52.

¹⁸¹ Ibid.

of Romantic science at the turn of the 1800s. This philosophical strain goes back to Aristotle's concern with the intrinsic reality of things as opposed to a transcendental one, and continued via Leibniz into the German philosophy of nature—"Naturphilosophie"—of the close of the eighteenth century. Goethe's "hidden forces,"¹⁸² Herder's quest for the "organic forces," "obscure instinct" or "inner energy" which drive inanimate matter as well as the growth of organized beings, including plants, belong to this stage.¹⁸³ The Swiss Augustin Pyramus de Candolle (1778-1841), one of the founders of modern botany, employed the notion of "vital force" in his *Organographie végétale* (1827) to describe those obscure phenomena in the development of plants that escaped a direct explanation.¹⁸⁴ But he also provided scientific foundations to Goethe's theory of metamorphosis, and, he served as a liaison between the world of natural sciences in France and the German Philosophy of Nature of the turn of the nineteenth century.¹⁸⁵

The great resonance of the idea of a vital force helps explain how this concept permeated French architectural theory through contacts with natural sciences. Variations of this concept are central in the works of three prominent French authors: Eugène Emmanuel Viollet-le-Duc, Victor Ruprich-Robert, and Charles Blanc, who all proved influential in latter nineteenth-century Belgium. After Guillery's ideas, the concept of vital forces influenced architectural theory in Belgium through

¹⁸² Schmitt, *Histoire d'une question anatomique* (Paris: Muséum national d'histoire naturelle, 2004), p. 89.

¹⁸³ Ibid. p. 47

¹⁸⁴ Augustin Pyramus de Candolle, *Organographie végétale: ou, description raisonnée des organes des plantes*, vol 2 (Paris: Deterville, 1929), p. 241, quoted in Schmitt, *Histoire d'une question anatomique*, pp. 183-184. The full passage reads: "Ces faits sont soumis à une force particulière (la force vitale) dont les lois sont bien plus obscures et difficiles à étudier que celles de l'affinité et de l'attraction."

¹⁸⁵ Schmitt, *Histoire d'une question anatomique*, p. 119. Schmitt notes Candolle's role in providing solid foundations and propagating Goethe's theories, but also points out that his "vital forces" differed from analogous terms in the German philosophy of nature. Whereas Candolle described forces which drive modifications in the life of plants which are constant and remain within limits, the "hidden forces" of German philosophy were inspired by Newton's universal action and operated throughout matter.

the works of the French authors and, in particular, Viollet-le-Duc, the most influential of the three, who placed this notion at the heart of his inquiries into the architecture of the Middle Ages and of the future.

In the earlier nineteenth century, architects re-discovered medieval buildings. They saw that their ornament was drawn from living plants. They identified and classified its sources, with the support of botany. Pugin's study of the Gothic foliage and Griffith's natural system of architecture, quoted by Morren, belong to the parallel rise of medieval studies and natural sciences. The taxonomy of medieval architecture was gradually completed with the symbolism of each plant identified. The analysis continued into the latter nineteenth century, but, parallel to the developments in botany, attention shifted from classification to the discovery of underlying principles. These were developmental forces which drive movement and growth, determining the physiognomy of plants and, by analogy, of architectural elements. The aim of the inquiries was no longer the figure of the plant as a complete organism, vested with a symbolic meaning and placed in an historical taxonomy. Instead, their focus shifted to how plants developed and how their observation could be applied to architecture. It was argued that medieval architects had proceeded in this way, not by merely making copies of what they saw in nature, but by observing principles at work and applying them to their ornamental and structural design. The goal was for contemporary architects to proceed in the same way, a precondition for the renewal of architecture and applied arts in the nineteenth century: If only they learned to observe, instead of merely making copies of the models of the past. This was Viollet-le-Duc's argument.

As architectural historian Martin Bressani notes, natural sciences were a central component of Viollet-le-Duc's theory.¹⁸⁶ He developed a precise "organic method of analysis" which he tried to apply consistently.¹⁸⁷ In the article "Flore" of his *Dictionnaire raisonné de l'architecture française du Xie au XVIe siècle* (1854-68), Viollet-le-Duc discussed how medieval artists observed the way "nature operates" behind the appearance of things. They learned to seize dominant traits, re-interpret them and apply them to architecture, which entailed a solid understanding of the physiology, anatomy and the *allure* of plants. But they also ascribed symbolism to plants based on the observations of their shape and development. In the iris flower, for example, which played an important role in Romanesque ornamentation, they discerned the phenomenon of regeneration, embodied in the plant and the architectural ornament derived from it. Viollet-le-Duc referred to Linnaeus, who described the physical characteristics of the plant, and to Dr. E.-J. Woillez who, in an 1818 book on its iconography, had proposed a reading of the Iris as symbol of the "imperishable generative power" of nature.¹⁸⁸

Medieval artists chose one plant over another, based on the forces of nature which had determined its form and which it appears to express, and the symbolism they ascribed to it. This was Morren's elective principle. In the symbol of the iris, Viollet-le-Duc and Woillez saw the expression

¹⁸⁶ Bressani has traced the contacts of Viollet-le-Duc with prominent figures of Romanticism who visited his house at rue Chabannais and who were inspired by the natural sciences: Prosper Mérimée, J.J. Ampère, Stendhal, who also attended regularly the salon of the Baron Cuvier at the Jardin des plantes, his uncle and mentor Étienne Delécluze who was interested in anatomy, dissected himself and read Cuvier's *Leçons d'anatomie comparée*, the doctor Marc-Jean Bourguery, author of a *Traité complet de l'anatomie humaine* (1831-1854) and the geologist Alexandre Brongniart. Viollet-le-Duc maintained connections with important natural scientists and knew the German *Naturphilosophie* combining natural sciences, metaphysics and a vitalistic overtone and certainly Goethe's *Metamorphosis of plants*. See Bressani's chapters "Les contacts de Viollet-le-Duc avec les sciences naturelles" and "L'unité de la nature et la foi géométrique chez Viollet-le-Duc" in "Science, Histoire et archéologie."

¹⁸⁷ Ibid., p. 41.

¹⁸⁸ [puissance génératrice impérissable]

Viollet-le-Duc, *Dictionnaire d'architecture* (Brussels: P. Mardaga, 1979), p. 158.

of the phenomenon of regeneration, and a fundamental developmental principle which provided medieval artists with the qualities that they sought for their buildings to have, “true, practical and logical [*raisonné*].”¹⁸⁹ Maintaining analogous relationships, they attained perfect harmony between structure and ornamentation—the same harmony which exists in nature between the flower, the stem, and all parts that compose the plant. Thus, Viollet-le-Duc defined Gothic architecture in the article “Style” of the *Dictionnaire* as the “natural vegetation of structure.”¹⁹⁰

In the same article of the *Dictionnaire*, Viollet-le-Duc complemented his previous considerations on flora with fauna, which the medieval architects observed in order to draw another set of principles at play. After a careful observation of how nature operates in vegetal and animal organisms, medievals created for their own buildings an “organism of stone” that follows the same laws as the natural one.¹⁹¹ In an analogy with anatomy Viollet-le-Duc made his famous description of the structure of the Gothic cathedral as an elastic skeleton: first they found an equilibrium system, then they clothed it with a form that is an expression of it; masses were “enriched” with ornament borrowed from nature that stood in the same relationship, as an expression of the underlying structure. Thus, Viollet-le-Duc’s architecture is “structure clothed in a form of art.”¹⁹²

Bressani has noted that one of the books to inspire Viollet-le-Duc was Éd. Guimard’s *La plante*, which explored the mysteries of the vegetal world and drew its inspiration from Goethe and Boscowitz’s *L’Ame de la plante*, works which argued for the unity of the living world.¹⁹³ Boscowitz’s

¹⁸⁹ Ibid., p. 159.

¹⁹⁰ [végétation naturelle de la structure]

Ibid., p. 162.

¹⁹¹ Ibid., p. 283.

¹⁹² [structure revêtue d’une forme d’art]

Ibid., p. 288.

¹⁹³ Bressani, “Science, histoire et archéologie,” pp. 117-118.

book, in turn, was influential in the philosophy of art of the second French author, Victor Ruprich-Robert, student of Viollet-le-Duc and professor of composition and history of ornament at the École de dessin in Paris. His large-folio *Flore ornementale* (1876) became one of most influential works on floral ornamental design in the nineteenth century. Ruprich-Robert collaborated with the landscape architect Édouard André for the plates and the accuracy of the botanical references in the *Flore*. They corresponded when André was in Liverpool in the 1860s,¹⁹⁴ just before he settled to Belgium to collaborate with the Linden establishment.

In the preface to *Flore*, Ruprich-Robert traced the ways in which plants become architectural ornament. Whereas Viollet-le-Duc argued that the essence of observation was to grasp how nature operates, Ruprich-Robert stated similarly that the purpose of his inquiries were the *intentions* of nature.¹⁹⁵ He argued that the plant ought to be grasped in ways analogous to the human figure, through its *allure* and character.¹⁹⁶ These were aspects of what Ruprich-Robert called the life and language of plants, and they were largely responsible for the symbolism ascribed to them in different civilizations. The preface contains numerous references to works of botany, philosophy and design, including Viollet-le-Duc's article "Flore" in the *Dictionnaire*, Charlotte de la Tour's *Le langage des fleurs*, Pierre Zaccone's *Le nouveau langage des fleurs* (recommended in an endnote), and Boscowitz's *L'Ame de la plante*. Ruprich-Robert was fascinated by the curious life phenomena which seems to result from a "will that dominates creation," and which had led botanists and philosophers into the ongoing debate whether plants had a soul. He remarked that plants, like animals, have a sensibility, even though he did not wish to elaborate on the different theories, nor take a stand. But he found

¹⁹⁴ Barry Bergdoll, "Of crystals, cell and strata: Natural history and debates on the form of a new architecture in the nineteenth century," *Architectural History* 50 (2007), p. 20.

¹⁹⁵ Victor Ruprich-Robert, *Flore ornementale: Essai sur la composition de l'ornement* (Paris: Dunod, 1876) p. 5.

¹⁹⁶ *Ibid.*, p. 69.

that such questions could only increase his admiration for nature and that they should be in the artist's mind when he seeks to understand and represent plants. The bud returned as the embodiment of the vital principle, of the language of flowers, "the most beautiful example to observe, proof of the procreative energy of nature, and to give to certain details of the work of art the accent of a true and strong unity."¹⁹⁷

The pursuit of underlying principles and a symbolic language in nature had as its corollary the pursuit of an abstract language in art. Architectural historian Ralph Ghoche's 2016 study "Ornament and expressive lines: Nature and symbol in Victor Ruprich-Robert's *Flore ornementale*" placed the treatise in the context of ongoing calls to revisit nature and discover lines and contours that evoke expressions, and could yield an abstract language in art.¹⁹⁸ He identifies in Charles Blanc, the key figure who continued the research into the expressive force of linear motifs. Blanc published his "L'Ésthetique des lignes" in *Revue des cours littéraires* of 1869, in which he attached physical and moral connotations to lines, qualities that they expressed in nature, and therefore, would continue to express in art. For example, one of his ideas was that curved lines could only express movement and life. Blanc elaborated his theories on ornamental design in his widely-circulated books *Grammaire des arts décoratifs* and *Grammaire des arts du dessin* (1870).

¹⁹⁷ [le plus bel exemple à observer et à consulter pour se convaincre de l'énergie procréatrice de la nature et pour donner à certains détails d'œuvres d'art l'accent d'une véritable et forte unité]
Ibid., p. 112.

¹⁹⁸ Ralph Ghoche, "Ornament and Expressive Lines: Nature and symbol in Victor Ruprich-Robert's *Flore ornementale*," in *Companions to the History of Architecture*, eds. Martin Bressani and Christina Contandriopoulos, vol. 3 (Hoboken: Wiley-Blackwell, 2016), p. 7. Ghoche places Ruprich-Robert in a lineage of French architectural theory: he drew from the theories of his mentor Simon-Claude Constant-Dufeux on lines as symbolic forms that communicate ideas and elicit emotions, Victor Cousin's theories of immediate abstraction in his *Du Vrai, du beau et du bien* (1836), arguing that art could only reveal with greater clarity the symbolism inherent in nature, and proposals such as those in César Daly's article "Du symbolisme dans l'architecture" (1847) to employ the contour line forcefully and use it to convey specific attitudes and emotions.

In Belgium, the three French authors just reviewed were key sources for any progressive architect trying to define modern ornament. The railway station of Bruges (1879-1886) and the iron shed of the Antwerp Stock exchange courtyard (1868-1872) by the architect J. Schadde (1818-1894)¹⁹⁹ are two important projects whose prominent iron structures were decorated with medievalizing, naturalistic motifs most likely derived from the plates of Viollet-le-Duc's *Entretiens*. The engineer and theoretician Arthur Vierendeel (1852-1940) praised the "artistic ironwork" of the train station at Bruges, which intermingled naturally with the constructive elements and achieved a suitable décor for iron just as moldings and sculpture were the décor that developed from working with wood and stone.²⁰⁰ In 1958, John Jacobus sought to relate these two early precursors of Art Nouveau designs to Horta for the first time, arguing "their effect could not have been lost" on the young architect.²⁰¹ Jacobus was keen on Schadde's works because they were absent in Madsen's recent study on the sources of Art Nouveau and Horta. Giedion had also sought Horta's sources in the decorative work of the mid-century iron structures in train stations and industrial constructions, but Jacobus's observation provided a concrete connection to Viollet-le-Duc, though through the intermediary of Schadde.

Horta was familiar with the *Entretiens* and the *Dictionnaire*, but there is an additional connection between him and the French architect: Ernest Hendrickx (1844-1892),²⁰² trained in the

¹⁹⁹ The old and new Antwerp stock exchanges are illustrated in Vierendeel, *La Construction architecturale en fonte, fer et acier*, plates 10-11; The Bruges train station by Schadde in his plates 70-76.

²⁰⁰ Vierendeel, *La Construction architecturale*, p. 210.

²⁰¹ John M. Jr. Jacobus, Review of *The Sources of Art Nouveau* by Tschudi Madsen, *The Art Bulletin*, no. 4 (December 1958), p. 370.

²⁰² Born in Saint-Josse-ten-Noode (a borough of Brussels), Jean Ernest Henri Hendrickx was the son of the painter and illustrator Henri Hendrickx, who participated in the debates on urban transformations and the drawing teaching methods. Ernest taught at his father's local drawing school at Saint-Josse-ten-Noode before travelling to Paris in 1866 to continue his training in the atelier of Viollet-le-Duc. Over the following years he continued his activity between Belgium and France. In Belgium, he joined the masonic

atelier of Viollet-le-Duc and Anatole de Baudot in Paris, nominated professor at the École polytechnique of the Free University in 1873, in charge of the courses of free-hand drawing, graphic works of engineering and architecture, architecture and elementary notions of construction, and history of architecture. One of his first actions was to have the library of the university obtain the main works of the Viollet-le-Duc.²⁰³ In 1892, Horta became his assistant and obtained his chair in the same year after his sudden death. The direct contact with Hendrickx and his course programs were an opportunity to learn more about Viollet-le-Duc's ideas.

References to Blanc's theories on ornament by renowned Belgian authors attest to the former's influence in Belgium. The art critic Sander Pierron quoted his dictum "architecture in its noblest sense is decorated construction and a constructed decoration" in his study on Horta, who was also his friend.²⁰⁴ References to Blanc appear in Vierendeel's *L'architecture métallique au XIXe siècle et l'exposition de 1889, à Paris* (1890), and his *La construction architecturale en fonte, fer et acier*, the most important contributions to the problem of iron architecture in Belgium at the time. France was Vierendeel's main reference for the most advanced structures, but also for theories of design. His first publication was a small-format book, inspired by recent iron constructions at the Paris Universal Exhibition, in which Vierendeel discussed the possibilities offered by the new material, technical

lodges *Les Amis Philanthropes*. *La Lige de l'enseignement*, founded in 1864 by Liberal and masonic circles to support secular education (Charles Buls was its secretary), gave him the commission of a model school in 1872. Hendrickx entered the Free University in 1873. He continued to design iron structures and glazed courts in the buildings of the university over the following fifteen years, added to cope with the increasing demands of the institution. The new buildings were published in "Université Libre de Bruxelles," *L'Émulation* (1891), col. 190, pl. 29-41; (1892), col. 172, pl. 18-23; (1893), col. 188, pl. 18-19. The main biographic contribution is Éric Hennaut's "Ernest Hendrickx et l'influence de Viollet-le-Duc," in *Bruxelles: Carrefour de cultures*, ed. Robert Hooze (Antwerp: Fonds Mercator, 2000).

²⁰³ Hennaut, "Ernest Hendrickx et l'influence de Viollet-le-Duc," n3, p. 31.

²⁰⁴ [l'architecture dans son acception la plus noble, n'est pas tant qu'une construction que l'on décore qu'une décoration qui se construit]
Sander Pierron, "Victor Horta," p. 59.

characteristics and his general ideas on modern architecture. The second publication included a set of large colored plates, illustrating the most famous modern iron structures of the century, shown in elevation, perspective, and measured constructive details. It included one of the earliest technical illustrations of Balat's wintergarden at Laeken shown in an elevation of the exterior, cut-away perspective, and constructive details of the ribs at the masonry support and the intermediate intersection with the colonnade entablature.²⁰⁵ The engineer was only interested in the naked iron structure, not the content of the artificial environment of the glasshouse.

Vierendeel dealt with the notion of rational design, central in architectural theory at the time, and persistent in the historiography of the period in the early twentieth century. It was the premise of a modern architecture that had not fully materialized yet, offering a path that was at once certain and unclear. It was far from clear how a rational iron structure was to be decorated. Vierendeel developed Blanc's idea in *Grammaire des arts décoratifs* that decoration ought to stem from construction with an analogy from botany that complemented Blanc and evoked Viollet-le-Duc, adding that "decoration ought to be like an efflorescence of the structure, it ought to emerge naturally like stems and leaves emerge from the trunk of the tree."²⁰⁶ He rejected the idea that anything rational was by definition beautiful, pointing to the deplorable effect of the rods of an iron truss as an example. There were, however, elements of iron construction such as rivets, joint-covers, and trellises which lent themselves to decoration and ought to be developed further, imbued with life into true decoration that emerges powerfully from the structure and the constructive energy of the

²⁰⁵ The plates of Arthur Vierendeel's *La Construction architecturale en fonte, fer et acier* show Balat's wintergarden in elevations, cut-aways and details, including the joint between the masonry base the iron rib (plates 56-59). They were the most detailed set of illustrations of this building to that date.

²⁰⁶ [la décoration doit découler de la construction]

Vierendeel, *L'Architecture métallique au XIXe siècle et l'exposition de 1889, à Paris* (Bruxelles: E. Ramlot, 1890), pp. 42-43.

material that they cover.²⁰⁷ This was, in Viollet-le-Duc's statement, the task of style which imparts life in every detail and renders coherence to the whole. Vierendeel delved on these theoretical possibilities, but could not yet provide concrete examples of modern architecture in which ornament emerged from the iron structure.

Each of these authors differed on the concrete expression of their theories. Viollet-le-Duc and Ruprich-Robert provided their own illustrations of what an architecture inspired by how natural operations could look like. Their forms were conditioned by their ideas, but also, by their profound interest in medieval ornament. Most importantly, their works help us identify, rather than sources, key themes in wide circulation at the time and which can be brought to bear upon motifs of Horta's architecture.

The decoration of the iron framework in the Hôtel Tassel's interior has the twofold function of articulating the structure and participating in the décor of the wintergarden. It fulfills the dual role by evoking vegetal life in the iron tendrils that spring atop the two columns, and in decorative work in the corners of the bent girders, the wrought ironwork of the balustrade and the two stem-inspired lamp fixtures descending from the ceiling. This decoration appears as the "natural vegetation of structure," to employ Viollet-le-Duc's definition of style.²⁰⁸ There is a further relationship between the French analogies with botany and Horta's décor springing from the figure of the bud. Viollet-le-Duc and Ruprich-Robert were fascinated by this figure which embodied vital forces in nature, symbol of its generative power. The moment of revelation in Viollet-le-Duc's *L'Histoire d'un dessinateur* (1879) occurs when the book protagonist realizes how nature operates

²⁰⁷ Vierendeel, *La Construction architecturale*, p. 63.

²⁰⁸ [végétation naturelle de la structure]
Viollet-le-Duc, *Dictionnaire d'architecture*, p. 162.

when he observes the bud. Then, in the design of the Viollet-le-Duc's protagonist, decoration emerged powerfully from structure in the same way nature pushes out stems and leaves from the trunk of a tree. A similar process occurs in the decorative sequence in the Hôtel Tassel's interior.

Hanser has previously argued that, at the outset, there was no comprehensive program for the Hôtel Tassel's interior. It was developed gradually as the construction site progressed. The cast-iron columns must have been placed first because they were structural elements. The idea to bring nature into the central court of the house may have been present from the beginning, but the decorative imagery was developed gradually, conditioned by other considerations regarding the architecture of the house, and starting from the columns, the first components placed. The capitals of the columns have the form of an open bud, from which spring tendrils, wrought-iron components added at a subsequent moment. Horta applied the same motif in the bases of the stone colonnettes, which open downwards as if to grasp the parapet. It is one of the elements which seem closest to Gothic ornamentation. Placed in these two contexts—the advancement of the decorative program and the French theories—the open bud atop the two columns generates the décor of the Hôtel Tassel's interior with the tendrils springing atop. The bud figure operates in the same way observers of the vegetal world had theorized. It acquires a new significance in the context of the exchanges between botany, architectural theory and masonic semantics, long obsessed with the figure of the bud and the idea of a generative nature.

Springing tendrils could evoke the idea of a generative nature, and they allowed to impart the idea of movement, the dominant trait of natural landscapes which fascinated the other French theoretician, Guillery. Imparting the idea of movement onto matter was key to imbuing architecture with life and to its renewal. About forty years after Guillery published his ideas, Horta joined in

Brussels many of the circles Guillery was involved with: The Free University, closely related to the Masonic circles, the local administration, the architectural society, and Balat's practise, and to took upon the difficult quest to renew architecture. He also saw the effects of pervasive vegetation on the round colonnade of Balat's wintergarden. Reflecting on architectural renewal through the nineteenth-century, Horta saw in the consecutive transformations of classicism the *vivification* of an existing tradition. He ascribed his own works to these efforts, and described the hôtel Tassel as a personal creation, a house that was classical work and brought to life. To bring this interior to life, and to create the idea of nature in a wintergarden, he designed ornamental motifs which impart the idea of movement on solids, and which evoke vital forces and movement in the vegetal world.

3.4 Vital forces and movement in the vegetal world

The phenomena of life in the vegetal world, subject of inquiries and recent theories in the scientific community, continued to attract the attention of the broader public in the latter half of the nineteenth century. Physiology, the discipline which describes the functions and activities in the life of organisms gradually became a central discipline in botany.²⁰⁹ Scientific inquiry and the public's interest gradually moved from classification and taxonomy to the intimate nature of the phenomena of life and its manifestations in the form of movement, growth and agency. Illustrative of this shift was the change in the lecture topics of Édouard Morren, noted by his former student Jorissenne. His earlier classes began with the classification of the three kingdoms, but, in his later years, he focused increasingly on the life of elementary organisms.²¹⁰ The phenomena under consideration bound the kingdoms together. In 1869, he stated that there are not two modes of life, one for plants and one for animals, but only one for all organized beings.²¹¹ In 1877, he read a paper titled "Elementary principles of vegetal physiology" in which he equaled life with movement and posited it as the essential characteristic of living organisms.²¹² For Morren, all phenomena of life are oriented towards the immediate aims of growth and multiplication—fructification, as the final goal of vegetation—and they have two ultimate goals: the preservation of the individual and the preservation of the

²⁰⁹ Quentin Hiernaux notes the initial opposition to the idea that this type of inquiry could be extended to plants, and that rise of physiology to a central discipline was gradual. Hiernaux, "Pourquoi et comment philosopher sur le végétal?," in *Philosophie du végétal*, eds. Hiernaux and Benoît Timmermans (Paris: Vrin, 2018), p. 18,

²¹⁰ Jorissenne, "Ch.-J. Édouard Morren," pp. 345-346.

²¹¹ Ibid.

²¹² Édouard Morren, "Principes élémentaires de physiologie végétale" (Liège, Annoot-Braeckman 1877), conference given in Liège on 18 February 1877, also published the following year in *Annales de l'horticulture* (1878): 22-32, 53-61.

species.²¹³ Morren is merely stating well-established, old and recent theories in the natural sciences. Outside the scientific community, these discussions nurtured the interest in the ideas on vital forces or energy, movement and growth, topics that permeated philosophy, arts, letters and the emerging social studies.

Harvey-Gibson notes that scientific knowledge of the phenomena of growth really dates from the year 1873, when Julius von Sachs postulated that every cell, tissue, and organ passed through certain phases which he termed the “grand period of growth,”²¹⁴ and he points out that many earlier theories on this topic were mere speculations fueled by Goethe’s doctrine of metamorphosis.²¹⁵ Despite, or more accurately, because of the lack of scientific certainty, the topic had a considerable impact on the minds of contemporary botanists and the larger public which were plunged into the mysteries of the vegetal world.

As Gonzalez-Crussi remarks, movement is the most striking hallmark of life even in a modern laboratory.²¹⁶ In Western thought, this association between movement and life dates back Greek philosophy. As Michael Marder observes, ancient Greek thinkers associated life with motion in various ways. In *De Anima*, Aristotle mentioned that three or four types of movement which the plant exhibited, and which revealed the presence of a soul.²¹⁷ Marder also notes that the Aristotelean capacities of a vegetal soul—notably, the attribution of the intentionality in sensation and cogitation which pertain to animals and humans—received a new lease on life between the

²¹³ Édouard Morren, "Principes élémentaires de physiologie végétale," *Annales de l'horticulture* (1878), p. 23.

²¹⁴ Robert Harvey-Gibson, *Outlines of the History of Botany*, p. 221.

²¹⁵ *Ibid.*, p. 58.

²¹⁶ Gonzalez-Crussi, *A Short History of Medicine*, p. 57.

²¹⁷ Michael Marder, *Plant-thinking: A Philosophy of Vegetal Life* (New York: Columbia University Press, 2013), pp. 19-20. In an absorbing exposé, Marder traces the key philosophical interpretations of plant life in history, in Greek antiquity, in the German Philosophy of Nature of the turn of the nineteenth century, Hegel, Nietzsche, and the more recent ideas by Husserl and Heidegger.

eighteenth and the twentieth century, between the speculations of the German natural philosophy and the later scientific discoveries.²¹⁸ Movement in the vegetal world was a central topic of scientific inquiry, but it also attracted the larger public for its sense of mystery, as with all phenomena pertaining to the intimate nature of life. The old philosophical question whether plants had a soul resurfaced in different forms.

Movement, now, added to the mysteries of the impenetrable domes of the forests of the new world, and it affected the way in which vegetal landscapes were experienced in the half-shaded glasshouses. As Bocowitz's title *L'âme de la plante* shows, French texts combined the language of scientific observation with metaphors and other literary figures to describe the captivating phenomena in ways analogous to the descriptions of the glasshouse atmosphere in horticultural literature.

The series of articles titled "Scènes du monde animé" by the French botanist Henri Lecoq (1802-1871), professor of natural history in Clermont-Ferrand, appeared contemporaneously in the early 1850s in Van Houtte's *Flore des serres et des jardins d'Europe*,²¹⁹ and in Morren's *La Belgique horticole*.²²⁰ Lecoq observed the cycles of life in nature in the depths of the virgin forest: sleep and regeneration that recur cyclically over the seasons and in linear movement in the course of growth, between birth and death. The hidden forces of life that drive the cyclical movements are universal, manifest in all corners of the globe in European or American forests, under "impenetrable domes,"²²¹ driving disparate phenomena from the blossoming of flowers to the movements of the clouds, and

²¹⁸ Ibid., p. 170.

²¹⁹ Henri Lecoq, "Scènes du monde animé," *Flore des serres et des jardins de l'Europe* (1852-1853) : 205-232

²²⁰ Lecoq, "Scènes du monde animé: Les jardins de la nature, le printemps et les fleurs," *La Belgique horticole* (1853): 210-223.

²²¹ Lecoq, "Scènes du monde animé," *Flore des serres et des jardins de l'Europe* (1852-1853), p. 214.

they affect profoundly the mood and the imagination of the beholder who contemplates them in silence. The hidden forces of life drive the ivy attaching itself to the trees, the honeysuckle winding around the arbor, the soaring branches of the clematis, and the lianas one dreams of; they drive the miracle of growth through the cycles of nature, when "a bud becomes the branch of a large trees, a seed germ which protrudes and modifies itself, develops new organs, blossoms and bears fruit in the course of a spring; or, defying centuries and preserving life, wakes up each time nature rises vigorously."²²² For Lecoq, this movement comes to an end with death, the last cycle in man's and nature's life when they abandon their body to oblivion and their soul to God, from whom they have received life.²²³ In this scheme of divine design, which Lecoq shares with Charles Morren, the ultimate end [*la destinée*] of animated beings is that death itself becomes a source of life.²²⁴

In an 1851 article in *La Belgique horticole* on the "*toilette*" and "*coquetterie*" of plants, Lecoq posited the instinct of love, if not intelligence, behind the hidden phenomena of life.²²⁵ In an 1858 article in the same journal, he focused on crawlers and similar plants, whose main characteristic seemed to be movement. He distinguished between the animal and the vegetal kingdom in that the latter lacks the directive will [*volonté directrice*] of the former; but, behind the apparent lack of intelligence and will, there is intelligent design [*intelligence créatrice*] which has established the movements of the plant so that they are directed towards a scope, determined by its needs.²²⁶ The movement of the crawling plants, seeking a solid to attach themselves is an example of this mechanism.

²²² Ibid., pp. 220-221.

²²³ Ibid., p. 232.

²²⁴ Ibid., p. 212.

²²⁵ Lecoq, "Discours sur la toilette et la coquetterie des végétaux," *La Belgique horticole* (1851), p. 426.

²²⁶ Lecoq, "Des plantes débiles, volubles, rampantes, etc.," *La Belgique horticole* (1858), p. 17.

The French botanist Arnold Boscowitz (1826ca-1909) employed metaphors and other simile figures to explain the physiology of plants in his popular *L'âme de la plante* (1867), a scientific work despite its ambiguous title. The term "soul" [*âme*] and other figures in the text are rooted in a scientific understanding of the activity of the plant, based on the findings of modern physiology, the analogies between vital functions of the animal and the vegetal world, and phenomena in plant life that seemed to escape the laws of physics and chemistry. To Boscowitz, these discoveries reveal the presence of a "soul" in the vegetal world, which he defines as "forces whose action is sometimes greatly extended, sometimes greatly limited."²²⁷ Examples of these forces in nature are heat and electricity. *L'âme des plantes* observes the functions, activities and organs of the plant during the course of its life, which is both cyclical in the ways several phenomena recur in the lives of the specimens and in the vegetal world, and also linear, moving from youth to old age. Boscowitz's contemporaneous work, *Les Volcans et les tremblements de terre*, which was awarded a medal from the Académie française, investigated the hidden forces behind another type of animated phenomena of the earth.

L'âme des plantes had a wide influence in the scientific community. Even Charles Darwin was a reader of Boscowitz. He acknowledged his debt in his own work on the subject: *The power of movement in plants* (1880). Darwin's interest in the subject dated back to 1858, when he first read a paper by Asa Gray and was "fascinated and perplexed by the revolving movements of the tendrils and stems."²²⁸ In the chapter V, "The circumnutation of Climbing Plants" of *The power of movement in plants* (1880), Darwin summed up the phenomenon:

That the movements of climbing plants consist of ordinary circumnutation, modified by being increased in amplitude, is well exhibited whilst the plants are very young; for at

²²⁷ Boscowitz, *L'Âme de la plante* (Paris: Ducrocq, 1867), p. 259.

²²⁸ Harvey-Gibson, *Outlines of the History of Botany*, p. 134.

this early age they move like other seedlings, but as they grow older their movements gradually increase without undergoing any other change. That this power is innate, and is not excited by any external agencies, beyond those necessary for growth and vigor, is obvious. No one doubts that this power has been gained for the sake of enabling climbing plants to ascend to a height, and thus to reach the light.²²⁹

In Belgium, Édouard Morren's *La Belgique horticole* published several reviews of Darwin's text in 1880-1881,²³⁰ as Morren had a keen interest in the movement and motility of plants, and he shared the observations of the English scientist.²³¹ According to Darwin, the plant which exemplified the phenomena was the liana, in which movement and growth merge into a single phenomenon. Lianas aim for trees which support them which they then enlase. Their growth in that direction is accompanied by extension: only the largest liana reaches its goal.

Modern science was shedding light upon topics of long interest in philosophy, art and religion. Boscowitz listed three other categories of readers who were concerned with the notion of "soul" in plants: philosophers, clergymen, and poets. The notion of "soul" may not have been acceptable to everyone, but the phenomena of agency, movement and growth which underlay it were of great interest to a large public. General magazines published studies on the topics. They may or may not have helped advance the scientific understanding of the phenomena, but they did help put

²²⁹ Darwin, *The Power of Movement in Plants* (London: John Murray), p. 196.

²³⁰ F. Jolyet, "La motilité des végétaux: *The Power of movement in plants* (traduit du *The Gardeners' Chronicle*)," *La Belgique horticole* (1880): 178-183; H.F. trans., "Les mouvements des plantes: Introduction de l'ouvrage *The Power of Movement in Plants* par Charles Darwin," *La Belgique horticole* (1881): 37-44; "Les mouvements des plantes par le Rév. George Henslow, traduit de *The Popular Science Review*," *La Belgique horticole* (1881): 305-319..

²³¹ His works on the topic include "Recherches sur le mouvement et l'anatomie du style du *Goldfussia ansiophylla*," *Mémoires de l'Académie* 12 (1839), and "Note sur le mouvement et l'anatomie du *Stylidium adnatum*," *Bulletin de l'Académie* 5 (1838); "Recherches sur le mouvement et l'anatomie du *labellum* du *Megaclinium falcatum*," *Nouveaux mémoires de l'Académie* (1842). Jorissenne notes that Morren shared Darwin's observations in his "Ch.-J. Édouard Morren," *La Belgique horticole* (1885), pp. 363-364.

these ideas in circulation at a time when the mysteries of vegetal life could be experienced dramatically in glasshouses.

A study titled "Le mouvement dans le regne végétal" by the Belgian botanist Jean Chalon (1846-1921) appeared in 1868, the year after Boscowitz published *L'âme des plantes*. It was published in *La Revue Trimestrielle*, edited by Eugène Van Bemmél (1824-1880). Chalon's study belongs to his early scholarly activity, and it appeared in a period when the subject was of great interest, as he explained in the introduction. Whereas Morren had identified five types of movement, Chalon discerned four. Movement was an essential characteristic [*propriété*] shared by the three kingdoms—mineral, vegetal, and animal. The shared cause of movement in the latter two is *life*, an uncertain notion that Chalon defines as a *hypothesis* like many others, whose intimate nature is a mystery, but which is known only through its exterior manifestations.²³² In animals, movement depends on the vital force that is a function of heartbeats and blood circulation; in plants, vital forces are responsible for growth, movement, and the phenomena of life.

Chalon began his activity with a dual interest in literature in botany, publishing *romans de mœurs* and botanical studies, but he focused on the latter field over the years. He joined the naturalists-explorers, travelling around the Mediterranean and in the Nile basin. He was also a free thinker who had been initiated into Freemasonry²³³ and a partisan of the Liberals in the

²³² Jean Chalon, "Le mouvement dans le règne végétal," *Revue trimestrielle* (1868), p. 7.

²³³ Jacques Lemaire, "La 'Revue trimestrielle,'" in *Massoneria e cultura*, ed. Licia Reggiane (Bologna: Clueb, 2000), p. 158; and P. Delsemme, "Écrivains belges francs-maçons," in *Visages de la franc-maçonnerie belge du XVIIIe au XXe siècle*, ed. Hervé Hasquin (Bruxelles, Éditions Université Libre de Bruxelles, 1983), p. 324. Delsemme notes that his successful "*romain de mœurs*" *Josée*, published in 1900, was distributed in the lodges.

political struggles of nineteenth-century Belgium, another reason that drew him to Van Bemmél's *Revue Trimestrielle*, a prominent organ of Liberal and masonic circles.²³⁴

Van Bemmél's *Revue Trimestrielle* dedicated an important place to literature. It also featured articles and book reviews from other fields, including natural sciences and, occasionally, modern horticulture. It promoted women writers, including Anne-Justine Guillery (1789-1864),²³⁵ Charles-Etienne Guillery's sister, or Mme Lacroix, whose novel *Fleur de serre et fleur de champs* explored the parallel lives of two young girls, daughters of a banker and of a farmer.²³⁶ The journal reviewed modern works of the natural sciences such as Valerius Zimmermann's *Le monde avant la création de l'homme* and *Les phénomènes de la nature* in 1858, published articles by the astronomer Jean-Charles Houzeau de Lehaie on metamorphosis, Auguste Houzeau on the history of man and the earth, accounts and book reviews on modern explorations to Africa and south America, articles by the count Oswald de Kerchove (an amateur of horticulture, Freemason, Liberal politician and owner of one of the largest private wintergardens in the region of Ghent), reports by Paul-Émile De Pudyt on the international horticultural exhibitions in Brussels and Ghent, articles by Rodigas on the aesthetics and classification of the ferns.²³⁷

²³⁴ Lemaire notes in his "La 'Revue trimestrielle'" that Van Bemmél himself was not a Freemason, but the emerging *Revue trimestrielle* was directly supported by the Grand Orient de Belgique, as recommended by brother Eugène Defacqz in 1855. Paul Aron and Pierre-Yves Soucy note in their *Les Revues littéraires belges de langue française de 1830 à nos jours* (Bruxelles: Archives du futur, 1993) that the two political sides had their magazines: *Revue générale* (published from 1865) was close to the Catholics, whereas *Revue belge* (1835-1843), *Revue de Belgique* (1846-1850, 1869-1914) edited by Goblet d'Alviella between 1878-1900, and *Revue trimestrielle* (1854-1896) were close to the Liberals. The latter periodical belonged to the progressive wing of the Liberals, and dedicated an important place to literature (ibid., p. 17).

²³⁵ "Guillery, Anne-Justine" in *Bibliographie nationale: Dictionnaire des écrivains belges et catalogue de leurs publications, 1830-1880*, vol. 2 E-M (Bruxelles: Weissenbruch, 1892).

²³⁶ Van Bemmél, Review of *Fleur de serre et fleur des champs* by Mme Lacroix, *Revue trimestrielle* (1855), p. 342.

²³⁷ See the dedicated section "Sciences physiques et naturelles," in the general index of the closing issue of the journal, "Tables générales des vingt derniers volumes (1865-1868)," *Revue trimestrielle* (1869), p. 31.

Van Bemmél's body of work puts him in the nineteenth-century category of the *homme de lettres*, who wrote about a range of subjects from literary criticism and history to guide books on the landscape and architecture of modern Belgium. His largest editorial project *Patria Belgica: encyclopédie nationale ou exposé méthodique de toutes les connaissances relatives à la Belgique ancienne et moderne, physique, sociale et intellectuelle* which appeared between 1873 and 1875, sought to cover all aspects of Belgian civilization in each volume—physical, political and social, moral and intellectual, with contributions by different authors. In the spirit of the time, the purpose of the work was to illustrate the progress of the country. The first volume included sections on botany and national flora by François Crepin, director of the Botanical Garden in Brussels; on gardens and parks, by Rodigas; and horticulture, by De Puydt, who traced a detailed history and its current situation. In De Puydt's piece, the advent of glasshouses in his own time crowned a long developmental movement over three centuries. Luxury horticulture had sustained and enriched botany, it had given hot-water heating pipes to industry and dwellings, and it was helping art in different ways.²³⁸

Van Bemmél's own contribution to the volume was in the section "Picturesque aspect," describing the landscape of the country in the broader sense as "the expression" that the presence of man and the forces of civilization have given to parts of the territory.²³⁹ To describe the marks of progress he chose the figure of superior, vital forces, underlying modern transformation in growing cities, in industrial landscapes in the coal basins around Charleroi where "chimneys vomit into the air the torrents of smoke," and in immense establishments in which human life seems to count for nothing, and "masses of women represent nothing but cogs," put to movement by a superior

²³⁸ *Patria Belgica* (Bruxelles: Bruylant-Christophe, 1877), p. 595.

²³⁹ *Ibid.*, p. 31.

force.²⁴⁰ Van Bemmél's description of the modern landscape prefigures the *forces unanimes* described by the Symbolist poet Émile Verhaeren in *Les Villes Tentaculaires* (1895), the forces of modern life which transform cities and devour the surrounding countryside. Writing in 1886 in *La Société Nouvelle*, Georges Lecomte described the triple analogy between the forces of nature, whose power and life Verhaeren celebrates, the dark forces of industrialization that pollute and attract men, and the great currents of ideas which pass through the cities, which they engulf and vivify.²⁴¹

Terminology from biology was used to describe societies, either figuratively, or, based on the belief that all organized beings as well as social models were subject to the same forces. Guillery's writings on movement in architecture and in the vegetal world, and Viollet-le-Duc's vital forces as a developmental principle showed a model of natural sciences shared by architectural theory.

Individuals and platforms such as Van Bemmél's facilitated exchanges and the migration of terms from scientific research into the literary field and general discussions or vice versa, and they helped establish characteristics of vegetal life such as movement and growth as dominant traits of natural landscapes in the public's imagination. These well-known figures affected the way in which nature, society, and the world as a whole were discussed. In the closing decades of the century, a new publication, *La Société nouvelle* will play a fundamental role in this evolution. Most importantly, it will bring us into Émile Tassel's personal library.

²⁴⁰ Ibid., p. 89.

²⁴¹ Georges Lecomte, "Chronique littéraire, *Les Villes Tentaculaires*," *La Société nouvelle* (1896), p. 282

3.5 Nature in *La Société Nouvelle*

La Revue trimestrielle was founded in 1854 in the tradition of general magazines, as an organ close to the progressive wing of the Liberals and in a context of mild political struggles. In the 1880s, political life in Belgium polarized further. Catholics, the main political opponents of the Liberals, won the elections of 1884 and remained in power until 1914. Socialists gathered in the Workers' Party, founded in 1884. New ideas of socialists, anarchists, and other groups considered radical at the time poured into the country from all over the continent. *La Société Nouvelle* was founded in 1884 as a discussion platform. It was not a revolutionary organ, but it was open to different currents of thought in philosophy, politics, economy and art for all those who were concerned with improving society, as it explained in its opening issue; its goal was to promote the emerging social studies in Belgium.²⁴² *La Société Nouvelle* is a key source for the present study because it moves us closer to the circle around Horta in the 1880s. Tassel's rich library has been dispersed without any known inventory records. Nevertheless, it is reasonable to suppose that as a scientist, Liberal, free thinker, and Freemason, he would be drawn to the progressive publications of the time. But in the case of *La Société nouvelle*, we have the certainty that he possessed and read it. Volumes of the journal, with the binding and stamp of his personal library, made their way to the library of the University of Minnesota.²⁴³

La Société Nouvelle was founded by Fernand Brouez and Arthur James in 1884. Brouez was the son of a notary from the city of Mons, who initially funded the journal. Father and son admired the work of Jean-Hyppolite Colins (1783-1859),²⁴⁴ one of the main founders of the "rationalist

²⁴² *La Société nouvelle* (1884), pp. 1-2.

²⁴³ University of Minnesota, TC Wilson Library, Annex Storage (Periodicals).

²⁴⁴ Aron, *Les Revues littéraires belges de langue française*, p. 28

socialism,” who also spoke of “social sciences.”²⁴⁵ In about one decade, the journal published studies by free thinkers, socialists, and anarchists, including Marx, William Morris, the geographer Elisée Reclus, the Belgian syndicalist Cesar de Paepe, the lawyer Jules Destrée, and contemporary Russian writers including Dostoyevsky and Tolstoy. The journal was the first to publish in Belgium translated works from Nietzsche and Peter Kropotkin. It dedicated an important place to modern art, reporting on the main avant-garde artistic manifestations in the country. It reported on the official salons, the salons of Les XX and Libre Ésthétique, and Maeterlinck’s plays. It published studies on Wagner, and works and contemporary literary debates in France and Belgium, which in the late 1880s were centered around Symbolism.

In the 1880s, the two main progressive art journals in Belgium were *Jeune Belgique* and *L’Art moderne*, both founded in 1881. *Jeune Belgique* followed the slogan of “*l’art pour l’art*” and generally remained loyal the Parnasse school in the literary debates. In 1891, at a grand banquet celebrating its tenth anniversary, guests included Tassel, Ernest Solvay, Carton de Wiart, and Maeterlinck, one of the collaborators of *Jeune Belgique* at the time.²⁴⁶ *L’Art moderne*, published by the lawyers and art patrons Octave Maus and Edmond Picard, supported all avant-garde artistic manifestations in the country, and it remains, in the historical perspective, the most important art journal of fin-de-siècle Belgium. Whereas *La Jeune Belgique* focused on literature, *L’Art moderne* emphasized aesthetic matters in all fields of creation. *La Société nouvelle* appeared as a progressive publication which sought to move beyond isolated fields and even ideological boundaries, bringing together knowledge and art at the service of a larger social cause. As Brouzes declared in 1891, their goal was “to provide

²⁴⁵ See Marc Angenot, *Colins et le socialisme rationnel* (Montreal: Presses de l’Université de Montréal, 1999).

²⁴⁶ “Banquet du Xe anniversaire de la ‘Jeune Belgique’ 15 Janvier 1891,” *Jeune Belgique*, no. 2 (1891): 97-110.

a panorama of the actual world in its details, and bring together those who perceive the necessary coming of a new humanity with a new justice, a new art, and an entirely new literature.”²⁴⁷

How were the reflections on nature mobilized in this panorama of the modern world? The *Revue Trimestrielle* had dedicated an important space to the natural and pyshical sciences and related disciplines, including modern horticulture. *La Société nouvelle* continued this pattern. Following the evolution of Morren’s interests, discussed earlier, the phenomena of life had gradually moved to the center of the field of biology, with the sciences of the “vital functions” as key disciplines. Darwin’s theories renewed the quests within the scientific community and the debates outside it.

His response to the long-sought developmental principle that bound all organized beings was the idea of transformative power, determined by the environment, which underlies the evolution of species, coined as “transformism.” The notion had already appeared in the articles by Chalon and Houzeau de Lehay in the *Revue Trimestrielle* in 1867-1868.²⁴⁸ In 1887, J. Putsage remarked in *La Société nouvelle* that transformism was the revolutionary discovery in physiological and biological

²⁴⁷ [indiquer un tableau du monde actuel dans ses détails et réunir ceux qui perçoivent la venue nécessaire d’une humanité nouvelle avec un droit, un art, une littérature entièrement nouveaux]
Francis Nautet, “Histoire des lettres belges d’expression française III, La genèse du mouvement actuel,” *La Société nouvelle* (1891), p. 508.

²⁴⁸ Diagre-Vanderpelen indicated these early appearances during a correspondence we had in 2019. Houzeau helped popularize the notion of transformism in his articles in *Revue trimestrielle* and a series of lectures in the city of Mons. Darwin’s theory found general consensus on the Belgian scientific scene before the 1870s, but, it often provoked violent backlash in towns and in popularized science. Houzeau was also affiliated with the republican movement and Fourierism in Belgium. His case confirms how the thought of such individuals and platforms such as the *Revue trimestrielle* and later on, and to a greater extent, *La Société nouvelle*, drew simultaneously from progressive theories in science, politics and society. On Houzeau’s activity see also “Notice sur Jean-Charles Houzeau, membre de l’Académie”, in *Annuaire de l’Académie royale des sciences, des lettres et des Beaux-Arts de Belgique* (1890): 207-310. On the reception of Darwin’s theories among Catholics, see also Olivier Perru, “Hénérédité et évolution dans les congrès scientifiques catholiques entre 1888 et 1891,” *Bulletin d’histoire et d’épistémologie des sciences de la vie* 1 (2018): 65-87.

sciences, which allowed a new understanding of beings and a better understanding of nature.²⁴⁹ The answer was partial, but it offered a principle valid for organized beings and inorganic matter.

As the paleontologist Stephen Jay Gould has observed, within ten years after the publication of the *Origins of Species* in 1859 the fact of evolution was widely accepted, but the debate about its causes and mechanisms was not resolved until the 1940s.²⁵⁰ In 1887, Putsage noted the other topic that remained unanswered in transformism and other evolutionary theories: the origins of life. Darwin's own position was vague, fueling the debate on how it all began, and the sense of mystery about the intimate nature of life.

Darwin's tremendous influence and the controversy that his theory stirred brought topics of scientific inquiry into broader debates. His theories entered politics and the emerging social sciences. "When Darwin and Wallace sought to interpret the entire evolution of the organic world in terms of necessities of the 'struggle for life,' they probably would not have expected the popularity and philosophical scope that this notion has attained over the last thirty years," wrote Kropotkin in his own study, translated and published in French for the first time in *La Société Nouvelle* in 1892,²⁵¹ a study in which he rejected the deliberate misinterpretation of Darwin's theories in political philosophy begun with Herbert Spencer. Putsage, writing on the current situation of sociology in 1887, acknowledged the tremendous importance of the new evolutionary and cellular theories, condemned the misinterpretation of Darwin's transformism by materialists who had turned it into a

²⁴⁹ Jules Putsage, "Études sociologiques, la situation actuelle," *La Société nouvelle* (1887), p. 406.

²⁵⁰ Stephen Jay Gould, *Ever since Darwin: Reflections in Natural History* (New York and London: Norton, 1977), p. 84.

²⁵¹ [Lorsque Darwin et Wallace cherchèrent à interpréter l'évolution entière du monde organique par les nécessités de la "lutte pour la vie", ils ne s'attendaient pas probablement à ce que cette conception acquît la popularité et la portée philosophique qu'elle a conquises dans le courant de ces dernières trente années.] Pierre Kropotkin, "La lutte pour la vie et l'appui mutuel," *La Société nouvelle* (1892), p. 5.

universal bond and went as far as to deny the existence of a free will, responsibility, and morality. *La Nouvelle Société* condemned materialism and the *laissez-faire* doctrines which had renewed their arguments drawing from cellular theory, transformism, and the struggle for life. The specifics of the ethical arguments from each side are not of primary interest here. The important point is that the controversies around Darwin helped popularize his ideas, renewing the ways of looking at nature among scientists and a larger audience.

Clémence Royer's article "Les sciences de la vie en 1891" offers an insight into the renewed vision of nature with the intimate nature of life at its centre. The "transformative power" of Darwin and Wallace added to the ways in which the inorganic matter and the living world could be interpreted.²⁵² Animal and vegetal modes of vital activity appeared much closer, for they evolved in close relations of dependency, following the same laws, and from original organisms that were less dissimilar. In their evolution, the *milieu* is essential because it determines their form and their transformation. They evolved together, going through different stages, from primitive forms to more complex organisms, and through other complex organisms that look different. Darwin strengthened the link between the three kingdoms—vegetal, animal, and mineral—which constituted the *milieu* of the transformation. It showed a difference in the dynamics of evolution, which the French paleobotanist and fiction writer Gaston de Saporta (1823-1895) had pointed out and Royer emphasizes: the *milieu* is more important in the vegetal world, because, whereas animals enjoy a certain degree of agency and capacity to react, plants do not. If light, air, and food from the soil are lacking, an animal can move and search them elsewhere, but a plant, in contrast, is destined to die.²⁵³ Casting Saporta's observation in a poetic tone, Royer writes that the life of plants becomes more

²⁵² Clémence Royer, "Les sciences de la vie en 1891," *La Société nouvelle* (1891), p. 406.

²⁵³ *Ibid.*, p. 417

fatalistic in character, in the way they are subject to necessity, with something “obscure, mysterious and slow” about it.²⁵⁴

The second way in which the sciences of life, evolutionary theory and paleontology in particular altered the vision of nature was by conjuring images of a primordial state in which all living organisms were different from the current ones. There was a remote age in which plants existed, but humans did not, summed up in the title of Gaston de Saporta’s 1879 book *Le monde des plantes avant l'apparition de l'homme*. Parts of it were published earlier in the *Revue des deux Mondes* and *La Nature*, and Royer discussed it in his article “Les sciences de la vie en 1891.”

Writers, explorers, plant amateurs and exhibition-goers of mid-nineteenth century Belgium conceived of the virgin forests of the new world based on travel accounts, engravings and specimens brought to Europe. They imagined forests which existed in remote areas of the globe and whose vegetation was different from the current one. After the discoveries of evolutionary theory, it was possible to imagine landscapes that were not only remote in space, but also in time—the virgin landscapes of another age, without humans, whose vegetation no longer existed, but had come down in fragments or radically transformed. The strangeness of forms and the novel idea of a state of life without humans and with ambiguous organisms all set for a long course of transformism added to the odd, uncanny feeling that such landscapes evoked. Some of Gaston de Saporta’s illustrations feature dense ferns and trees with bifurcating branching that resemble palm trees, and which confer to the landscape a character that is not very different from some of Van Houtte’s illustrations of his journeys to Brazil, except that they represent a different state of life. Saporta describes the traits of these wet landscapes: profusion rather than richness, vigour rather than variety, originality rather

²⁵⁴ Ibid.

than grace. No impenetrable domes or thick masses, but elegant ferns, elongated, bare trunks with leaves at the top.²⁵⁵

This, however, was not the earliest of the primordial landscapes, but a later stage in the history of evolution. Before plants appeared, all forms of life were aquatic, then amphibious forms appeared, then aerial. Terrestrial life is a relatively recent phenomenon and a prerogative of the most sophisticated beings.²⁵⁶ Thus, science conjured up primitive landscapes whose defining features were ambiguous organisms which were able to move. Movement and motility, more or less intentional, long posited as the hallmarks of life, were the characteristics of a primitive stage that the vegetal world underwent before it assumed its current forms. In that stage, characteristics of animal and vegetal life coexisted in shapeless beings which lived in water.²⁵⁷ Driving their transformation was an impulse, a force born out of the growing energy of vital organs,²⁵⁸ “*Force vivante, tout inconsciente et insensible qu’elle est*” [living force, unconscious and insensible as it is]²⁵⁹ which led organisms to leave the water and advance towards the land. Humid air allowed life’s products to move from water onto the ground. An example of this intermediate state are the ferns, the most ancient land plants known until then, which required a misty atmosphere.

Saporta offered an image in which life was entirely aquatic, and he established primitive, ambiguous organisms at the beginning of the forms of life and a single force that drove its transformation.²⁶⁰ In the system of the German naturalist Ernst Haeckel (1834-1919), this was a primitive mono-cellular being. Royer, critical of Haeckel’s monogenesis theory, remarks that on the

²⁵⁵ Gaston de Saporta, *Le Monde des plantes avant l’apparition de l’homme* (Paris: Masson, 1879), p. 45.

²⁵⁶ Ibid., p. 11.

²⁵⁷ Ibid., p. 9.

²⁵⁸ Ibid., p. 36.

²⁵⁹ Ibid., p. 21.

²⁶⁰ Clémence Royer, “Les sciences de la vie en 1891,” p. 408.

other hand, Darwin and Saporta remained vague about the nature of the first organisms. No law could fully explain the origins and the essence of life.²⁶¹ The sense of mystery persisted, inseparable from the most recent images of the remotest state of living organisms.

Hanser has analyzed the decorations in Tassel's house, noting strange forms in the mural which do not correspond to vegetal life. In some parts, their branches move and thicken in ways in which plants do not. This suggest to him "animal energy," rather than vegetal life.²⁶² On the floor mosaics of the vestibule, ambiguous shapes blend sea-weed and tentacular forms, springing in centrifugal movement from the *bouche d'air* in the form of a vortex. On the floor of the main hallway, abstract tendrils swirl within and across the bays, spreading from the column bases, in movements which seem to blend eighteenth-century decorative patterns with unprecedented life-forms that do not appear to be vegetal (Fig. 1.3). They no longer need to suggest vegetal life strictly understood. If Horta's décor suggests nature, by the 1890s its landscapes could be distant not only geographically, as in the virgin forests of the new world which fascinated the mid-century public, but also in time—so remote that its life forms no longer resemble contemporary ones.

It may be a far-fetched analogy to point out that in the procession of spaces in Tassel's house, one first enters the vestibule, whose floor contains the aquatic, ambiguous tentacular-like organism, then proceeds into the glazed court whose mural and ironwork are much closer to vegetal life, evoking the two stages in evolution in which life was amphibious before it became aerial and terrestrial, before plants appeared on the land and began to resemble those that rise along the staircase, and finally the fumoir in the mezzanine, whose stained-glass panels and mural decorations

²⁶¹ Ibid., p. 405.

²⁶² Hanser, "The early works of Victor Horta," p. 510.

(which no longer exist) evoked the movements of clouds and smoke.²⁶³ Common to all these stages was movement and motility, the foremost characteristics of life. What exactly Tassel had in mind and how these forms were further transformed in Horta's imagination before they became decorative motifs may be impossible to say, but any attempt to grasp the meaning of these decorations, or the presence of an octopus-like linear sgraffito on the attic of the contemporaneous Autrique House should take into account ideas and images of primitive, ambiguous, underwater forms which the modern sciences of life had supplied by 1891.²⁶⁴

In the second part of his study, Willis suggested another work as a clue to the significance of some of the Hôtel Tassel's decorative motifs, Eugène Van Overloop's *Essai d'une théorie du sentiment esthétique*, published in Brussels in 1889. Willis argued that as free thinkers, Horta and Tassel would have found Van Overloop's work at least "intriguing."²⁶⁵ Willis pointed out among the sources of the *Essai* Darwin and Haeckel, whose illustrations of primitive life-forms bear an "uncanny resemblance" to some of the motifs in the Hôtel Tassel's interior, and he describes Horta's method of composition in accordance with the same rules that govern "organic morphogenesis." He relates

²⁶³ The original décor of the mezzanine has disappeared. Delhaye remade the stained-glass panel based on old photographs and a drawing which he obtained from Hanser (whose origins are not known). No traces of the mural decorations have survived, but Thiébault-Sisson, who visited in 1897, described stylized flame-like motifs rising on a violet background, in harmony with the glass designs ("L'Art décoratif en Belgique, un Novateur: Victor Horta," p.15).

²⁶⁴ Horta continued to deploy ambiguous images of nature in his later designs, creating décors that seem aquatic and terrestrial, vegetal and animal. In 1959, Peter Selz described the wintergarden of the Hôtel Van Eetvelde as a "suddenly fossilized conservatory" in *Art Nouveau: Art and Design at the Turn of the Century*, ed. Selz (New York: Museum of Modern Art, 1959), p. 16. Aubry has noted the effects of light filtered through Tiffany and La Farge's American glass, invented in the 1880s before it was manufactured in Europe in the following decade. In the Hôtel Van Eetvelde, it creates a "particular atmosphere, mysterious like seabeds or the voluble vegetation of the glasshouse" [elle confère aux intérieurs une qualité d'atmosphère particulière, tantôt mystérieuse comme les fonds marins ou une serre noyée de végétation volubile.] Aubry, *Art Nouveau à Bruxelles: De l'architecture à l'ornementalisme* (Bruxelles: Quo Vadis, 2006), p. 8.

²⁶⁵ Willis, "Mannerism, nature and abstraction," p. 33. See also Eugène Van Overloop, *Essai d'une théorie du sentiment esthétique* (Bruxelles, 1889).

the Hôtel Tassel's décor to one of Van Overloop's theories on the structure of the world: Every organism, from the simplest to the most complex, is made up of similar atoms, molecules and cells, all combined in accordance with the same inexorable laws of chemistry and physics. It follows that humans and human creations obey the same laws because they are built of the same structures, which have evolved over thousands of years.

Haeckel's works may have been in Tassel's library. It is unclear whether Tassel knew Van Overloop or his book at the time, though he probably did.²⁶⁶ In 1996, Willis was familiar only with Overloop's work. The panorama of the sciences of life in 1891 from *La Société nouvelle*, read by Tassel, allow to place ideas that transpire from the decorative motifs of his house in a broader historical context. There is a further reason to speculate on Tassel's close involvement with theories of life. At the time, he was working for Ernest Solvay who developed similar universal systems, arguing that all organized beings, from cells to humans to societies, were built of the same units and followed the same physical and chemical laws.

²⁶⁶ Van Overloop was head curator of the Musées royaux du Cinquantenaire in Brussels, between 1889 and 1925. Tassel made donations to this museum in 1913, 1921, and, following his will, in 1923. The correspondence between Bommer, the curator who accepted the donations and Van Overloop suggests that the former had friendly relations with Tassel, but not the latter (M.R.C., Dossier depot 17/798 objects d'Extrême-Orient Tassel, letter from Bommer to Van Overloop, 28 August 1923).

3.6 Ernest Solvay's energetics

Speculations on transformative life forces, extended to explain society, were topical in Tassel's circle. In 1886, the year when *La Société nouvelle* appeared, Tassel began to work as the close scientific collaborator of Belgian industrialist Ernest Solvay. The analogies between the forces of nature, industry and human ideas, described poetically by Georges Lecomte in 1896, find a perfect illustration in Ernest Solvay's industrial empire. Solvay made his fortune with a new procedure for the fabrication of sodium, invented in 1861. Three years later, he founded his company which, over the following decades, grew into an international conglomerate and made him one of the wealthiest industrialists in the country. Solvay engaged in a vast array of activities, from patronage and philanthropy to social reform and philosophy. His interest in science was not limited to the practical applications in his industries. He sought to combine natural and social sciences and formulate a philosophy that would account for all aspects of life. In these endeavors, he encouraged and funded collaborative research in a range of disciplines, from physics to physiology and sociology. Tassel was his scientific collaborator, Charles Lefebure his personal secretary.

Solvay did not attend university, but he surrounded himself with scientists and engineers who worked in his laboratories and in other institutions that he founded. In their short biography, Solvay's closest collaborators Charles Lefebure and Paul Héger note his obsession with theoretical constructions to explain all phenomena of life, biological and social, in a single system, a sort of "ideological mania."²⁶⁷ Solvay saw matter, the different forms of life, and all forms of human thought, activity and organization such as societies stemming from a single source of energy, governed by the same set of laws which belonged to physics and chemistry. Once they were

²⁶⁷ Paul Héger and Charles Lefebure, *Vie d'Ernest Solvay* (Bruxelles: Lamertin, 1929), p. 53.

discovered, the same principles that govern matter and energy could be applied to change society.²⁶⁸

Lefebure and Héger explain that Solvay established complete and continuous affiliations between organized chemical reactions or living cells, the association of cells and living beings, the association of living beings or animal societies, and finally, human societies. According to Solvay, “the living being is necessarily a physical and chemical reaction which obeys to the law of maximum labor—a law of his own formulation—and consequently, man and society represent such a reaction whose *energetics* [*énergétisme*] is the base, and production is the form.”²⁶⁹

Solvay’s passion for theories stemmed from science, but also from the social conditions of his time. Calls for social and economic reform were ubiquitous. In the latter 1880s, the social question became a pressing matter in Belgium, after decades of impoverishment of the industrial working class and the countryside. Violent riots swept the southern industrial regions in 1886 and were repressed by the army. The *Parti ouvrier belge*, founded in 1884, gave voice to the demands for better working conditions and political rights. Solvay launched several major philanthropic initiatives, set up generous programs for his workers, entered the Senate himself and made large donations to the Socialists in the 1890s. But he also funded research into social and exact sciences, hoping that a synthetic philosophical system would help resolve the pressing social problems of the day.

²⁶⁸ For a discussion of these views see Isabelle Stengers, “La pensée d’Ernest Solvay et la science de son temps,” in *Ernest Solvay et son temps*, eds. Andrée Despy-Meyer and Didier Devriese (Bruxelles, Archives de l’Université Libre de Bruxelles, 1997). Stengers contrasts Solvay’s theories, in which he employs the concept of energy and other notions from physiology to analyze social organization, to social theories of his time centered on notions derived from natural sciences, notably Darwin’s and Haeckel’s evolution.

²⁶⁹ [L’être vivant est nécessairement une réaction physico-chimique obéissant à la loi courant du travail maximum et que, par conséquent, l’homme et la société représentent une telle réaction dont l’énergétique est le fond et la production des lors est la forme] Ibid., p. 58.

Solvay opened an institute of physiology, first as a laboratory attached to the Free University of Brussels in 1888, then moved to a new building at Leopold Park in 1893, named the Solvay Institute of Electro-Physiology and run by Héger. Solvay was deeply interested in electricity, and stated that “all phenomena of life may and must be explained through the play of physical forces which govern the universe, and among these forces, electricity plays a preponderant role.”²⁷⁰ In the same year, he published *Du rôle de l'électricité dans les phénomènes de la vie animale* (1893).

The second institution, the Institute of the Social Sciences was opened at Leopold Park a year later. The two research institutes were complementary in their pursuits, reflecting Solvay's own vision of a single unitary scheme that governed all manifestations of life. In Solvay's thought, as Jacques Bolle summarizes it, physiology was the first of the social sciences, because the laws of society must respond to the laws of vital reaction which physiology reveals.²⁷¹ Physiology allowed to better understand man because it shed light on the sources of his energy and the physical phenomena which are at the basis of intelligence.²⁷² The ultimate quest of his research institutes was to grasp the dominant concept of life, whether in the thinking animal or the isolated monocellular being.²⁷³

²⁷⁰ [Les phénomènes de la vie peuvent et doivent s'expliquer par le jeu des seules forces physiques qui régissent l'Univers, et parmi ces forces, l'électricité joue un rôle prépondérant] Ibid., p. 68.

²⁷¹ [parce que la physiologie est la première des sciences sociales, parce que les lois de la société doivent répondre aux besoins de la réaction vivante que la physiologie nous révèle] Jacques Bolle, *Solvay: L'homme, la découverte, l'entreprise industrielle* (Bruxelles: Sodi, 1968), p. 143.

²⁷² Héger and Lefebure, *Vie d'Ernest Solvay*, pp. 99-100.

²⁷³ In a 1909 speech to the Berlin Academy of Science, Solvay stated the three goals he had pursued in the domain of science: “The physical-chemical problem, notably the research of matter in its relations with time and space, the physiological problem which has to do with the nature of life from its origins up to the phenomenon of thought, and third, which is founded on the former two, the education of the individual and their reunion in communities of existence” [D'abord, le problème physico-chimique, notamment la recherche de la matière dans ses rapports avec le temps et l'espace, puis le problème physiologique qui a trait à la nature de la vie depuis les origines jusqu'au phénomène de la pensée, et enfin, le troisième qui se fonde sur les deux autres, l'éducation des individus et leur réunion en communautés d'existence] (Bolle, *Solvay*, p. 143).

Solvay continued his endeavors into the early twentieth century: he set up an International Institute of Physics, whose councils met in Brussels in 1911 and 1913, and an International Institute of Chemistry of 1913. The photograph of the 1913 council attendees, which included Marie Curie and Einstein has become iconic in the history of science. Tassel, who continued to work as Solvay's collaborator was closely involved in the organization of the events and corresponded with the attendees.²⁷⁴

In 1920, Tassel laid out the different pursuits of Solvay in a schematic chart that showed the unitary character of his intellectual endeavor (Fig. 3.1). From a single point of origin, his thought and his activities branched out in different directions. The scheme began in 1858, with his general quest into the origins, his ideas on energy and electricity, and the re-discovery of the Dulong-Petit law of thermodynamics. From here his pursuits subdivided, including the 1861 procedure for the fabrication of sodium which led to his chemical industries, his inquiries into the general phenomena of the universe with further ramifications into gravito-material inquiries, and, around 1866-1879, the inquiries into the "phenomena of life and thought." From here, his inquiry branched out into the fields of energy, physics, and biology, and, in the other direction, into sociology. The results of these pursuits were his theoretical research into electro-physiology in 1885, the Institute of Physiology in 1889, as well as other pursuits in physics, chemistry and biology. In direction number 6, which Tassel labels "Energetico-Social," he listed Solvay's pursuits that were directly concerned with society. Its branches included scientific inquiry oriented against religion (1871-1879), the

²⁷⁴ Part of this correspondence and other documents of Tassel's work for Solvay are held at the Fonds des Instituts internationaux de physique et de chimie Solvay in Brussels. On these events see also Pierre Marage and Grégoire Wallenborn, *The Solvay Councils and the Birth of Modern Physics* (Basel, Verlag, 1999).

sociological direction (1874), the fields of compatibilism and productivism which Solvay pioneered in 1879, the Institute of Sociology (1901), and the Institute of Labour Education.

Tassel collaborated with Solvay in all his fields of interest, and assisted him in his ideas and publications, in the scientific, political, physico-chemical, mechanic, and biological fields.²⁷⁵ This collaboration and his subscription to *La Société nouvelle* whose pages were filled with discussions on the current state of society and the sciences of life are further proof that Tassel was closely following these topics. At the time of the commission for the Hôtel Tassel, Horta recalls, Solvay's brain seemed to be in full effervescence and his thought expand dramatically so that besides Lefebure and Tassel, a third engineer, Camille Wissinger, joined the trio to assist him.²⁷⁶ Wissinger, formerly close to Jean Hendrickx who had passed away two years before, admired Tassel's house and became Horta's client in 1894, having his hôtel at 66 rue de Monnais designed to the utmost detail. The progressive circle around Solvay embraced Horta's modern style and they were largely responsible for its diffusion in major works, including the Maison du Peuple which he obtained through their intermediary around 1896, and one of the most prestigious commissions of his career, the Hôtel Solvay, built at the same time for Ernest Solvay's son, Armand. Their preferences were rooted in affinities between progressive ideas and the radical novelty of Horta's architecture which could represent their own status in the worlds of art and thought, but also through solid social links. Maurice Culot, in his "Belgium: Red steel and blue aesthetic" points out the diffusion of Art Nouveau in general and Horta's work specifically was due less to "creative complicity" than to solid

²⁷⁵ E-W. Bogaert, "Notice sur la vie et les travaux de Émile Tassel," *Rapport sur l'année academique 1922-1923* (Bruxelles: Éditions de l'Université Libre, 1924), p. 34.

²⁷⁶ Horta, *Mémoires*, p. 44.

links of friendship between people of the same age who yearned for change.²⁷⁷ However, Tassel's role in the circle around Solvay and in the genesis of the new style was not that of a mere enthusiast. It

²⁷⁷ Maurice Culot, "Belgium, red steel and blue aesthetic," in *Art Nouveau Architecture*, ed. Frank Russell (Rizzoli, New York, 1979), p. 85.

Two authors have privileged sociological conditions behind the emergence of Horta's Art Nouveau architecture in the last two decades of the nineteenth century: Besides Culot, Francis Strauven's "De l'Art Nouveau à l'Art Déco: l'Évolution ultérieure de l'œuvre de Victor Horta," in *Horta: Naissance et dépassement de l'Art nouveau*, eds. Aubry and Vandenbreeden, and his earlier "Het anarchisme voor de deur," [anarchism at our doors] in *Art nouveau België* (Bruxelles: Europalia, 1980). Culot relates Horta's endeavours to the rise of a progressive generation yearning for social, economic, and artistic change. Intellectuals such as Émile Vandervelde, Max Hallet or Jules Destrée who joined the Socialists linked political groups with avant-garde artistic circles. In Belgium, the ideological boundaries between such group were always porous: Ernest Solvay made donations the Socialists, but he entered the senate as a Liberal; former radicals joined the Liberals in the early 1880s because the party provided the only way to enter parliament; then, in the 1890s, former Liberals joined the Socialists in parliament, disappointed with the policies of their party. The activity of this group of young intellectuals and the exchanges among artistic and political milieux explain, for example, how Horta obtained the commission of the Maison du Peuple in 1896, an ambitious project through which Socialists sought to recast their own image in the modern style, and for which they obtained the financial support of Solvay, amongst others. Hallet, one of the intermediaries, commissioned his own hôtel at avenue Louise to Horta. Destrée, amateur of the Far East who decorated his office with Japanese prints, set up a "*section d'art*" at the Maison du Peuple which offered courses and lectures to workers. Culot's dynamics point to an important factor in the *diffusion* of the new style, specific to Belgium, but they leave out Tassel's direct contribution to its genesis at his own house. The article was published at a time when little was known about Tassel's interests in science and art, except for his affiliations to these groups of intellectuals. Strauven describes the social-political atmosphere of the time, emphasizing the diffusion of anarchic ideas through avant-garde platforms such as *La Société nouvelle* and the *L'Art moderne*, and the close web of connections between artists, groups and periodicals in the Belgian capital. In "De l'Art Nouveau à l'Art Déco" Strauven related the emergence of Art Nouveau architecture to the social optimism of the 1890s. But, the high hopes for a new society failed to materialize at the turn of the twentieth century. In the reverse process, Horta's return to an abstract classicism reflects the unfulfilled aspirations of the previous decade. Strauven invoked Wilhelm Worringer's opposition between empathy and abstraction to relate the evolution in Horta's design to social conditions: Worringer's empathy presupposes a happy relation between man and the phenomena of the exterior world; abstraction reflects anxiety in the face of reality—the two stages of Horta's design conditioned by the state of Belgian society. Strauven is particularly interested in the relation to social optimism in Worringer's theory when he defines Horta's architecture "*projection empathique d'un optimisme social*" (Strauven, "De l'Art Nouveau à l'Art Déco," pp. 213-314). If Strauven's theory is to be accepted, it may be complemented by events in Horta's personal life, in addition to the general social panorama: in his memoirs, Horta describes the turn of the 1890s as a happy period followed by the great family disappointments in the 1900s.

Borsi and Portoghesi, in their *Victor Horta*, also employ the notion of empathy to explain his conception of form in the 1890s. In their analysis, the German "*Einflühlung*" describes the propensity to induce certain behaviour and emotional participation of the contemplating subject present in Horta's architecture: at the Hôtel Tassel, the curve of the stairway landing, the balustrade, or the central volume of the façade seem to represent and participate in the movements of the subject, but they are also a projection

goes to the heart of the relationship between ideas in social and natural sciences, and motifs of the new style in his own house. Tassel, then, becomes the main trait-d'union between the motifs of his wintergarden and the relevant contexts in which lay the pertinent ideas behind them.

Tassel's collaboration with Solvay provides a further link between theories on the transformative forces in nature, and motifs which were at least inspired by these ideas in his own wintergarden. Pertinent elements in natural sciences are the primitive life forms represented in published works such as Saprota's or Haeckel's, whose illustrations, in Willis's eyes, bear an "uncanny resemblance" to the mosaics of the Hôtel Tassel's vestibule. The second element does not involve stable forms, but ideas which sought to explain historical development of such forms through notions of invisible forces that transform matter and organism in nature. De Saprota's *Force vivante, inconsciente et insensible* which led organisms from water and towards the land and drove their further transformation, Darwin's mechanism of natural selection, or the general vital principle are examples of such universal forces. Solvay's speculation on *énergétisme* at the origins of organized forms, from cells to living beings and even societies are another example of universal forces the drive the transformation of the world. Their similarity with Van Overloop's theory on the structure of the world attests to the diffusion of such constructs.

The Hôtel Tassel's décor, ambiguous as it is, blends matter and imagery of living-forms as if they were driven by same universal forces. It is also a converging point for the two opposed theories on the essence of life, the vital viewpoint and the mechanistic one. In architectural theory, the idea of a vital force in nature was central in Viollet-le-Duc's thought and to other French authors who

of Horta's own feelings onto building components, conceived in biological terms—a vitalistic conception, which postulates a "life of the matter," capable of inducing a psychological mechanism in the mind of the subject.

argued that form in architecture should suggest the same principle, illustrating it with concrete examples in ornamental design inspired by plant life, notably the bud figure. Solvay's speculations, on the other hand, straddling natural and social sciences, belong to the opposite mechanistic viewpoint, because he argued that the cell was an organized chemical reaction and that the ultimate essence of life was chemical and physical. Yet, he also advanced the idea of a universal force that guided the movements of matter and beings in the form of energetics and the law of the search for the best existence.

These forces or laws in nature, whether mechanical or vital, determine the aspect of matter and organized beings as well as their change through time. In this respect, they acquire a creative dimension. As Gould notes, the essence of Darwin's theory on evolution—an example of such forces and laws—was natural selection as a creative force because nature *creates* the fit.²⁷⁸ Verhaeren's *forces unanimes* operated in the material and immaterial realm, for they shaped human ideas, industrial activity, and his *villes tentaculaires* which devoured the surrounding countryside.

The Hôtel Tassel's décor is extremely ambiguous because solid matter is shaped like living organisms: wrought-iron pieces seem to spring from columns and crawl under girders, tentacular extensions spread in centrifugal movement out of an air vent on the vestibule floor. They suggest images of movement that exists, or may have existed in nature, transformed in the designer's imagination. But, they also suggest the inner, transformative force that drives life in nature in all its manifestations, and which were known to Tassel and to Horta under different names, forces whose essence was creative. This décor offers the panorama of a human creative power that builds upon the creative forces of nature, which, in unitarian systems, stemmed from a common source.

²⁷⁸ Gould, *Ever since Darwin*, p. 44.

The turn of the nineteenth century saw the quest for a universal developmental principle underlying organic growth, productive reason and creativity. To the Romantics, the springs of human nature lie in the unconscious, so they sought the primordial principle in this realm, which linked the individual with the universal, or at least the organic.²⁷⁹ Before them, it was Kant who, in his *Critique of the Pure Reason*, defined organisms in opposition to the mechanical instrument by positing inside the living body a developmental force which propagates itself with one end.²⁸⁰ After him, Schopenhauer's philosophy was centered on the notion of an immanent will in nature, at the substratum of everything. He published *The World as Will and Representation* in 1818, a work that was largely ignored at the time, only to find a new life in the fin-de-siècle world when it fueled ideas on the essence of beings, including humans and vegetal life. These ideas permeated Belgian letters. Their links to the imagery and the glasshouse atmosphere in the Hôtel Tassel's wintergarden is the subject of the following chapter.

²⁷⁹ Lancelot Law Whyte, *The Unconscious before Freud* (New York: Basic Book, 1960), p. 70.

²⁸⁰ Bressani, "Science, histoire et archéologie," p. 57.

4. The Symbolist Glasshouse Atmosphere and Vegetal Life in Belgian Letters of the Latter Nineteenth Century

4.1 Evocations of the glasshouse atmosphere: Paul-Émile De Puydt and Émile Rodigas

Reflections on movement, growth and the origins of life provided new themes for the contemplation of nature. The mystery behind the intimate nature of these phenomena enriched the experience of the half-shaded glasshouse. The beholder contemplated the manifestations of hidden forces that operate in all organized beings. The glasshouse became the milieu of communion with these forces, and with nature, in ways similar to Lecoq's "Scenes du monde animé," where, under the impenetrable domes of the new world, he describes the effects of forces that drive movement, growth, and the cycles of nature, forces that affect his mood and thoughts.

The writings of two prolific authors are significant in mapping out the shift in the reception of the glasshouse environment in the latter half of the nineteenth century: Paul Émile De Puydt (1810-1891) and Émile Rodigas (1831-1902). They published several works on horticulture and botany, and they contributed numerous articles to the main journals of the field, including Linden's *L'Illustration horticole*. On the editorial board of the former they joined Édouard André, who had previously collaborated with Ruprich-Robert for his *Flore ornementale* in 1860s, travelled to South America in 1875, and shared his first-hand impressions of the tropical forests in *L'Art des jardins*. De Puydt and Rodigas did not have the opportunity to travel, but their close collaboration with André and Linden influenced the way they imagined tropical vegetation, and the way they described the

vegetal world deployed in the glasshouse. Their writings, in turn, diffused to a larger public ideas about the tropical environment in the artificial environment.

De Puydt contributed regularly with articles on plant culture and constructions in Morren's *La Belgique horticole* and Linden's *L'Illustration horticole*, and he edited the luxurious *Flore des jardins* together with Van Houtte. He was one of the first authors to discuss gas-heating in glasshouses in 1846,²⁸¹ and he published his first treatise, *Traité de la culture des plantes de serre froide* at the age of fifty. De Puydt was based in the city of Mons, where he joined the local *Société d'horticulture* in 1831 as its secretary, and the *Société des arts et des lettres* of the region of Hainaut, initially as its vice-president, then president from 1865. His interests included literature and the fine arts. In his later years he wrote novels, which the Count de Kerchove described as serious and wise [*sérieuses et sages*].²⁸²

De Puydt referred to the glasshouse plants as “feeble and sensitive foreigners exiled in our cold and fickle climate,”²⁸³ and he often employed a similar language, charged with figures, in his observations on glasshouses. His articles covered technical aspects such as gas heating and roof shape, but he also explored the poetical charge of their atmosphere. He began his renowned treatise on orchids describing the glasshouse as the object of his dreams and imagination,²⁸⁴ before moving to technical specifications for each compartment. He discussed temperature, humidity, and light, blending in evocations of the mysteries of plant life with the “mysterious, half-shaded” hothouse,

²⁸¹ De Puydt, “Sur le chauffage de serres par le gaz,” *Annales de la Société royale d'agriculture et de botanique de Gand* (1846): 275-383.

²⁸² C[om]te de K[erchove], Necrology of Paul-Émile De Puydt, *Revue de l'horticulture belge et étrangère* (1891) p. 148.

²⁸³ [ces débiles et frileuses étrangères exiles sous notre froid et inconstant climat]
Ibid.

²⁸⁴ De Puydt, “La serre à orchidées,” *L'Illustration horticole* (1881).

where the air is "heavy, humid, and rarely changed," the vegetation is unusual, "plump roots floating in the air, looking for a support. Over there, hanging from the roof, robust plants live in openwork baskets, on plain logs, on raw cork barks."²⁸⁵ The description has clear parallels with the travel accounts of explorers who visited tropical forests. The half-shaded scenes under the impenetrable domes of the new world or in the calico-covered glasshouse added to the deeper mysteries of vegetal life. In line with the themes of this environment, De Puydt recommended employing vanilla plants as creepers along columns, and vandas that "push in the air flexible stems and robust roots seeking a support."²⁸⁶

A plant stood out in the renewed symbolism of vegetal world: After the trimmed orange-trees admired for their regular shape around the parterres in the gardens of the *ancien régime*, the exotic orchids admired for their beauty, and palm trees which dominated the physiognomy of the tropical forests, creepers became an essential component of the vegetal landscape. In the first half of the nineteenth century, horticulturists had noted their utility to dissimulate the industrial and constructive members in the glasshouse, interlacing them along columns and beams, thus enhancing the effect of natural landscape. They maintained this function in the latter half of the century, but a new aspect captured the imagination of the public and horticulturists alike: creepers, plants which antedated the current geological era, exemplified movement, growth and the transformative, vital forces of the vegetal world. For both reasons, De Puydt and Rodigas recommended employing creepers to complete the tropical landscape in the glasshouse.

As movement became a central topic in the sciences of life, creepers were suddenly positioned at the core of the inquiry. Darwin wrote that their movement exemplified the most

²⁸⁵ Ibid., p. 97.

²⁸⁶ Ibid., p. 131.

widespread types in the vegetal world: with creepers, movement and growth were interrelated as a single phenomenon. In a poetic light, it suggested the image of pursuit, aspiration, or the “gracious quest for a support,” as the *Flore illustrée: Journal Scientifique & littéraire*, the Brussels journal which combined scientific articles and poetry for the younger generation, explained.²⁸⁷ In an 1884 article, the journal traced the symbolism of the plant through different ages, noting that although the positive spirit of the day had put an end to mythological associations, creepers continued to occupy an important place in the imagination of the time. Creepers exemplified a key trait of the tropical landscape, the power of growth, which Édouard André described:

“Innumerable lianas, fine like hair, thick like thighs, scaling trees and getting entangled in a thousand ways in their branches, until they reach the top, spreading majestically their brilliant flower [...]. Even after the fall of the giants of the forests, this vegetal population continues to grow, feeding on woodworm substance of the trunks which it has just vanquished [...] how majestic, what imposing silence [...] what fairy light, when the eyes enjoy this spectacle”²⁸⁸

Underlying the phenomenon were the inner forces which bound together all beings in nature. The idea of the unity of life implied that vital forces observed in nature pertained to plants and humans alike. As Édouard Morren observed in 1869, there were not two modes of life in the organic world; life was one and common to all organized beings.²⁸⁹ Lianas connected the larger plants of the tropical landscape upon which they crawled, but they also stood as a symbol of union of all life forms because

²⁸⁷ E. Liègeois, “Le lierre grimpant,” *La Flore illustrée*, no. 6 (1885), p. 76.

²⁸⁸ [lianes innombrables, fines comme des cheveux ou grosses comme la cuisse, escaladent les arbres et s’enchevêtrent de mille manières dans leur ramure, jusqu’à ce qu’elles en atteignent le sommet et y étalent majestueusement leurs fleurs brillantes. Même après la chute de ces géantes de la forêt, cette population végétale continue de croître, de se nourrir de la substance vermoulue du vieux tronc qu’elle a vaincu] Édouard André, *L’Art des jardins*, pp. 147-148.

²⁸⁹ [il n’existe pas deux modes de vie dans le règne organique, l’un pour les végétaux, l’autre pour les animaux; mais la vie est unique, commune à tous les êtres organisés] Jorissenne, “Ch.-J. Édouard Morren,” pp. 345-346.

they evoked the universal forces which drive movement and growth since prehistory. They transposed this symbolism into the glasshouse environment, or into an interior in which they were rendered as architectural décor.

The second author, Émile Rodigas, recommended lianas to create tropical landscapes in the glasshouse since "they reveal the poetry and offer a symbol of union and brotherhood in these milieux where there seems to be nothing but isolation and solitude."²⁹⁰ Rodigas shared De Puydt's interest in glasshouses, to which he referred as "fairy-like creations of modern horticulture."²⁹¹ He was an alumni of Van Houtte's horticultural school, where he taught and became director in 1888. He was also the director of the zoological garden in the city of Ghent, editor of *L'Illustration horticole* and *Revue de l'horticulture belge et étrangère*. His articles extensively discussed topics of indoor horticulture such as *serres intérieures*, the floral ornamentation of the salons, or modern heating equipment. Rodigas also wrote prose and poetry, bringing literary sensitivities in his articles on glasshouses. He discussed cultures and construction from the scientific point of view, but he also felt that there was a poetic, affective charge in the glasshouse interior, which could be enhanced further through design. Maurice Maeterlinck knew Rodigas and mentions him in his memoirs *Bulles bleues: Souvenirs heureux* (1948). He refers to him as "director of the zoological garden and of a pomological magazine which gave nice colored plates," and as the best-known poet of the Ghent bourgeoisie who excelled in "circumstance poetry," and who thought of himself as equal to Goethe.²⁹²

²⁹⁰ Rodigas, "Les lianes dans les serres," *L'Illustration horticole* (1893), p. 42.

²⁹¹ Rodigas, "De la beauté des fougères," *L'Illustration horticole* (1882), p. 129.

²⁹² [Rodigas avait une grosse tête d'Allemand à lunettes d'or; il était le poète le plus renommé dans la bourgeoisie gantoise, et se croyait l'égal de Goethe parce qu'il excellait dans les poèmes de circonstance] Maurice Maeterlinck, *Bulles bleues: Souvenirs heureux* (Bruxelles: Le Cri, 2012) pp. 119-120.

Before Decadent and Symbolist poets would discover the trope of the glasshouse to build analogies describing the condition of the self, literary ambitions were common among contributors to horticultural periodicals and specialized books in the latter nineteenth century, as only literature could account for the affective dimension of these artificial environments. In turn, concrete design ideas could be suggested to enhance literary effects. Not long before, Charles Morren, who also wrote poetry, had rejected the separation between scientific inquiry and the world of imagination, recognizing the legitimacy of poetry in understating nature as a page of the divine design. Goethe was, of course, exemplar in that he “poeticized the flower” [*poétiser la fleur*] in order to discover “the truest of the theories.”²⁹³ But, to Morren, nature was fascinating when the divine design was revealed. The glasshouse helped read the pages of the divine book, and it carried out a biblical ideal by bringing together all creations in one corner of the earth. In the generation after Morren, the literary fascination lay no longer in the clarity of the revelation, but in the mystery about it. The glasshouse atmosphere became heavy, half-shaded, and fitted with “unusual vegetation” which pushes stems into the air. As a literary atmosphere grew around horticulture, is not surprising that Symbolist poets would soon discover the ineffable and subconscious dimension in vegetal life in the glasshouse.

²⁹³ Charles Morren, preface to *Fleurs éphémères*, p. 10.

4.2 Schopenhauer's Will in Nature

Creepers merged the phenomena of movement and growth, of which they became the poetical image. They symbolized that single developmental principle which, under different names, had drawn the attention of botanists and artists since the Romantics. Darwin had pointed out that their power was innate, not exercised by external agencies, and it had been gained for the sake of enabling them to reach the light.²⁹⁴ In an 1878 paper on the elementary principles of physiology, Édouard Morren concluded that the ultimate goal of all phenomena of life observed in plants was the preservation of the individual and the preservation of the species.²⁹⁵ Yet, a final question remained unanswered, drawing curiosity and varying assertions. For how could beings without conscience and knowledge pursue such goals shared with humans and other advanced organisms? The old question whether plants had a soul resurfaced in different forms.

In 1818, the German philosopher Arthur Schopenhauer (1788-1860) dealt with this ultimate, developmental principle in nature in his famous *The World as Will and Representation*: “What is active in all the fundamental forces of nature shows itself to be simply identical with what we know in ourselves as will.”²⁹⁶ The will is the ultimate driving force in nature, the source of all vital functions, including the developmental phenomena of growth. Life itself is only one manifestation of the will, bodies being spatial manifestations in the different scales of complexity. Schopenhauer's will is not a creation of the intellect. It exists independently in nature as the substratum of everything, a sort of “blind purposiveness operative in nature” as David Cartwright,

²⁹⁴ Darwin, *The Power of Movement in Plants*, p. 196.

²⁹⁵ Édouard Morren, "Principes élémentaires de physiologie végétale," *Annales de l'Horticulture* (1878), p. 23.

²⁹⁶ Arthur Schopenhauer, *On the Will in Nature*, ed. and intro. David E. Cartwright, trans. E. F. J. Payne (New York, Oxford: Berg, 1992), p. 85.

editor of Schopenhauer's works in English, puts it.²⁹⁷ Knowledge and intellect develop out of the will in the beings on top of the scale. The world is thus but various stages of the manifestations of the will, from the lowest objects which are subject to the forces of gravity or electricity, to humans, the highest manifestation. In humans, the intellect is a product of the will and they are able to see how it operates within themselves. In plants, which have fewer needs for survival, the will is unguided by intellect and it develops into less complex forms of existence.

As Cartwright has noted, when *The World as Will and Representation* first came out in Germany in 1818, most of books remained unsold. In 1838 Schopenhauer published a second book, *On the Will in Nature: A Discussion of Corroborations from the Empirical Sciences that the Author's Philosophy has Received Since its First Appearance*, whose purpose was to draw attention to his 1818 work. The first edition of the new book was met with indifference, but, when the second edition of *On the Will in Nature* appeared in 1854, the climate had finally changed. In the second half of the nineteenth century, Germany first, then the rest of the continent became receptive to his philosophy, rediscovering his 1818 concept of the will.²⁹⁸ The new political reality, the decline of Hegel's metaphysics and later on, the fin-de-siècle mood in France facilitated the shift in reception. Yet, another factor was the advances in research into the phenomena of plant life which revived the interest in these topics when they revealed patterns that were not explicable by mechanistic causes alone, and which suggested to many what Schopenhauer had described as "will." Schopenhauer himself believed that the growing body of scientific studies confirmed the core of his philosophy. He

²⁹⁷ Cartwright, Editor's introduction to Schopenhauer, *On the Will in Nature*, p. xx.

²⁹⁸ Ibid. p. xiii.

had begun his education by enrolling in medicine at the Göttingen in 1809 and remained a keen follower of the natural sciences.²⁹⁹

On the Will in Nature contains the essentials of his philosophy and it gathers corroborations from different fields, exposed in the chapters such as the “Physiology and pathology,” “Comparative anatomy,” and “Physical Astronomy.” They all seek to prove that “will” is active in all forces of nature and living beings are mere manifestations of varying complexity of the same force.

“Physiology of Plants” gathers a series of empirical observations on the phenomena of movement in plants that corroborated his philosophy, including Cuvier’s 1826 idea of an “inner disposition” and “vital force” in plants, M. Durochet’s “inner principle” or an article in the *Farmer’s Magazine* of 1848 titled “Vegetal instinct,” describing how a winding plant under observation always found a stick placed 6-inches next to it each time the position was changed, which showed how the movement of creepers searching for support and shaded surfaces could not be explained mechanically.³⁰⁰ Schopenhauer argued that these behaviors could only be explained in terms of an operating will, no matter how it was labelled, and that his philosophy provided the final understanding of the world, which the empirical sciences could not.

²⁹⁹ John Oxenford, author of the 1853 article which helped launch his name in the English-speaking world, remarked that corroborations from natural sciences were a characteristic of his philosophy, which set him apart from his German counterparts, rooted in abstract metaphysics (John Oxenford, “Iconoclasm in German philosophy,” *The Westminster Review* [January 1853]: 388-407). At his death, Schopenhauer’s library contained over two hundred works in the natural sciences (Cartwright, Editor’s introduction to Schopenhauer, *On the Will in Nature*, p. xvii)

³⁰⁰ Marder remarks on a similar phenomenon which captured Hegel’s attention: potatoes sprouting in the cellar left him marveled at how they “climb up the wall, as if [*als ob*] they knew the way, in order to reach the opening where they could enjoy the light” (Marder, *Plant-thinking*, p. 158). Marder discusses the “non-conscious intentionality of plants” and the various interpretations it has received in philosophy, but he does not include Schopenhauer in his account.

Schopenhauer's approach may be ascribed to the vitalistic viewpoint on the intimate nature of life, which had long predated his philosophy. At the opposing end and at the close of the century, systems such as Solvay's energetics sought to explain life through mechanistic causes alone. Yet, even Solvay acknowledged the philosopher's influence: Schopenhauer was featured in a photographic chart which Solvay kept by the side of his bed, prepared in 1877, containing the portraits of the thinkers who had influenced him the most (Fig. 3.2). Tassel was also familiar with Schopenhauer through other channels besides Solvay, as we shall see in the next section, although we do not know Tassel's opinions on the German's philosophy or the broader opposition between the two opposed viewpoints on life, vitalistic or mechanistic, to maintain Gonzalez-Crussi's definitions. Even if Tassel chose between the two, it would not be relevant to the décor or his wintergarden in which abstracted creepers and other naturalist motifs suggest life forms driven by an inner, blind force, a "volitional nature," as Kulper remarked when she associated Horta's décor to the philosopher. Tassel may have enjoyed the idea of a volitional nature rendered in art, but there is no reason why the poetical reality should correspond to the scientific one.

Dernie and Eric Parry made one of the first connections between the Hôtel Tassel and Schopenhauer in their 1895 article "Hôtel Tassel, Brussels." They noted that the "sources and influences" of this extraordinary project were "ambiguous and complex," and sought to resolve this complexity with the general formula that the interior "reflected" a twofold fin-de-siècle culture which celebrated industrial progress, but also searched for a "new symbolic structure in the immanent world," influenced by philosophers like Schopenhauer, Hegel and Nietzsche."³⁰¹ Tassel's interests allow to establish a concrete link between the world as it was reflected in his house and

³⁰¹ David Dernie and Eric Parry, "Hôtel Tassel, Brussels," *The Architect's Journal*, no. 21 (22 May 1985): p. 39.

Schopenhauer's philosophy. Schopenhauer is relevant to this architecture in another respect. He had a tremendous influence on the literary interpretations of nature, and in particular, the glasshouse and vegetal life. He renewed the volitional idea, inspiring Belgian authors to seek a deeper meaning in the substratum of things and establish analogies with the human condition, fictitious as they were. Influenced by Schopenhauer, among other sources, Belgian Symbolists turned to the glasshouse atmosphere and plant life to write passages, plays, poetry and literary criticism which Tassel, an avid follower of these developments, was well familiar with.

4.3 Schopenhauer in Belgium

At the turn of the 1880s Schopenhauer's works reached the French public. Translated by J. Cantacuzène in 1886 (who also added an appendix containing Kant's critique of philosophy), and by A. Burdeau in 1888-1889,³⁰² he found an eager reception among Decadent and Symbolist poets. In French, the "will" stood between a blind "*volonté*" and a "*vouloir vivre*," source of suffering that casts a pessimistic veil on the world. To the decadent artist the only alleviation was art, the aesthetic experience which rendered the world as representation an object of contemplation. Contemplation, which Schopenhauer ascribed to superior intellects, was the only means of escaping the burdens of the will. As historian Jean Pierrot notes, Schopenhauer did not initiate the decadent mood in France at the time, but, his analysis of life coincided with this trend and provided it with a doctrinal justification.³⁰³ Anatole Baju's *Le Décadent littéraire* appeared in Paris in 1886, stating in the opening article that modern man is a *blasé*, and the contemporary age is characterized by decadence, refined taste and sensations, neurosis, hysteria, and "extreme schopenhauerism" [*schopenhaurisme à outrance*].³⁰⁴ In the same year, Jean Moréas published his famous manifesto in *Le Figaro*, coining the term Symbolism which, he stated, designated the current tendency of the creative spirit in art.³⁰⁵

For the new generation of Belgian poets striving for originality and acclaim Paris was a mandatory destination. The French capital provided escape from what they saw as the petty

³⁰² See mentions of these publications in Review of *Le Monde comme volonté et comme représentation*, trans. A. Burdeau in *L'Année philosophique 1890* (1891): pp. 273-275.

³⁰³ Jean Pierrot, *The Decadent Imagination, 1880-1900* (Chicago: The University of Chicago Press, 1981), p. 45.

³⁰⁴ *Le Décadent littéraire* (10 April 1886).

³⁰⁵ Jean Moréas, "Le Symbolisme," *Le Figaro, Supplément littéraire*, 18 September 1886.

bourgeois atmosphere of Belgian towns. In Paris, Belgian poets came in contact with the masters and the latest literary tendencies, including Symbolism and Schopenhauer.³⁰⁶

Three poets who followed this movement rose to international renown: Émile Verhaeren (1855-1916), Georges Rodenbach (1855-1898) and Maurice Maeterlinck (1862-1949). They belong to the same generation as Horta and Tassel. The three poets share the traits of a Belgian literary career of the time: born in the 1850s-1860s to well-off Flemish families in the region of Ghent, they initially studied law before dedicating themselves to literature, travelled to Paris to write and eventually found international acclaim. Verhaeren wrote in several genres, including regular reviews of contemporary art, but his best-known works are volumes of poetry, in particular *Les villes tentaculaires* (1895). In Brussels, he was active as an art critic and edited the main avant-garde journal at the time, *L'Art moderne*. In 1887, soon after Moréas's manifesto, he elaborated in *L'Art moderne* the notion of the Symbol, as something that is not demonstrative, but suggestive, which

³⁰⁶ In Belgium, Moréas's manifesto was met with approval by *L'Art moderne*, but was rejected by *Jeune Belgique*, the two main art journals calling for a modern literature. Maeterlinck, Verhaeren, Rodenbach, Georges Khnopff then left *La Jeune Belgique*, which remained loyal to the Parnasse, and *L'Art moderne* became the organ of the avant-garde manifestations in literature and visual arts. It was a first schism among literary circles. A second division among Belgian Symbolists may be traced along geographical areas. Although they moved between their hometowns, Paris, and Brussels, two groups were crystallized: the first one included the poets from Flanders, the majority from the region of Ghent, whereas the second group gathered around Albert Mockel, theoretician and publisher of the artistic journal *La Wallonie* in Liège. After 1889, Mockel moved to Paris and *La Wallonie* became an important international literary organ in Belgium and France. However, in the longer term, it was the group of the Flemish poets that gained greater international acclaim and a seminal place in the consolidation of a national literature. Among the founders of *La Wallonie*, originally titled *L'Élan littéraire*, was Gustave Rahlenbeck, whom P. Delsemme in "Ecrivains belges francs-maçons," lists as Freemason (p. 319). For a succinct discussion of Belgian Symbolism in literature see Jeannine Paque, *Le Symbolisme belge*. (Bruxelles: Labor, 1989). Works from the corpus of studies on the Belgian fin-de-siècle cover Symbolism as a movement in different artistic fields, including literature, visual arts and theatre. For this treatment see the studies by Francine-Claire Legrand, "The Symbolist movement" in the catalogue *Belgian Art 1880-1914* (New York: The Brooklyn Museum, 1980), her *Symbolism in Belgium* (Bruxelles: Imprimerie Laconti, 1972), and Michel Dragnet, *Le Symbolisme en Belgique* (Bruxelles: Musées royaux des Beaux-Arts de Belgique, 2010). Their focus is on painting, but they also cover the dense relations with literature.

aims to abstract the concrete.³⁰⁷ Rodenbach's most famous work was a best-selling novel published in Paris, *Bruges-la-Morte* (1892). He published poetry and worked as a correspondent for several newspapers in Paris and Brussels. Maeterlinck rose to acclaim after his play, *Princesse Maleine* received a glowing review by Octave Mirbeau in *Le Figaro* in 1890. His literary production included plays, poetry, essays and philosophical works.

Belgian poets maintained close relationships through friendships, reading and commenting each other's works. This network facilitated the spread of Schopenhauer's ideas.³⁰⁸ Rodenbach first came into contact with the German philosopher when he attended the courses of Elme Caro in Paris during his first stay in 1878.³⁰⁹ He wrote in his largely autobiographical novel *L'Art en exil* (1889) that he went to Schopenhauer because he found in him a mirror of himself, "his reason went to this literature, as one goes to the black grapevine whose harvest alone can satisfy his thirst."³¹⁰ Rodenbach gave a series of conferences on the German philosopher in 1885, including one to the Circle Artistique et Littéraire in Brussels, and he published his study titled "Notes sur le pessimisme" in *La Société nouvelle* in 1887. Albert Mockel, publisher of the literary journal *La Wallonie* (1886-1892) in

³⁰⁷ "Un peintre symboliste," *L'Art moderne*, no. 17 (24 April 1887), p. 129.

³⁰⁸ On the philosopher's influence in Belgian literature at the close of the century see the studies by Christian Berg, "Schopenhauer et les symbolistes belges," in *Schopenhauer et la création littéraire en Europe*, ed. Anne Henry (Paris: Méridiens Klincksieck, 1989), his "Le lorgnon de Schopenhauer," *Cahiers de l'Association internationale des études françaises* (Paris), no. 34 (May 1982): 119-13; Christian Angelet, "Symbole et Allegorie chez Albert Mockel: Une rhétorique honteuse," in *Études de littérature française de Belgique, offerts à Joseph Hanse*, ed. Michel Otten (Bruxelles: Éditions Jacques Antoine, 1978), and Fabrice Van de Kerckhove, "Les yeux de Mélisande: Échos de Schopenhauer et d'Emerson dans *Pelléas et Mélisande*," *Textyles: Revue des lettres belges de langue française*, no. 24 (2004): 23-37. These studies are part of the vast scholarship on Belgian Symbolism, which has also brought to light Schopenhauer's influence among Belgian writers. However, there are no studies on the other channels, outside Symbolism, through which Schopenhauer penetrated Belgium and the repercussions of his writings in fields outside literature.

³⁰⁹ Berg, "Schopenhauer et les symbolistes belges," p. 119.

³¹⁰ [sa raison était allée à cette littérature comme à la vigne noire dont l'unique vendange correspondait à sa soif]

Georges Rodenbach, *L'Art en exil* (Paris: Librairie moderne, 1889), p. 217

Liège and theoretician of the Symbolists, admired Mallarmé and he acknowledged the second source of his artistic theory: Schopenhauer, the true “master of his thought.”³¹¹ The Antwerp poet Max Elskamp (1862-1931) wrote to his friend Henry Van de Velde in 1888 that he was reading Schopenhauer’s book, which he found terrifying in the way it was utterly true.³¹² Literary critic Fabrice Van de Kerckhove has traced the direct influence of Schopenhauer in Maeterlinck starting from 1891, based on the explicit references to *The World as Will and Representation* and *Parega* which begin to appear in his notebooks after this date, and his own allusions in declarations to the press. For example, he mentions the German philosopher among his sources in Jules Huret’s 1891 *Enquête sur l’évolution littéraire*.³¹³

Schopenhauer appeared in *La Société nouvelle* as early as 1885 in three types of articles: those explaining his philosophy, those dealing with the social implications of his thought, and those discussing his relations to contemporary art, including Wagner’s music and the Symbolists.³¹⁴

³¹¹ Christian Angelet, “Symbole et allegorie chez Albert Mockel,” p. 140.

³¹² Berg, “Schopenhauer et les symbolistes Belges,” p. 126.

³¹³ Van de Kerckhove, “Les yeux de Mélisande,” p. 23.

³¹⁴ Contacts with the literary circles in France and the general reception among Symbolists were not the first channels through which Schopenhauer’s philosophy became known in Belgium. In 1877, Ernest Solvay acknowledged him among the philosophers who influenced him the most, including his portrait in his bedside photographic chart (Fig. 3.2). Léon Vanderkindere (1842-1906) made one of the earliest references to Schopenhauer in his doctoral dissertation at the Free University of Brussels in 1868, titled “De la race et de sa part d’influence dans les diverses manifestations de l’activité des peuples.” Vanderkindere described him as “a somewhat unknown writer in Belgium, one of the most remarkable philosophers, one of the most original thinkers in Germany” [écrivain en quelque sorte inconnu en Belgique, un des plus remarquables philosophes, un des penseurs les plus originaux de l’Allemagne] (ibid., p. 20), and made several references to his work. His purpose was to trace two poles in the philosophy of history: on one side, Thomas Carlyle’s position in *On Heroes*, shared by Schopenhauer, for whom everything begins with the individual. At the opposite end, Hegel’s abstract historical system. Vanderkindere found both systems inadequate, and he introduced the modern notion of *race*, primary factor in the movements of history, and as secondary factor, the notion of *milieu* which acts upon the individual, but, whose effects are always conditioned by a receptivity which is determined by race. Hence the primacy of the latter over the former. Vanderkindere continued his activity at the Free University and became a prominent Liberal in Belgian politics.

Rodenbach reported regularly on literary developments in the journal. His first piece covered his own conference at the Cercle artistique et littéraire in Brussels, in which he described the philosopher's influence on the current movement of pessimism among poets and in the general mood of decadence that permeated contemporary civilization, and summarized his philosophy which refuted free will and replaced it with fatality. *La Société nouvelle* rendered Schopenhauer's immanent will as *fatalité*,³¹⁵ between the forces of attraction and repulsion. It remarked the analogy in Schopenhauer's philosophy between man succumbing to external causes, and plants in their environment: man was free in carrying out the consequences of his volitions, but the motives at their cause acted upon him fatally, in the same way as animals have movements caused by sensation, and plants have alterations caused by climate.³¹⁶ In 1887, Rodenbach published a full article in the journal, based on his conference notes and titled "Notes sur le Pessimisme."³¹⁷ He explained the philosopher's position and his own, critical of the excesses of the philosophy and the general decadent mood. He also clarified that Schopenhauer's was not a doctrine of complete renunciation because love made man want to live. Love guaranteed the perpetuation of the species, and consequently, of the pain of living.

The second type of article mentioned Schopenhauer among thinkers contributing on the state of modern society. The social implications of his philosophy turned him into a household name. In its first notice, *La Société nouvelle* remarked that his philosophy amounted to a denial of human responsibility, freedom and morals, because it refuted not only ideas of an afterlife reward, but also the improvability of society today, the main concern of the journal. The philosopher's name

³¹⁵ "Le Mois," *La Société nouvelle* (1884-1885), p. 414.

³¹⁶ Rodenbach, "Notes sur le pessimisme," *La Société nouvelle* (1887), p. 416.

³¹⁷ Ibid.

was frequently placed alongside Darwin in social theories that negated free choice and responsibility, a position which the journal refuted. Putsage traced these theories a 1886 article, writing, “Schopenhauer says that man has no free choice, the physiologist and philosopher Jacob Moleschott claims that there is no free judgement, and A. Donsky follows that therefore, man is not responsible.”³¹⁸ Schopenhauer’s refutation of free choice appears again in André Donsky’s studies on responsibility, and the reply by Putsage on materialism and irresponsibility.³¹⁹ De Paepe, the prominent radical-socialist, provided a long list of the most influential modern thinkers that included Darwin and Schopenhauer, arguing that there were surprising connections between his philosophy and the doctrine of “rational socialism” via Hinduism.³²⁰

The third subject with references to Schopenhauer is modern art, and in particular, Richard Wagner. The German composer counted among his most ardent Belgian admirers Tassel and Horta. Incidentally, one of the few articles, if not the only one in *La Société Nouvelle* underlined and noted by Tassel is Nietzsche’s *The Case of Wagner*, published in a French translation in 1892.³²¹ Tassel annotates Nietzsche’s misapprehensions of Wagner’s art, suggesting not only a profound appreciation for the composer, but also a deep understanding of Nietzsche and Wagner. In the previous issues, Asthin Ellis’s study on Wagner’s theosophy drew an analogy between the German composer and the philosopher, who both showed that behind the appearance of everyday things there is a higher reality;³²² Maurice Kufferath’s “Love in Tristan and Iseult” traced a parallelism between the

³¹⁸ Putsage, “Notre Tribune: Matérialisme et responsabilité, réponse à M. Donsky,” *La Société nouvelle* (1885-6), p. 187.

³¹⁹ Ibid.

³²⁰ C. de Paepe, “Le mouvement international de la libre pensée,” *La Société nouvelle* (1885-1886), p. 300.

³²¹ Friedrich Nietzsche, “Le cas Wagner,” *La Société nouvelle* (1892), p. 117-157.

³²² Wm. Asthon Ellis, “La théosophie dans les ouvrages de Richard Wagner,” *La Société nouvelle* (1889), p. 258.

pessimism of the composer and the philosopher.³²³ In Nietzsche's *The Case of Wagner*, the composer's ship sailed happily until it dashed on to a reef: Schopenhauer's philosophy. "It was the *philosopher of decadence* who allowed the *artist of decadence* to find himself" (original italic).³²⁴

Most of the references to Schopenhauer in literary studies and theories of the Symbol appear in journals of the Symbolist circles, but there is also a 1891 study in *La Société Nouvelle* by Georges Dwelshauvers in which he discusses Goethe's *Prometheus* (1773) and employs Schopenhauer's definition of the symbol to explain the pursuit of the idea behind appearance: "Goethe has always read the ideas in things, directly, and in the expansion of the life of everything and his own life."³²⁵ "Poeticized ideas" [*idées poétisées*] as Dwelshauvers puts them,³²⁶ which envelop Goethe's reflections, such as the quest for the truth which links his work to a chain of masterpieces from antiquity to modern plays. *Prometheus*, Dwelshauvers argues, is thoroughly symbolic, as any great work of art ought to be. It lives in full contemplation of the idea, freed from the phenomenon that is due to causality, individual pain and passion.³²⁷ In reference to Schopenhauer, Dwelshauvers calls this state *idealisme symbolique* and argues that it is the characteristic of future art.³²⁸

Literary critic Christian Angelet has traced the rise of the Symbol from the first attacks on the allegory, which began in Germany at the turn of the nineteenth century, to the Symbolism of the late decades,³²⁹ as it is reflected in Dwelshauvers's *idealisme symbolique*. The allegory, intended as the

³²³ Maurice Kufferath, "L'amour dans 'Tristan et Iseult,'" *La Société nouvelle* (1893): 568-578.

³²⁴ Quoted from the English edition, Friedrich Nietzsche, *The Case of Wagner*, trans. Anthony M. Ludovici (Edinburgh and London: Foulis, 1911), p. 26.

³²⁵ [Goethe a toujours lu les idées dans les choses, directement, et dans l'expansion de la vie de Tout et de sa vie à lui]

Georges Dwelshauvers, "Le Prometheus de Goethe," *La Société nouvelle* (1891), p. 440.

³²⁶ Ibid., p. 440.

³²⁷ Ibid., p. 436.

³²⁸ Ibid., p. 444.

³²⁹ Angelet, "Symbole et allégorie chez Albert Mockel: une rhétorique honteuse."

systematic development of the metaphor, announced one thing to designate another, whereas the symbol descended from the relationship in the primitive languages between phenomenon and idea which yielded an image: from the image developed the symbol. Angelet notes that literary theories of the Symbol of the 1880s drew largely from Schopenhauer, or rather, they misappropriated his ideas because Schopenhauer had attacked the allegory in the fine arts, “when a work of art is intentionally and avowedly chosen to express a concept,”³³⁰ but not in poetry. A further degree in the direct correspondence are symbolic images, in the conventional sense of the symbol, not the Symbolists’.

He elaborates the distinction in *The World as Will and Representation*:

Now, if there is no connection between what is depicted and the concept indicated by it, a connection based on subsumption under that concept or on association of Ideas, but the sign and the thing signified are connected quite conventionally by positive fixed rule casually introduced, I call this degenerate kind of allegory *symbolism*. Thus, the rose is the symbol of secrecy, the mushell the symbol of pilgrimage, the cross the symbol of the Christian religion. To this class also belong all indications through mere colors, such as yellow as the colors of falseness and blue the color of fidelity. Symbols of this kind may often be of use in life, but their value is foreign to art.³³¹

This was the type of symbolism that Morren, for example, saw in the medieval ornamental motifs drawn from nature, to which he attributed a meaning that was clear and also moral. It was this type of correspondences that the avant-garde of the close of the century increasingly rejected, developing instead the notion of the indeterminate symbol that does not denote, but suggests. The “symbol” of the Symbolists is not a sign with a conventional meaning, but a vague element which evokes, suggests, and affects, rooted in intuition and not intellect, and which can never be fully penetrated. These literary theories were formulated to oppose the traditional allegory and but also the minute descriptions of reality in the more recent Naturalism.

³³⁰ Schopenhauer, *The World as Will and Representation* (New York: Dover Publications, 1966-1969), p. 237.

³³¹ Ibid., p. 239.

The second element of Schopenhauer's philosophy that fascinated Symbolists was the split between an invisible substratum and the representation of the thing in the contemplating subject,—the double reality. The primacy of the will over intellect has the effect that, it may distort thoughts, feelings, and perception of things. Psychological structure and intellect are susceptible to disturbance by the will.³³² The primacy of this blind force means that we are not masters in our house. This deep substratum where the will operates is the zone of the unconscious, "*le moi profond*" of Symbolists and Romantics where artistic creation begins.

The purpose of the Symbolists was to renew artistic expression, inventing a new ambiguous language which does not describe, nor explains, but suggests. Like the Romantics they questioned the ends and nature of artistic creation, whose roots lay in the depths of the unconscious and which would only be penetrated through the symbol. In this respect, Symbolists derived from Baudelaire, Carlyle, Emerson and the German idealists of the beginning of the century the exaltation of the symbol and the image as revelations of a hidden reality that could be accessed through the poet's imagination. Fichte, Schlegel, Schelling and Novalis reinterpreted Kant's "productive imagination" into a poetical faculty that accesses the absolute.³³³

The German philosophers of the beginning of the century combined metaphysics and natural sciences in their *Naturalphilosophie* which reached Belgium in several channels. Bressani has traced the early contact between the *Naturalphilosophie* and Viollet-le-Duc's architectural theory which became a major source for Belgian architects. Charles Morren helped propagate their ideas in his writings on botany, philosophy and art. At the close of the century, Symbolists gave new life to

³³² Sebastian Gardner, "Schopenhauer, Will and the unconscious," *The Cambridge Companion to Schopenhauer* (Cambridge: Cambridge University Press, 1999), p. 377.

³³³ See Fabrice Van de Kerckhove, "Les yeux de Mélisande: Échos de Schopenhauer et d'Emerson dans *Pelléas et Mélisande*," pp. 23-37.

the germinating, “unfortunate seeds” which Goethe and Schegellism planted, as Harvey-Gibson described them, and which fueled the “whims of imagination” of generations of botanists and artists. Like the thinkers of the turn of the century, Symbolists dealt with the long problem of formulating the links between human creations and nature. Schopenhauer had turned to plants to corroborate the thesis of his philosophy: patterns of their behavior had no mechanistic explanation, and could only be explained by inner impulses, or vital forces which were simply other words for what he described as the will which drives all beings in nature. Belgian Symbolists turned to vegetal life too because it embodied the conditions of the human soul. Unconscious beings, unaware of the will that operates within them, they share with humans the primordial force that is active in their substratum. Unconscious beings, they succumb to any stimulus, reminding humans of how they succumb to the forces of the destiny and of the Schopenhauer-like hopelessness of their condition.

It is especially in the glasshouse that the affect of the atmosphere renders the analogies perceptible. As literary historian Donald Friedman remarks, the Symbolist artist is reliant upon the external world to discover what lies within himself.³³⁴ Plants, as it was noticed, were susceptible to their milieu more than animals and humans. With great force, the figure of the plant revealed the operation of blind forces, whereas the glasshouses became the privileged milieu to explore the effects of a pervasive atmosphere on the self. Just as the intellect sometimes succumbs to the blind forces of the will, so does one succumb to the pervasive forces in the atmosphere of the claustral and suffocating hothouse. The *bourgeois* poets De Puydt and Rodigas explored the mysteries of vegetal life and the heavy air of the half-shaded tropical glasshouse. The Symbolists, who also read

³³⁴ Donald Flanell Friedman, “Rodenbach, Hellens, Lemonnier: Paradisal and infernal modalities of Belgian dead city prose,” in *Georges Rodenbach: Critical Essays*, ed. Philip Mosley (London: Associated University Presses, 1996), p. 100.

Schopenhauer and aesthetic theories of the time, took these pursuits further, building analogies between vegetal life in the hothouse and the human unconscious.

It is generally recognized that a distinct Belgian literature emerges for the first time in the original works of the Symbolists authors in the late 1880s. Belgian Symbolists joined the long quest for a modern art, and they produced an original literature. In doing so, they drew from two themes which are relevant to this investigation: vegetal life and glasshouses. At the time, Tassel inquired into the transformative, primordial forces and the essence of life while he assisted Solvay in constructing his scientific-philosophical systems. But he was also following the movements of contemporary literature, as Bogaert notes. We find Tassel at the 1891 banquet of *Jeune Belgique* alongside Maeterlinck. In *La Société Nouvelle*, he had numerous opportunities to read about the literary pursuits of the Symbolists, the plays and poetry of the author of the *Serres chaudes*.

4.4 Rodenbach's glass enclosures

Although the most famous Symbolist analogy between the glasshouse and the condition of the inner self is Maeterlinck's *Serres chaudes*, Rodenbach dealt with the theme of the glass enclosure too. His favorite trope was the aquarium, which allowed him to explore the depths of the unconscious. The sciences of life had recently established that the underwater realm is where all life began, as Clemence Royer noted in *La Société nouvelle*. To Rodenbach, the aquarium offered an analogy with the poet's own soul, the realm in which ideas are born.³³⁵ The influence of Schopenhauer is obvious. As Sebastian Gardner notes, the philosopher established the dichotomy between the surface of a globe or sheet of water, which stands for the superficiality of the consciousness, and its depths, which are largely unknown to us, but where thinking and resolving take place truly. Ideas, in themselves unconscious, are rendered conscious when they come to the surface by a process of association which is always fragmentary, hence our inability to "give any account of the origin of our deepest thoughts."³³⁶ Rodenbach's 1896 long poem *Les vies encloses* contains a section titled "Aquarium mental," in which he describes the silent underwater life of the minerals, vegetation and fish. According to the literary critic Annie Bodson-Thomas, they represent the stages of human thought from the subconscious towards the intellect.³³⁷ Rodenbach then employs the figure of the glasshouse blossoming atmosphere to describe the aquarium underwater, "*L'aquarium est si bleuâtre, si lunaire,*" "*C'est comme une atmosphère en fleur de serre chaude.*"³³⁸

³³⁵ Georges Lecomte, "Chronique de la littérature et des arts," *La Société nouvelle* (1896), p. 43.

³³⁶ Sebastian Gardner, "Schopenhauer, Will and the unconscious," p. 376.

³³⁷ A. Bodson-Thomas, *L'Esthétique de Georges Rodenbach* (Liège: Vaillant-Carmanne, 1942), p. 46.

³³⁸ Rodenbach, "Aquarium mental" in *Les Vies Encloses* (Paris: Charpentier, 1916), p. 20.

Bodson-Thomas has pointed out that before Rodenbach, Octave Pirmez (1832-1883), the intellectual and melancholy writer of the generation before the Symbolists, drew a similar analogy between the aquarium and the human soul in his *Heures de Philosophie* (1881). The aquarium was the place of the obscure life of aquatic creatures.³³⁹ In 1889, the critic Firmin Vanden Bosch ascribed Rodenbach and Pirmez to the same literary family of the *sensitives*, noting that the dreamer's melancholy of the latter always sought refuge in the philosophical observation of nature.³⁴⁰ There were further connections between the two: Rodenbach read the eulogy at Pirmez's funeral. This connection is important because it unearths another channel through Schopenhauer penetrated Belgium before the Symbolist vogue, not via Paris, but through Pirmez: Octave Pirmez was the great uncle of Marguerite Yourcenar and she writes extensively about him and his brother in her family biography *Souvenirs Pieux*. The memories of her two great-uncles, in particular, haunted her. Octave's brother, Rémo, had studied at Weimar and Iena, where he had read Hegel and Fichte. He was an avid reader of Darwin, Comte and Purdhon, admirer of Wagner, but, above all, he had been intoxicated by Schopenhauer.³⁴¹ Sensitive to the suffering and injustice in the world, Rémo finally resigned and committed suicide in 1872, at the age of twenty-eight.

Rodenbach's aquarium glass enclosure is the opposite of Maeterlinck's hothouse. It is a place of respite and protection, not an enclosure that torments the soul and distorts reality. In the aquarium, "the soul is alone," enclosed in silence.³⁴² An analogous milieu and Rodenbach's favorite setting is Bruges, the dead city of Flanders, a projection of the inner self which embodies the

³³⁹ Bodson-Thomas, *L'Esthétique de Georges Rodenbach*, p. 46.

³⁴⁰ Firmin Vanden Bosch, "Chronique littéraire: Octave Pirmez - Georges Rodenbach - Grégoire Le Roy - Charles Buet - Varia," *Le Magasin littéraire et scientifique* (1889), p. 536.

³⁴¹ Marguerite Yourcenar, *Souvenirs pieux* (Paris, Gallimard, 1974), p. 178.

³⁴² [Ainsi mon âme, seule, et que rien n'influence ! Elle est, comme en du verre, enclose en du silence] Rodenbach, "Aquarium mental" in *Les Vies encloses* (Paris: Charpentier 1916), p. 7.

pervasive effects of the atmosphere on the subject. In his *Bruges-la-Morte*, the city, suspended in time, becomes a projection of the psyche of the main character of the novel who succumbs to fatal forces. The novel opens with the phrase, “chaque cité est un état d’âme” [every city is a mood], which Rodenbach drew from the Swiss philosopher Henri-Frédéric Amiel (1821-1881), who made the famous statement, “chaque paysage est un état d’âme” [every landscape is a mood].

Rodenbach was convinced of the pervasive effects of the atmosphere upon the subject not only in fiction, but also in real life.³⁴³ The opposite of the dead cities were modern capitals, whose atmospheres had a reinvigorating effect on the creative substratum of the artist. Rodenbach employed the figure of the glasshouse in his articles and correspondence to describe these effects. In contrast to Maeterlinck’s, his did not express states of desolation or suffering in the hothouse enclosure. He was interested in the vital forces that this atmosphere nurtures. Rodenbach lived in Paris for the first time between 1878 and 1888, before moving back permanently in 1888. From the beginning, he stated clearly his literary ambitions and his preference for the French capital. In an early letter to Verhaeren in 1879, he criticized the petty materialism of Belgium, where “*l’esprit se rouille dans l’air bourgeois*” [the soul gets rusty in the bourgeois air], writing that “in Paris, one lives in fervor, in a double state, one feels as if in the hothouse, life rises vigorously and the thought flourishes.”³⁴⁴ In his 1895 article, “Paris et les petites patries,” he ascribed the vital forces that drive

³⁴³ Rodenbach seems convinced of the close relationship between outer landscape and inner self, and the pervasive effect that the atmosphere of the city has on the individual. In 1896, he writes of the “mysterious influence that cities have on us,” and advanced the theory that pregnant women surround themselves with pretty objects, rare nick-knacks, calm statues and clear gardens so that the baby may be prettier (Rodenbach, “L’Esthétique des villes,” *Le Figaro*, 6 August 1896).

³⁴⁴ [à Paris, on vit fiévreux, on vit double, on est en serre chaude et, tout d’un coup, la sève bout et la pensée fleurit]

Reprinted in “Georges Rodenbach, ou la légende de Bruges.”

https://bruges-la-morte.net/wp-content/uploads/Mallarme1_19.pdf

Accessed September 2018.

the creativity of the artist to the atmosphere of the city, physical and psychological at the same time,—“*puissance vivante de la capitale*,”³⁴⁵—which has the same effect as electricity, and he compared them to the growing vegetation of the glasshouse: “The ideas, images, literary forms, are they glasshouse flowers, tropical vegetation, cactus and sensitives, enclosed in this artificial and badly-ventilated atmosphere of the apartments of the big cities?”³⁴⁶ The window panes of the poet’s room filtered the impressions of the city life, stimulating him in his room, in the same way as light filtered through the glazing affects plants:

The glass panes, which we believed were an obstacle, are rather a lover and a trap, because they absorb in themselves to propagate onto us all the cries of working Paris, the odors of sex and gas, the fever of the streets, the electricity and the phosphorescence of the passers-by—because Paris is an ocean and it emanates a generous, balsamic air for art; and are they not floating seaweeds and bitter wracks these beautiful hair of women that we see floating about the swells of the crowd?³⁴⁷

³⁴⁵ Rodenbach, “Paris et les petites patries,” *La Revue universelle* (15 April 1895), p. 137.

³⁴⁶ [Est-ce que les idées, les images, les formes littéraires sont donc fleurs de serre, végétations tropicales, cactus et sensitives, pour qu’elles éclosent surtout dans cette atmosphère factice et mal aérée des appartements de la grande ville?]
Ibid.

³⁴⁷ [Les vitres qu’on croyait l’obstacle, sont plutôt un aimant et un piège, car elles absorbent en elles, pour les propager jusqu’à nous, tous les cris de Paris en travail, les odeurs de sexe et de gaz, la fièvre féconde des rues, les électricités et phosphorescences que roulent les passants—car Paris est un océan et il émane pour l’art un air généreux, balsamique: et ne sont-ce pas des algues flottantes et des goémons amers, ces belles chevelures de femmes qu’on voit flotter sur les houles de la foulée]
Ibid.

4.5 Maeterlinck's glasshouses

The figures of the glasshouse and vegetation allowed Maeterlinck to express inner states. In his volume *Serres chaudes* (1889), the poems Hothouse [*Serre chaude*], Diving Bell [*Cloche à plonger*], Bell-Glasses [*Cloches de verre*], Hothouse of boredom [*Serre d'Ennui*], he employed the figures of glass enclosures; in “Feuillage du Coeur” [Foliage of the heart] and “Hôpital,” exotic vegetal imagery is a product of hallucinations in a state of confinement. During a state of high fever, we sometimes perceive unbridled images, succeeding one another with no relationship. Maeterlinck relates these states to the effects of the hothouse atmosphere to which body and mind succumbs. Octave Mirbeau described the strange analogies in the figure of the bell-glasses, “the most painful cry of despair of a man enclosed in the prison of his materiality, while around him dreams float by that he will never attain.”³⁴⁸

Serres chaudes had a small circulation Belgium when it first appeared in 1889, but the following year Maeterlinck suddenly rose to international fame after Mirbeau called his play *Princesse*

³⁴⁸ [Cloche à plongeur, qui est, en ses analogies choisies et douloureuses, le plus poignant cri de désespérance de l'homme enfermé dans la prison de sa matérialité, alors qu'autour de lui passent les rêves qu'il n'atteindra jamais]

Quoted in “Un article net,” *L'Art moderne*, no. 35 (31 August 1890), p. 274.

According to literary critic Patrick McGuinness, the analogy between the glasshouse and soul (“*serre*” and “*âme*”) is largely a distraction. The real governing analogy in Maeterlinck's poetry is between language and glass. Glass reveals form, but also distorts. So does language, which not always renders the world transparently, but needs to be rendered itself. In Maeterlinck's poems, critical metalanguage is prominent and becomes a subject itself: the author reads himself before our eyes, for example when he writes on language in the poem “*Serre chaude*”: “Calls forth the lost days my soul” [et sous mon âme vos analogies]. The Symbolists' metalanguage enters poetry, blurring poetry with the critical terminology of literary theory. If Maeterlinck, a Flemish native speaker, builds an analogy with the hothouse atmosphere to express confinement and a state of malaise, if not suffocation, and if this is an analogy with language, then, this hothouse is the French language, or “l'esprit latin” which confines expression and torments him. See McGuinness, “Maeterlinck's *Serres chaudes*: Modernism and the Decadent micro-climate,” in *La Belgique entre deux siècles*, ed. Nathalie Aubert, Pierre-Philippe Fraiture and Patrick McGuinness (Bern: Peter Lang, 2007) and McGuinness, “Belgian Literature and the Symbolism of the double” in *From Art Nouveau to Surrealism*, ed. Nathalie Aubert, Pierre-Philippe Fraiture and Patrick McGuinness (Leeds: Legenda, 2007).

Maleine, printed in a private edition of thirty samples, “the most genial work of our time” in *Le Figaro*.³⁴⁹ In addition to the play, Mirbeau reviewed his previous poems of *Serres chaudes*, which he found to contain the essence of his art. After the acclaim in Paris, the French and the Belgian press rushed to discover Maeterlinck, and the *Serres chaudes* became one of the best-known titles of its time.

Maeterlinck wrote several other plays in which he explored similar themes. The characters are in indissoluble union with their environment, creating a unique atmosphere, which in turn, seeks to affect the viewers, transposing them into an indeterminate time. This quality earned his plays the name of atmospheric theatre, *Stimmungsdrama*.³⁵⁰ The characters are strange, like the images of the hallucinated states in the *Serres chaudes*. Albert Mockel describes Princess Maleine as “pale, having vague eyelids and her curls in lianas;” one is not sure whether she really exists and to which realm she belongs.³⁵¹ The landscape, to which the characters are bound, is born out of the psychological state of the character: as in a dream, in which the landscape is born out of the state of the dreamer and always plays a role, a connection which Maeterlinck elaborated in his book *Onirologie* (1889). In the hothouse or the diving bell, the atmosphere was inextricably related to the psychological state of the poet: it affected his mood, but it was also a projection of his inner states of hallucination. It plays an analogous role to Rodenbach’s dead city as an affective milieu, which is at the same time a projection of subjectivity.

³⁴⁹ Mirbeau, “Maurice Maeterlinck,” *Le Figaro*, 24 August 1890. The review which propelled Maeterlinck into international fame began with the famous phrase: “I know nothing about M. Maurice Maeterlinck. I have no idea where he is from, what he looks like. If he is old or young, rich or poor. I know only that no man is more unknown than he is, and I also know that he has created a masterpiece.”

³⁵⁰ Paul Gorceix, *Les Affinités allemandes dans l’œuvre de Maurice Maeterlinck: Contribution à l’étude des relations du symbolisme français et du romantisme allemand* (Paris: Presses universitaires de France, 1975), pp. 234-235.

³⁵¹ Mockel, “Chronique littéraire,” *La Wallonie* (1890), p. 221.

In the atmosphere of the play characters are prisoners of invisible forces, which they do not understand, but to which they inevitably succumb. The characters, reduced to puppets, succumb to Schopenhauer's blind forces of destiny. They mumble a text which they do not understand because the ultimate sense of the drama of existence, of which they are only figurants, will always remain incomprehensible to them.³⁵² Schopenhauer stated before that the spectacle of the human race is that of puppets, worked not by external strings, but an interior mechanism: the will.³⁵³ Only an atmosphere could restore this spectacle, conveying the operation of hidden, uncanny forces of another reality to which beings succumb, just as they do in the hothouse. Mockel grasped this essential device of Maeterlinck's art. He noted that Maeterlinck drew from fellow Symbolist authors, notably Charles Van Lerberghe, who also wrote plays for a close circle of friends: Maeterlinck's *Princesse Maleine* resembled one of the young girls in Van Lerberghe's plays "who has unconsciously arrived in the Hothouses to die, suffocated in this poisoned palace."³⁵⁴

³⁵² Berg, "Schopenhauer et les symbolistes belges," p. 133.

³⁵³ Berg, "Le lorgnon de Schopenhauer," p. 133.

³⁵⁴ [une fillette de Van Lerberghe si inconsciemment venue dans les *serres chaudes*, et qui s'y meurt; étouffée en ce palais empoisonnée, elle s'y meurt]

Mockel, "Chronique littéraire," *La Wallonie* (1890), p. 221.

Symbolist art in Belgium is rooted in friendships, close relations and creative affinities between artists of different domains. They were inspired by each other's works, or felt affinities between their creations. Critics such as Mockel revealed the connections between fields, but sometimes it was the artist themselves who discovered affinities in their creations in visual arts, poetry and theatre: the poet Van Lerberghe stated that he "saw in images, in symbols" (Legrand, "The Symbolist movement," p. 60). The sculptor George Minne, close friend of Maeterlinck who designed the illustrations of his poems, stated that sometimes he felt as if it was him who had written the *Princesse Maleine*, and he attributed the affinities between each other's works, remarked by their contemporaries, not to a direct inspiration from the poet and playwright, but to the shared "ambiance" of the time (*L'Univers de George Minne & Maurice Maeterlinck*, ed. Robert Hooze et al. (Bruxelles: Fonds Mercator, 2012, p. 23). However, statements of this kind are absent in the case of Horta's architecture: we find neither the architect nor Symbolist aesthetes' opinions on each other's art. This absence would appear all the more puzzling if Horta found inspiration in the Symbolist aesthetics of his time, as Dernie argues. On this absence and the relations between Horta and the Symbolists, see my contribution, Aniel Guxholli, "Missing Affinities: Brussels Art Nouveau and Belgian Symbolism," in *Domestic Space in France and Belgium: Art, Literature and Design*, ed. C. Moran (London: Bloomsbury Academic, 2020).

Mockel insisted that the “atmosphere” was the essential condition of the modern artwork because it ensured continuity between characters and setting with the purpose to “create a distinct world, with *its own* atmosphere, *its* light, and *its* life; it must be abstracted from the present world, that the characters be not an individual that you rubbed shoulders with, but that they move away from the concrete, like pure ideas.”³⁵⁵ Continuity was the key element in creating an atmosphere: Maeterlinck had managed to obtain it through abstraction and the play of suggestive images.

La Société nouvelle published regularly poems and literary criticism of Belgian Symbolist authors. In 1889, it published in full the text of *La Princesse Maleine*. Its regular reports on artistic events included the performances of Maeterlinck’s plays in 1889 and the following years. In June 1892, it published Valère Gille’s essay on *Pelléas and Mélisande*, in which he described the atmospheric character of his art:

“If we step back from the works of Maurice Maeterlinck, in order to seize the dominant traits, what strikes us at first is the atmosphere and the décor, interpreted perfectly by the other artist of the strange and mortal dream, Georges Minne. The characters come out only in second place; they seem to be part of the décor and live the tenebrous life therein; very often, they are only fatal shades. In fact, Maurice Maeterlinck treats his subjects as legends, as simple and primitive souls. The only exception is the Princess Maleine that, as it is known, was only the experience of transposing known souls into a milieu that his own imagination had created.”³⁵⁶

³⁵⁵ [le propre d’une œuvre d’art est de former un monde distinct ayant son atmosphère, sa lumière et sa vie; il faut qu’elle soit abstraite du monde présent, que les personnages ne soient pas tel individu tantôt coudoyé, mais qu’ils se meuvent éloignés du concret, comme de pures idées]

Mockel, “Chronique littéraire,” *La Wallonie* (1890), p. 208.

³⁵⁶ [Si nous nous éloignons quelque peu des ouvrages de Maurice Maeterlinck, afin de ne plus ne apercevoir que les caractères dominants, ce qui nous frappe tout d’abord, c’est l’atmosphère et le décor, interprétés si parfaitement par cet autre artiste de rêve étrange et mortel, Georges Minne. Les personnages ne se détachent qu’en second lieu ; ils semblent faire partie eux-mêmes du décor et vivre de la vie ténébreuse qui y plane; bien souvent ils ne sont que des ombres fatales. C’est qu’en effet Maurice Maeterlinck traite ses sujets comme des légendes, avec des âmes simples et comme primitives. Il faut faire exception pour la Princesse Maleine qui ne fut, comme on sait, que l’expérience de transporter des âmes connues dans le milieu que son imagination personnelle avait créé]

Valère Gille, “Pelléas et Mélisande par Maurice Maeterlinck,” *La Société nouvelle* (1892), p. 799.

These milieux stem from the poet's imagination, in which landscape and subject are inextricably related, whether in the forest in which Melisande is lost in the middle of the "fantastic," "nocturnal" décor, in the middle of "unknown and mysterious" things that do not allow her to recognize herself nor act, or in the hothouse, where the poet's soul is imprisoned in mystery and desperately seeks escape. These milieux show the state in which Schopenhauer's will reigns, in which we are no longer free, and in a Schopenhaurian fashion, we only abandon ourselves to the fatal chain of events.³⁵⁷

The atmospheric milieu was the first trope which allowed Maeterlinck to express this state of confinement. The second one was the vegetal figure. In the glasshouse, the two are combined. Gille pointed out this central trope of Maeterlinck's art, describing how he expresses the workings of the subconscious through the figure of the plant:

What haunts the author of the *Serres chaudes* are the occult phenomena of things, what occurs in the underground of the soul, where it is not possible to hold the torch of conscience [alluding to the figure of the torch of in one of his plays]. He considers our existence as a tree: in the sunlight open the stem and the leaves, that is, conscious life; but below the ground, like roots, seeps out another mysterious life. Of that one we only have a vague awareness through dreams and presentments. They are the alarm bells which tell us that something is going on at the bottom of the robe. Presentments: these is the key to Maurice Maeterlinck's work.³⁵⁸

Maeterlinck elaborated this relationship in *L'intelligence des fleurs* (1907), a later book on the philosophy of life. Flowers concentrated all the effort of vegetal life, which was oriented towards

³⁵⁷ Ibid., p. 800.

³⁵⁸ [Ce qui hante surtout l'auteur des *Serres chaudes*, ce sont les phénomènes occultes des choses, ce qui se passe dans les souterrains de l'âme, là où l'on ne peut porter le flambeau de la conscience. Il considère notre existence comme un arbre: au soleil s'épanouissent la tige et les feuillages, c'est-à-dire la vie consciente, mais sous terre, comme des racines, sourde une autre vie mystérieuse. De celle-là nous n'avons qu'une vague connaissance par les rêves et les pressentiments : ce sont les sonnettes d'alarme qui nous avertissent que quelque chose vient de se passer au fond de la bure. Les pressentiments, voilà toute la clef des œuvres de Maurice Maeterlinck]
Ibid., p. 799.

light. Light, symbolized the intellect [*l'ésprit*].³⁵⁹ The stem was the source of life.³⁶⁰ The title of the book belongs to a long lineage of nineteenth-century studies in botany and philosophy on the *langage des fleurs*, inquiring whether plants had a soul. Maeterlinck's dualism between roots in the darkness and branches reaching for the light, by no means original, belongs to an even longer lineage. Over half a century before, Charles Morren had referred to Schelling's analogy between man holding his head towards the skies, whereas the legs keep him to the ground, and the cedar which plunges into the clouds whereas its roots penetrate the soil.³⁶¹ After the German Philosophy of Nature, the Romantics and Schopenhauer, Symbolists related this image to the human being, split between the unconscious where blind forces operate and the clear light of the intellect which cannot escape the workings of the forces below.³⁶²

An analogy very similar to Valère Gille's has appeared in the recent study by literary critic Patrick McGuinness who writes that in Maeterlinck, the plant, with the roots in the earth and the leaves above the soil perfectly symbolizes the relationship between surface and depth, consciousness and the substratum of mind: the roots feed on dark depths, they are shadowy reflections of the branches. The branches aspire to the clear light of the intellect.³⁶³ Architectural historian David

³⁵⁹ Maeterlinck, *L'Intelligence des fleurs* (Paris: Bibliothèque Charpentier, 1922), p. 1.

³⁶⁰ Ibid., p. 22.

³⁶¹ Charles Morren, "Horticulture et philosophie," p. 11.

³⁶² Marder notes that the emergence from darkness into the light of knowledge is a central figure in Western philosophy, employed to describe the transition from the ignorance of the unconscious to conscious existence (Marder, *Plant-thinking*, p. 175). Marder discusses Goethe, Schelling, Novalis and Oken, the key figures of the German Philosophy of Nature who, in their attempt to overturn metaphysics, homologized the human condition in the plant (ibid. pp. 60- 61): Oken referred to the corolla as the brain of the plant which corresponds to the light; Novalis, whom Marder singles out as the most explicit plant-thinker of modern history, referred to the flowers as allegories of the consciousness of the head and stated in his *Fragmentos* (1798) that "thinking, like flowering, is but the most delicate evolution of plastic forces—the universal power of Nature elevated to the potency of the n-th degree" (ibid., p. 175). Marder considers the reflections of the German Philosophy of Nature as an inversion of Platonism because they favour nourishment over consciousness as the basis of existence (ibid., p. 60).

³⁶³ McGuinness, "Maeterlinck's *Serres chaudes*," p. 248.

Dernie has made Symbolist tropes central in the interpretation of Horta's architecture. However, his interpretation rests merely on verbal analogies between themes of Symbolist literature expounded by contemporary critics and his own descriptions of parts of Horta's architecture, and the assumption that Symbolism was the dominant aesthetic in Brussels so it must have been the most important reference to Horta's Art Nouveau. Dernie brings passages from Symbolist letters and themes extrapolated in contemporary studies such as the figure of the unconscious. Thus, Horta's interiors resemble the closed exotic worlds of Maeterlinck's *Serres chaudes*, and his Cloches de Verre whose transparent walls protect fragile plants and symbolize retreat; mirrors, featured in his interiors, bear the ambiguity between surface and dream-like depth in Khnopff's Symbolist paintings. Dernie is especially keen on figures from Rodenbach, in particular the trope of the aquarium which contains the figures glass and water, fundamental to the "contemplation of a disappearance of being," and which becomes the Symbolist dream room in Horta's interiors.³⁶⁴

Hanser, who argued that Symbolist artistic developments should be seen as parallel to Horta's pursuits, not as sources, dealt with the problem of meaning of the decorations of the Hôtel Tassel towards the end of his dissertation, but his answer was inconclusive. He had the impression that Horta's decorations, and notably, the mural, suggested something related to the unconscious. It was simply a visual suggestion. Hanser left the interpretive matter unsettled and did not look for any further connection between this idea which existed in the outside world and the decorative motifs in the house.

Valère Gille's review of Maeterlinck in *La Société nouvelle* and the rare biographical indications that Tassel followed the movements of contemporary literature are the missing links

³⁶⁴ Dernie, "Horta and the Symbolist Interior," in *Colloque Horta*, proceedings (Bruxelles: Académie Royale de Belgique, 1996), p. 91.

which allow to connect motifs of his interior's décor to concrete themes from which the décor may draw its meaning, including the analogies with darkness, light, the intellect and the unconscious. Thus, the mural may be connected to the vegetal figure as a metaphor of our existence, of which Maeterlinck was a vocal interpreter. Yet, several patterns of significance converge and the analogy with humanity draws from more than one context.

Gille's passage and other sources root out the meaning of Horta's architecture in a historical reality, so that it is not merely vested upon it in a purely interpretive process. The nature of this historical evidence also suggests with certainty that it was Tassel, not Horta, who was aware of the recent meanings vested upon the glasshouses' atmosphere and vegetal life in contemporary Symbolist literature. Should new records on Horta's library and his exchanges with the world of letters come to light, this may change. However, at the current state of historical evidence, the image of Horta developing and deploying the modern style on his own at the Hôtel Tassel is no longer sustainable. Tassel is no longer the progressive client who gave Horta a free hand in the genesis of a new decorative style at his house. Motifs and meaning drawn from the glasshouse atmosphere and above all, the intimate nature of life owe much to this client.

4.6 The glasshouse, real and imaginary

At the end of the century, Maeterlinck's fame brought the writings and imagery of glasshouses in the spotlight once again. After decades of thriving Belgian horticulture and reflections on this modern type had begun in the 1820s, the glasshouse acquired new meanings. Not everyone appreciated them: the most virulent critic of the Symbolists, Max Nordau (1849-1923) analyzed the *Serres chaudes* and Maeterlinck's plays to conclude that they were only an unbridled association of images, borrowed from a very limited circle of themes, occasionally plagiarized from Shakespeare, and ultimately the product of a diseased mind.³⁶⁵ Yet, Maeterlinck's fame fueled the associations between the hothouse, vegetal life, inner states and philosophical ideas to the extent that a monograph on the glasshouses of Laeken of the turn of the twentieth century, edited by Charles de Bosschère, opened with verses of *Serres chaudes* (this work Horta did possess). The Belgian writer Henry Carton de Wiart, who wrote the short preface in 1914, included references to poems on glasshouses by the best-known Belgian poets—Rodenbach, Verhaeren, and Maeterlinck—but he also found it necessary to address the widespread subjective and objective qualities that were being attributed to plants, and which revolved around the old question whether they had a soul. He referred to Maeterlinck, who attributed to flowers an active and inventive thought which sought to liberate itself, escape the fatality of below and bloom in the light of corollas and petals above.³⁶⁶ These attributions left Wiart indifferent: he only wanted to enjoy plants for what they looked like, and demanded no philosophical virtues of them. Wiart thought Léopold II had felt the same in his glasshouses. About twenty years earlier, Wiart had raised a similar problem in the conservative catholic *Magasin littéraire*

³⁶⁵ Max Nordau, *Degeneration* (Lincoln: University of Nebraska Press, 1993), p. 230.

³⁶⁶ Charles de Bosschère, *Les Serres royales de Laeken*, preface by H. Carton de Wiart (Bruxelles: Van Oest & Cie, 1920), p. vii.

et scientifique published in Ghent. He remarked in his article “Les confins de la littérature et de la science” that the boundaries between the two domains were naturally defined, yet certain writers had the “annoying tendency” [*tendance facheuse*] to trespass them.³⁶⁷ Whereas for Schopenhauer it was necessary to cast a furtive glance behind the curtain separating the two domains in order to see greater truths that science itself could not reveal—the will—for Wiart there was nothing to see on the other side. Wiart’s article did not deal with Maeterlinck, but it appeared at the time when the latter’s *Serres chaudes* was gaining fame. Even the conservative *Magasin littéraire et scientifique* praised this work for its effort to reconnect with the spiritual realm in the age of uninhibited materialism.³⁶⁸

In his *Bulles bleus*, Maeterlinck claims that title of *Serres chaudes* came naturally to his mind because he was a native of Ghent, the centre of horticulture and floriculture whose landscape was marked by extensive ranges of glasshouses.³⁶⁹ His father had a 200m-long range of glazed walls where he grew peaches and other fruit which he exported to England, a wintergarden terminating in a cave, and glasshouses whose foliage and exotic vegetation always attracted him. They provided his early encounter with real glasshouses.

Serres chaudes transformed themes which were already present in the general reception of glasshouses into Symbolist tropes through the three defining elements of Symbolist aesthetics, as Friedman identifies them: the power of the imagination to construct a world infused with the poet’s response to reality, the construction of a landscape which designates the inner self, and the subtle pervasion of the atmosphere as the effect of a milieu upon mood. Along the dead city and the

³⁶⁷ Carton de Wiart, “Les confins de la littérature et de la science,” *Le Magasin littéraire et scientifique*, p. 212-226.

³⁶⁸ See Gérard Lelong, “Maurice Maeterlinck,” *Le Magasin littéraire et scientifique* (1891), pp. 167-170.

³⁶⁹ Maeterlinck, *Bulles bleus*, p. 159. The editor of the memoirs Raymond Trousson remarks on this annotated passage that the title did not come to him so naturally after all: Maeterlinck originally intended to use the titles *Tentations* or *Les Décadents*, announced in 1886.

aquarium, the hothouse was one of environments which become “claustral atmospheres.”³⁷⁰

Symbolists had a preference for lifeless places, a “décor of silence,” suspension over motion, fall over regeneration³⁷¹—fictitious environments at the opposite of the expression of life in the vigorous glasshouse atmosphere. Yet, the presence of omnipresent forces could be reflected in two opposite realities.

Traits of the claustral atmosphere as a subjective construction which, in turn, acts upon the subject, were inherent in the earlier reception the glasshouse: it had a powerful affect upon mood and imagination, but it also reflected, in the descriptions of the contemporaries, ideas they had on tropical environment and plant life which they projected upon this artificial milieu. When the civil servant and plant collector Jules Putzeys took the train from Brussels to the wintergarden of Linden’s establishment in Ghent in 1881, he already felt he had embarked on a journey to a tropical forest which he was expecting to find in the glasshouse. The perceived atmosphere was, in part, based on the nineteenth-century ideas on the natural world and vegetal life, local and distant tropical regions. It evolved as the ideas on nature changed. To the changes in imagination corresponded changes in design. Themes in reception and design reveal the consecutive stages: initially the glasshouse contained parallel ranges of potted plants. There were technological limitations to the size and arrangement and, at the time, the main focus of the natural sciences was taxonomy and classification. Towards the mid-century, horticulturists and the larger public were eager to recreate the vegetal mass under glass, seeking a sensorial experience in a full environment. Clarity and order in classification and exposition of the vegetal world in parallel ranges passed out of fashion, as Édouard Morren was

³⁷⁰ Friedman, *The Symbolist Dead City: A Landscape of Poesis* (New York: Garland Publishing, 1990), p. 21.

³⁷¹ Friedman, “Belgian symbolism and a poetics of place,” in *Les XX and the Belgian Avant-garde*, ed. Stephen Goddard (Lawrence, Kansas: The Spencer Museum of Art, University of Kansas, 1992), pp. 128-129.

glad to remark in his reviews on modern wintergardens. What fascinated the large public now was mystery, in the descriptions of the natural landscapes and their artificial recreations: to the Brussels novelist Karl Grün, writing in 1880, everything in the virgin forest was “*mystère et majesté*” [mysterious and majestic].³⁷² It was one of the aspects that Leopold II loved in his glasshouses: a majestic wintergarden, but also turns, hidden passages, and the sense of mystery in architecture and in the vegetal mass. In his *Bulles bleus*, Maeterlinck returned to the effect of mystery and strangeness in the creepers of his father’s glasshouses, “fairy-like as the lianas of my imaginary tropical jungles.”³⁷³ The vegetation of the glasshouse began to appear “unusual,” as De Pudyt described it in his treatise on orchids, before it became a strange “vegetation of symbols” in Maeterlinck’s hothouse. Before the Symbolists, scientific and artistic literature explored manifestations of inner forces in this scenery, and, the suggestions of ideas of another order such as aspiration towards the light and *l’esprit*, inherent in vegetal life.³⁷⁴ The idea that the same blind forces operated in plants and humans could only make the analogy between this outer landscape and the inner self stronger: nature and intellect drew from the same sources.³⁷⁵

André Barre traces an analogous shift in the conception of Nature in poetry through the nineteenth century, one of the major lyrical themes alongside Love and Death. It was first assimilated to Divinity, creator of all living things that inspires and vivifies the artist. Then, a few late Romantics began to confuse Divinity with an obscure force which permeates the world, and the

³⁷² Karl Grün, *Jenny Butler* (1880), quoted in *Lettres françaises de Belgique: Dictionnaire des œuvres*, ed. Robert Frickx and Raymond Trousson, vol. 1 *Le roman*, ed. Vic Nachtergaele and Raymond Trousson (Paris-Gembloux: Duculot, 1988), p. 265.

³⁷³ [féeriques que les lianes de mes imaginaires jungles tropicales] Maeterlinck, *Bulles bleus*, p. 63.

³⁷⁴ Maeterlinck, *L’Intelligence des fleurs*, p. 1.

³⁷⁵ *Ibid.*, pp. 104-105.

idea of the infinite arose. The Symbolists, Barre observes, added to the infinite the ideas of mystery, the unconscious, and the unknowable.³⁷⁶

In Barre's explanation, Symbolism emerges out of Naturalism as a tendency towards abstraction after minute observation. In literature, Naturalists described reality in minute details—the physical characteristics of the city, or of an interior. Then, greater attention was paid to some of these elements—stains on the walls, a crack noise from the old furniture of the room—which became suggestions of forces of another realm at play, one that could not be fully grasped, but could be conveyed in artworks. As Gorceix remarks, in Symbolist works, everyday insignificant phenomena are charged with meaning, so that they hint at the forces of a different order at play, the action of irrational forces or a cosmic reality.³⁷⁷ Gorceix's observation, then, complements Barre's broader scheme of the evolution of literary quests, from the emanation of divinity to the unconscious reflected in detail, and this line applies as well to the changes in the reception in letters of one particular case of Nature—the vegetal environment under glass.

Reviewing Maeterlinck's plays, Mockel wrote that the construction of an atmosphere becomes the necessary condition of modern art because only it can convey the operation of uncanny, insinuating and ubiquitous forces which manifest themselves in the form of presentments, forces which his characters do not fully realize, but to which they inevitable succumb.³⁷⁸ In his poetry, the atmosphere of the glasshouse plays a similar role in that it conveys the operation of forces to which vegetal and human life succumb. Friedman has described the "atmosphere of strangeness" of his

³⁷⁶ For this line of explanation see, for example, André Barre *Le Symbolisme: Essai historique sur le mouvement symboliste en France de 1885 à 1900* (Paris, 1911, Reprint, New York: Burt Franklin, 1968).

³⁷⁷ Gorceix, "Le premier Maeterlinck ou les débuts d'un iconoclaste," in *Belgique Wallonie-Bruxelles: Une littérature francophone*, ed. Edmond Jouve and Simone Dreyfus (Paris: Association des écrivains de langue française, 1999), p. 187.

³⁷⁸ Mockel, "Chronique littéraire," *La Wallonie* (1890), p. 208.

hothouses as the model for the inner realm of dreams and the unconscious where such forces are at play.³⁷⁹ Symbolists rediscovered the plant among the figures of German idealism, recasting it into the more recent notion of the unconscious, and in the milieu where it is rooted.

Outside the Symbolist understanding, the inner forces in these landscapes were transformational, vital ones, driving movement and growth. They were seized by botanists, poets, but also architects engaged with design of an environment. In the modern glasshouse and in the modern artwork the way to convey the operation of such hidden forces was by means of an atmosphere: Maeterlinck's *stimmungsdramma* and his *Serres chaudes* were one instance. The wintergarden in the Hôtel Tassel's interior was another. The mural is part of a décor, and part of an atmosphere construed to convey the forces of nature at play.

Horta's and Tassel's endeavor brings this connection to the pursuits of modern art. The atmosphere as a literary figure or a material creation was a medium to re-experience the outer world and the inner self. At an earlier stage of the nineteenth-century cultural history, Charles Morren had ascribed a similar function to the glasshouse, to bring the content of the whole world under one glazed firmament and probe the workings of the divine design. It is the content of the universe and the nature of these workings which has changed since. There is a new nature in constant transformation, one in which humans are a recent introduction, split between conscience and a darker realm where blind forces seem to be at play. Horta's décor conveys the essence of hidden forces that have shaped it. Perhaps, among the forces evoked by his motifs are the inner impulses which drove ambiguous organisms overland at the origins of life and still drive their aspiration towards the light of the intellect. Their intimate nature remains elusive, hence the sense of ambiguity

³⁷⁹ Friedman, "Belgian symbolism and a poetics of place," p. 133.

in Horta's décor, rendered stronger by the history of the building, especially the obscurity of Horta's intentions. The construction of a décor and of an atmosphere was a modern expedient, key to conveying such ideas. But, in deploying this device, the very function of Horta's *décor* goes back to its origins in architectural history, to the *decorum* of classical architecture which expressed the order of the universe.³⁸⁰ In the Hôtel Tassel's interior, it is a real and imaginary universe, scientific and poetic, as it was known to him and Horta around 1894.

³⁸⁰ Louise Pelletier renders this meaning of Vitruvius's "decorum" in her doctoral dissertation "Nicolas Le Camus de Mézières's architecture of expression" (McGill University, Montreal, 2010), p. 39. Vitruvius's architecture transcended its materiality by expressing the order of the universe. Le Camus transcended its materiality to express the character of a building, the status of the owner, and to affect mood. In this light, Pelletier notes that the essence of architecture becomes fictional and poetic.

5. Fine Arts, Free Thinkers and the Far East

5.1 Horta and classicism in the 1880s

Horta built his early career as a talented architect in Brussels during the 1880s, between two major events: his first journey to Paris in 1879, and his initiation into Freemasonry in 1889. Paris revealed to him the monumental architecture that remained his major aspiration. Initiation into Freemasonry brought him in contact with a social circle and the progressive ideas they shared. Through the 1880s, Horta explored the theme of life in the language of the plastic domain, in sculpture and in the architecture of the classical tradition. He explored the expressive power of this language and the ways in which a new, personal architecture would come to life. In the same decade, the sciences of life, the new social sciences, Solvay, Schopenhauer's enthusiasts and the Symbolists were all reflecting on the intimate nature of life. *La Société nouvelle* became a major platform of contemporary thought from scientific, artistic and philosophical fields. The movements of contemporary thought and Horta's own research in the plastic domain finally converged when Horta and the circle around Tassel crossed paths.

A native of Ghent, Horta was born in 1861, son of Henriette Coppieters and Pierre Jacques Horta, a master cobbler. In his memoirs, Horta describes his early artistic hobbies, his school choices, and his final decision to become an architect. At the Ghent home, music was the *art d'agrément*,³⁸¹ a passion that Horta maintained as a Wagner enthusiast in Brussels. From the age of

³⁸¹ Horta, *Mémoires*, p. 6.

twelve, he attended the drawing courses of the architecture section of the Académie des Beaux-Arts in Ghent, where he obtained the first awards,³⁸² then the local Athenée royale and the drawing and weaving sections of the Industrial School in Ghent around 1876, encouraged by his parents who thought of a future career as director of one of the textile factories in the region. The family's response to his wish to become an architect at the age of sixteen was initially lukewarm, but he had shown remarkable drawing skills and spent time on the building sites of Beert and Coppieters, building entrepreneurs and relatives, and later Jules Rau and Bureau Delpierre, the first to hire him.³⁸³ In 1879, Horta left for Paris to continue his training under Jules Dubuisson, a painter decorator. The following year he returned to Ghent when his father died, and moved definitively to Brussels soon after.

At Ghent, Horta first came into contact and learned to discern the characters of the different architectural traditions present in city: the Flemish Renaissance, and eighteenth-to-early nineteenth-century classicism. The drawing courses of the academy taught him to guide his hand,³⁸⁴ whereas the premature experience on sites showed him how to build.³⁸⁵ Finally, Paris revealed his true vocation. A young architect with these aspirations realized that first, only the capital of his home country provided opportunities to design public monuments, scant as they were, and second, that the Académie des Beaux-Arts was a mandatory stage for training and building contacts among professionals and patrons. Horta enrolled at the academy in Brussels in October 1881, and emerged

³⁸² A.H. XIV.2, Certificate from Académie des Beaux-Arts de Gand, 29 November 1883, attests his enrollment and awards.

³⁸³ Horta, *Mémoires*, pp. 5-7. In her annotations, Dulière specifies the names of the entrepreneurs Jules Rau and Bureau Delpierre, added in pencil to the manuscript versions.

³⁸⁴ Ibid., p. 8.

³⁸⁵ Ibid., p. 17.

as a talented student, winning medals for first or second prize in the composition classes between 1881 and 1884.³⁸⁶

The *Beaux-Arts* formation in Belgium was modelled after the French one, comprising ateliers and regular competitions, and, as in France, the teaching and the institution had come under heavy criticism. Since Suys's years, teaching had grown increasingly detached from the realities of modern Belgium. The rigid canons of classicism no longer had the same persuasion, Horta observes in his memoirs.³⁸⁷ Moreover, the neo-Gothic of the Saint-Luc schools, and the even more important Flemish neo-Renaissance whose exponents were Henry Beyaert, Jules-Jacques Van Ysendyck and Émile Janlet, proposed regional traditions which further challenged the hegemony of classicism.

³⁸⁶ A.H. XIV.5, Ville de Bruxelles, *Académie royale des Beaux-Arts, Distribution des prix*, Years 1881-1882, 1882-1883, 1883-1884, and first prize in *cours supérieur de composition architecturale* reported in *L'Émulation* (1884), col. 78.

The Académie royale des Beaux-Arts (not to be confused with the Académie royale des lettres, des sciences et Beaux-Arts de Belgique), was one of the two main institutions to offer training in architecture—the other one was the school of Saint-Luc, first founded first in Ghent in 1863 by the baron J. B. Béthune (1821-1894) with branches in other cities which taught neo-Gothic in the Christian spirit. They were anti-academic, but also critical of Viollet-le-Duc for his “fragile and false theories on the laic and communal art” (Jean F. Van Cleven, “Viollet-le-Duc et la Belgique,” in *Actes du Colloque International Viollet-le-Duc*, [Paris, Nouvelles éditions latines, 1982], p. 302.) The academic architecture training descended from the Académie de dessin, founded in 1711. In 1766, a section of architecture was created under the direction of Barnabé Guimard, former student of Jean-François Blondel and architect of the Place royale in Brussels. It complemented the existing sections of sculpture and painting within the academy. After the independence in 1830, it was re-organized under the direction of Tilman-François Suys. Horta attended the courses of Félix Laureys, former student and nephew of Suys, winner of Prix de Rome in 1849, and the painter Jean-François Portaels, director since 1878, graduate of the École des Beaux-Arts in Paris, renowned in Orientalist and genre painting. At the academy he gave the monumental composition course of the architecture section. Horta returned to the academy when he was nominated professor in 1912, then director in 1913, succeeding the painter Herman Richir and the architect Ernest Acker, another leading figure of Belgian classicism who had trained with him in the 1880s. Horta sought to reform the institution radically, but his proposals faced vehement opposition and were abandoned after the start of the war, when he left the country. On the history of the institution see *Académie de Bruxelles: Deux siècles d'architecture*, ed. Jean-Paul Midant (Bruxelles: Archives de l'architecture moderne, 1989). On Horta's teaching reforms, see Adrien Cools and Richard Vandendaele, *Les Croisades de Victor Horta* (Bruxelles: Commission française de la culture de l'agglomération de Bruxelles, Institut supérieur d'architecture Victor Horta, 1984).

³⁸⁷ Horta, *Mémoires*, p. 10.

Architects criticized the curriculum and the system of competitions as an enormous waste of time and energy to perpetuate obsolete forms.³⁸⁸ In 1890, Paul Saintenoy lamented their results at the salon des Beaux-Arts:

Horta and others, they sacrifice to the graeco-latin spirit, to some extent despite their own wishes, because, running for the Godecharle prize, they believed they must bend to the routine imposed by a project, so called-classical, so that they may aspire for this scholarship.

I do not know why they do not rebel, the competitors of the future, and why they keep on crawling in rut where the sub-Suys and sub-Cluysenaar lead to.³⁸⁹

However, it was the competitions that allowed Horta to bolster his reputation in the professional milieu. In 1884 he won a modest 600 fr. scholarship from the Commission des monuments et sites, in which Balat was vice-chair.³⁹⁰ In the same year, he won the Godecharle prize with the project for a parliament, which offered a generous travelling scholarship for three years, allowing him to travel to Germany and France. In 1887, he won the triennial Beaux-Arts competition with the project for a museum of natural history, published in full-plates in *L'Émulation* (Fig. 5.1)³⁹¹ and a prize for a lighthouse at the Académie royale de Belgique.³⁹² In the same period, Horta joined the Société centrale d'architecture in 1882,³⁹³ and participated in other competitions for funerary and commemorative monuments with sculptors who studied at the academy.

³⁸⁸ "Académie des Beaux-Arts de Bruxelles, exposition," *L'Émulation* 1892, col. 171.

³⁸⁹ [Horta et al, ceux-ci sacrifient au génie gréco-latin, un peu malgré eux pour certains, car ceux-là, concurrents pour le prix Godecharle, ont cru devoir se plier devant la routine qui impose un projet dit classique pour pouvoir aspirer à cette bourse d'étude.

Je ne sais pas pourquoi, ils ne lèveraient pas le drapeau de la révolte, les concurrents de l'avenir, et pourquoi ils continueraient à se traîner dans l'ornière où les mènent des sous-Suys et des sous-Cluysenaar] Saintenoy, "Le salon d'architecture, L'Exposition des Beaux-Arts à Bruxelles," *L'Émulation*, col. 179.

³⁹⁰ A.H. XIV.3, "Obtention d'une bourse d'études de la Commission des monuments et sites—1884."

³⁹¹ "Musée d'Histoire naturelle," *L'Émulation* (1888), col. 171-172 and plates 22-24.

³⁹² A.H. XIV.6, "Académie royale de Belgique, prix pour projet de phare—1888."

³⁹³ "Société centrale d'architecture," *L'Émulation* (1892), col. 48.

The most important experience of this period was in Balat's office. Horta worked as an intern in what seem to be three distinct periods: in 1883, in 1884, and in early 1890, when Balat required additional assistants for the reconstruction of the château of Laeken after a fire in January of that year.³⁹⁴ The work he did for Balat is unclear, with the exception of the stables of the royal palace in upper Brussels which he mentions in his memoirs and mementos,³⁹⁵ and the drafting of the Victoria Regia plans, a minor assignment mentioned in his archival note. However, Horta writes in his memoirs and other notes that Balat's principles were far more important than the Beaux-Arts training.³⁹⁶ The reverence for the master is a central theme of his memoirs, and he stated in a final handwritten note to his testament that he "owed everything to the purest of the classicists, Alphonse Balat."³⁹⁷ Horta describes Balat's early influence on his design by way of the difference between his

³⁹⁴ In his memoirs, Horta recalls that his first dwelling in central Brussels was close to Balat's office. He returned to Balat's office for a second time around 1884, which is also the period when he was assigned to the plans of the Victoria Regia, as he explains in the archival notes on the Palais de Justice. The third time, around 1890, Horta was living in rue de Naples when Balat came to pay him a visit and his daughter Simone wore her best robe for the occasion (Horta, *Mémoires*, p. 18).

³⁹⁵ A.H. memento for the year 1898. Horta recalls his first introduction to Balat's practice: "When I entered his office, he told me that he had been working for a few years on the façades of the Royal stables, at rue de Namur, and there were only a few corrections left to make. These "small corrections" kept me busy for over two years! Of the plans that I found upon my arrival, I only had vague memories left, so to speak, because they had changed enormously in their entirety and in detail. But how this façade, in its great simplicity, was typical, expressed the purpose of the plans and the royal use to which it responded. After the First World War, it disappeared like many other projects of Leopold II, to make space for the Banque de Bruxelles." [quand je suis entré dans ses bureaux il me confia que travaillant depuis plusieurs années aux façades des Ecuries du Roi, rue de Namur, et qu'il ne restait plus que quelques corrections à y apporter. Ces « petites corrections » m'occupèrent pendant plus de deux ans ! De ses plans à mon entrée il ne restait plus pour ainsi dire de souvenir tant ils avaient changés, dans leur ensemble comme leurs détails. Mais combien, dans sa grande simplicité cette façade était caractéristique, exprimait la destination des plans et le royal usage auquel elle avait à répondre. L'après-guerre mondiale qui renversa tant de plans de Léopold II la fit disparaître au profit de la Banque de Bruxelles]

³⁹⁶ Horta, *Mémoires*, p. 12.

³⁹⁷ The ending note of manuscript testament reads, "*Par ce que mon originalité est dans la construction, dans la réforme des assemblages et le traitement personnel des matériaux. Ce que je dois, c'est au plus pur des classiques (et au plus personnel) Alphonse Balat, que je le dois.*" Reprinted in Horta, *Mémoires*, Annexe 5, p. 284.

two prize-winning projects, the natural history museum and the parliament.³⁹⁸ The former was fully conceived in the tradition of the Beaux-Arts, prepared “*en loge*” and with the specific intent to impress a jury. The latter, designed when he started working for Balat, was of a “monumental sobriety” [*monumentale sobriété*],³⁹⁹ and directed at a select public, like his master’s projects. Drafted late at night, after the office hours, it was influenced by Balat’s methods, but it also marked a departure from them. Balat’s two main buildings in Brussels, the palace of the Marquis d'Assche in the Quartier Leopold (1856-1858), and the Museum of Fine Arts on rue de la Régence (1875 - 1880) were the epitome of his classicism: erudite, rational, and simple—precepts that he urged his students to follow—but also *impersonal* in its details. At the turn of the 1890s, Horta faced the dilemma of continuing in this path, an option which afforded material security and the guarantee of attaining beauty, or experimenting within the classical tradition and creating a personal art.⁴⁰⁰ It was inconceivable at the time for an architect to work outside of styles, as Horta himself explains,⁴⁰¹ but, within this tradition, he pursued an architecture that was classical, rational, but also *personal* and alive because Balat had shown him how the spirit [*l'esprit*] of classicism could be transposed onto innovative work.⁴⁰² In Horta’s understanding, Balat and the previous masters had vivified classicism in their own way, because this tradition had been in constant transformation through the nineteenth

³⁹⁸ The museum was published in *L'Émulation*, but the project for the parliament is lost. The only references are Horta’s remarks and a brief commentary by V. Dumortier in a review of the triennial Beaux-Arts exhibition which confirms a monumental composition, the large façade and the hierarchical plan, and also criticizes the practical side which has been neglected: the lighting of some spaces and hallways is poor, and it appears that parts of the section do not correspond to the indications in plan in form and dimensions. V. Dumortier, “L’architecture à l’Exposition triennale des Beaux-Arts de Bruxelles,” *L'Émulation* (1884), col. 111.

³⁹⁹ Horta, *Mémoires*, p. 12.

⁴⁰⁰ *Ibid.*, p. 15.

⁴⁰¹ A.H. XVII. 8.10, Manuscript “Propos sur l’architecture.”

⁴⁰² Horta, *Mémoires*, p. 12.

century. The Hôtel Tassel was rooted in the classical tradition and in the precepts of logical design, but at the same time, it marked a radical departure from the impersonal nature of Balat's architecture, and the old master is said to have been profoundly disappointed by its façade.⁴⁰³

Horta reconstructs his relationship to Balat in his memoirs. He acknowledges Balat's immense influence in his late years, in a deliberate attempt to legitimize his own work and place it in a direct lineage with the masters of classicism. In the early career years of his career, when Horta worked for the King's architect and embarked on his own projects, this relationship was not only a benign transmission of precepts, but, it also contained what Harold Bloom calls a conflict between past genius and present aspiration between two authors striving for greatness, and an "anxiety of influence."⁴⁰⁴ Bloom's canonical works arise out of this implicit conflict. The ambiguities in Horta's façade for the Hôtel Tassel reveal, perhaps, this feeling of anxiety within the classical tradition. But, there is also an implicit striving for greatness in the interior wintergarden too, which could not rival Balat's complex at Laeken in scale, but could do so in originality and in the extent it transformed the architecture of the glasshouse and the townhouse into something never seen before.

⁴⁰³ Several studies on Horta and Art Nouveau report the story of Balat's disappointment in front of Tassel's façade which seems to have circulated in Brussels at the time. Maurice Rheims reports the version in which Balat cried in his *The Age of Art Nouveau* (London, Thames & Hudson, 1966), p. 29.

⁴⁰⁴ Harold Bloom, *The Western Canon*, p. 9.

5.2 The early precedents of zenithal light and glazed quarters

Two aspects of Horta's early work are particularly relevant to the innovations in the architecture of the Hôtel Tassel: his projects involving zenithal light in glazed courts, galleries, and wintergardens before the Hôtel Tassel's, and second, his collaboration with sculptors which allowed him to develop a new sensibility towards form, exploring what Viollet-le-Duc described as the plastic language shared by sculpture and architecture.

The 1887 project for a museum of natural history was structured on rigid axes and a five-parts façade, elevated on a monumental platform. It was fully in the tradition of the Beaux-Arts compositions, but it also integrated modern glazed iron roofs to allow zenithal light in the grand exhibition gallery running the full length of the building, the perpendicular secondary exhibition halls, and the exterior peristyles running between the three projecting porticoed volumes and around the corners of the building. The conspicuous zenithal lighting may have been a result of earlier critiques he received for the Parliament building whose quarters Dumortier found poorly lit.

The parliament and the museum were theoretical designs, but Horta dealt with combinations of glazed structures with masonry blocks in concrete projects of the 1880s. The unbuilt 1883-1884 project for the café-concert "El Dorado," submitted with a building permit application and published by Goslar,⁴⁰⁵ features an interior hall, about 10 m wide, 7 m high, and 16 m deep, with the stage at the back, a gallery along the perimeter supported by cast-iron columns, and a glazed iron shed, hidden behind the façade, which is arranged in a tripartite vertical scheme with a larger bay at the centre. It features a 3 m-deep false loggia framed by four pairs of double columns supporting the main cornice and a balustrade, a device to create the impression of a larger, two-

⁴⁰⁵ A.V.B., TP 18130, published in Goslar, *Victor Horta*, p. 33.

storey building instead for the single-storey concert hall. “El Dorado” is an early precedent of Horta’s glazed-roofing in interiors, but also of his devices to enhance the monumental aspect of his façades, which Loyer found theatrical, whereas Willis, “manneristic,” placing his work in this strain of the classical tradition.⁴⁰⁶

In 1889-1890, Horta worked on existing glazed iron structures for leisure and reception areas. He prepared a project to transform the Madeleine market hall into a space for festivities, a similar commission and the same building in which Balat designed the interior décor for the *fête* of Belgian independence in 1848.⁴⁰⁷ This project was not executed, but Horta built glazed iron quarters in three other commissions: the first was the hôtel particulier of the Prince de Ligne in the Léopold quarter; the second, the residence of Henry Van Cuseum in the borough of Saint-Josse-ten-Noode, with an attached art gallery. (Horta’s residential projects prior to this period—the three houses in rue des Douze Chambres in Ghent of 1885, and the Matyn house in rue Bordeaux in Brussels of 1890

⁴⁰⁶ In his 1995 study, Willis traced a Manneristic line in nineteenth-century Belgian architecture which began with Suys’s monograph on Baldasare Peruzzi’s Palazzo Massimo alle Colonne, published in 1818 (Tilman-François Suys and L. P. Haudebourt, *Palais Massimi* [sic] *à Rome*, in-folio, Paris, 1818). By “Mannerism” he intended the constant effort to renew and emulate precedents by architects such as Poelaert and Baes, and specific composition elements such as the loggia in the façade of the Hôtel Goblet by Van Rysselberghe (1889). To Willis, the façade of the Hôtel Tassel, “eclectic and mannerist,” sought to emulate the façades of Baes and Octave Van Rysselberghe, as an “Italianate composition of Egyptian connotations” that merges the Italian Palazzo, the townhouse and the Egyptian temple (Willis, “Mannerism, nature and abstraction,” p. 32). Willis examined some of Horta’s early designs from this perspective. He was not aware of the “El Dorado” project which had not come to light at the time, but whose loggia would have placed it in this lineage. Horta’s best-known use of this device is the false loggia of Autrique’s façade which creates the idea a three-storey house, instead of its actual two, a solution he mentions in his memoirs. It is one the several theatrical devices to make the house look larger.

⁴⁰⁷ A.H. Brochure “Projet de transformation du Marché de la Madeleine en salle de fêtes & d’Expositions par Victor Horta, architecte.” Horta received the commission when the Comité Bruxelles attractions required to transform it into a permanent hall of fêtes and exhibitions in 1890. His project maintained the layout of the existing structure and added a limited décor which he defined as “light and joyful” [*légère et riante*]. In his report, Horta mentioned the excellent acoustics of Balat’s project. A sketch by Balat showing medieval armours, plants and drapery—components of the décor added to the iron structure—(Fig. 2.40) is held in Horta’s archives, A.H. Box “Dessins de Balat.”

were modest dwellings that did not include wintergardens.) The third, the *Pavillon des passions humaines*, an aedicule designed to shelter the eponymous bas-relief by the sculptor Jeff Lambeaux.

The first of these commissions was a hôtel de maître at 44 rue Montoyer which the Prince Ernest de Ligne purchased in 1887. Two years later, he began its transformation. The building was demolished in 1951, and this project is not included in any of Horta's work lists. However, Horta's involvement is documented in the unpublished, archival correspondence between him and the builders—Hulot from Joseph Paris's iron construction and study office in Marchiennes, and Louis de Waele of Molenbeek, who in the same period supplied the iron constructions for the glasshouses at Laeken. Horta's role in the design is not clear because his name appears alongside that of the French architect Ernest Sanson in the scant, surviving documentation. Sanson may have been hired to have a final say on the designs that Horta and the entrepreneurs were drafting, or they have may have been commissioned to produce the execution drawings based on the schemes of the French architect, a more likely scenario. A note on the building in Frédéric Leroy's article attributes its transformation to the French architect.⁴⁰⁸ A letter from de Waele to Horta in October 1889 asks him to have the drawings ready for Sanson who is coming to Brussels the following week.⁴⁰⁹ These may have been executive drawings based on Sanson's proposals, or, less likely, Horta's original project to be reviewed by him. In any scenario, in this hôtel particulier Horta dealt with wintergardens and glazed galleries of a residence at the scale of the executive project. The surviving correspondence shows with certainty the type of designs on which Horta was required to work. The prince intended

⁴⁰⁸ Frédéric Leroy, "Quand l'aristocratie et la grande bourgeoisie habitaient le quartier Léopold," *Revue belge de philologie et d'histoire* 88 (2010), p. 524. Leroy provides another reference to this building, Diane De Ligne, *La vieille maison* (Versailles: Atelier de la Bonne Aventure, 1985). The memoirs were written by one of the members of the De Ligne family who lived in the house at the turn of century.

⁴⁰⁹ A.H. XXII.2, Folder "Aménagement Hôtel du Prince de Ligne, rue Montoyer 1889."

to transform the interior court, open up the views through glazed partitions and iron structures, including an entirely glazed partition between the dining room and the stables extending from the ceiling to the plinth at the bottom, and a new façade towards the glasshouse for which Horta drafted the designs for the stone-masons.⁴¹⁰ Other works included masonry and iron grills in the exterior,⁴¹¹ an iron gallery by Hulot connecting the new building to the old, and a wintergarden by de Waele that Horta is required to review.⁴¹²

The second project, the hôtel of the wealthy art patron Henry Van Cystem at the avenue des Arts, required a similar set of interventions: expansion and transformation of an existing building, with the addition of glazed quarters at the back. Horta was commissioned between 1890-1892 to transform this residence and build an art gallery. He added a second volume to the existing hôtel, under 6 m wide, with an enfilade of three rooms comprising the fumoir, the drawing room, and at the far end, the wintergarden, marked in plan “galerie vitré ou Jardin d’hiver,” and an art gallery which occupied the triangular-shaped back lot of the property where the stables lay previously. It was separated from the rear street by a blind wall and received light through a double-glazed iron roof with the form of a pavilion vault featuring a flat glazed ceiling in the interior, with a system of pulleys to allow for ventilation and to avoid condensation between the two surfaces.⁴¹³

The third project, the *Pavillon des passions humaines*, was commissioned for a large bas-relief by the sculptor Jeff Lambeaux in 1889. It has the shape of a small temple in naos, with a glazed roof that filtered zenithal light in the interior (Fig. 5.4, Fig. 5.7). The architecture of the pavilion is

⁴¹⁰ A.H. XXII.2.1, Memorandum from Waele to Horta, 19 September 1889.

⁴¹¹ A.H. XXII.2.5, Memorandum from Waele to Horta, 4 November 1889.

⁴¹² A.H. XXII.2.6, Memorandum from Waele to Horta, 25 December 1889.

⁴¹³ See “La Galerie Van Cystem” in Goslar, *Victor Horta*, pp. 62-67. The illustrations reproduce the building permit from Saint-Josse-ten-Noode, Archives de l’urbanisme, TP 4341, 24 may 1892.

important because it combines two strains of Horta's early career: the experiments with zenithal light in glazed structures within classical buildings, and second, the collaborations with sculptors which allowed Horta to explore the language of the plastic domain.

5.3 Horta and sculptors: Life in the language of the plastic arts

Like most designs of Horta's early career, his collaboration with sculptors has traditionally fallen into the secondary aspects of his work, treated as small commissions while he waited for the great turn of his career to come in 1894. However, these commissions were an opportunity for Horta to explore the language and themes of the plastic arts. The collaborations included competition entries and executed works, alongside funerary monuments which Horta designed on his own. They allowed him to develop a new sensibility towards form and *milieu*, central considerations as he recalls in his memoirs.⁴¹⁴ They resulted in important connections in artistic circles at the outset of Horta's career. Horta's collaborations with sculptors are historically significant in yet another respect: they allow us to establish links between contexts in art history and the genesis of a new decorative style in the Hôtel Tassel's interior.

Horta singles out Godefroid Devreese (1861-1941) as the sculptor who was closest to him,⁴¹⁵ and it was probably him who invited Horta to join Freemasonry in 1888.⁴¹⁶ In the same year, Horta

⁴¹⁴ On Horta's collaborations with sculptors see the detailed study by Aubry, "Victor Horta, architecte des monuments civils et funéraires," *Bulletin de la Commission royale des monuments et des sites* (Bruxelles) 13 (1986): 37-101. The study complements Horta's manuscripts and other documents from his archives with annotations, corrections, and additional information on the sculptors and the works discussed, including photographs. See also Cécile Dulière "Les socles des statues de Victor Horta," in *La Ville et l'habitant* (September 1984): 10-11, and her study "Le Pavillon des Passions humaines au parc de Cinquantenaire," in *Revue belge d'archéologie et d'histoire de l'art* 48 (January 1979): 85-97, on the troublesome collaboration with Jeff Lambeaux. Dulière has also annotated the sections of the memoirs in which Horta discusses his collaborations with sculptors. Bruno Fornari, "Horta et les sculpteurs et peintres de son temps" in *Horta, naissance et dépassement de l'Art Nouveau*, eds. Aubry and Vandenbreeden, covers the collaborations with sculptors and painters who contributed to his later interiors, pointing out artists who were closest to him, such as the sculptor Pierre Braecke and the painter Emile Fabry, and aspects of their artworks such as the chromatic gamma which harmonized with Horta's program.

⁴¹⁵ Horta, *Mémoires*, p. 25.

⁴¹⁶ Goslar, *Victor Horta*, p. 76.

organized a first exhibition of his works in his atelier.⁴¹⁷ Horta also singles out Charles Van der Stappen, who was very close to him in the 1890s, and who is important because, though an academic artist, he was connected to progressive circles of the capital such as *Les XX*, the journal *L'Art moderne*, and Edmond Picard's salon.

The architect's role in collaborations with sculptural commissions was limited to designing the base of the monumental artworks. To Horta, the plinth presented a difficult "architectural problem" and a twofold task: it ought to enhance the expressive character of the figure it supports, "accompanying the song" of the monument,⁴¹⁸ and second, it ought to harmonize the insertion in the setting, whether in an urban context, a cemetery, or an interior. Whereas the sculptor disposed of an infinite number of means, the architect was limited to the volume and the profiles of his plinth in order to create a dialogue with the expressive character of the sculpture and its milieu.

Horta found himself within a tradition and its established types, but he explored it further and eventually invented new forms, a process analogous to his academic architectural projects.⁴¹⁹ His profiles became gradually more expressive. Instead of the conventional platforms stacked on top of

⁴¹⁷ The exhibition was announced in *L'Étoile belge*, 13 and 22 January 1888. Quoted in Aubry, "Victor Horta, architecte des monuments civils et funéraires," p. 45.

In 1894, at the time of Tassel's commission, Horta designed Devreese's new atelier in the borough of Schaerbeek. Devreese is also the author of the statue of David in the niche of Tassel's staircase, above the entrance of the mezzanine, and above the vegetal motifs of the ground floor which suggest the transformative forces of nature. It is an artwork which Hanser considers aberrant in this décor (Hanser, "The early works of Victor Horta, p. 280), whereas to Willis it incarnates Horta's architecture, representing "man's royal essence: creature and creator, partially mortal, partially divine (Willis, "Mannerism, nature and abstraction," p. 35).

⁴¹⁸ Horta, *Mémoires*, p. 175.

⁴¹⁹ Horta describes two conventional examples: the monument of Count Beillard in Ixelles (1836), with a plinth by Tilman-François Suys (the name is supplemented by Dulière) to support a statue by G. Geefs, which, he finds proportioned and conceived in relation to the values of the statue and the architecture of the surrounding square, and the monument to the lawyer Hipolytte-Désiré Metdepeningen in Ghent (1866) by the sculptor Julien Dillens (both Freemasons) in front the Roelandt's Palace of Justice (Horta, *Mémoires*, pp. 164-165).

each other, his continuous, curved profiles allowed a smooth transition from the rounded forms of the sculpture to its setting (for a comparison with the conventional types, see for example the results for the monument Breydel and De Coninck in Bruges, published in *L'Émulation* in 1884, showing how in all projects, slabs are stacked on top of each other, the borders and corners of each receding course are emphasized with pinnacles or figures, such as the four lions at the corners [Fig. 5.3]).⁴²⁰ Curved profiles at the plinth and ironwork in the surrounding iron balustrade are prominent in the monument of Prudens Van Duyse by Devreese, of 1892,⁴²¹ or the 1894 monument Artan, a funerary stele designed entirely by Horta (Fig. 5.2).⁴²² Amplified, Horta applied this principle in architecture and furniture design after 1893: his façades touch the sidewalk in curves that make them appear as if they emerge, or melt into the ground. Columns and beams, table legs, or balustrades seem to transition into one another. The curve in space bore a meaning and conveyed an idea. Highly evocative, it was one of the chief expressive devices of the plastic language as Horta realized during his work with sculptors. Horta could better explore these relations in funerary monuments

⁴²⁰ V. Dumortier, "Concours pour le monument Breydel et De Coninck, à Bruges," *L'Émulation* (1884): col. 8-12.

⁴²¹ Horta recalls his inventive efforts, timid, yet significant enough to draw the criticism of Balat who rejected the idea of inventing new forms to replace established canons which, in this case, corresponded to the plinth of the Beillard monument (Horta, *Mémoires*, p. 25). A second component of Prudens Van Duyse's monument was a 60 cm-high grill which has disappeared since, but was traced by Aubry in a photograph. She describes the ornamental ironwork consisting of motifs that evoke a lyre and a budding flower, springing in asymmetrical buckles and placed in succession, and sees in this design the precursors of the Art Nouveau whiplash line and the motif of the lyre which, reversed, appears in window iron grills of the contemporaneous Autrique house (Aubry, "Victor Horta, architecte des monuments civils et funéraires," p. 44).

⁴²² Goslar traces the evolution in design comparing the 1894 Artan monument to Désiré Lesaffre's funerary stele, commissioned by *Les Amis Philanthropes* four years earlier (now destroyed) for a coppersmith who demanded to be buried in a laic ceremony. Lesaffre's monument is a tapering volume, placed on a longer slab. The profiles are curved, there is no smooth transition between the two superimposed components, and the disjunction is clear. Four years later, the same elements form a single volume with continuous, curved profiles so that the monument seems to merge or emerge from the ground organically. On this monument see Goslar, "Des amis qui firent Horta," in *Franc-maçonnerie et Beaux-Arts*, eds. Christophe Loir and Jacques Lemaire (Bruxelles: Éditions du centre d'action laïque, Espace de libertés, 2007), p. 37.

because in these commissions the entire work belonged to him, and he had greater freedom to express the leading theme, “le theme inspiateur” by plastic means. As César Daly remarked, no other type of monument was better suited to artistic talent and poetic thought.⁴²³

Horta also considered second the influence of the environment in design. In the cemetery, the *milieu* of death, curved profiles ending in a tapering volume cured the transition between stone slabs so that the monument appears to emerge and return to the soil, where the dead lay.⁴²⁴ In an urban milieu such as a public square, the *décor ambient* is architectural. The base should follow the song of the group, but also relate it to a surrounding in which buildings constitute the background. Horta observes that in the monument to the lawyer Hipolytte-Désiré Metdepeningen in Ghent (1866) by the sculptor Julien Dillens (both Freemasons), in front the Roelandt’s Palace of Justice, the statue has *life*, whereas its plinth complements the *attitude* of the figure while taking into account the surroundings, so that the building immediately behind it becomes its complementary background. To Horta, these are considerations that come from observation and experience, and they require no transcendental theories.⁴²⁵

An effect which art critics and the public of the time constantly sought in sculptural works was one of “life”—“life” which the artist breathed into his creation and which transpired from form. The architect’s task was to enhance this effect. At the allegorical centrepiece by Van der Stappen, for example, *L’Art moderne* praised the work and singled out Horta, “author of the sober and elegant profiles around which the sculptor has infused life into his group and motifs.”⁴²⁶ It seems that Horta

⁴²³ César Daly, *Architecture funéraire contemporaine* (Paris: Ducher, 1871).

⁴²⁴ Horta, *Mémoires* p. 166.

⁴²⁵ Ibid., p. 165.

⁴²⁶ [Une partie d’éloges aussi revient à l’architecte Horta, l’auteur des sobres et élégants profils autour desquels le sculpteur a jeté à profusion la vie de ses groupes et de ses motifs]
“Une Œuvre de Van der Stappen,” *L’Art moderne*, no. 41 (12 October 1890), p. 323.

himself employed the central criteria of appreciation and notion of “life” from the language of art criticism to describe the values of his architecture in the later years: in his efforts he had sought to *vivify* classicism, create and architecture as artwork that was personal and *alive*.

Horta collaborated with Van der Stappen for his monument bases on several occasions. In comparison, the centrepiece is a small work in the tradition of eighteenth- and nineteenth- century allegorical groups, and has received little attention in studies that list Horta’s collaborations with sculptors.⁴²⁷ However, it is historically significant because it helps resolve with greater certainty a long art historical problem which has appeared in the quest for Horta’s sources in dedicated biographies and in the traditional historiography of Art Nouveau. The genesis of the new decorative style in the Hôtel Tassel, specifically the leitmotif of the curve, has been related to the pictorial field, graphic and applied works shown in Brussels which may have been Horta’s sources. Avant-garde artists including Symbolists, the Nabis, the neo-Impressionists and English designers showed their works in the salons of Les XX in Brussels from the 1890s. Motifs anticipating the Art Nouveau curve appeared in their works, and moreover they shared with Horta the goal to renew arts and architecture. Yet, it has not been possible to relate Horta to these manifestations through historical records which would show how important they were to him, or if he had any type of exchanges with

⁴²⁷ Dulière annotated Horta’s passage on this piece, adding that this collaboration seemed unlikely to have happened, were it not for Horta’s strong claims (Horta, *Mémoires*, n58, pp. 25-26). Dulière was not aware of Horta’s name mentioned in *L’Art moderne*’s 1890 article, but refers instead to another *surtout* published in Octave Maus, “Charles Van der Stappen,” *Art et décoration* (July-December 1898), p. 355 and p. 358, and exhibited in 1897 (though the creation date is not specified). Aubry has clarified the confusion between the 1891 work, in which Horta’s collaboration is certain, and the 1897 model, wrongly identified by Dulière as the same one. She provides photographs of both works, though the quality of the reproduction only allows a limited glimpse of the 1891 model. Aubry has missed the additional connection between Horta and the exhibitions of Les XX through this item. Émile Verhaeren visited the sculptor and published a detailed description of the 1891 *surtout* in his “A l’atelier Van der Stappen,” *La Nation*, 5 February 1891, reprinted in *Écrits sur l’art*, pp. 389-380. Horta’s collaboration in the 1897 model, which features a prominent Rococo base, is possible, but there is no other evidence. In both works, the base profiles merge with human and vegetal figures above.

these avant-garde artists. Even in the speculative art-historical scheme of Horta drawing his leitmotif from one or more sources, the pictorial derivation could not be convincingly proven. Madsen formulated the vagueness of this situation and his own ambivalent position in the 1950s, stating that there is no clear indication that Horta had any direct connections to groups such as Les XX, but it is unlikely that he was unaware of them.⁴²⁸ Curious formulations of this ambivalent position continued to appear since.⁴²⁹ Delevoy, in 1958, offered the general formula that Horta absorbed the curve that was in the “atmosphere of the time,” then transposed it to architecture.⁴³⁰ This ambiguity has resulted in two different positions, with art historians generally emphasizing sources from the pictorial field and the applied arts, and architects generally downplaying significance of pictorial influence. Hitchcock noted that neither Sumner, nor Beardsley, Gallé, Ensor, Khnopff, Toorop or Munch or any of the contemporary artists Horta is “supposed to have known,” could have counterbalanced his academic training;⁴³¹ Hanser argued that developments in contemporary art should be seen as parallel to Horta’s pursuits and that connections should not simply be assumed, and sought his sources within architectural history and theory.

The allegorical centrepiece is the work which confirms with certainty that Horta participated in the Salon of Les XX. It was exhibited there in 1891, which establishes the fact that escaped Horta’s historiography before, that he was present in the salon not only as a casual visitor whose

⁴²⁸ Stephan Tschudi Madsen, “Horta, works and style before 1900,” *Architectural Review*, no. 188 (1955).

⁴²⁹ Horta “must not have been insensible to the formal researches of the Nabis and theories on colour of the neo-Impressionists” who exhibited at Les XX, writes Aubry in her “Raison, sentiment et logique,” in *Horta, naissance et dépassement de l’Art Nouveau*, eds. Aubry and Vandenbreen, p. 64; “It seems probable that at the very least he attended them,” writes Hanser of Horta and the salons of Les XX, and that it is “not possible to dismiss, nor find alternative for” Jan Toorop and Johan Thorn Prikker as pictorial sources for the mural of the Hôtel Tassel (Hanser, “The early works of Victor Horta, pp. 522-523).

⁴³⁰ Robert Delevoy, *Victor Horta*, (Bruxelles: Elsevier, 1958), p. 9.

⁴³¹ Henry-Russell Hitchcock, “Art Nouveau architecture”, in *Art Nouveau*, ed. Selz, p. 125.

curiosity has been assumed to be “avid,” but as a participant concerned about his own work amongst the recent tendencies in the fine and applied arts. Van der Stappen had long connections with these circles. He had exhibited his work in the very first salon of Les XX, in 1884, and continued to participate in their exhibitions after 1894, when the group changed into Libre Esthétique. He was particularly close to Picard who, as Horta recalls in his memoirs, attended his salon, and for whom Horta designed a fireplace for his Maison d’Art Moderne in Brussels, a permanent gallery-shop offering modern art and domestic objects shown *en situation*. Van der Stappen’s work belonged to the academic tradition and it contrasted strongly with other artists invited to the salon, but it also shows how porous the boundaries between the groups were in the Belgian context. Verhaeren wrote that Van der Stappen represented the solidarity between the old and the young.⁴³² After the article in *L’Art moderne*, Verhaeren praised Van der Stappen’s centrepiece in a short article, “A l’atelier de Van der Stappen”⁴³³ and in two long reviews of the 1891 salon of Les XX, published in *La Nation* and *La Société nouvelle*.⁴³⁴ Verhaeren did not mention Horta’s name, but the previous article in *L’Art moderne* confirms Horta’s role, whereas Verhaeren’s description confirms that the *surtout* shown in the salon is the same one.

The 1891 Salon featured the works of the members of the circle, including Georges Lemmen, Van de Velde, Théo Van Rysselberghe, Willy Finch, Jan Toorop, Auguste Rodin, and guests Odilon Redon, Paul Gauguin, Van Gogh, Jules Chéret and Walter Crane.⁴³⁵ Applied arts in

⁴³² Émile Verhaeren, “Les XX,” *La Société nouvelle*, 28 February 1891, reprinted in *Écrits sur l’art*, ed. Paul Aron (Bruxelles: Labor, 1997), p. 409

⁴³³ Verhaeren, “A l’atelier Van der Stappen” in *La Nation*, 5 February 1891, reprinted in *Écrits sur l’art*.

⁴³⁴ Verhaeren, “Les XX,” *La Société nouvelle*, 28 February 1891, and “Les XX,” *La Nation*, 10, 14, 20 February, reprinted in *Écrits sur l’art*.

⁴³⁵ For a list of the participants and the conference guests of the year 1891 see Madeleine Octave Maus, *Trente années de lutte pour l’art: Les XX, La Libre Esthétique, 1884-1914* (Bruxelles: Librairie L’Oiseau bleu,

graphic works, ceramics and pottery were featured alongside painting and sculpture. They grow in importance over the years and become prominent in *Libre Esthétique* which featured full interior sets. 1891 saw the early experiments of artists who had turned to applied arts alongside renowned illustrators: Willy Finch sent ceramic panels alongside drawings, Gauguin sent two bas-reliefs and vases, Chéret showed posters from a recent exhibition, Walter Crane showed pastels and a children's book possessed by Finch, Lemmen designed the catalogue of that year and wrote an article in *L'Art moderne* praising Crane.⁴³⁶ It was a pivotal event in the rise of the applied arts. In 1891, the sinuous line was a prominent feature in ornamental design and pictorial research. Verhaeren remarked on Walter Crane's ornamental *arabesque*, "curling, and uncoiling, capricious, continuous lines around the subject, unexpected liaisons between plants and birds."⁴³⁷ In painting, Verhaeren remarked the contemporaneous research into the expressive power of lines and colour: he described Van Gogh as "*décoratif avant tout*." He noted the play of lines, their moral signification, and the resulting expression of individual life in the Van Rysselberghe, and he noted how Seurat's *Le Chaut* combined linear research with the color theories of the neo-Impressionists in continuous curves which intermingle into each other to define gestures, faces and attitudes of the characters in the painting.⁴³⁸

Delevoy, scholar of Horta and Symbolist art, described the sinuous line noted by Verhaeren in 1891 and developed by Odilon Redon, Gauguin and the Nabis as a means to transpose nature into

1926). Maus lists the names, but not the works shown. See also Verhaeren's reviews of "Les XX" reprinted in his *Écrits sur l'art*.

⁴³⁶ Jane Block, scholar of Les XX, notes that Lemmen was the first in Belgium to write a study on Crane in *L'Art moderne* (1 March 1891): 67-69, (15 March 1891): 63-66. See Block, "Book design among the Vingtistes: The work of Lemmen, van de Velde, and Van Rysselberghe at the Fin-de-siècle," in *Les XX and the Belgian Avant-garde*, ed. Goddard.

⁴³⁷ [volutante et longuement déroulée, les lignes capricieuses en continuité atour d'un même sujet, liaisons inattendues de plants et mains d'oiseaux]

Verhaeren, "Les XX" (*La Nation*, 21 February 1891) in *Écrits sur l'art*, p. 401.

⁴³⁸ Ibid., p. 392.

the domain of intelligence and imagination, first developed in painting, then in the sculpture of George Minne (another member of Les XX) and the applied arts, and finally, transformed and applied to architecture by Horta.⁴³⁹ Pevsner traced a dual lineage to the origins of Art Nouveau in English and French sources in decorative design, pointing out among other sources Georges Lemmen's 1891 catalogue cover for Les XX which resembles Gauguin "at his most Art Nouveau."⁴⁴⁰ At the turn of the 1900s, Van de Velde claimed that Horta drew his decorative leitmotif from Finch's pottery in a letter to their mutual friend Charles Lefebure who was familiar with the work of all the concerned parties.⁴⁴¹ (Werner Adriaenssens has argued that the encounters in the salons were crucial in Van de Velde's own conversion to the applied arts, to which he transposed the emphasis on the line from Van Gogh, Maurice Denis's *Avril* of 1891, and Gauguin's *Vision après le sermon* shown in 1889, and Seurat's colour theory).⁴⁴² Jane Block, scholar of Les XX, has traced the evolution of the three renowned designers, Van de Velde, Van Rysselberghe, and Lemmen who, at the salon of the 1891, were still considered neo-Impressionist painters, experimenting the applied arts, and went on to develop a distinct curvilinear style in the graphic arts which belongs to a full-fledged Art Nouveau (the three contributed interiors designs to S. Bing's *Maison de l'Art Nouveau* in Paris in 1895). She traces the gradual emergence of a style in bookcover design, year after year into the close of the 1890s, and she notes in passing that it was "concurrent" with Horta's creation of a new style in the Hôtel Tassel.⁴⁴³

⁴³⁹ Delevoy, *Victor Horta*, p. 8.

⁴⁴⁰ Pevsner, *The Sources of Modern Architecture and Design* (New York: Praeger, 1968), p. 71.

⁴⁴¹ The letter is reprinted in Horta, *Mémoires*, p. 296.

⁴⁴² See Werner Adriaenssens, "Manifesto of a Career Switch," in *Henry Van de Velde: Passion, Function, Beauty*, eds. Thomas Föhl, Sabine Walter, and Werner Adriaenssens (Weimar: Klassik Stiftung, 2013).

⁴⁴³ Block, "Book design among the Vingstistes," p. 104.

Why it is that all these artists and Horta went on to develop an evocative, forceful line in design, marked by an individual manner in each of them, but clearly ascribed to a common stylistic phase as any quick glance at their works reveals, is a different historical matter. Horta may have drawn from their sources, their own work, or the curve was indeed in the “atmosphere of the time.” It certainly was in the atmosphere of the salons of Les XX. In any event, Horta’s own research into colour and the language of the plastic arts cannot be considered as isolated from contemporary art as some of historians have argued, and as he himself claimed in his own memoirs when he sought to dismiss the importance of his exchanges with the contemporary arts. The centrepiece brings Horta alongside these artists in the salon of Les XX. But it also places him closer to works of the applied arts.⁴⁴⁴ In fact, the centrepiece fell under the applied arts rather than sculpture. It was an ornamental object, with an additional function on the table. Van der Stappen was given the commission by the builders association as a gift to the City. Veraheren describes its component: allegorical figures that represent the past of the city and the industrial arts, including lions at the bases and human figures that symbolize the traditional artistic trades as well as historical or mythological events in the history of the city. The vertical elements comprise the central column holding a plateau for fruit, and candlesticks rendered as stems. A work of this type blends human and animal figures, vegetal and constructive components. It blends sculpture, architecture and the applied arts, and Horta himself remarked in his memoirs how “my architectures were mixed up in [Van der Stappen’s] work”⁴⁴⁵

⁴⁴⁴ According to Roger-Henri Guerrand, Horta started giving a course of industrial design to workers affiliated with the Maison du Peuple in 1891 (Guerrand, *L’Art Nouveau en Europe* [Paris: Plon, 1960], p. 70.) At the time, the Maison du Peuple had a program of art courses and lectures for workers. Guests lecturers included Henry Van de Velde and Fernand Khnopff. The patrons of these activities—including Jules Destrée, Emile Vandervelde, and Max Haller—were well-connected to Socialist and avant-garde circles, and they also gave Horta the commission for the new Maison du Peuple in 1896.

⁴⁴⁵ [mes architectures furent confondues dans son œuvre]
Horta, *Mémoires*, p. 26.

perhaps referring to a merging of forms as well as the omissions of his name. The curved profiles of the group's support have clear precedents in eighteenth-century ornamental art. The base of a second allegorical group by Van der Stappen representing the four periods of the day has also been attributed to Horta, although the latter's collaboration in this work is not recorded. In this work, the Rococo derivation of the profiles at the base is obvious. Should it be by Horta, it would further attest to his links to eighteenth-century design, part of his own stylistic repertoire at the turn of the 1890s. Thus, the centrepiece brings to light historical links between Horta and more than one pertinent context: contemporary artistic manifestations, applied arts, and eighteenth-century design. Horta himself acknowledged the importance of the latter when he remarked on the façades and the staircase of the eighteenth-century hôtels particuliers in Ghent that influenced the Hôtel Tassel, though he was unaware of their importance at the time. Eighteenth-century ornamental art is another field which he was not only familiar with, but well versed in it, as the base of the centrepiece shows. The curve, then, was contemporaneously present in avant-garde and historicist contexts before it appeared in the Hôtel Tassel's décor. Common to the pursuits of Les XX's artists and of Horta was the quest for a new, expressive charge in the plastic arts and design.

Horta's collaboration with the third sculptor, Jeff Lambeaux is revealing of the quests to express life in the movements of stone, and Horta's contribution here is not limited to the base of a monument. The research into the expressive nature of the curves permeates the architecture of the aedicule. In this work, Horta explicitly answered the question of the origins of the Art Nouveau curve, stating that it had long been present in his work: "I had been pursuing them since I came out of school and working for Balat, under his full influence. The Cinquantenaire pavilion is the proof.

Not a single line is straight.”⁴⁴⁶ He recalled that he studied every single profile, traced by hand.⁴⁴⁷

The profiles at the Cinquantaire pavilion are of a classical work, a temple in naos, lit from above, which shelters Lambeaux’s 12 m long, 8 m high⁴⁴⁸ bas relief, placed at the back. The movement in Horta’s profiles evokes those of the Lambeaux’s *Human Passions*, entangled bodies struggling to emerge from the marble block.

Les passions humaines originated from a charcoal work, *Le calvaire de l’humanité* [the ordeal of humanity], shown at the Beaux-Arts triennial salon of 1889 in Ghent. The work captivated Leopold II, who suggested that it be re-cast into a marble bas-relief. The Commission royale des Monuments, in charge of finding a location and building a pavilion for the work, assigned the commission to Horta through the intermediary of Balat, vice-chair of the commission and architect of the King. A letter from Lambeaux in October requested an appointment with Horta to “determine the architecture of the aedicule for my bas-relief.”⁴⁴⁹ After plinths that were limited in size and scope, Horta’s aedicule could create an atmosphere which bolstered the character of Lambeaux’s work through light and the language of the plastic arts. The Euville stone and Sienna marble add color to the interior atmosphere, whereas the three-course high graystone plinth of the bas-relief echoes the movement of the emerging group above, swelling gently at the centre in a pattern that joins the

⁴⁴⁶ Ibid., p. 16.

⁴⁴⁷ Ibid., p. 28.

⁴⁴⁸ See Dulière, “Le Pavillon des Passions humaines au parc de Cinquantaire,” and Pierron, “Jeff Lambeaux” in *Études d’art*. The first plans were drafted and submitted to the Commission royale des monuments in May 1890. According to the notes in Horta’s Mementos, the order for the stonework at the rear of the pavilion was placed in August 1896, whereas in 1894, there was an inquiry into the temporary roof. The building was not completed before 1905.

⁴⁴⁹ A.H. ARCH./EL./2 (Digitized copy), letter from Lambeaux to Horta, 18 October 1899. Horta maintained the correspondence with Lambeaux. It was one of the problematic commissions which resulted in highly publicized disputes between the architect and the sculptor, dragging for years. In such instances, Horta kept documentation which would clear his name in the future.

expressive themes of the sculpture. Horta originally intended the interior to be lit from the top but also from the front to “give life to the sculpture,”⁴⁵⁰ starting one of the numerous, notorious, decade-long disputes with the sculptor who objected to the idea (Fig. 5.7).

The theme of Lambeaux’s work was “the outburst of the passions of this life,” the vices and virtues of humanity, as Sander Pierron described them a few years later (Fig. 5.7).⁴⁵¹ To the critic, the floating bodies showed the power of instincts and irrational forces which drive their involuntary movement. He noted that Lambeaux was simply captivated by the “movement of real life” which he sought to transpose into his work.⁴⁵² These themes, suggested by the merging, swelling and convulsions of the entangled bodies transitioning into one another are evoked by Horta’s architecture. The graystone base swells to accompany the movement (Fig. 5.8). Curved profiles appear to have spread throughout decorative and tectonic components of the building: in the plinth of pavilion, easing the transition into the ground, in the vertical supports, which do not meet the stylobate at a right angle, but in curved profiles, and in the base of the side walls which touch the ground in concave profiles, conveying the slight impression of a volume that merges with its setting. Horta manipulated classical architecture to “infuse life,” and indeed it seems as if some of the building components are deformed by inner forces. Moderation is nevertheless necessary in the analogies between the verbalized themes of Lambeaux’s group and the transformations in the

⁴⁵⁰ Horta, *Mémoires*, p. 28.

Lambeaux found the effect deplorable, demanding that the front be closed with a simple wall behind the screen of columns, to which Horta objected, arguing that closing the open naos would require re-proportioning the entire building. On this episode of the dispute, see “Les ‘Passions humaines,’” *Le Soir* 1902 (4 September 1902).

⁴⁵⁰ Horta, *Mémoires*, p. 16.

⁴⁵¹ [les manifestations les plus débordante de cette vie]
Pierron, “Jef Lambeaux,” p. 94.

⁴⁵² Ibid., p. 92

physical building. Many of these manipulations have precedents within architectural design, such as the entasis of columns. Two paths have converged, one lying within the architectural design tradition which Horta seeks to transform, the other descending from the influence of sculpture.

Horta's answer that his curves were already present in the pavilions sheds light on a possible connection between its profiles and the new leitmotif which emerges at the houses of Tassel and Autrique. Yet, Horta's statement is also evasive and leaves significant differences unexplained. Hanser sees a fundamental difference between "the tectonic curves" of the pavilion and the Art Nouveau curve applied to non-tectonic ornament.⁴⁵³ The constructive domain cannot explain on its own the genesis of the curve in either project, Lambeaux's and Tassel's, because the manipulation of the profiles suggests ideas whose origin lay outside architectural design. If the idea of human life, with its outburst of passions, expressed through sculptural form played a role in the plastic manipulations in the plinth of monuments and in the pavilion, this idea returns in a different form at the Hôtel Tassel commission: other forms of life as a source for its décor.

⁴⁵³ Hanser, "The early works of Victor Horta," p. 87.

5.4 Horta and the new circle of friends: Tassel and Lefebure

Lambeaux's propensity to shock the public, in particular conservative Catholics, had moved him closer to the circles of Free Thinkers, Freemasons and Liberals in Belgium. Horta was in this camp after he joined Freemasonry. In their turn, they propelled his career. Horta obtained a teaching position at the Free University, first as assistant to Jean Hendrickx (1844-1892), who died in the same year, allowing Horta to take over his chair. Eugène Autrique and Émile Tassel, two brothers of his lodges, provided the first commissions that brought him fame in the city and abroad. Loyer is one of the first authors to emphasize the role of these circles in the genesis of Art Nouveau at the Hôtel Tassel. He argued that Horta's new art was not an individual creation that arose spontaneously, but rather a response to the demands of an intellectual élite seeking to reinvent itself.⁴⁵⁴ Implicit in Loyer's observation is the contrast with Paul Hankar, who launched the new rational architecture, individual and original, by building his own house, and not by catering to a clientele. Dulière emphasized these connections in her annotations to the memoirs and in her 1997 article "L'équerre et le compas: Horta et l'idéalisme," whereas Goslar made them central in her voluminous biography and a shorter article preceding it, appropriately tilted "Des Amis qui firent Horta" [Friends who made Horta].⁴⁵⁵ Freemasons were "progressive minds, oriented towards modern technologies," they "encouraged Horta to create a new architecture, logical and functional, which dares to reveal its structures," and they supported, "the observation of nature and the forms it inspires," Goslar writes.⁴⁵⁶ In the light of this claim, the new friends not only provided opportunities

⁴⁵⁴ Loyer and Delhay, *Victor Horta*, p. 11.

⁴⁵⁵ Goslar, "Des amis qui firent Horta."

⁴⁵⁶ [Esprit progressifs et tournées vers les technologies nouvelles, les frères encouragent Horta à créer une architecture logique et fonctionnelle qui ose afficher ses structures. Ils préconisent également l'observation de la nature et les formes qu'elle inspire]

for design and social advancement, but they were responsible for specific aspects of his architecture such as the exposed structure, integrated modern technologies and its ornamental sources, innovations that appeared after 1894. It is a substantial claim, which would have required stronger evidence from Horta's exchanges with this group and his design, but it is missing in Goslar's book. It is also a claim which contrasts with the more common view in Horta's biographies which trace the rise of the new style as an individual pursuit, which Horta deployed for this group of clients, as summarized by Hanser's position. In this view, Freemasons supported, but they did not reorient Horta's pursuit of rational structures and modern technologies in architectural design. Indeed, according to Hanser, the deep interest in modern technology and structural design were rooted in French avant-garde architectural theory which Horta had absorbed before he met the new circle. Autrique and particularly Tassel, concludes Hanser, were "especially the sort of enlightened client who allowed and encouraged Horta to test theories he was formulating both as a result of his teaching and the conversations he described having in his lodge."⁴⁵⁷ The two positions cast the genesis of the Hôtel Tassel in a different light, as an opportunity for Horta to develop and deploy a new style, or, as commission in which the client and other members of their circle re-oriented his research radically and offered concrete ideas behind its decorative program.

At the Hôtel Tassel, not all the motifs can be traced back to Horta's earlier pursuits. Themes that can be brought to bear upon the architecture of the house can be traced with certainty to Tassel, not Horta. Horta was familiar with the design of real glasshouses, but historical evidence indicates that it was Tassel who followed closely the interpretations of this building type and of vegetal life in the contemporary discourse and in scientific discoveries. Tassel and Horta were fascinated by

Goslar, *Victor Horta*, p. 76.

⁴⁵⁷ Hanser, "The early works of Victor Horta," p. 119.

Japanese art and the Far East, but Tassel was the collector. These themes can be brought to bear upon the architecture of the house and they can be traced through this client rather than Horta's earlier career. Tassel and Freemasonry radically re-oriented Horta's design in *this* commission and affected the genesis of a new style for which he drew from an array of visual sources. Unlike Balat's work for the prestigious Cercle artistique et littéraire in Brussels, Freemasonry was more than a meeting club and a propeller of Horta's career. It exposed him to a new philosophy of the world, reflected in Tassel's house. Freemasonry offered an additional set of themes that complement the ones which have already been traced, the subject of the following chapter.

Horta was initiated into the Masonic lodges *Les Amis Philanthropes* in December 1888, rose to Companion in December 1889, and to Master Mason in March 1890.⁴⁵⁸ Fellow brothers included Tassel, Lefebure, Autrique, Ernest Solvay, Max Hallet, Fernand Dubois, Jean-Baptiste Charbo, Alphonse Huberti, names that Horta singles out in his memoirs for their progressive convictions: the circle of the "absolutes" who had views on an infinite number of fields of knowledge.⁴⁵⁹ They were opposed to the established conventions of the time—politically, aesthetically, sentimentally—and Horta associates himself with this stand.

Three of these names are particularly important: Autrique, who provided Horta's first Art Nouveau commission, Tassel, and third, Lefebure, who was friends with everyone, who appears in the middle of artistic and personal exchanges, and whom Horta credits for launching his career more than any of the others. The three had a scientific education and combined teaching at the Free University of Brussels with careers in private industries.

⁴⁵⁸ Hanser, "Victor Horta, Art Nouveau and Freemasonry," in *Belgium: The Golden Decades, 1880-1914*, ed. Jane Block (New York: Peter Lang, 1997), p. 11.

⁴⁵⁹ Horta, *Mémoires*, p. 30.

Eugène Autrique (1860-1912) was a graduate of the École Polytechnique (1885), with a degree in mechanical engineering. From March 1892 to 1912 he held the chair of graphic design and topography at the Faculty of Applied Sciences. He worked, among other firms, as secretary of the Constantinople Gas Company and the Société Anonyme Luxembourgeoise des Chemins de Fer et Minières Prince Henri.⁴⁶⁰ He was the first to commission Horta to design his house. After Lambeaux, to whom Horta was recommended by Balat, Autrique and Tassel's commissions came from friends. After Autrique, Lefebure convinced Tassel to build a house as a form of real estate investment.⁴⁶¹

Tassel was a native of the region of Ghent, born in 1862. He spent part of his childhood in Philadelphia in the United States, before returning to Belgium, first in Ghent, then in Brussels where he enrolled at the Free University in 1880, one year before Horta entered the academy. He graduated in 1886 with a degree in physical and mathematical sciences. While studying, he worked for six years as a clerk for the Ponts et Chaussées to support himself until 1886, when he entered the laboratories of Ernest Solvay. He remained Solvay's close collaborator for the next thirty-five years. Supported by Jean-Baptiste Charbo, he returned to the university to teach descriptive geometry at the École Polytechnique in 1889, resigning his chair in 1907 in order to focus on his work for Solvay, but maintained his connections to the university until 1922. Among his early scientific contributions in chemistry is a paper presented at the Academy of Sciences in Paris in 1890.⁴⁶² He was a member of the Belgian royal society of astronomy, among his numerous scientific affiliations.

⁴⁶⁰ Autrique's short necrology is reprinted in François Schuiten and Benoît Peeters, *Maison Autrique: Metamorphosis of an Art Nouveau house* (Bruxelles, Les Impressions nouvelles, 2004), p. 33.

⁴⁶¹ Horta, *Mémoires*, p. 34.

⁴⁶² Émile Tassel, "Combination of Phosphorus Pentafluoride with Nitrogen Tetraoxide," mentioned in "Societies and academies: Paris, Academy of Sciences," *Nature: Illustrated Journal of Science* (26 June 1890), p. 215.

The only biographical notice on Tassel was written in 1924 by his colleague Ed.-W. Bogaert, professor at the Faculty of Applied Sciences at the Free University. It provides some key biographical facts and a valuable, though limited insight into Tassel's life in Brussels. Bogaert writes that although Tassel's course of descriptive geometry taught Monge's method and was limited in scope, Tassel had an astonishing general culture and followed eagerly the "movement of ideas" of his time. He was closely associated with the musical developments, closely followed literary movements, and he found the time to dedicate himself to the careful study of Japanese art. He collected Japanese artefacts and began a new collection and classification system of sabers which he did not complete. Bogaert's notice confirms Tassel's passion for music, literature and close social contacts, and it is a valuable source in yet another respect. It was written by a colleague and friend unconcerned with the architecture of the house, not an art historian who may have emphasized aspects of Tassel's life related to the building.

Tassel was unmarried at the time of the commission, but his situation changed when the house was completed. Henry van de Velde notes in his memoirs that Tassel and his wife selected Liberty samples from his firm in Brussels.⁴⁶³ Goslar has traced Tassel's marriage to Sidonie Lust in 1897 in the population registers. They lived together with six servants in the house until Tassel died in 1922, then she rented it out and finally sold it in 1928.⁴⁶⁴⁴⁶⁵ The wintergarden and the interior decorations were largely destroyed thereafter.

⁴⁶³ Henry Van de Velde, *Henry Van de Velde: Les Mémoires inachevés d'un artiste européen*, critical edition established by Léon Ploegaerts (Bruxelles: Académie Royale de Belgique, 1999), p. 70.

⁴⁶⁴ It is well-known that Horta kept this bill in his archives as proof that Van de Velde at the time was only an artist decorator in the business of importing English fabrics (A.H. Box 11 "Van de Velde", "facture Van de Velde Horta.")

⁴⁶⁵ Goslar, *Victor Horta*, p. 91. Goslar has traced the changes in ownership following Tassel's death: The house was sold house in 1928, then in 1956, before Delhayé finally purchased it in 1976. 1897 is also the year of Van de Velde's bill.

Lefebure, the key figure in this circle, trained in topography, was Ernest Solvay's personal secretary and remained close to him until 1922. He was friends with his son, Armand, and shared with Ernest Solvay a passion for alpinism, having travelled together to the Alps in 1894 for the first time. Lefebure was a close friend of Tassel, and shared with him a passion for photography which was at once artistic and scientific. His 1901 book, *Mes Étapes d'alpinisme*, documented his two hobbies, alpinism and photography, describing in detail his mountain excursions with Solvay, accompanied by photographs of the places they had visited. On several occasions Lefebure discussed capturing natural phenomena of light such as the moon halo or a rainbow, including the photograph of a rainbow above the town of Brige taken by Tassel around 1894.⁴⁶⁶ *Mes Étapes d'alpinisme* offers an insight into open-air alpinism and photography, hobbies combined with scientific inquiry, shared by Lefebure, Tassel, Solvay and other friends. It also attests to their keen interest in natural phenomena, such as how atmospheres affecting the perception of landscapes, subjects discussed in the book. There is a scientific component in the discussion of atmospheric electricity or mists, but also an artistic one, because Lefebure remarks that such phenomena evoke ideas and epithets that poets are best at finding. The book confirms that the phenomena of nature, "geological and botanical," the forces driving the cycles of growth and regeneration in nature, and the "general order of things" were topics of great interest.

The second aspect of interest in the figure of Lefebure is his close, well-documented involvement with artists in Brussels: he convinced Tassel to build a house, he may have recommended Horta to redesign the drawing room of Van de Velde's mother in law, Mme. Sèthe in

⁴⁶⁶ Charles Lefebure, *Mes Étapes d'alpinisme* (Bruxelles: Monnom, 1901), p. 62.

1894,⁴⁶⁷ and he stands between Horta and Van de Velde during the personal animosity which arose between them starting in the late 1890s.

Van de Velde makes no mention of the Mme. Sèthe commission, an unclear episode for which there are no additional records, but he writes that it was Lefebure who recommended Horta to review the English fabrics at his firm and who provided Horta's recommendation letter when he showed up at Van de Velde's house.⁴⁶⁸ After many years of bitter personal animosity, and after a question had arisen in the historiography of modernism whether the Bloemenwerf house or Tassel's house was more revolutionary in the way it pointed to the future, Van de Velde referred to their common friend Lefebure to let the reader judge: Describing Lefebure as a close friend and regular guest who practically "lived in Tassel's household in the same intimacy as ours," he writes that Lefebure was without a doubt much more comfortable in Bloemenwerf than in the house built by Horta because Van de Velde had managed to create a true *home*, which the Hôtel Tassel was not.⁴⁶⁹ To mark the contrast, Van de Velde compares the staircase of his *home* to Horta's staircase at the Hôtel Tassel, "lending what it borrows from the regular construction to the most flamboyant and delirious linear ornamental improvisation,"⁴⁷⁰ and is keen to point out that he had nothing to do with Horta's design, but merely supplied the English wall-papers and fabrics.

At the 1987 salon of Libre Ethétique, Van de Velde displayed a Five O'Clock interior set, and Horta a dining room. Both Van de Velde and Horta may have criticized, if not mocked each

⁴⁶⁷ The commission is included in various lists of Horta's works and in the memento for the year 1894, month of October.

⁴⁶⁸ Van de Velde, *Les Mémoires inachevés d'un artiste européen*, p. 70.

⁴⁶⁹ Ibid., p. 96

⁴⁷⁰ [livrant ce qu'elle emprunte d'éléments à la construction normale à la plus flamboyante et délirante improvisation ornementale linéaire]
Ibid.

other's furniture in their discussions with Lefebure,⁴⁷¹ and the seeds of the future animosity may have been sown there, if not earlier. A few years later Lefebure found himself in the middle of the dispute which had developed into the historical problem of who "invented" the Art Nouveau leitmotif and could therefore claim the merit of initiating the renewal of the applied arts and architecture.⁴⁷²

The origin of the Art Nouveau curve remained clothed in mystery before and after Lefebure's letters, but what can be clearly inferred from this piece of correspondence is his central role among people and artistic matters. In a small city like Brussels personal relationships were crucial among individual and groups, at times more important than preferences and affinities between artistic schools. In the 1894 memento, Horta notes that he collaborated with Lefebure on the design of the funerary monument for Alfred Solvay, Ernest's brother. He credits Lefebure for the great advancement of his career in that year, writing that commissions began to come in as a consequence of Horta's early success and of Lefebure who, more than Tassel, introduced him to Solvay, Wissinger, and the others.⁴⁷³ Yet, the shade of malevolence and persecution in Horta's recollections of later years falls on Lefebure too. In the memento of the following year, 1895, he writes about "Lefebure, who had elevated me to the clouds at the time of the kings Leopold [II] and Albert [I],

⁴⁷¹ A.H. Box 11 "Van de Velde", XV.V.14.6, manuscript with Horta's handwriting, undated.

⁴⁷² In a letter from Germany, Van de Velde asked Lefebure to support his view that the curve had first appeared in a pottery piece by Willy Finch (shown at the salons of Les XX) and that Horta borrowed this motif from him. Lefebure could confirm this because he had known the artists and their work from the beginning. In his response, Lefebure was surprised at the idea of identifying a clear inventor for a motif in art history, adding that at the time, "the curves were in the air," and on a personal note, that Horta and Tassel have always been cordial to Van de Velde in their conversations.

A.H. X534/5, Facsimile of letter from Lefebure to Van de Velde, 13 November 1901, reprinted in Horta's *Mémoires*, pp. 296-297. On the context of this correspondence see also Léon Ploegaerts and Pierre Puttemans, *L'Œuvre architecturale de Henry van de Velde* (Bruxelles: Atelier Vokaer, 1987), p. 120.

⁴⁷³ A.H. Memento for the year 1894, new page titled "Résumé—premier tournant de ma carrière."

said at the time of King Leopold III that my architecture never had any artistic value.”⁴⁷⁴ Lefebure remains in the center of artistic and personal matters even in the interwar years.

Finally, Lefebure’s dual interest in the vegetal motifs of Art Nouveau and open-air alpinism during the 1890s has an odd parallel in Walter Benjamin’s interpretation of the Jugendstil and its time, expounded by George Teyssot. Benjamin’s *Jugendstil* was a movement of liberation, parallel to the German *Jugendbewegung*, the groups of outdoor naked activities that aspired towards the *plein air* at the time. The *Jugendstil* and *Jugendbewegung* shared the yearning for the open air and liberation, the figure of the flower and, at their core, an element of perversion which, to Benjamin, is inherent in any early stage of emancipation.⁴⁷⁵

⁴⁷⁴ [Lefebure qui m’avait tant porté aux nues au temps des Rois Léopold et Albert disant au temps de Léopold III que mon architecture n’avait jamais eu de valeur artistique]
A.H. Memento for the year 1895, written in 1941, p. 5, d2.

⁴⁷⁵ George Teyssot, “The Wave, Walter Benjamin’s Lost Essay on Jugendstil,” *AA Files*, no. 61 (2010). For an alternative reading of Walter Benjamin’s thought on Art Nouveau as the productive misunderstanding that turned the ‘new’ into the ‘modern’ see also Lieven De Cauter’s essay “The birth of Pleinairism from the spirit of the interior,” in *Horta, naissance et dépassement de l’Art Nouveau*, eds. Aubry and Vandenbreeden,

5.5 Horta, Tassel and the Far East in Brussels

There is a sense of vagueness about the artistic preferences of Horta and his extra-architectural circle outside architecture around the major turn of his career. An exception to this is the fondness for Japanese art which Horta, Tassel and Lefebure shared alongside Wagner's music,⁴⁷⁶ well-established historical facts. Tassel was fascinated by the Far East, studied its languages, collected prints, artefacts and books, attended exhibitions and was in close contact with amateurs and scholars of the field. Horta was familiar with artistic techniques through periodicals and exhibitions in Brussels, and he experimented with Japanese stylization prior to the decorative programs of the Autrique House and the Hôtel Tassel. Their interest rose in the context of a thriving commerce of prints and objects, specialized publications, and exhibitions of Japanese works and European artists who had turned for inspiration to the Far East. In Brussels, the *Magasin de la compagnie Japonaise* at rue Royale was the main supplier of Japanese objects. At the salons of Les XX, Verhaeren recognized Japanese influence as early as 1891, in works such as the "Sunset at Herblay" fan by Paul Signac,⁴⁷⁷ shown that year, or in graphic illustrations and applied arts works such as the "*japonaises parisiennes*" by Mme. Cassatt in 1892.⁴⁷⁸ In 1889, an exhibition of Japanese prints was held at the

⁴⁷⁶ Aubry has traced Tassel's name in an 1887 subscription for a monument to Wagner, mentioned in *L'Art moderne*. The monument was commissioned to Horta in 1897, but not executed (Aubry, "Victor Horta, architecte des monuments civils et funéraires," n173, p. 97).

⁴⁷⁷ For this work and a discussion of Signac's Japanese inspiration see Marina Ferretti Bocquillon, "Paul Signac, 'cet art tout de clarté et de couleur,'" in *Japonismes Impressionismes*, ed. Bocquillon (Paris: Gallimard, 2019). Philippe Thiébault has traced Signac's connections to Art Nouveau architecture, and Horta, specifically. Signac lived in Guimard's Castel Béranger, and he crossed paths with Horta around 1897. Although they probably did not meet in person, their relations turned sour after Signac offered his large panel "Au temps d'harmonie" to the Maison du Peuple in Brussels, but was dismayed by the long delays and the "lugubrious" frame designed by Horta (Thiébault, "Art Nouveau et néo-impressionisme: Les ateliers de Signac," *Revue de l'Art*, no. 92 [1991], p. 73.)

⁴⁷⁸ Verhaeren, "Les XX," in *Écrits sur l'art*, p. 52.

Cercle artistique et littéraire. It was organized by Siegfried Bing (1838-1905), the well-connected art dealer, patron and publisher of *Japon Artistique*, based in Paris. He wrote the introduction to the catalogue, in which he explained the mysterious nature and the irresistible charm of the “thoroughly novel” art.⁴⁷⁹ The Belgian government purchased several items of his collections for the department of the Far East in the Musées royaux des arts décoratifs, founded in the same year.

Bing organized a similar exhibition at the École des Beaux-Arts in Paris in 1890, featuring over 700 prints, a major event whose importance among French avant-garde artists has been recognized. Groups such as the Nabis in France, for example, proved especially receptive because their own pursuits were oriented towards abstraction, and they made the undulating line a central motif of their work.⁴⁸⁰ The Nabis participated in the salons of Les XX in Brussels from 1892. The

In 1892, members of Les XX and artists invited from France participated in an exhibition of the Association pour l'Art in Antwerp. Hiroshige's prints from the private collections of Lemmen, Van Rysselberghe and Edmond Michette were shown along their own works in graphic design—works in which they were “forging” the new abstract line. The exhibition featured posters of Chèret and Henry de Toulouse-Lautrec, works by Signac, Seurat, Van Rysselberghe, Camille Pissarro, Lucien Pissarro, prints by Crane, Lemmen, Finch and Van Rysselberghe were shown along Japanese prints. The Antwerp association was short-lived and disbanded the following year. See Takagi Yoko, *Japonisme in fin de siècle art in Belgium* (Antwerp: Pandora, 2002), p. 133, and Jane Block, “Book design among the Vingtistes.”

⁴⁷⁹ [manifestation du beau, sous une forme aussi nouvelle pour nous, attire et subjugué avec un charme abosulement irresistible]

S. Bing, introduction to *Cercle artistique et littéraire, Exposition de peinture & d'estampes japonaises*, catalogue (Bruxelles: Hayez, February 1889), p. 3. The catalogue is listed in Tassel's donation to M.R.C with the inventory number 15.508.

⁴⁸⁰ Bing's 1890 exhibition of Japanese prints in Paris is considered a pivotal event in art history because of its influence on avant-garde artists. For the exchanges between the Nabis and Les XX see Catherine Verleyse, *Maurice Denis et la Belgique, 1890-1930* (Leuven: Leuven University Press, 2010) and Monique Nonne, “Les Nabis et la Belgique,” in *Paris-Bruxelles, Bruxelles-Paris réalisme, impressionnisme, symbolisme, art nouveau: les relations artistiques entre la France et la Belgique, 1848-1914*, eds. Pinget and Hoozee. For the exchanges between this group and Japan, see Ursula Perucchi, “Les Nabis et le Japon” in *Japonisme in Art: An International Symposium*, ed. Chisaburo Yamada (Tokyo: Committee for the Year 2001, 1980). In the same volume, Yvonne Bruhhammer's “Le Japonisme et l'Art Nouveau” notes a new appreciation of the daily object and nature among the lessons of the Far East to many Western artists who had turned to the applied arts. Wylie Sypher's “The Nabis and Art Nouveau” in his *Rococo to Cubism in Art and Literature* (New York: Random House, 1960) describes the group as more important for their theories rather than their painting—“makeshift of symbolism, Gauguin, Japanese stylization, medievalism and neo-

Japanese vogue spread from Paris to Brussels through collectors and contemporary art. Already in the late 1880s Tassel and Horta were eagerly following these developments.

Tassel possessed the catalogues of the exhibitions of 1889 (in which he added in handwriting S. Bing's name to the introduction),⁴⁸¹ of 1890, and of the 1893 special exhibition on Hiroshige and Utamaro held at gallery of Durand-Ruel in Paris, for which Bing published a dedicated study.⁴⁸² These books belonged to part of a rich library, a part of which has survived through Tassel's donation to Musées royaux d'art et d'histoire at the Cinquantenaire Park.⁴⁸³

Because Tassel sold a part of his collections and library in London and others items have dispersed, the donation remains the most important archival source. The surviving records only cover this donation, yet they provide a valuable insight into the world of a meticulous collector. Tassel's library contained hundreds of works on China and Japan. Language manuals, grammar books, ideographic dictionaries and his own notes suggest that he studied languages of the Far East closely.⁴⁸⁴ A personal dictionary notebook has accidentally survived because it was bound inside a

traditionalism"—which shared with Art Nouveau the emphasis on abstract design and discovery of “the motif by itself and for itself” (ibid., p. 217).

⁴⁸¹ *Cercle artistique et littéraire, Exposition de peinture & d'estampes japonaises*, catalogue.

⁴⁸² *Estampes d'Utamaro et de Hiroshige exposées dans les galeries Durand-Ruel à Paris du 22 janvier au 20 février 1893*, catalogue, introduction by S. Bing (Paris: De Chamerot et Renouard, 1893).

⁴⁸³ Jos Vandenbreeden signaled this collection to me during a conversation in May 2017. Tassel began to inquire into the possibility of a donation around 1915. His widow executed his will after 1922, donating artefacts valued at 30.000 fr and 325 publications on Japan. The artefacts list is recorded in M.R.C., Dossier depot 17/798 objets d'Extrême-Orient Tassel, Dossier Don 16/672 Tassel Éstampes japonaises, Dossier Don 10/463 Tassel E. Masques japonais. The books list is recorded in the M.R.C. Library inventory document, inv. nr 15.495-15.820 (November 1922). Some circumstances leading to the donation are mentioned in the correspondence between the curator Bommer and the head curator Van Overloop, as in the letter of 28 August 1923, M.R.C., Dossier depot 17/798 objets d'Extrême-Orient Tassel.

⁴⁸⁴ Language manuals in his library include Léon de Rosny, *Éléments de la grammaire japonaise (langue vulgaire)* (Paris: Maisonneuve, 1871), Tatui Baba, *An Elementary Grammar of the Japanese Language with Easy Progressive Exercises* (London: Trübner, 1888), J. H. Donker-Curtius, *Essai de grammaire japonaise* (Paris: Duprat, 1861). Tassel's notebook titled “Index des mots japonais, chinois et hindous” is bound inside Henri Joly, *Legend in Japanese Art*, (London: John Lane 1908), M.R.C, inventory no. 15.582

printed book, Henri Joly's *Legend in Japanese art* (1908). It contains an index of works in Japanese, Chinese, and Hindi, written in Tassel's perfect calligraphy. Tassel collected prints and artefacts, including masks and statues donated to the museum. Bogaert reports that Tassel began a classifications system for Japanese sword mountings, based on the crafts and material.⁴⁸⁵

Horta's means were limited before 1894, so he could only afford Japanese objects after his situation improved.⁴⁸⁶ However, he was well familiar with Japanese artistic techniques through publications and exhibitions from his early career. He subscribed to Bing's *Le Japon artistique*, the magazine *Kokka*,⁴⁸⁷ and *Studio International* which published frequently studies on Japanese art. The records of his library compiled in the 1930-1940s contain several other publications.⁴⁸⁸ Yoko Takagi has traced some of his earliest experiments with Japanese artistic techniques in a catalogue of the 1890 Exposition triennale des Beaux-Arts in Brussels, in which Horta sketched quick memos of the exhibits on Japanese stylization in the blank margins, including a lady in a kimono, possibly derived

⁴⁸⁵ Bogaert, "Notice sur la vie et les travaux de Émile Tassel," p. 33

Index cards for this collection have survived accidentally inside the books donated to Musées Royaux. They specify the school, signature, subject, and material and technique, origin and price.

⁴⁸⁶ Takagi has pointed out that items from Horta's collection became the possession of Delhayé's foundation, and are still managed by Mrs. Delhayé. They include sword mounts, sculptures, porcelain vases, panels, tapestries. Takagi, *Japonisme in fin de siècle art in Belgium*, p. 75.

⁴⁸⁷ *Kokka* was founded in Japan in 1889, first published only in Japanese, then, from 1902 with an English translation, and from 1905, an integral English parallel edition, *The Kokka, An Illustrated Monthly Journal of the Fine and Applied Arts of Japan and other Eastern Countries*. Raphael Petrucci singled out the journal in the efforts to reconnect contemporary modernization to the old traditions of China and Japan. See Christophe Marquet, "Défense et illustration de l'art national à la fin du XIXe siècle: La création de la revue *Kokka*," *Benkyô-kai, sessions d'étude au CEEJA, 2001-200* (Aurillac, Presses orientalistes de France, 2005).

Japon Artistique or *Artistic Japan* appeared in monthly installments between 1888 and 1891, printed in the French, German and English. On this periodical, see Gabriel Weisberg. "On understanding Artistic Japan," in *The Journal of Decorative and Propaganda Arts* 1 (Spring, 1986): 6-19.

⁴⁸⁸ A.H. "Volumes composant la bibliothèque de monsieur Le Baron Horta, Victor, 18 place Stéphanie à Ixelles-Bruxelles," executed in July 1944, and "Nomenclature des livres composant la bibliothèque de Mr. Horta," bearing the handwritten annotation "6 Juin 1931?"

from a painting by Whistler shown at the exhibition, and an iris flower which Takagi sees as a precursor to decorative motifs developed in the Hôtel Tassel a few years later.⁴⁸⁹

An additional connection to the Far East were the personal acquaintances with leading dealers and scholars, before and after the completion of the Hôtel Tassel. The house caught the attention of art connoisseurs who hailed the endeavor to renew architecture and the applied arts, and admirers of the Far East who saw deeper affinities to Horta's new style. Bing visited Tassel's house in July 1895. A few days later, Horta and Tassel travelled to Bing's emporium in Paris to select items for the interior decoration.⁴⁹⁰ A lesser known connection is Raphael Petrucci (1872-1917),⁴⁹¹ Italian-French scholar of the Far East, who moved from Paris to Brussels in 1896 to occupy the post of vice-director at the Institut d'hygiène and a chair of positive aesthetics at the Université nouvelle de Bruxelles, an institution recently founded following a schism from the Free University at a time of raging disputes between radicals and moderates among free thinkers, the Liberal party and masonic lodges in Belgium. Petrucci and Horta appreciated each other's work, as the correspondence of the

⁴⁸⁹ *Le Salon de 1890. Exposition triennale des Beaux-Arts de Bruxelles*, ed. V. Vurgey, printed in only seven copies by Istace, 14 September 1890 (Takagi, *Japonisme in fin de siècle art in Belgium*, pp. 74-75).

⁴⁹⁰ Martin Eidelberg and Suzanne Henrion-Giele first discussed this abandoned project in their "Horta and Bing: Un unwritten episode of L'Art Nouveau," *The Burlington Magazine* 119, no. 896 (November 1977). Horta has noted the meeting with Bing at Tassel's house and the departure for Paris in his agenda for 1895. In the same year, Bing commissioned to Horta the transformation of his outlet, La Maison de l'art nouveau. It is unclear why Horta's project was not carried out, but Bing invited other Belgian artists to display interior sets at the opening of *Maison de l'Art Nouveau* in December that year, including Van de Velde, Lemmen, and Van Rysselberghe (the three names Block singles out for forging the new Belgian style in the graphic arts). Their displays at Bing's inauguration drew scathing reviews from the French press, notably Arsène Alexandre's virulent critique in his "L'Art nouveau," *Le Figaro*, 28 December 1895. For Bing's connections see *The Origins of l'Art Nouveau: The Bing Empire*, ed. Gabriel Weisberg, Edwin Becker and Évelyne (Amsterdam: Van Gogh Museum, 2004). It includes Philippe Thiébault's contribution "The opening of la Maison de l'Art Nouveau: Bing and Belgium," which returns to the episode of the Belgian participation in December 1895.

⁴⁹¹ See "Raphael Petrucci" in the biographical entries of INHA, <https://www.inha.fr/fr/ressources/publications/publications-numeriques/dictionnaire-critique-des-historiens-de-l-art/petrucci-raphael.html>

following year suggests.⁴⁹² Petrucci's best-known book was *La philosophie de la nature dans l'art d'Extrême-Orient* (1910), published a few years after his shorter *Les caractéristiques de la peinture Japonaise* (1907), which he gave to Tassel with a dedication.⁴⁹³

Originally trained a painter, Petrucci had a dual interest in art and science, and focused gradually on the scholarship of the Far East, China in particular, in the early 1890s. His strong affinity for Asian art had led him to the Far East, to Horta's architecture in Brussels, to the Institut d'hygiène, and also to the circles around Solvay and his twin research in social and natural sciences. He joined the Institute of Sociology at Léopold Park as scientific advisor in 1902, and published in 1908 an *Essai sur une théorie de la vie*, with a preface by Solvay. The *Essai* was criticized for the lack of rigor in scientific observation,⁴⁹⁴ but it is significant for the close connections between fields and individuals, straddling the inquiry into the intimate essence of life and the philosophy of nature in the Far East, affiliations and interests which overlap in the figure of Tassel too. Petrucci's activity is significant for these connections, whereas his studies are important because they highlight those aspects of the art and the philosophy of nature in the Far East which rendered the remote civilizations fascinating to Tassel and his circle. Petrucci and other authors render intelligible to us traits of the Far East that provide relevant context for the architecture of the Hôtel Tassel.

⁴⁹² A.H. XV.P.5, letter to Horta, 7 February 1897. The letter suggests that they knew and admired each other's work. Petrucci writes that he is going to send Horta the drafts of his lecture on beauty.

⁴⁹³ Tassel possessed two copies of the book. The one with the dedication is dated February 1907. The M.R.C. Tassel's donation inventory lists several works by Petrucci, including *Chronique d'archéologie extrême-orientale*, *L'art d'Extrême-Orient*, *Sur l'archéologie d'Extrême-Orient*, *Les peintres chinois*, *La peinture des figures en Chine*.

⁴⁹⁴ H. Daudin, review of *Essai sur une théorie de la vie* by Petrucci in *Revue philosophique de la France et de l'étranger* (January-June 1909): 76-77.

5.6 Nature in the Far East and in the Hôtel Tassel

Many of the themes that are pertinent to Horta's design, traced in the previous chapters, have parallels in the Japanese philosophy of nature and art, at least as it was expounded by Western critics. The communion of man with the forces of nature which was first experienced and described in the experience of the impenetrable domes of the new world, the effort to determine the dominant traits of vegetal landscapes and render them in texts, visual representations or glasshouse design, the emphasis on movement and growth as the hallmarks of natural landscapes and life in general, the ideas of a first operating principle variously labeled as vital force, transformism, or Schopenhauer's impersonal will and the implicit sense of mystery in these forces, all have their counterparts in the philosophy of nature in the Far East. But there are also fundamental differences. Bing remarked in his brief 1889 introduction to Japanese art that everything in their landscapes is suggestive, imbued with a sentiment of nature which the beholder completes in his imagination, and that the genesis of their art was mysterious like India's, and their philosophy was inaccessible to Western methods.⁴⁹⁵ In his *La philosophie de la nature dans l'art d'Extrême-Orient*, Petrucci explained that the peculiar aspect of this art was rooted in a fundamental difference in the conception of nature between the Western anthropocentric view and the Far East which saw all living forms and inorganic matter as manifestations of a single, universal force: rocks, trees, animals and people were manifestations of a single force, which possessed the same spiritual attributes. Consequently, they were appreciated not for external beauty, but the ideas which their inner essence suggests. Hence the highly expressive, abstract language of Japanese art.

⁴⁹⁵ Bing, introduction to *Cercle artistique et littéraire, Exposition de peinture & d'estampes japonaises*, pp. 3-4.

As early as 1868 the French critic Ernest Chesneau observed the dominant tendency in Japanese culture towards “accentuation, the bringing to light of the essential character of the vital and expressive character of a plant, of an animal, of a man in his diverse offices, of the whole of nature captured in its ensemble and in its particularities.”⁴⁹⁶ In his *Histoire d’un dessinateur* (1879), Viollet-le-Duc remarked how the Japanese excelled in seizing the dominant traits of a landscape and rendering them in abstract lines.⁴⁹⁷ Contributors such as the English Josiah Conder and Charles Holme noted in the 1880s-1890s that the technique was not limited to the vegetal landscapes, but it included all aspects of the world shaped by the same underlying forces.⁴⁹⁸ Forces of nature determine the earth’s surface in the form of mountains or valleys, drive the phenomena such as waves or mists, and the cyclical changes in days and seasons. The artist seeks to grasp the working of these forces and express them by means of abstract lines and colour which suggest to him the essence of things.

Petrucci was fond of the expressive character of art, which was particularly pronounced in the Far East, but by no means unique to it. He saw the Far East as one instance in this conception of the role of art throughout history. Rejecting Taine’s opinion of the plastic arts as imitative ones, he favored the expressive nature of artistic creation, rooted in intelligence and unconscious processes, and which he found to be dominant in the Far East. He argued that plastic arts evoke, they do not reproduce things with exactitude,⁴⁹⁹ a view that explains his strong affinities for the arts of Far East, but also his admiration for Horta’s modern architecture whose salient characteristic was its evocative

⁴⁹⁶ Phyllis Floyd, “Documentary evidence for the availability of Japanese imagery in Europe in nineteenth-century public collections,” *The Art Bulletin* 68, no. 1 (March 1986), p. 127.

⁴⁹⁷ Viollet-le-Duc, *Histoire d’un dessinateur* (Paris: Hetzel, 1879), p. 217.

⁴⁹⁸ See Charles Holme, “Artistic gardens in Japan,” *Studio*, no. 4 (July 1893): 129-135, and Josiah Conder, “The art of landscape gardening in Japan,” *Transactions of the Asiatic Society of Japan* (1886-1887): 119-175.

⁴⁹⁹ [les arts plastiques sont des évocateurs des choses, non point des reproducteurs exacts et étroits] Petrucci, *La Philosophie de la nature dans l’art d’Extrême-Orient* (Paris: Renouard-Laurens, 1910), p. 32.

power. His two studies on Japanese painting and the philosophy of nature in the Far East discussed this central feature and a relative problem: the essence of things to be evoked in artworks depends on how people conceive of their relationship to the world around them. To Petrucci, each art reflects the general conception of the world by those who produced it. He described the conception of the material world in Far East as “an illusory appearance, the perceived reality as a cloth thrown upon deeper things,” in which obscure forces are at play,⁵⁰⁰ a passage which resembles Schopenhauer’s world split between representation and an operating blind will, whose own affinities with the Far East are well known. Decades of philosophical speculation, scientific inquiry, and artistic theories in nineteenth-century Europe had sought to grasp the essence of nature as it appeared through underlying fundamental principles. Petrucci’s own scholarship belongs to this tradition, straddling these fields as he wrote on the philosophy of nature, arts and his own theory of life, modelled after Solvay’s quest for universal systems.

The essence of things in nature is a matter of interpretation. It changes from one civilization to the other, but it also evolved within a given context as in the shifting interpretation of the intimate nature of life in nineteenth-century Europe. The philosophy of nature in the Far East, at least as Petrucci expounded it, corroborated those strains in nineteenth-century thought which sought an inner, operating force behind the aspects of beings and conceived of a generating nature. It also provided its set of graphic solutions to express this understanding of nature. The Japanese vogue was concomitant to similar pursuits towards abstraction in the West, which sought to grasp and render the essence of things by means of suggestive images in the visual arts and letters. Suggestion was the central notion in the aesthetic theories of the Symbolists, whereas the abstract line, evocative

⁵⁰⁰ Ibid., p. 134.

of the essence of things and the inner moods of the artists became central to avant-garde pictorial research. Schools and individuals such as the Nabis proved highly receptive to Japanese art because their aims were similar, seeking to render the essence of things and the emotions they arise rather a mimetic representation.

In a study on the painter Félix Bracquemond, art historian Jean-Paul Bouillon, who has also authored several studies of Art Nouveau and Symbolism, discusses the nature of the encounters between Western and Japanese art, whether the latter amounted to a discovery by or influence on the former, or rather, if this encounter had the form of a convergence of pursuits. He argues that Japanese techniques often served as additional support, “*justificatifs*” to ongoing pursuits in what Bouillon sees as a fundamental crisis of Western art in the second half of the nineteenth century: the progressive destruction of traditional perspective space.⁵⁰¹ Similarly, references to Japan were made to support ongoing internal pursuits in the applied arts and even architecture: authors in Tassel’s library such as Rutherford Alcock in his *Art and Art Industries of Japan* (1878), emphasized the love of nature, and specifically the observation of processes such as the ways of *growth* which they were able to transfer to their designs;⁵⁰² and Dresser in *Japan: its Architecture, Art and Manufactures* (1882) remarked how the Japanese impart life and movement in the rendering of animals and plants.⁵⁰³ These were the very themes that Viollet-le-Duc sought in contemporary, medieval, and Japanese

⁵⁰¹ Jean-Paul Bouillon, “Remarques sur le Japonisme de Bracquemond,” in *Japonisme in Art: An International Symposium*, ed. Yamada.

⁵⁰² Rutherford Alcock, *Art and Art Industries in Japan* (London: Virtue and co., 1878), p. 46. Rutherford Alcock (1808-97), British Consul, and admirer of the Japanese applied arts, assembled the Japan exhibit of the 1962 World Fair, which attracted considerable attention, and he exhorted Western artists to learn from them. On Rutherford see also Max Put, *Plunder and Pleasure: Japanese Art in the West, 1860-1930* (Leiden: Hotei, 2000), p. 11.

⁵⁰³ Christopher Dresser, *Japan, its Architecture, Art and Art Manufactures* (London, Longmans, Green and co., 1882), p. 318.

design—the ability to see how nature operates and grasp its essential traits. Whereas a traveler such as Raymond de Dalams, for example—another author in Tassel’s library—noticed rudimentary techniques, disinterest in the minute observation of nature and a preference for artifice over the natural state,⁵⁰⁴ others saw specific aspects of Japanese art that corresponded to their own vision for the future of Western art, and found in it their *justificatifs*.

A similar historical problem arises regarding Horta’s own encounter with Japanese art, namely to what extent it amounted to a discovery that re-oriented his research and influenced his style, and to what extent its themes provided additional inspiration in pursuits that were already underway. In the Hôtel Tassel’s interior, he sought to bring nature into the daily home environment, and render it through dominant traits and suggestive imagery, themes similar to those explored in Japanese art.

Two works show with certainty that Horta drew from concrete Japanese sources when he obtained the commissions from Autrique and Tassel, and they are both representations of nature. At the Autrique House, Luc Maes and Lode de Clercq found that Horta’s vertical panel showing linear irises atop long stems, planted on the soil, and, to the side, a darker, smaller and out-of-scale tree, (Fig. 5.10), appear to be derived from two drawings in Hiroshige’s *One Hundred Famous Views of Edo: Horikiri Iris Garden* (plate no. 64) may have inspired the irises and their stems, and *The Plum Estate at Kameido Shrine* (plate no. 30) contains a tree trunk in the foreground whose structure is similar to Horta’s panel.⁵⁰⁵ In the second instance, Joss Vandenbreeden has recognized a view from the same album as Horta’s source for the stained glass panel in the upper hallway of the Hôtel

⁵⁰⁴ Raymond De Dalmas, *Les Japonais: Leur pays et leurs mœurs* (Paris: Plon, 1885)

⁵⁰⁵ Goslar, *Victor Horta*, n235, p. 87. The report was originally published by Luc Maes and Lode de Clercq, “Naar een restauratie van het Autrique-huis,” *M&L* (September—October 1993): 18-32.

Tassel, between the office and the back of the house, based on similarities between the illustration and the panel. Hiroshige's *Asakusa Ricefields and Torinomachi Festival* from the same album (plate no. 101) depicts a view seen from an interior through a window frame, with a cat to the side, which bears similarities to the long window bands depicted in the Hôtel Tassel's panel formed by horizontal and vertical double bars, and the landscape beyond, which features a distant volcano in the Japanese version, and a mountain at the Hôtel Tassel (Fig. 5.11).⁵⁰⁶

Hiroshige's album of coloured engravings from 1856-1857 was among the best-known Japanese imagery of the time. Tassel possessed a copy of *One Hundred Famous Views of Edo*.⁵⁰⁷ Bing promoted the Japanese artist's work in *Japon Artistique* with a study on Hiroshige by William Anderson, leading English scholar on Japanese prints of the period who included a monochrome version of the *Asakusa Ricefields* among his illustrations.⁵⁰⁸ Petrucci also referred to the *Asakusa Ricefields* in his *Les caractéristiques de la peinture Japonaise* (1907).⁵⁰⁹ Hiroshige's views stand out in the myriad of visual sources available to Horta and Tassel because it has been possible to relate them with greater certainty to two specific Horta designs. They confirm that Horta drew from Japanese art, which is important when approaching other aspects of his design work in which such clarity is wanting, the influence seemingly possible but vague, and the derivation less obvious. Japanese techniques may have helped Horta render ideas that were or were not of Far Eastern origin, and they have also inspired Horta's ideas about nature. Japanese sources may have helped resolve a problem

⁵⁰⁶ Jos Vandenbreeden, "La nature et les structures dans l'architecture de l'Art Nouveau," in *L'Art nouveau et l'Asie*, ed. Chantal Zheng (Aix-en-Provence: Presses Universitaires de Provence, 2016), p. 98.

⁵⁰⁷ Takagi has traced it the M.R.S. inventory no. 5164-5233, donated on 29 July 1921.

⁵⁰⁸ William Anderson, "Hiroshige," *Japon artistique* 3, nos. 15-16 (1889): 33-40; 45-52. On this contribution, see Gabriel Weisberg, "On understanding Artistic Japan," p. 16.

⁵⁰⁹ Petrucci, "Les caractéristiques de la peinture Japonaise," extract from *Revue de l'Université Libre de Bruxelles* (Liège: Imprimerie La Meuse), p. 289.

which Petrucci formulated as the separation between ideas and limited possibilities of expression in material form: *thought* struggles to find expression in matter, and available techniques enclose *thought* into expressive possibilities which, sometimes, may guide or even govern inspiration.⁵¹⁰

Japanese techniques expanded the range of expressive possibilities and they inspired new thoughts on the experience of nature. In the Hôtel Tassel interior, Japanese techniques appear to underlie the composition of the mural. Ideas regarding the connection to nature inside the dwellings of the Far East offer an additional explanation for the role of the mural and the larger décor in the Tassel house. Techniques and ideas of the Far East add a second layer of meaning and natural imagery that looks strange and foreign, *étrange et étrangère* in the Hôtel Tassel interior.

Converging themes and techniques from the Far East

The previous chapters have traced similar ideas of nature in nineteenth-century contexts, expressed in dissimilar forms by different artists. Their material expression was determined by a limited range of possibilities as well as deliberate choice. First-hand descriptions of tropical landscapes, articles in scientific periodicals and general magazines established dominant traits of nature around ideas of movement and growth (later authors have argued that these notions reflected the nineteenth-century obsession with the idea of progress, projected from society onto nature).⁵¹¹ To Darwin and Édouard

⁵¹⁰ Petrucci, *La Philosophie de la nature dans l'Art d'Extrême-Orient*, p. 207.

⁵¹¹ Gould quotes Tom Bethel's opinion that Darwin's concept of natural selection as a creative force was an illusion encouraged by the social and political climate of Victorian Britain, where change was inherently progressive (Gould, *Ever since Darwin*, p. 44).

André, a scientist and a landscape designer, creepers represented the power of growth. To André, this was a dominant trait of the tropical forests which he had visited, and which he sought to recreate in glasshouses. Older and current ideas related these phenomena to a primordial principle, subject to philosophical speculation and different names, notably the vital force which permeated French architectural theory following the medical and natural sciences. Guillery and Viollet-le-Duc, a scientist and an architect, were fascinated by the manifestations of this inner force which could inspire architects, movement in the case of the former, vital force and growth in the second. According to Viollet-le-Duc, medieval artists were able to observe the vital principle in the way *nature operates* and transpose it onto their buildings. The message of his *Histoire d'un dessinateur* was for modern designers to learn to do the same. The moment of revelation in the book occurs when the protagonist Jean grasped this fundamental principle in the bud figure, embodiment of vital forces in nature, which he then applied in his own design for a table in which ornament emerges powerfully from a rationally constructed wooden framework in the same way as vital forces push branches and flowers out from a stem.⁵¹² Viollet-le-Duc's idea was universal, but its material expression in Jean's table remained medieval in aspect. Between ideas of nature and their application in design, there is a space filled by a visual repertoire available to the artist, and which he consciously or semi-consciously chooses to draw from and transform. This space contains available techniques which give expression to the *thought*, but which may also guide it, as Petrucci remarked. Abstract ideas on growth or vital forces do not, in themselves, engender material form. They require further visual sources to take form in the artist's imagination and in his creations. To Viollet-le-Duc, this

⁵¹² See Martin Bressani and Aniel Guxholli, "Decorative versus Mechanical," in *Robert Willis: Science, Technology and Architecture in the Nineteenth Century*, ed. Alexandria Buchanan (Madrid: Instituto Juan de Herrera, 2016), p. 236.

repertoire lay in medieval architecture and ornamental design which were to be drawn from, if not to be fully revived, and it is not always easy to state if it was his ideas on nature which led him towards medieval forms, or if it was the predilection for these forms which inspired some of ideas of the vital force.

Japanese art contained ideas on vital forces and growth that were similar to the dominant traits of landscapes which artists rendered in abstract lines. Conder, trained in England as an architect under the neo-Gothicists William Burges and Edward William Godwin before moving to Japan,⁵¹³ noted that the remarkable power of Japanese artists to seize upon the characteristic and fundamental forms of natural objects was similar to the European medieval artist.⁵¹⁴ However, the results in ornamental design diverged. At the close of the nineteenth century, unlike neo-medieval designs, Japanese art was novel and could mediate the space between thought and expressive possibilities. To Horta and Tassel, visual sources and the philosophy of nature in the Far East were inspiring in these two aspects, enhancing the idea of nature as suggestive imagery, and providing a repertoire for techniques to express its dominant traits by means of line and color.

In Japan, not only pictorial representations, but gardens themselves were conceived as pictures that suggest other imaginary landscapes and ideas of a higher order, philosophical or

⁵¹³ Conder's studies covered four areas of Japanese art: architecture, landscape gardening, painting, and floral compositions. For his training in England, his subsequent activity in Japan and his important scholarship see Hiroyuki Suzuki, ed. *Josiah Conder, Catalogue* (Tokyo: Kenchiku Gahōsha, 2009) and Irène Vogel Chevroulet, *La Création d'une japonité moderne (1870-1940): Le Regard des architectes européens sur le Japon: Josiah Conder, Robert Mallet-Stevens, Bruno Taut et Charlotte Perriand*. Saarbrücken: Éditions universitaires européennes, 2010.

⁵¹⁴ Conder, "The art of landscape gardening," p. 154. Put notes briefly that such associations between Japan and medieval Europe were recurrent. With regards to the applied arts, Japan seemed to have maintained intact those conditions of economic and artistic freedom in an idealized medieval Europe in which art thrived. Stylistic similarities in the conception and rendering of things inspired the renowned French art critic Louis Gonse, contributor to the *Gazette des Beaux-Arts* and author of studies on Japan, to state that Gothic cathedrals resembled Japanese sculpture (Put, *Plunder and Pleasure*, p. 13, and n9, p. 17).

historical, such as rest or longevity. Conder remarked on this fundamental difference between Western gardens, designed around the ideas of luxury and display, often conceived as repositories for collections of rare specimens from around the world, and Japanese ones, intended to “inspire worthy sentiment” and convey historical and philosophical ideas by means of the associative imagination of the beholder.⁵¹⁵ The Japanese designer deploys the vegetal and mineral components of a garden as part of his language to express ideas and sentiments. Such attributed symbolism in plants and natural landscapes was not unique to Japan. Numerous nineteenth-century European works on the “*langage des fleurs*” explored similar themes. However, these associations were particularly pronounced in Japan, and had a religious component and conventions in pictorial representations that appeared novel in late nineteenth-century Europe where the quest for an expressive language and suggestive imagery was underway.

The studies of the British architect Josiah Conder (1852-1920) shed light on these two pertinent aspects, the suggestive power of images of nature and the means to construct them. Based in Tokyo, Conder published several works on the Japanese arts of gardening and flower arrangement from 1886. He contributed to a topic that fascinated the public on account of its peculiarity: the asymmetrical, *style penché* of floral arrangements which contrasted vividly with the typical Western models. Works about Japan which had flown into libraries and private and public collections in the latter nineteenth century included manuals on drawing techniques, guides on the species of plants, birds and animals in representations and guides of the art of flower arrangement.⁵¹⁶ Conder’s articles on this topic helped clarify to the Western public well-established principles behind the peculiar

⁵¹⁵ Conder, “The art of landscape gardening in Japan,” pp. 126-127.

⁵¹⁶ Floyd, “Documentary evidence for the availability of Japanese imagery in Europe in nineteenth-century public collections,” p. 107.

aspect of Japanese compositions. He outlined the abstract schemes and the ideas they were intended to suggest. He explained that in the Western bouquet, the focus is on blossoms, variety and luxuriance, whereas in the Japanese one, it is the stem, branches and bud which are prominent. They are placed in a composition scheme which comprises the base, the principal line of the central stem which is usually bent, and the subsidiary lines of the branches which follow different directions, forward to backward, and vary in the curvature from slight to bold sweeps. Conder illustrates the arrangement schemes, varying from three to seven stems, with their relative positions, directions, and curvature, showing how the Japanese artist manages to obtain harmony and balance without resorting to symmetry (Fig. 5.11)

Japanese flower arrangements are constructed to suggest ideas. The arrangement of the stems which spring vigorously, out of the centre and branching in different directions, and the general impression of nature that has been left to itself suggest growth. Conder draws an analogy between the bent branches and the figure of the bow, both embodiment of inner energy. Such schemes are employed not only in flower arrangements, but also in illustrations, for in Japan, both the physical plants and their representations could be intended as pictures to suggest other ideas. In Japanese illustrations, plants are often depicted springing vigorously over cliffs, into the void, which highlights their inner power. They also suggested ideas of a higher order: a twinning creeper, for example, becomes the image of aspiration; long, drooping branches, convey the idea of repose. The key to this language was the *line*, represented by stems, which developed a distinctive power of its own in Japanese art, and which represents to Conder a “stereotyped form of what we may call the poetry of

motion and which allows the Japanese artist to render all the phenomena of nature, including those of growth and aspiration.⁵¹⁷

Conder became one of the leading authors on Japanese art. Petrucci referred to the 1893 editions of his two studies, *Landscape Gardening in Japan* and *The Art of Floral Decoration* to support his own analysis of the philosophy of nature in the Far East. He remarked that the art of the gardens and floral art shared a unique vision of nature which turned them into evocative compositions to arise certain moods, provide moral lessons and evoke abstract ideas, a tradition that dated back to Buddhism.⁵¹⁸ Conder's studies underwent numerous editions from the 1880s, and remain in print today. *The Art of Landscape gardening* was first read as a paper in 1886, re-published in two volumes in 1893, then 1912, and has remained in circulation ever since with a recent reprint in 2001. His *The Theory of Japanese Flower Arrangement* was first read in March 1889, published the following year in *Transactions of the Asiatic Society of Japan*, then as a book in 1891, *The Flowers of Japan and the Art of Floral Arrangement* (expanded with detailed discussions of the species, the ceremonies in which they are employed, and views of Japanese interiors featuring flowers), as an article, "Japanese flower arrangement" in *Studio: International Art* in 1897, and in 1899, as a revised version of the 1891 edition, *The Floral Art of Japan*. Tassel possessed the 1899 edition in his library (the book is among the works kept at the Musées Royaux). It is possible that he and Horta may have known Conder's work earlier through the previous editions or other sources which are missing from the only available record on Tassel's library. In any case, Tassel and Horta were well familiar with the imagery of nature which Conder analyzed.

⁵¹⁷ Conder, "The theory of Japanese flower arrangement," paper read on 13 March 1889, *Transactions of the Asiatic Society of Japan* 18 (1890), p. 3.

⁵¹⁸ Petrucci, *La Philosophie de la nature dans l'art d'Extrême-Orient*, p. 299.

Conder stands out among the numerous authors because, whether he served as a direct source or not, he allows us to understand those aspects of Japanese art to which the Hôtel Tassel's interior points: Whereas Petrucci outlines relevant themes, Conder adds concrete visuals of fundamental importance. Crucially, Conder's illustrations explain the composition of Horta's mural. Horta's groups of lianas, formed by principal and secondary stems which grow out of the centre are close to Conder's diagrams of lineal distribution for arrangements intended to suggest growth and, as a philosophical idea, aspiration. The main group in Horta's mural rises from the left corner, below the balustrade of the upper floor. Each of the stems follows different directions of growth, with a different curvature. The principal stem rises out of the centre, with a strong curvature, all the way to the top balustrade. This corresponds to Conder's *Shin* though the secondary branches are lower, and have a more "violent" curvature. To the right, above the stairs, two groups spring in an almost horizontal direction, opposite the ramp, as in compositions that suggest wild growth on the edges of cliffs. The mural combines several Japanese compositional techniques, in addition to other themes. If the free-flowing flowers in the second layer of the mural are stylized chrysanthemums, they bear another connection to a prominent Japanese symbol—flower of the autumn, imperial symbol and favorite in the country.⁵¹⁹

Other sources are possible, but they seem more distant: Some of Horta's lianas go in full circle, a movement which has another precedent in Hirochige's *Pond at Ueno* in *One Hundred Famous Views of Edo* (plate no. 11). The background hue recalls many representations of the sunset in Japanese prints using ochre, which inspired, amongst other, Signac's *Sunset at Herblay* shown in

⁵¹⁹ Dresser, *Japan, its Architecture, Art and Art Manufactures*, p. 233.

the salon of Les XX in 1891.⁵²⁰ Such connections are possible, but the strongest one remains the general curvilinear composition, based on the de-centered main stem lines which suggest in the first place, growth, then, ideas of a different order.

The three-stem composition in *style penché* appears frequently in Horta's sketches of the time. In a manuscript note of the early twentieth century he theorized the role of the line in conveying the vital forces of nature. He noted that a line may be as alive [*vivante*] as a flower, and, as decorative element, more pleasant than the flora itself which tends to lend itself to abuses in decoration. The line, based on its location, direction, departure, approach, subdivision, colour and background, may become an expressive ornament, as vivid as any other. A curvilinear décor, where there is certainty of complementarity, may work better than the re-interpreted flower.⁵²¹ The power of the line was only one of the possible lessons of Japanese art, and a justification for Horta's ongoing research in the language of the plastic arts. He had explored how abstract profiles could render a sculptural group *vivant*, and he dealt with a similar goal in ornamental design which discarded mimetic representations of flora. Then, Japanese art converges into the suggestive imagery of nature the Hôtel Tassel's décor.

The Far East provided clear compositional techniques for the grouping of the lianas in the Hôtel Tassel mural and its shaded background. But, these compositional techniques were closely related to ideas on the relationship between architecture and nature. Conder's 1891 expanded

⁵²⁰ The current color scheme is a restoration of the original. Delhayé has explained his techniques in his interview in Loyer and Delhayé, *Victor Horta*. Hanser, who visited the house during the restoration, saw original traces of paint in the upper section of the mural which appeared to be gray-light blue rather than beige, as it was re-painted by Delhayé (Hanser, "The early works of Victor Horta," p. 264). He makes no remarks on the lower orange-ochre section.

⁵²¹ A.H. Box "Horta-Etats Unis," manuscript folder "Amérique, conference: l'enseignement du dessin industriel dans les écoles sup," manuscript page no. 4-5. The text discusses the re-organization of the teaching of industrial design, describing the importance and the ways of observing nature.

edition, *The Flowers of Japan and the Art of Floral Arrangement*, featured illustrated views of interiors and detailed descriptions of how plants and decorative scrolls in the interior were adjusted according to ceremonial requirements and changing seasons: different specimens, combinations, and prints were placed inside the house to fit the changing seasons outside, so that nature in the interior was a continuation of the landscape outside. The sliding doors of the Japanese home opening directly onto gardens, the verandas, and the interior decoration contributed to a lifestyle that was closely connected to nature. The illustrations in the journals, the articles in *Le Japon artistique*, and the collections of prints are only part of a vast literature which conveyed a peculiar relationship between nature, architecture and man. Illustrations in journals and the hundreds of prints exhibited at the time show buildings that are part of landscapes, harmonizing with hills and benign vegetation in gardens, or inserted in dramatic cliffs and wild vegetation as in some of *Kokka's* plates. They show a peculiar relationship between nature and man which Masaharu Anesaki has summed up in *Art, Life and Nature in Japan*: nature becomes an intimate part of the life of the home, the garden becomes part of the house by means of light and open construction so that it seems to be an additional room, the interiors and daily objects are decorated with designs that take natural forms, or suggest natural phenomena, for example, wall niches painted to suggest mist. The Japanese interior and garden follow the changing faces of Nature. Only when the sliding panels of the verandahs are closed are the inhabitants shut away from the outside world. Yet, even then, Anesaki describes the rustling sound of these sliding panes at night caused by the wind, appreciated as poetic signs of the forces of nature at play and the approaching autumn. Life in the house unfolds in continuity with the cycles of nature outdoors.⁵²²

⁵²² Masaharu Anesaki, *Art, Life and Nature in Japan* (Boston: Marshall Jones, 1933), p. 35.

In this light, Horta's and Tassel's endeavor was similar: to construct a home life in intimate contact with nature, or rather, with images and ideas of nature suggested by light, décor, and the few potted plants. They could not open up the house onto the miniature landscapes of a surrounding garden, but they brought the suggestive images of nature inside the Belgian townhouse instead. Many years before, Édouard Morren exhorted locals to live in close contact with exotic nature by bringing the glasshouse into the apartment and the apartment into the glasshouse: the Japanese house, open and conceived as if it were part of the surrounding landscape is a response to this aspiration in reverse form.

Brussels's fervent artistic scene in the early 1890s shows that the vogue of Japanese art was concurrent with avant-garde manifestations that explored similar topics. Horta and Tassel were closely following both, but they were also closely related to another world of philosophical speculation and artistic research which explored analogous themes in the relationship between subject and environment: abstraction, images that are mysterious and suggestive of ideas of a higher order which engage the beholder by acting upon his intelligence as well as emotions, and set in play his associative imagination. The reader may recognize in these topics the language of Symbolist aesthetics, or of the Far East. But, the same ideas, were employed to define the nature of masonic architecture in extensive discussions that took place in the lodges. They stemmed from a conception of the relationship of the Freemasons to the world, and the masonic built environment as its representation. This conception, subject of the following chapter, brings together and expands previously outlined themes.

6. The Architecture of Freemasonry

6.1 Free Thinkers in nineteenth-century Belgium

“It seems that he is very good at wielding iron and knows all the styles,” Dom Hubert Casier writes of Horta in a 1904 letter to his superior. But, unfortunately, continues the monk, “he is going through a divorce, builds a Maison du peuple, and is affiliated with Freemasonry.” Horta was recommended to the monks by Lefebure to build a modern Swedish gymnasium in their Mariemont abbey. He had designed a similar facility before, the only one in the country, so the monk wants to retain his services despite his personal flaws. He attempts to persuade his superior by casting Horta in a better light, adding that he is by no means anti-clerical, does not attend the lodges regularly any longer, and that he was married to the daughter of “our compatriot Hijs, embroiderer of church ornaments.”⁵²³

When Horta entered Freemasonry in 1888, he joined a powerful force in Belgian society and thus aligned himself with one of the two antagonistic groups whose conflict had shaped the political and social history of the country since its independence. The Freemasons, as free thinkers and liberals, were a dominant force in the country’s intellectual, political and artistic life. At the time when Horta joined them, their activity in public sphere was on the rise. This explains why the Mariemont abbey was hostile territory to Horta. To understand the nature of this conflict and its implications for Horta and his circle, it is necessary to go back to its origins, in the unfilled

⁵²³ A.H. XX.3, Box “Maredsous,” letter from Dom Hubert Casier to Abbé Hildebrand de Hemptinne, 27 December 1904, transcribed copy (11 + 2 letters in total).

aspirations of the Enlightenment which marked the outset of political life in the new Belgian kingdom.

In 1831, the National Congress established a constitutional monarchy which, in an enlightened spirit, guaranteed freedom of the press and association, and free elections in a censitarian system.⁵²⁴ One of the most liberal political systems in Europe, Belgium allowed political activity to run in relative peace throughout the nineteenth century. The constitution determined the portion of the population which had the right to participate in political life and guaranteed their freedoms, but in the way it delineated this space, it also set the ground for future disputes. Two main groups emerged: the Liberals and Catholics, two parties which took turns governing the country, and carried on endless struggles over the separation of the church and state, secular education, cemeteries, public subsidies, etc. By 1886, the dispute over a secular education law culminated in violent clashes on the streets of Brussels.⁵²⁵

The dispute was political, but also cultural. At a deeper level, the two sides fought for the control over the “conscience” of the citizenry. The clergy was a powerful force in the countryside and

⁵²⁴ The right to vote was limited to males who paid property tax and were above a determined age. Belgian historian B.-S. Chlepner argues that even these limitations were placed in an enlightened spirit, to protect the vote from the influence of the clergy and patrons, the “spiritual and economic powers” of the time. (B.-S. Chlepner, *Cent ans d'histoire sociale en Belgique* [Bruxelles, Éditions de l'Université Libre de Bruxelles, 1972], p. 14)

⁵²⁵ For a social and political history of Belgium in this period see Gita Deneckere's *Les turbulences de la Belle Époque: Nouvelle histoire de Belgique, 1878—1905* (Bruxelles: Le Cri, 2010) structured as the history of the struggles for rights of three groups: workers, women and Flemish speakers; Chlepner, *Cent ans d'histoire sociale en Belgique*; Jean Puissant, “La question sociale dans l'historiographie en Belgique,” in *La Question sociale en Belgique et au Canada, XIX^e-XX^e siècles*, ed. Ginette Kurgan-van Hentenryk (Bruxelles, Éditions de l'Université Libre de Bruxelles, 1988). Puissant notes the responses of the two major political parties to the impelling socio-economic conditions: the “Manchesterian” wing of the Liberals believed in the *laissez-faire* doctrine; the Catholics blamed the disintegration of the social fabric begun in the French revolution, the indifference of the Liberals, but also the freedoms given to the press and assemblies which paved the way to Socialism. The Catholics victory in the 1884 elections exacerbated the conflict. They sought to settle the scores with a new education law that led to violent clashes on the streets of Brussels. The colloquium proceedings *1884: Un tournant politique en Belgique*, eds. Emiel Lamberts and Jacques Lory

the provinces where they controlled key aspects of daily and spiritual life. The Liberals sought to limit clerical influence, removing religion from education and civic matters. As the conflict grew, anti-clericalism became the rallying cry of a vast front that gathered radical and moderate elements. Pierre Van Humbeek, minister of a newly created Department of Public Education under the prime minister Frère-Orban and Gand Master of the Grand Orient, stated at the Grand Convent of the Masonic Loges in 1864: “a corpse lies over the world. It impedes the route of progress. This corpse of the past, to call it by its own name, is Catholicism.”⁵²⁶ Freemasons saw themselves as a driving force and the Liberal state as an instrument to implement their ideals. They were largely behind the creation of the first Liberal party and the Free University of Brussels, founded in 1848 by Pierre-Théodore Verhaegen (1796-1862) in response to the Belgian Bishops re-opening the Catholic University of Leuven in 1834. Verhaegen held the highest masonic rank as Master of the Grand Orient de Belgique, and lifted the ban on political discussions inside the lodges in 1854. From places of spiritual speculation and philosophical reflection, masonic lodges also became places of political action. As the Grand Master Éugene Goblet d’Alviella observed, “Liberalism, the Free University

(Bruxelles: Publications des facultés universitaires Saint-Louis, 1986) discusses the events of that year. In this volume, Jean Stengers’s contribution “Léopold II et le cabinet Malou (juin-octobre 1884)” notes that the King was at the height of his colonial project at the time (the following year, the Congress of Berlin recognized his claims), and only intervened in the perennial conflict around the secular education law to dismiss the most radical members of the Catholic cabinet and ease domestic clashes which could hinder his primary concern: the Congo.

⁵²⁶ [un cadavre est sur le monde. Il barre la route du progres. Ce cadavre du passé, pour l’appeler par son nom, carrément, c’est le Catholicisme]

Carton de Wiart, *Beernaert et son temps* (Bruxelles, La Renaissance du Livre, 1945), p. 50.

Van Humbeek and Bara, Minister of Justice, were among the most aggressive exponents of the lodges according to R. Desmed, “A propos du mémoire de la Loge des Amis Philanthropes sur l’enseignement primaire obligatoire et laïque, 1859-1860” in *Visages de la franc-maçonnerie belge du XVIIIe au XXe siècle*, ed. Hervé Hasquin (Bruxelles, Éditions Université Libre de Bruxelles, 1983).

and Freemasonry are the three children of the same mother: Free Thought.”⁵²⁷ Liberals counted among their ranks most of the country’s élite, they had press organs that ranged from daily papers to literary and scientific journals, and their own university. They controlled the administration of the capital, and over several legislatures, the central government. Yet the Catholic party remained powerful enough to prevent the settling of the conflict once and for all.

By the 1880s, the *laissez-faire* capitalism which had turned Belgium into an industrial power, and which none of the two main parties put into question, generated appalling social conditions. Vast sections of the population in the countryside and in industrial areas lived in dire poverty, devoid of political rights. The situation culminated in the violent strikes of 1884-1885 and political demonstrations demanding better conditions and universal suffrage in the southern coal regions, and the foundation of the *Parti ouvrier belge* in 1885. In 1884, the Liberals were wiped out of power in the general elections and the Catholics came back to govern until the start of World War 1. The new social and political situation of the 1880s exasperated the conflict not only between parties, but also between the conservative and progressive wings within each of them. Amongst the Liberals, a “Manchesterian” traditional wing was opposed to a progressive one which now gathered disparate radical, socialist, and even anarchist factions who had joined the party as the only way to obtain political representation. The Catholic senator De Wiart remarked that the multiple liberal factions seemed to disagree on everything, but were joined by the common cause of fervent anti-clericalism.⁵²⁸ In the following decades, laws were often passed not along party lines, but by aligning factions of each side.

⁵²⁷ Quoted in Jacques Lemaire, “Goblet d’Alviella, la loge des Amis Philanthropes et le Grand Orient de Belgique,” in *Eugène Goblet d’Alviella*, ed. Alain Dierkens (Bruxelles: Éditions de l’Université de Bruxelles, 1995), p. 139.

⁵²⁸ Carton de Wiart, *Beernaert et son temps*, p. 51.

The membership and activity of the masonic lodges which initially gathered Liberals as a cohesive group began to reflect these inner party divisions. Vevahene, for example, exponent of the doctrinarian wing, and Louis de Fré, representative of the radical wing were both members of the *Les Amis Philanthropes*, Horta and Tassel's lodges which counted about 500 members at the turn of the 1890s.⁵²⁹ But major disputes broke out within this lodges in 1892 and 1894. In 1893, Elisée Reclus (1830-1905), professor of geography at the Free University, Freemason, anarchist, participant in the Paris commune who had remained in contact with revolutionary circles ever since, was invited to give a conference in the lodges to the open disagreement of many.⁵³⁰ The spectrum of Free Thought had simply grown too wide to accommodate traditionalist and radical elements in one lodges so that in 1892, Goblet d'Alivella, Venerable Master, was called first to keep the lodges together, then, in 1894, to mediate the inevitable schism, then, again to mediate over subsequent disputes over properties and name continuity.⁵³¹

Horat joined Freemasonry in the late 1880s. In his memoirs he aligns himself with a progressive camp opposed to the established conventions of the time and whose members identified themselves as "reds" without having to read the "theories of Marx" [sic].⁵³² Progressive ideas and a general spirit of opposition towards social, economic and artistic conventions of the time permeated the groups he had joined: his lodges, the Free University where he taught, the circle around Solvay, and, more generally, the artistic circles of the capital. He and Tassel found themselves not only on one side of political and social conflict in the country, but in the middle of raging disputes within

⁵²⁹ Dierkens, ed., *Eugène Goblet d'Alviella*, p. 233

⁵³⁰ Jacques Lemaire, "Goblet d'Alviella, la Loge des Amis Philanthropes et le Grand Orient de Belgique," in *Eugène Goblet d'Alviella*, edited by Alain Dierkens, p. 142.

⁵³¹ Goblet d'Alviella, "Fifty years of Masonic life in Belgium," *Ars Quatuor Coronatorum* 33 (1920), p. 235.

⁵³² Horta, *Mémoires*, p. 43.

their own side. This activity kept the masonic lodges in close contact with major contemporary issues. At the close of the century, social upheavals combined with modern scientific inquiry renewed the hope for a new form of social science. Solvay's support of the twin research in natural and social sciences, his universal theories, his participation in politics as Liberal member of the Senate and donor to the Socialists in 1890s were aimed at improving society. To him, the most compelling aspect of this situation was the *inevitability* of change and he endeavoured to guide its course.⁵³³ Masonic philosophy offered its own set of responses to the problems of the time through the cultivation of the individual, his conscience and association with similar fellows, ideas which influenced the conception of social relations, nature and the built environment in the world.

⁵³³ In their *Vie d'Ernest Solvay*, Héger and Lefebure have traced his growing awareness from the 1870s, in the bloody aftermath of the Paris Commune when Solvay realized the inevitability of social change, but also the need to guide it and avoid similar consequences in Belgium where, from the 1880s, the so-called social question was pressing. Héger and Lefebure follow his activity into the 1890s when he made large donations to the Socialists. Horta also mentions Solvay's financial support for the Maison du Peuple, inaugurated in 1899 (*Mémoires*, p. 58). He obtained this commission thanks to the appreciation of his "*manière esthétique*" among influential intellectuals of the Parti ouvrier, but also thanks to their close connections to the group around Solvay.

6.2 The migration of symbols in masonic architecture

An engraving published in the Catholic weekly *Le Patriote illustré* in 1890 purported to show the masonic conspiracy underway at the time (Fig. 6.1):⁵³⁴ the view was placed within an Egyptian frame featuring the roll molding of a portal, topped by a gorge with the winged disk, the square, the compass, and a double uraeus at the centre. At the bottom of the frame, a narrow strip showed the Pyramids of Giza at night with the great Sphinx silhouetted in the foreground. Along the side, an Egyptian profile figure, standing on top of a larger sphinx head, pulled a curtain aside to show the main view within the trapezoidal frame: a ritual underway in a masonic temple. Two free columns stand near the entrance. At the opposite end, on a podium, sits the Venerable Master. To his sides are the symbols of the crescent and the sun. The vaulted ceiling above is dotted with the night stars. The attendees are seated in rows on each side of the hall, divided by a central passage in which the novice is being accompanied towards the master. The illustration is a parody of the ritual and an allegory of the vast masonic conspiracy underway. The interior shown is an accurate representation of the main hall of the temple of *Les Amis Philanthropes* at 8 rue Persil in Brussels. It was designed by the architect Adolphe Samyn and consecrated in 1879.⁵³⁵

Samyn's main hall is framed by colossal semi-detached columns, six on each long side and two framing the entrance portal, comprising sphynx heads atop palmiform capitals and stylized vegetal decoration in the lower section (Fig. 6.2-6.3). The vertical bays contain scenes from masonic mythology that take place in the Middle East such as Hiram's myth and the construction of the

⁵³⁴ *Le Patriote illustré* (27 juillet 1890), reproduced in "Musée virtuel de la musique maçonnique," <http://mvmm.org/c/docs/loges/AP.html>

⁵³⁵ Samyn's project was published in *L'Émulation* (1884), pl. 29-32, showing plans and sections. For a discussion of the architecture see Eugène Warmenbol, "Des sanctuaires de style égyptien pour y pratiquer des rituels mystérieux," in *Franc-maçonnerie et Beaux-Arts*, eds. Loir and Lemaire, p. 203.

Temple of Solomon, and an upper register with flat decorations showing a screen of two Egyptian columns and a verdant background behind, conveying the idea of an opening towards the Nile landscape. The theme of the engraving in *Le Patriote illustré* is well coordinated with the architecture of the temple, and with the full-fledged Egyptianizing décor that swept Belgian Freemasonry lodges after the 1870s.⁵³⁶

The neo-Egyptian style was typical of continental lodges, but it was particularly pronounced in Belgium. It represented a broader affiliation between Freemasonry and Egyptian civilization.⁵³⁷ One masonic tradition traced its origins in Egypt, the other in India. Egypt was the cradle of the first civilization, of all religions and the universal religion of nature which preceded Christianity and

⁵³⁶ Nefontaine, “L’architecture maçonnique, entre kitsch et néo,” in *Franc-maçonnerie et Beaux-Arts*, eds. Loir and Lemaire, p. 179.

Les Amis Philanthropes was founded by French officers and local citizens in Brussels in 1789 while the Egyptian campaign was underway. It was one of the mobile military lodges founded by officers, a common practice at the time. The lodges of the eighteenth century were often rented spaces, in which the décor consisted of a symbolic mat laid on the floor and other accessories placed around it to symbolize the columns, the light, etc. Over time, they morphed into a permanent décor, which, in the case of Belgian lodges, drew heavily from Egyptian iconography. The first atelier of *Les Amis Philanthropes*, inaugurated in 1798, included some Egyptian symbols: the figures of Osiris, Isis and Horus, hieroglyphs, the three animal heads of Ibis, Apis and Anubis. A terracotta figure of a thoughtful Isis was executed by the sculptor Gilles Lambert Godecharle in 1806, affiliated with the lodges *Les Vrais Amis de l’Union* (Warmenbol, “Des Sanctuaires de style Égyptien,” p. 192). The lodge changed locations several times before it finally settled in new quarters designed by Samyn in 1877.

⁵³⁷ Warmenbol has traced this affiliation to the first work that makes an implicit relation between the mysteries of Egypt of the Graeco-Roman period and the mysteries of Freemasonry, a book by the French abbot Jean Terrasson (1660-1750), *Séthos, Histoire ou vie tirée des monuments anecdote de l’ancienne Égypte*, first published in 1730, re-edited and translated in several languages over the next hundred years (Warmenbol, “Des Sanctuaires de style égyptien”, p. 187). *Séthos* was a reference for the first Egyptian rites and it inspired renowned works such Mozart’s *Die Zauberflöte* (1791). Karl Friedrich Schinkel, who designed the stage for its production in 1816 set the masonic themes of the libretto in a décor that combined his own imagination and the Romantic vision of Egypt. His stage views showed colossal Egyptian monuments and natural landscapes that seem to belong to a remote epoch. Published as a set of thirty-two designs from 1819, they spread in European libraries showing how an imaginary Egypt could serve as a setting for contemporary masonic rituals. (See James Steven Curl, *The Art and Architecture of Freemasonry: An Introductory Study* [London, Batsford, 1991], pp. 126-129.) In the latter nineteenth century, Warmenbol lists among the key sources Émile Prisse d’Avennes’s *L’Histoire de l’art égyptien d’après les monuments*, published from 1878.

provided further connotations in the anti-clerical struggles in Belgium.⁵³⁸ Egyptian architectural references were fueled by research and speculation on symbolism and affiliations in the ancient civilizations of the Middle and Far East. Influenced by archeology and the trend of comparative studies, discussions on these topics were regular in lodges at the time when Horta joined. This atmosphere renewed his contacts with non-classical traditions and a series of considerations on the nonobvious meaning of symbolic motifs, of which the recent Egyptianizing architecture of the temples was only one example.

Architectural historian James Steven Curl has traced the general Masonic attraction to Egypt to the rise of Egyptology during the Napoleonic expeditions. The effect of awe caused by the first hieroglyphs resulted in the subsequent obsession with symbols in general. Hieroglyphs were the epitome of the Masonic symbol, hermetic and repository of a secret that was no longer accessible. They became a means to express higher truths, while at the same time, concealing them from the profane.⁵³⁹ This was perceived to be a dominant trait of most Egyptian things, and even pyramids appeared as incomprehensible concepts.⁵⁴⁰ The Egyptianizing décor had one root in the image of the cradle of civilizations from which Freemasonry claimed to descend, the other in the vogue of non-Western references in the eclectic architecture of the latter nineteenth century. Poelaert's Palace of Justice, for example, begun in 1866, incorporated Egyptian and Assyrian elements as Horta observed later.⁵⁴¹

⁵³⁸ See Eugène Warmenbol, "L'Égypte, trois pointes, c'est tout," *Les Cahiers de l'urbanisme*, no 37 (December 2001), and Luc Nefontaine, *Symbole et Symbolisme dans la franc-maçonnerie* (Bruxelles: Éditions de l'Université Libre de Bruxelles, 1994), p. 27.

⁵³⁹ Curl, *The Art and Architecture of Freemasonry*, p. 41

⁵⁴⁰ Jean-Marcel Humbert and Clifford Price, eds., *Imhotep Today: Egyptianizing Architecture* (London: University College, Institute of Archeology, 2003), p. 25.

⁵⁴¹ A.H. Box "Horta Etats Unis, textes de conférences, notes diverses," Manuscript notes on Belgian art and architecture.

An additional characteristic of continental masonic temples made Egyptian architecture suitable. Unlike their English and American counterparts, housed in buildings with a prominent front on the street, the exteriors of continental masonic temples were kept discreet. As Belgian scholar Luc Nefontaine observes, this characteristic dated back to the eighteenth century and arose from the need for secrecy.⁵⁴² Elements of Egyptian architecture such as blind walls with small openings and massive pylons responded to the need for physical discretion and provided the deeper symbolism of the temple as a secret place, hidden off from the exterior world, yet intelligible to the initiated few who could read its façade. The separation was due to practical and symbolic needs. Closing off meant discretion, protection, but also separation between the corruption of the exterior world and an interior where the light was guarded.

The entrance of the lodges of the *La Parfaite Intelligence* at boulevard d'Avory 172 at Liège (Fig. 6.6) has a narrow Egyptian portal, covered with symbols under a gorge, which opens into a vast building. Three steps give access to the interior, five to the hall, and seven to the podium of the master's throne. According to Warmenbol, the number three symbolizes enlightenment, five represents guidance, and seven represents that which renders just and perfect.⁵⁴³ The Temples of *Les Amis du Commerce* and *La Perseverance* in Antwerp, built from 1875 and inaugurated in 1883, were thoroughly re-decorated *à l'égyptienne* by local Antwerp architects François Laout and Jean-Laurent Hasse, and Adolphe Samyn from Brussels.⁵⁴⁴ The exterior consisted of a blind wall with a range of small openings above the main entrance. The main rectangular hall was framed by two rows of semi-engaged columns with palmiform capitals. At the far end of the hall, the throne of the Venerable

⁵⁴² Nefontaine, "L'architecture maçonnique, entre kitsch et néo," pp. 175-76.

⁵⁴³ Warmenbol, "L'Égypte, trois pointes, c'est tout," p. 63.

⁵⁴⁴ Warmenbol, "Des Sanctuaires de style Égyptien", p. 198.

Master was raised on a podium of seven steps. The temple at rue d'Ursulines in Brussels, designed by Adolphe Vanderheggen and Alban Chambon in 1899, drew from an Assyrian-Babylonean repertoire.⁵⁴⁵

Egyptian iconography was only one of the sources in a vast field of archaic symbols of ancient civilizations which attracted Freemasons. Freemasons inquired into the symbols' meaning, origins and affiliations, combining extensive speculations with scholarly research. *Les Amis Philanthropes* had its own library and a museum founded by Pierre-Théodore Verhaegen in 1833, where regular lectures on symbols were held.⁵⁴⁶ Prominent Freemason scholars contributed to the program of the lodges with lectures on the ancient religions of the Middle and Far East. Eugène Goblet d'Alveilla (1846-1925), initiated at *Les Amis Philanthropes* in 1870, and elected Grand Master of the Grand Orient de Belgique in 1884,⁵⁴⁷ professor of the history of religions at the Free University of Brussels between 1884-1914, and author of the renowned *The Migration of Symbols* (1891) which sought to prove in his lectures the affiliations between the primordial settings of the mysterious ritual, the architecture of ancient temples, and contemporary masonic halls.⁵⁴⁸ Goblet d'Alveilla saw in symbolism a powerful aesthetic force to convey the "unseen realities of human life,"⁵⁴⁹ from the archaic age to recent ones. In his inquiry, the first ideographs represented the two phenomena of nature that impressed archaic man the most, the outstretched firmament of the sky

⁵⁴⁵ See Éric Hennaut, "Le Temple 'assyrien' des Vrais Amis de l'Union et du Progrès Réunis réalisé par Alban Chambon, rue des Ursulines à Bruxelles, 1898-1900," in *Franc-maçonnerie et Beaux-Arts*, eds. Loir and Lemaire.

⁵⁴⁶ Laetitia Carlier, "Le Musée belge de la franc-maçonnerie", in *Franc-maçonnerie et Beaux-Arts*, eds. Loir and Lemaire, p. 163.

⁵⁴⁷ Delsemme, "Écrivains belges francs-maçons," p. 315.

⁵⁴⁸ "Les mystères de Mithra et la franc-maçonnerie (meeting of 2 March 1899), quoted in Hennaut, "Le Temple 'assyrien' des Vrais Amis de l'Union et du Progrès Réunis," p. 249.

⁵⁴⁹ George Birdwood, introduction to Goblet d'Alviella, *The Migration of Symbols*, 1894 (Reprint, New York: Lenox 1972), p. viii.

above, and second, the miracle of renewal which he saw in vegetal, animal and human life. From the second group developed the realistic types of the “Tree of life” such as the phallic flower and trees, and the lotus bud and the palm, symbols that migrated from one civilization to another and represented the generative power of nature. Hence, the two symbolic palm trees which appear in the adorning of King Solomon’s temple in the Old Testament, on each side of the entrance accessed by seven steps.⁵⁵⁰

Goblet d’Alveilla’s work is only one of the numerous nineteenth-century comparative studies on symbolism, read by a restricted public. But his presence within the lodges of *Les Amis Philanthropes* brings him close to Horta, Tassel and their circle, initiated into Freemasonry in this atmosphere. To Horta, discussions on specific symbols would have complemented his contacts with similar ideas combining botany and semiotics, including those in French architectural theory and the studies on the art and the philosophy of nature of the Far East. We find the idea of a generative nature and the specific example of the symbol of the iris in both Goblet d’Alveilla’s “Tree of life” and in Viollet-le-Duc’s analysis of medieval ornament, based on E.-J. Woillez’s symbolic reading. In the article “Flore” of his *Dictionnaire*, Viollet-le-Duc traced the significance of the iris flower in Romanesque ornamentation, referring to Woillez who proposed a similar symbolic arguing that the medieval artist selected the iris because it was a symbol of the “imperishable generative power” of nature.⁵⁵¹ The plant lived on humid soils and flourished cyclically in the first days of spring, announcing the awakening of the vegetal world and regenerative power behind the perpetual cycles of nature. It embodied the symbolism of the phallus which, transfigured, descended from paganism

⁵⁵⁰ Ibid., pp. xiv-xv. The passage is drawn from I Kings VII, 29-35.

⁵⁵¹ [puissance génératrice impérissable]

Viollet-le-Duc, *Le Dictionnaire*, p. 158.

to Christianity. Goblet d'Alveilla referred to this process as migration, arguing that religious symbols common to different civilizations did not originate independently. It is difficult to state what Horta retained from Viollet-le-Duc's article "Flore," Ruprich-Robert's references to the bud, or Conder's explanation of the central role of the stem, the bud, and the idea of a generative nature in Japanese art. But, symbolical images of the generative power of nature circulated throughout French ornamental theory, Japanese studies and masonic speculation, all fields to which he was related, and we finally find the figure of the bud atop the two columns in the Hôtel Tassel's wintergarden generating the ornamental profusion, an aspect to which we shall return, and we read Horta declare to Guimard in the late 1890s that he does not base his décor on the flower, but the stem, one of the scant statements in which he describes his method at the time.⁵⁵² Masonic speculation continued to inquire into the meaning of specific symbols. More important to the evocative power of Horta's architecture is the idea of motifs laden with nonobvious meaning, which convey the "unseen realities of human life."

Concrete masonic symbols and references to Egyptian architecture appeared in Horta's works in the aftermath of his initiation and before the Hôtel Tassel's commission. Masonic symbols are featured in banquet invitations that he designed for the lodges in 1889-1891.⁵⁵³ Egyptian elements and masonic symbols appear on the Autrique House's façade, begun only a few weeks earlier, as Hanser and Goslar have established. At the Hôtel Tassel, they are not prominent, but they are still present, domesticated in a classical façade which Willis sees as an "Italianate composition of

⁵⁵² [ce n'est pas la fleur, moi, que j'aime à prendre comme élément de décor: c'est la tige]
Victor Champier, "Le Castel Béranger et M. Hector Guimard," *Revue des arts décoratifs*, no. 1 (January 1899) p. 9.

⁵⁵³ A.H. XIX "Menus" folder containing several drafts.

Egyptian connotations” that combines the *palazzo*, the townhouse and the Egyptian temple.⁵⁵⁴ Clear references comprise the abstracted Egyptian gorge above the main door, inserted in a deeper plane between the two consoles, the lotus-shaped ironwork on the two windows of the main floor, and the narrow apertures placed in plain projecting stone frames on the upper floors.⁵⁵⁵ Horta applied the same type of apertures in the rear of Lambeaux’s pavilion (Fig. 5.6), giving this classical work its own “Egyptian connotations.” His architecture thus combines deliberate references and reminiscences that result from an approach to classical design, but may not have been intentional.

Underlying these references is the shadow of Balat’s classicism which, in the Hôtel Tassel’s façade, coexists with the opposite conception of form in the classical spectrum: plain masonry surfaces, apertures with no markings that may owe to his dictum of simplification coexist with delicate volutes that bracket the protruding central volume (Fig. 1.23). The massive appearance of the masonry side bays and the extremely narrow windows carved within the plane give the façade its Egyptian “connotations,” but they also owe to Balat’s dictum of simplification. In Balat’s architecture too, contemporaries saw Egyptian connotations which were not deliberate references, but a result of his simplification in design, as Bordiau remarked on the Museum of the Fine Arts:

Conceived in the classical style, it clearly bears no relationship to the temples of Egypt, yet, it evokes an idea of them, because, just as the Egyptians did, Balat pushed the grandeur of his style in the deliberate suppression of superfluous detail, in the development of long horizontal lines which give a profound impression of calm, strength, and permanence.⁵⁵⁶

⁵⁵⁴ Willis, “Mannerism, nature and abstraction,” p. 32.

⁵⁵⁵ Aubry indicates these elements in a façade that combines “Egyptianizing details” with “classical citations” in her “Horta et la tentation classique: Vers le Palais des Beaux-Arts,” in the proceedings *Colloque Horta*, p. 22. She also mentions an abandoned decorative scheme *à l’égyptienne* with the artist Fernand Dubois for the drawing room, which is discussed in greater detail by Hanser in “The early works of Victor Horta,” p. 281.

⁵⁵⁶ [conçue en style classique, n’a évidemment pas le moindre rapport avec les temples de l’Égypte, et cependant elle en évoque l’idée parce que, à l’exemple des Égyptiens, Balat à puisé la grandeur de son style

Vague Egyptian connotations acquire a new significance in the houses of Tassel's masonic circle. At the Autrique House, designed a few weeks before the Hôtel Tassel, the plan is conventional, but the façade is unusual and some of these symbols are explicitly drawn from Egyptian iconography. Horta employed Egyptian symbols to mark the status and affiliations of its owner, a common strategy on the city's residential façades. Plastic considerations turned these symbols into decorative motifs that increase the expressive charge of the façade. The common argument is that masonic symbols are generally absent in the architecture of the contemporaneous Hôtel Tassel, and this difference with the Autrique House has elicited several explanations. This, however, is not true. Horta and Tassel deployed symbols and above all, another set of ideas regarding nature and architecture from masonic philosophy better suited to other quests in the program of the house and to Tassel's fascination with the art of the Far East. The predilection for Japan may be another reason why he and Horta discarded Egyptian iconography in the house. The Autrique House, where such symbolism has been identified, is important in this lineage, in that it attests to the deliberate references to masonic themes for this group of clients in this stage of Horta's career, and it requires a brief survey before turning to the investigation in Tassel's house.

dans la suppression voulue du détail superflu, dans le développement des longues linges horizontales qui donnent une impression si profonde de calme, de puissance et de durée]
Bordiau, "Notice sur Alphonse Balat," pp. 19-20.

6.3 The Autrique House

Autrique's commission was the first from the new circle of friends. Horta acquired the lot put up for public sale at 236 chaussée d'Haecht (today 266) on his friend's behalf in April 1893.⁵⁵⁷ The building permit was submitted on 15 June 1893, only two months before the Hôtel Tassel's. By March 1894 Horta's agendas indicate that the roof was finished, suggesting that the façade was largely complete by then.⁵⁵⁸ During this period, Horta worked contemporaneously on the two houses for Autrique and Tassel. The chronological overlap is important when considering the development and the possible migration of decorative themes.

The interior of the Autrique House is conventional. It occupies a 7.10 m wide, 16 m deep lot, and it follows the typical plan of the Belgian townhouse: on the ground floor, the sequence of three rooms ends with a verandah which looks onto the back garden. The narrow corridor, 1.45 m wide, is raised above the basement, accessed through a wider entrance vestibule on the street level. Exposed iron beams between pairs of marble pilasters in the drawing rooms and two Japanese-inspired stained glass panels in the light wells of the first intermediate landing of the staircase are some of modern fittings in the interior. A single post of the wooden balustrade carved in an organic form and, spreading from the point where it touches the floor, and the mosaic swirling lines superimposed on thinner arcs are the most striking element of the décor on the ground floor. But, they are isolated elements, not part of a comprehensive decorative scheme, and given their close

⁵⁵⁷ Yves Deplasse, "The Maison Autrique and its dwellers," in *Maison Autrique: Metamorphosis of an Art Nouveau House*, eds. Schuiten and Peeters, p. 33. It features as illustration the notarial purchase act, showing the price of 11.838 fr. at the time.

⁵⁵⁸ A.H. Memento for the year 1894, *Mon agenda 1894*: 24 Mars, terminé mansarde Autrique 2e étage.

affinity with motifs developed for the Hôtel Tassel, it seems possible that they have migrated here from the latter project.

The Autrique House's façade, however, is unconventional and it stands out in the street frontage (Fig. 6.8). It pre-dates the Hôtel Tassel, and it already possesses the strangeness of Horta's subsequent Art Nouveau works. Several elements create this effect. Horta manipulated the scale of components to make them appear larger, added sculpted components that seem to emerge from the background or clasp adjacent architectural members, and he included a series of symbolical elements.

Though Autrique's budget was modest, Horta sought to confer a monumental aspect to his house and a higher status to its owner. He forfeited his fees to allow stone facing rather than brickwork. He designed the units of masonry delineated by red mortar joints into larger blocks, and enlarged the openings on the façade. The single large window of the ground floor, for example, is divided into three bays by iron colonnettes so that it gives the idea of three windows instead of one (at the time, owners were taxed based on the number of windows on the façade). He emphasized the vertical proportions so that the whole appears taller, and employed to a similar effect ornament such as the pointed-arch frontispiece above the main door that emerges seamlessly from the main plane. As Hanser has already observed, he had also manipulated the scale of his three houses in Ghent to make them seem larger than their neighbors.⁵⁵⁹ The most important device to create the monumental effect was the false loggia, a solution Horta had already employed in the "El Dorado" café-concert project. "The façade had an element of distinction that had not been applied yet, Horta writes in his memoirs, the brickwork mansard covered by a sgraffito and protected by the low

⁵⁵⁹ Hanser, "The early works of Victor Horta," p. 137.

cornice of the roof, which gave it the aspect of a house with two floors [above the ground one] instead of the house with a single floor.”⁵⁶⁰

Design operations of this kind are easier to grasp by looking at the architecture of the time, Horta’s previous designs and his own words, but the meaning of the second type of inventions which comprises the ornamental motifs is harder to access. In the loggia, the sgraffito and the prominent sculpted element which connects the parapet to the central roof post (Fig. 6.9) are the most puzzling ones. The sculpted element suggests a meeting point of different architectural elements and the transfer of structural forces from the post to the parapet. Seen on the central axis of the façade, it is designed to be seen immediately in front of the sgraffito, and they seem to complement each other. It also appears to have a further meaning. Other decorative elements of this type include the two prominent finials on top of the façade, the profiled blocks on the windows in the *bel étage*, or ironwork in the basement window and the transom panel above the main entrance. Horta elevated the status of the owner, but he also indicated Autrique’s affiliations with symbolic images. When Horta commented briefly on the façade, he explained why some of the innovative elements were clever solutions, such as the insertion of the loggia, or when he writes, “I turned the air inlets from an industrial element into an interesting architectural decorative motif.”⁵⁶¹ But, he remained silent on the meaning of such imagery.

⁵⁶⁰ [La façade avait un élément de distinction non encore appliqué, la mansarde en brique recouvert de grattifi et protégé par la corniche base du toit, qui donnait à l’ensemble l’aspect d’une maison à deux étages pour le prix d’une maison à étage unique]

A.H. Digitized manuscript of *Memoirs*, page 24. This passage on the Autrique House varies slightly from the one published in Dulière’s edition.

⁵⁶¹ [j’ai fait des trous d’air un motif décoratif élément d’architecture intéressant d’industriel qu’il était]
A.H. memento for the year 1895, résumé p. 4, C2.

The Autrique House was the first commission from the new circle of masonic friends. It is also the first one in which prominent elements with a nonobvious meaning begin to appear. Hanser, the first to provide a full analysis of the iconography of the façade, divides it three groups: Symbolic images that are certain and intelligible, symbolic connections that are possible and may be only be established hypothetically, and symbols that may have been incorporated into the design but were only apprehended by a limited circle and are no longer intelligible to us.⁵⁶² The triangles in the decorative ironwork of the basement windows grills, for example, may be allusions to the masonic compass. The motif in the transom grill of the main door may contain allusions to the pyramid shape, to the A in Autrique's name, and to a double snake, or a combination of these. The two finials atop the party walls may symbolize Horus falcons.⁵⁶³ The most significant elements are the sculpted cartouche on the parapet of the loggia and the linear ornamentation of the sgraffito on the attic wall, which appears to be "symbolic, iconic, or representative." To Hanser, the central spade-shaped figure with undulating protrusions in the sgraffito suggests a polyp with tentacular extensions, the rectangular segments traced along the undulating lines suggest its abstracted suckers, and the horizontal stripes in the background represent the stylized water waves in which it is swimming.⁵⁶⁴ Finally, taking into account Egyptian and masonic references, the sculpted element may denote an Egyptian uraeus.⁵⁶⁵ Dirk Van de Vijver believes that the sgraffito is not a polyp, but another abstraction of the uraeus, with the front and side represented in a single image (Fig. 6.9. The

⁵⁶² Hanser, "Victor Horta, Art Nouveau and Freemasonry," p. 21.

⁵⁶³ Ibid., p. 30, and illustrated in "The early works of Victor Horta," p. 640.

⁵⁶⁴ Ibid., p. 29. The pattern is then liquid rather than vegetal, and the scene is maritime. Further support to this hypothesis in the fact that at the same time, Horta and Tassel were contemplating the infelicitous idea of decorating his drawing room with the scene of a *cortège marin* which featured Tassel portrayed as a triton. Traces of this abandoned decorative scheme were found during the restoration of the Hôtel Tassel.

⁵⁶⁵ Ibid., p. 26.

representational convention combining front and sides in one image was common in Renaissance decorations.⁵⁶⁶ This interpretation finds further support in the image of the cartouche: if it is intended to denote an uraeus from the front, then, it makes sense to have the outline of the head and the double body represented immediately behind.

Hanser's investigation is part of his larger analysis of the origins of Art Nouveau. He argues that the inherent abstraction in masonic and Egyptian iconography played a crucial role in the genesis of the new decorative style. Horta began with intelligible symbols as new references, which are still traceable at the Autrique House, but as his style evolved, he discarded the early iconographic sources altogether. Hanser traces this evolution within the decorative repertoire of the Autrique House's façade, from clearer Egyptian motifs in which symbols are still intelligible to the linear attic decoration, more abstract and personal. The new style gradually assumed an expressive charge of its own, resulting in greater abstraction and the disappearance of the original masonic motifs. It matured rapidly into a personal style by the time he deployed it at the Hôtel Tassel.⁵⁶⁷

Hanser argues that masonic references are absent at the Hôtel Tassel and proposes Horta's stylistic development as its cause. Goslar maintains Hanser's position that there are no masonic references at the Hôtel Tassel, with the possible exception of the two iron columns at the entrance of the stairway hall. She concludes that Horta applied masonic iconography only in monuments such as funerary works, or private accessories such as medals and his baronial insignia.⁵⁶⁸ At the Hôtel Tassel, Horta continued to employ Egyptian references: not symbols such as the uraeus, the sphinx, or falcons, abstracted further to make them less intelligible or because of a rapid stylistic development,

⁵⁶⁶ Van de Vijver explained this possible interpretation during a conversation we had in 2019.

⁵⁶⁷ Ibid., p. 31.

⁵⁶⁸ Goslar, *Victor Horta*, p. 48.

but architectural elements such as the portal alongside masonic symbols (Fig. 1.22). Horta and Tassel drew from a different set of themes that were not always iconographic, but included ideas on the space where the masonic ritual takes place and the symbols are deployed. In the spatiality of the masonic experience, symbols are only one component.

6.4 Nature and ritual in masonic architecture and in the Hôtel Tassel

A few symbols are intelligible at the entrance to the Hôtel Tassel. The ironwork of the two main-floor windows is shaped after lotus motifs (Fig. 1.22). The abstract motifs of the stained-glass panels of the double door leading into the main vestibule contain flowers closely resembling the pentagram, a masonic symbol. (Fig. 1.3, Fig. 1.17). Horta had previously employed the star in other designs for the masonic lodges such as the banquet invitations (Fig. 6.7). In those posters the stars blended with naturalist motifs, but at the Hôtel Tassel, they are integrated with an abstract design. Other symbols may be abstracted and hidden throughout the décor. However, the most important connections point not to symbols, but to the general spatial characters of the masonic temple: This environment has shaped the configuration of the plan and the décor of the interior.

The setting of the masonic ritual existed in concrete examples of temples built in Belgium, well-known to Horta and Tassel. But it was also a theoretical space, described and prescribed in works dating back to the eighteenth century which were known to the members of the lodges. The lack of hard evidence implies that these relationships may be only established by comparing the architecture of the house to the descriptions of the masonic space by scholars who have conceptualized its key aspects and its historical development. It should be also pointed out that spatial ideas regarding masonic rituals had a privileged status in the vast array of sources Horta and Tassel could draw from. They represented a philosophy of the world which they embraced when they were initiated into Freemasonry.

Links between the architecture of the house and the masonic space may be established in three main aspects: The succession of spaces in a progressive, axial route; light as allegory and

physical presence in the interior; and third, the idea of an affective environment. In these three general aspects, masonic themes are combined with converging design references. They are only one in a sequence of relationships found in the architecture of the house.

The first relationship emerges in plan. The spaces are placed in succession on a central axis, developing progressively in a way certainly rooted in the Beaux-Arts compositional method. Indeed, Loyer criticizes Horta's pursuit of theatrical effects through what appear to him to be outdated Beaux-Arts devices. But, the plan of the house also suggests the idea of a route, a progression through rising planes, from the lower, darker entrance to the light of the wintergarden. It suggests that the axis and the progression of the masonic ritual may also have inspired the layout of the plan. Horta and Tassel were as familiar with the Beaux-Arts as with the masonic plan, which, as design devices, were both foreign to the architecture of conventional Belgian townhouses.

The layout of the masonic temple is determined by the ritual which is progressive and takes place in successive spaces. Each of them represents a distinct step of the initiation which proceeds along the central axis and is marked clearly in the ritual and in physical space. An example from the eighteenth century contains four quarters arranged in sequence in the established scheme (Fig. 6.5).⁵⁶⁹ The first quarter is accessible through the main door which separates the area of the lodges from the profanes. On each side of the entrance there are two smaller rooms contained in the first quarter. When the novice arrives, he is initially left in the first quarter in complete darkness. The second quarter is accessible through a second door and it also contains smaller rooms to each side, for washing and preparations as the novice proceeds towards the main hall. The third quarter is the

⁵⁶⁹ Gabriel-Louis Pérau Larudan, *Les Franc-maçons écrasés* (Amsterdam, 1747), p. 153. Larudan's book, in the tradition of outsiders who sought to expose the movement, describes in detail the masonic rituals and the plans of the halls where they took place. His examples from Berlin, Paris, London and other cities in Europe share key components and arrangement in plan.

main masonic hall where the initiation of the novice and the promotion of brothers take place. This is the main space of the lodges in which the “mystery is celebrated,”⁵⁷⁰ and the novice receives the light. The sequence is closed by the last quarter in which dining and banquets for the members take place, and a sixth additional hall that serves as a kitchen.

Purposely built lodges in the nineteenth century added a second component to mark the passage from one quarter to the other, which also corresponded to specific stages of the initiation ritual. They were steps to mark the rise from one quarter to the other, from the main entrance to the main hall, then the podium where the throne of the Master is elevated. At the Egyptianizing Loge des Amis Philanthropes, a series of intermediate rooms for the rituals of entrance, admission and preparation are placed between the exterior door and the vestibule to the main hall, accessible through a flight of seven steps. At the Egyptianizing Grand temples of *Les Amis du Commerce* and *La Perseverance* united, in Antwerp, or *La Parfaite Intelligence* in Liège, the procession route begins at a narrow entrance between exterior blind fronts and it ends at the throne of the Venerable which is raised on a podium accessible by steps whose number, seven, symbolizes the attainment of justice and perfection.

The plan of the main floor of the Hôtel Tassel contains the succession of dark to light spaces, the sequence of quarters, and a central route through delimited quarters and smaller rooms to its sides, which suggests the procession route of the ritual, similar to the ones described by Lauredan over a century and a half before. Horta’s plan contains at least five quarters arranged in a sequence, a central axis running from the entrance to the far end, and it provides access to smaller “dark” preparatory rooms to the right and the left. The first quarter is the vestibule and a low hallway under

⁵⁷⁰ Ibid., p. 149.

the mezzanine, the second is the larger octagonal hall. To the left on the plan, are the cloakroom and the lavatory and to the right, the parlor for guests who were not admitted into the rest of the house (above it is a photographic dark room at the level of the mezzanine). Further down the sequence the vestibule leads into the main glazed court, then to the quarters of the drawing and dining rooms. The glazed court is at the center of the house and receives light from above. It is placed on the central axis. It is accessed between two iron columns at its entrance, on top of which spring the crown of tendrils. It is accessed through a flight of seven steps.

George Birdwood noted the migration and transmutation of this symbolic device in his introduction to the English edition of the Goblet d'Alviella's *The Migration of Symbols*. The archaic symbols of the Tree of Life evolved into the two palm trees on each side of a flight of seven steps at the entrance of King Solomon's temple, described in the Old Testament, which then became a reference to the two columns at the entrance of the masonic hall—columns which in the original biblical account were built of metal (Fig. 6.4). At the Hôtel Tassel's wintergarden, the two iron vertical elements flanking the main landing contain the symbolism not only of the two entrance columns, but also of the two palm trees of the earlier version, suggested by the tendrils which spring atop. The symbolic importance of the seven steps seems confirmed by the fact that Horta proposed the same number to access the main floor from the vestibule in the townhouse of another Freemason client, the lawyer Maurice Frison who contacted him in 1894 while construction at the Hôtel Tassel was still ongoing, and that this feature was mentioned more than once by Octave Maus who describes this house in his 1900 article on Horta. His emphasis on this fact would appear odd were it not for the veiled allusion to its symbolism.⁵⁷¹ Previously, Thiébault-Sisson had mentioned this detail in

⁵⁷¹ Octave Maus, "Habitations modernes: M. Victor Horta," *L'Art moderne*, no. 28 (25 July 1900), p. 222.

his well-known 1897 article describing the interior of the Hôtel Tassel, “climb the seven steps and head into the living-room.”⁵⁷² The succession of spaces and the processional route along the central axis remains ambivalent, because it can be read as a Beaux-Arts planning device, but the two iron columns flanking the flight of steps is the clearest indication that this space is vested with masonic meanings.

The second analogy rests on the relationships between light and darkness, and interior and exterior, central in the masonic ritual and in the temples. Luc Nefontaine has interpreted masonic architecture through the notions of secrecy and light.⁵⁷³ The exterior of continental temples conveyed the idea of closure from the outside world through massive blind walls, reminiscent of Egyptian pylons, which, in their further connotations, protected a purified world in the interior of the temple from a corrupt and menacing society outside. The enclosure conveyed the idea of secrecy, the secret guarded by the lodges behind closed walls. Light, then, metaphorical and physical as it was in the interior of the temple, was only accessible to the selected few. Physical light was represented by symbols of the sun and moon on each side of the master’s throne, and the three candles placed on a side table of the altar. Light as an allegory stood for the knowledge and truth that the novice received upon entering Freemasonry in the interior of the temple. The purpose of the initiation ritual from the dark preparation quarters into the hall was to lead the novice towards the light, physically and allegorically speaking. The novice moved from darkness to light only in small steps, because true

Maus chose Frison’s house from the corpus of Horta’s works. He mentioned twice the fact that the main floor was accessed by a flight of seven steps in the interior: “La maison de M. Frison, bâtie en pierres bleues de Soignies et en pierres blanches d’Euville, se compose d’un rez-de-chaussée surélevé de sept marches, de deux étages et d’un grenier mansardé dans lequel s’encastrent [...]” and in the description of the interior, “Les sept marches qui mènent au rez-de-chaussée gravies (et remarquez en passant le joli enchevêtrement de rameaux nerveux qui forment, des deux côtés, les rampes de bronze de l’escalier), vous êtes introduit dans un couloir bien éclairé au fond duquel une porte ornée de vitraux de couleur, dessinée par Victor Horta, sépare le domicile privé de la partie de l’immeuble consacrée aux affaires.”

⁵⁷² [Gravissez maintenant les sept marches et passez au salon]

Thiébaud-Sisson, “L’Art décoratif en Belgique, un Novateur: Victor Horta,” p. 14

⁵⁷³ Nefontaine, “L’architecture maçonnique, entre kitsch et néo.”

knowledge could only be accessed gradually, and the secrets of Freemasonry were revealed to him slowly. This passage came to represent that of inner-self, the “soul,” which abandons an earlier state to attain knowledge. When the novice received the light, he had finally escaped the darkness.⁵⁷⁴ The procession route of the Egyptian temples, passing through dark passages framed by colossal pylons into open courtyards placed in succession, offered an additional element that fit the allegorical and physical passage from darkness to light during the masonic ritual,

In Tassel’s house, the presence of interior light can be read both in section and plan, but it is also a central theme in the decoration of the staircase mural. Its lianas rise towards the light in a “phototropic” movement, as Hanser called it.⁵⁷⁵ The closing off of the exterior world has long been recognized as a characteristic of Horta’s architecture, starting with the Hôtel Tassel. Dornie and Aubry describe his interiors as artificial worlds, dream worlds, spaces of introspection in which inhabitants withdraw from rampant industrialization, pollution, and the general malaise of contemporary civilization. Behind thick walls, Horta has created artificial worlds imbued with light which is refracted through stained glass, mirrors, and the hues of rich materials. Dornie has drawn an analogy between the interior-exterior dichotomy of his architecture and the Symbolist space of introspection and reverie, assuming that Horta was inspired by literary themes. Dornie and Dierkens-Aubry have advanced an analogy between Horta’s interiors and the house of Des Esseintes in Joris-Karl Huysmans’s novel *A Rebours*, the artificial asylum of the decadent aesthete, or, the Romantic interiors of the De Goncourt brothers’ house in Paris.⁵⁷⁶ Yet, the masonic temple is a

⁵⁷⁴ Maine de Biran, lecture of 1810, quoted in Nefontaine, *Symboles et symbolisme dans la franc-maçonnerie*, p. 42.

⁵⁷⁵ Hanser, “The early works of Victor Horta,” p. 262.

⁵⁷⁶ See Dornie, “Horta and the Symbolist Interior,” Dornie and Eric Parry, “Hôtel Tassel, Brussels,” *The Architect’s Journal*, no. 21 (22 May 1985), and Aubry and Vandenbreeden, *Art Nouveau: Architecture & intérieurs* (Paris: Bibliothèque des Arts, 1991).

much clearer precedent of an architecture that is closed off from the exterior world, and in which the mysterious light is guarded inside as Horta and Tassel knew well.

The third relationship between the architecture of the masonic temple and the interior of the Hôtel Tassel lies in the idea of the affective milieu. Space configuration and symbols act upon the intelligence as well as sub-conscious of the novice. They are not a background to the ritual, but part of it. In 1884, Goblet d'Alviella stated on the interior of *Les Amis Philanthropes*: “in this masonic temple, everything speaks through symbols.”⁵⁷⁷ The brother Trapis, member of *Les Amis Philanthropes*, described in 1966 the role of symbols in masonic architecture, stating that their function cannot be understood in terms of verbal communication of a piece of information from one person to another because they are aimed at thoughts as well as the sub-conscious. The symbol elicits the participation, and may be only be grasped through the role that it plays within the initiation ritual. In this explanation, Trapis follows the masonic brother, R.B. who, in 1878 explained that the symbol is directed to the human being as a whole, not only to his reason.⁵⁷⁸ This understanding of the symbol explains the early fascination with the Egyptian hieroglyphs: undeciphered, they carried a sense of mystery, suggesting something that went beyond the denotative. They elicited awe, acting upon the emotion rather than the intelligence of the subject. In this respect, a “milieu” of symbols is an affective one, acting upon the being in ways analogous to other total environments.

In his lectures, Goblet d'Alviella sought to prove the historical continuity between primordial settings, ancient temples and contemporary ones. According to Hervé Hasquin, before rituals took place in a building and before the symbols were part of its architecture, their setting was nature.

⁵⁷⁷ [dans ce temple maçonnique, où tout parle par symboles]

Quoted in Jacques Lemaire, “Goblet d'Alviella, la loge des Amis Philanthropes et le Grand Orient de Belgique,” n24, p. 148.

⁵⁷⁸ Nefontaine, *Symboles et symbolisme dans la franc-maçonnerie*, p. 143.

Masonic rituals maintained intelligible connections with the primitive setting, conceiving the interior of the temple as the image of the world, fallen and reconstructed. A symbolic décor evokes a setting and the forces of nature by means of forms and light, and it affects the beholder. He experiences of communion with the forces of world in the forest of symbols, in the temple, or the interior that evokes images of nature. This understanding of space of has its parallel in the letters of the time, in Baudelaire's seminal *forêt de symboles* which becomes the strange vegetation of Maeterlinck's glasshouse. The fictitious environment of the masonic temple and the glasshouse—real or literary—share the pervasive affect of a milieu and they rise out of the deliberate attempt to create an atmosphere.

7. Conclusion: The experience of the Hôtel Tassel

7.1. Tassel's house

The various paths or connections documented in the previous chapters resonate together to create a specific “house” experience. The visitors to the Hôtel Tassel in the latter 1890s were not subjected to one singular and mighty architectural effect. Each viewer brings a set of ideas, experience and agency, which only further complexifies connections and contexts. This dissertation has attempted to collect those threads that were most pertinent to Horta and Tassel, the agents of this work, and a close circle around them. In a sort of fictional description, the various contexts documented are brought into play and eventually merged, an architecture put in words where contradictions and ambivalences are at once perceived and resolved. In the future, new sources may come to light and provide new insights into the world of Tassel: a note, a correspondence piece where he describes his ideas of the house, or dispersed items from his libraries at home and at the Solvay insititutes. Similiary, new historical records may emerge from his close circle of friends who visited the house regularly. Then, Tassel's, Horta's, and their indications may set into play new connections to explain the architecture of the house. This dissertation has traced a series of contexts that may be brought to bear upon its meaning, but it has also pointed to paths for new quests.

That the house sought to bring into equilibrium different realities is readily obvious from the façade (see fig. 1.18-1.20). Insights from early and later commentators describe a classically ordered façade, framed, on either side, by massive pylons (worthy of ancient Egypt according to Alfred Willis), which are progressively taken over by a convulsion (Hankar described it as a “*Louis XV*”)

until it bursts open in the middle to let the iron skeleton take central stage—the lighter and more dynamic world of industry finding a stable equilibrium within the massive frame on either side. The beholder is thus made to understand that this house, unlike the typical Belgian townhouse facade, “opens up” as a special site, one where the dialectic between the ancient and the modern is worked through. A slightly more attentive look allows one to perceive how this reunion of ancient and modern knowledge is also played out in the conflation of the natural and the artificial, natural forms joining industrial ones.

Keenly aware of the extent of its architectural ambition, recent critics and historians elevated this townhouse to the status of a “Hôtel,” a nobleman’s urban residence—a transformation that would deserve further documentation. Already at the turn of 1894, when the iron structure of the central court had just been put in place and the façade was slowly rising, passers-by began to notice an odd house. They derided a house with no windows, then a house which looked like a chapel, as Horta recalls bitterly in his memoirs. It was the first public recognition that the Maison Tassel was no ordinary bourgeois townhouse, but was built for the elevated few, the special dwelling of an ambitious individual, Émile Tassel, who entertained and shared interests, relationships and a particular lifestyle with a very select group of progressive liberals in the capital.

To the split façade corresponds, in section, a split volume, the townhouse segmented into two parts, with a glazed court in the middle. In this court, the glasshouse, or wintergarden is the horticultural, interiorized center from which everything meaningful proceeds in the dwelling. A few decades earlier, Charles Morren thought of glasshouses as carrying out a biblical ideal by reuniting all plants of the earth in a single, confined space. The Hôtel Tassel’s wintergarden operates in a similar

way, but the content of the living world which it brings into the house has changed since Morren's writings.

In this setting Émile Tassel organized his soirées. Little is known about his private life, but his social activity was dense. The biographical sketch written by his friend and university colleague Bogaert eloquently describes how much Tassel believed in sociability, not only as a form of leisure, but also as a professional activity, as a way to facilitate the exchange of ideas and the advancement of knowledge. Social life in his house combined these aspects—exchanges that were at once recreational and professional, friendly and scientific. He continued in his house the activities carried at the Free University, in Solvay's firm, and the masonic lodge.

Horta designed the main floor of the house as a space of receptions, to receive friends, colleagues, and students, as Horta notes in his memoirs. The spatial sequence accommodated different types of visitors and events. Across the cloakroom, the parlour next to the first entrance hall, for instance, was used as a waiting room for less important visitors like students. Double doors fitted with stained or transparent glass panels systematically segregated each area. But when all these doors were fully open during Tassel's evening receptions, views and movement from one end of the house to the other were made fluid and open. His guests passed from the small entrance hall, to the vestibule, then ascended the glazed court. To their right they could see the image of the rising lianas on the mural, to their left, the image reflected on the mirror the wintergarden. On the central axis they could proceed into the drawing room, or take the stairway to the smoking room. Leaning over the iron balustrade of this room, open as a mezzanine overlooking the vestibule, house guests could see the visitors below, following the path they themselves had just travelled (Fig. 1.4). In front, they could see through the open doors the sequence extending from the vestibule immediately below to

the dining room at the opposite end, structured on a central axis and a sense of progression through steps.

The gatherings of Tassel's close circle of friends were not merely moments of social entertainment and *détente*. They were also occasions for disseminating scientific knowledge. Details are scant, but we know, for instance, that Lefebure projected slides of photographs that he or Tassel had taken. A lantern in an in-built fixture in the balustrade of the mezzanine projected images on a screen, probably on canvas in the frame separating the drawing room from the dining room. The in-built mechanism to attach the lantern indicates that the entire area was conceived with this function in mind: a theatrical space. Visitors could see, projected, other images of nature, brought inside the house from the outside world. The shows may have had a leisurely aspect, sharing travels and mountain climbing images amongst friends. But the slides also showed phenomena of nature which were of particular interest of the group and became topics of discussion. They captured transient and cyclic states in nature: the phenomena of electricity caused by mists, rainbows, the effect on perception of changing atmospheric conditions, the limpid views after the rain, the formation of the earth surface, forests that disappear and reappear, the perpetual struggle between barren lands and growing vegetation. These were subjects of interest and discussion from multiple scientific, philosophical and poetical perspectives. Lefebure was by training a topographer, but he noted that views of mountains and seas evoked in him thoughts that were best expressed by poets. The biographical, the scientific and the artistic all merged together in these slide shows. These were the same aspects that drew these amateurs to the art of the Far East, discussed for how these phenomena of nature were seized upon.

Tassel and Lefebure were particularly interested in the manifestation of ephemeral phenomena, evoking the transformative forces of nature at play. Many of Lefebure's slides were clear dawns and twilights, which fascinated him. These black and white photographs were projected just next to the warm orange-ochre hues in Horta's mural, which itself evoked twilight. From the vestibule vortex to the light and the lianas of the mural come the image of nature in constant transformation, one that shows the moment and power of creation. This environment becomes a microcosm of the world in which Tassel and his close group continued their reflections.

In the late 1890s, the evening slideshows may have kept some of the fascination of the older tradition of nineteenth-century phantasmagoria, with light projected in a darkened room. We can only speculate about the level of dramatic staging in Tassel's soirées. But the combined theatrical and masonic character of the sequencing of space allows us to guess that some measure of solemnity was kept.

During his 1897 visit, Thiébault-Sisson reached the mazzine and leant over the balustrade. He remarked that Tassel's guests could stand here, smoking, talking and looking at ongoing performances across the drawing room without having their voice and cigar smoke disturb the audience seated in the room.⁵⁷⁹ The interior was designed with this function in mind. Hanser observed that the configuration allows to set up a stage in the dining room, with the division between the drawing and dining room serving as a proscenium.⁵⁸⁰ In fact, the two rooms communicate through an opening which does not run the full width of the house between the two party walls because of the two narrow service areas on each side of the dining room. The 1895 photographs of *L'Émulation* show heavy curtains that separate the two rooms when closed.

⁵⁷⁹ Thiébault-Sisson, "L'Art décoratif en Belgique, un Novateur: Victor Horta," p. 15.

⁵⁸⁰ Hanser, "The early works of Victor Horta," p. 243.

Moreover, the service staircase to the side of the dining room provides access without having to cross the drawing room. There are no traces of the performances that took place, but Wagner's music found among Tassel's friends a circle of enthusiasts. The Hôtel Tassel interior featured a theatrical setup in the sense that Loyer first remarked, in the recourse to Beaux-Arts planning schemes and pursuit of effects. But it was theatrical in the literal sense, as an interior designed to stage performances.

Despite its fluidity and openness, the magnetic pole of this dynamic reception area remained the glazed court, the wintergarden. It brought to fruition the nineteenth-century ideal of the *serre d'intérieur*, understood as a medium to transpose "vivid images of nature" inside the house and poeticize the domestic environment. Tassel's gatherings around the wintergarden were indeed prefigured in Charles Morren's vision of a future architecture in which the glasshouse was the new hub reuniting all social spaces together, at once "the boudoir, the drawing room of society games, songs and music, a reading room and even a smoking room, that is, the home [*foyer*] where life unfolds between feelings, conversations, natural inclinations or dream-like thoughts [*l'esprit naturel ou d'emprunt les rêves*], passions or heavy smoke."⁵⁸¹ But, in Morren's vision, daily life and social gatherings unfolded in the midst of real vegetation in a shared atmosphere. The glasshouse, the feat of modern horticulture, had finally allowed to transpose it from the impentable domes of the new world into the heart of the Belgian townhouse. In the Hôtel Tassel's interior, the glasshouse and the vegetation in are more fictitious than real, and they bear a connection to Morren's vision, but also, to an inherent obstacle that the botanist De Puydt realized when touring the latest models of the

⁵⁸¹ [La serre est souvent le boudoir, le salon de jeu, de chant et de musique, la salle de lecture, voire même le fumoir, c'est-à-dire le foyer où la vie se passe entre les sentiments, la conversation, l'esprit naturel ou d'emprunt les rêves, les passions ou la fumée]
Charles Morren, *Palmes et couronnes*, p. 419.

serres d'intérieur at the 1880 Brussels National Exhibition. It was simply impossible to merge the two largely incompatible environments of exotic plants and human inhabitants. Yet, it was still possible to contemplate bringing the vivid images of nature into the interior in abstract forms. In Horta's design, "nature was reduced to a suggestion," as Thiébault-Sisson remarked in 1897.⁵⁸²

A new, personal language of the plastic arts builds this suggestive imagery. The thought it conveys, and the underlying process of reduction from living nature to the suggestive is complex and required exploring the nineteenth-century fields where such transformation occurred: Nature as suggestion in Symbolist letters, in French architectural theory, in Masonic speculation, glasshouse design, Japanese and eighteenth-century art, all through pertinent ideas and material examples.

⁵⁸² Thiébault-Sisson, "L'Art décoratif en Belgique, un Novateur: Victor Horta," p. 17.

7.2. The glasshouse and the masonic environment

The glasshouse atmosphere coexists with the character of the masonic hall at the Hôtel Tassel. Two fictitious environments merge to complement each other. Elements of the vegetal décor and the configuration of the plan were meaningful with regard to masonic speculation and fields dealing with vegetal life. The interior is experienced progressively, in the same manner as the sequence of spaces of the masonic temple, in which they are dimensioned, separated and lit according to their place in the ritual, and marked by symbolic elements such as pillars and steps. The central axis leads into a central hallway which is at once the wintergarden and the masonic sky-lit court. Evocations of a primordial, indefinite nature in the décor and the timeless setting of the masonic ritual underlie the idea of a setting that transcends a concrete time and place, but also mirrors the condition of the present.

Masonic allusions appear from the discreet and secretive entrance of the house, and become concrete symbols in the interior, such as the stars blended with abstract motifs, yet intelligible on the stained-glass panels of the double door which connects the small hall to the octagonal vestibule. The most obvious symbols are the flight of seven steps between the two metal columns which gives access to the court where the light is. These spaces were to be crossed in a progressive sequence. These elements may have simply been poetical evocations of the masonic environment, but they may have also played a role in rituals that took place within. The plan is structured to allow these rituals, with the spaces separated and laid in sequence corresponding to the different stages of an initiation, for instance. The two cloakrooms on each side of the entrance hall correspond to the components and layout of Larudan's schematic plan. They allow to keep the novice in the dark and within other activities of the preparation, before he proceeds into the vestibule. At the time, disputes were raging

in *Les Amis Philanthropes* so it is all the more understandable that a group of its member may have wanted to continue their masonic activity in their own space, one which Tassel's house could provide. It is impossible to state with certainty if such activities took place.⁵⁸³ However, it is clear that the characteristics of the masonic hall are present, blended with the themes of a vegetal décor in the glasshouse atmosphere.

The two columns are a salient example of the two converging patterns of meaning, as masonic symbols and components of such décor. They bear clear masonic symbolism, evoking the two pillars of the temple in the Hôtel Tassel's interior and they may have also served as physical landmarks of a ritual that took place on this floor. The tendrils are evocative of the crown of palm trees, the symbolic plants which were transmuted into the two metal columns at the entrance of the temple. In an 1861 medal of *Les Amis Philanthropes*, the two columns elements are represented with the palm tree crowns atop (Fig. 6.4). But, their tendrils are also two elements that help create the imagery of the Hôtel Tassel's wintergarden, their movement echoed in the ceiling decorative patterns and the rest of the ironwork to create the atmosphere of fictitious nature inside the glasshouse, surrounding the few potted palm trees. (Finally, the two columns are also part of the innovative structural framework which allows to create the glazed court in the first place, and of a modern heating system for which they serve as air conduits.) The two columns are an example of the components of Horta's architecture which have, if not their own utility, their own signification, as Sander Pierron remarked. This significance is not evident, and it is also multifold. It begins to emerge only when the house is considered more broadly, and the columns are seen not only as

⁵⁸³ Hanser finds it credible that masonic activities were carried out in home interiors and that the house of Tassel, a gregarious bachelor who received and entertained guests would have been an ideal location for a "secret lodge" ("The early works of Victor Horta," pp. 516-517).

supporting the framework of a glazed court which is also the wintergarden of the house, but also as standing on each side of the main landing in a processional route which begins at the entrance.

In the Hôtel Tassel's interior a peculiar understanding of the masonic hall is complementary to a vision of the vegetal world under glass. Two sets of imagery and planning devices rely on each other to create a fictitious environment. The glasshouse as an object of horticulture and subject of literary thought was a medium to bring nature into the house, or rather evocations of its salient traits. Horta's motifs suggest a nature that is pervasive and in constant transformation. The glasshouse converges with the themes of the masonic environment in the configuration of the plan, with a lit area at the centre, in the figure of the light, and in the role of a suggestive décor. The two converge to convey a set of ideas, vague or precise as they may be. In this light, Goblet d'Alviella's description of the temple of *Les Amis Philanthropes* in which everything speaks through symbols parallels Baudelaire's literary *forêt de symboles*, which becomes a "vegetation of symbols" in Maeterlinck's glasshouses. The Hôtel Tassel's interior speaks through a vegetation of symbols too, directed at the imagination, intelligence, and emotion of the viewer. It is a forest brought into the heart of the house by means of the décor, and which spreads into the adjacent areas, and which speaks in its own language ideas of the unseen realities of human life. The two columns then, are only two of the trees of this forest of symbols. The tendrils springing from capitals that resemble open buds—the figure embodying the vital forces at play which fueled speculations in architectural theory and masonic reflections on symbols—grow and join the surrounding vegetation.

There is an earlier, dual lineage to this component in glasshouse design and architectural theory. In the beginning, creepers were employed to hide bare iron supports and enhance the idea of a vegetal environment in the glasshouse. Then, ornamental ironwork was forged to suggest their

movement. In the evolving visions of natural landscapes creepers came to embody the power of movement and growth in the vegetal world, but also the mystery of the forces driving them. To a generation of architects fascinated by such patterns of vegetal life, creepers suggested ways to impart movement on solid mass and infuse architecture with life. To Guillery, pervasive vegetation could bring architecture to life. Such ideas converged with the unintended impressions of Balat's neoclassical tholos invaded by vegetation in the wintergarden of Leopold II or the fascias of electrical cables in the Embarcadère which became an abstract image of creepers and an ornamental device to suggest vegetal life. Horta's iron tendrils acquire a new significance in this long development of a nineteenth-century vegetal motif, and they indeed helped him vivify the Hôtel Tassel's interior by means of design expedients to suggest vegetal life. But, they are also connected to a more immediate context as imagery atop the two masonic columns. The language of the plastic arts spoke words learned in more than one dictionary.

7.3. Evocations of the mural

The procession on the central axis of the Hôtel Tassel's interior is a journey into the heart of the house: it leads into a fictitious nature under glass that expands throughout the hallway, and it leads onto the elevated podium of the temple which the two metal columns flanking the central landing of the flight of seven steps suggest. The sense of the masonic ritual through a succession of preparatory stages, from the awaiting in the darker rooms to the reception of the light at centre of the temple was a metaphor for the exploration of the inner self, towards the attainment of a higher consciousness, knowledge, and truth. These ends were symbolized by the figure of the light, physical and allegorical, which the novice receives upon completing this journey.

Light appears in the Hôtel Tassel's hallway physically, and as a figure in the mural which the visitor reaches at this stage of the journey. The physical source from the glazed roof above, the background of the mural, the movement of the lianas and the sense of the ascending stairs all point toward the light above. In more than one context this concept was associated with the general idea of aspiration and the movement towards a higher intellect. Conder saw the precise connotation of aspiration in the twinning creepers of the floral compositions of the Far East. In 1891, Valère Gilles explained in *La Société nouvelle* that Maeterlinck considered our existence as a tree, with stems and leaves open in the sunlight, symbolizing conscious life, but rising from roots which feed from depths below the ground, the realm of the unconscious, a figure which revived older tropes of German idealism. Schopenhauer's will as blind purposiveness which humans and plants shared operated unrestrained in this realm, unguided by intellect in lower forms of existence such as plants because knowledge and intellect develop only at higher states. This vision underlay the analogy between the inherent fatality in the image of plants, subject to this blind purposiveness and the *milieu* where they

are rooted, and our own subjugation to the blind forces of the subconscious, but also our aspiration to overcome them and rise above. Hence, in Maeterlinck's *Serres chaudes*, the hothouse becomes a model to explore the inner realm of unconscious.⁵⁸⁴ The poet's journey into the "atmosphere of strangeness" in his glasshouse is a journey into the depths of the inner self.

It is likely that Tassel knew the Idealists' or the Symbolists' interpretation of the figure of light in vegetal life through Valère Gille's article or his other contacts with the literary circles. It is certain that Tassel and Horta knew the allegory of light in masonic philosophy and in the setting of the ritual. The aspirational movement from darkness to light symbolized the pursuit of truth and a transition of the self towards a higher state. The masonic figure complemented the other interpretations of a similar theme, literary, philosophical, and pictorial. Japanese representations and the underlying philosophy of nature and art strengthened the imagery suggestive of higher-order ideas, including aspiration symbolized in the movement of creepers. But they also provided concrete compositional schemes to render these ideas in a fascinating, novel and foreign manner.

The configuration of the plan and the deployed imagery transform the procession towards the heart of Tassel's house into a journey into the glasshouse and into the masonic hall. In two figures this journey is a metaphor for exploration of inner realms, of the inner self, and only an *atmosphere* could convey the hidden, insinuating forces at play therein. The Hôtel Tassel's interior is a multivalent space, at once the image of inner realms and of an outer world, of primordial and timeless nature, and of a microcosm of the universe as it is, has been, or may be. To the follower of this dual procession, the lianas of the mural and the stairway rising towards the light at the centre of

⁵⁸⁴ Friedman, "Belgian symbolism and a poetics of place," p. 133.

house become an image of aspiration towards a higher intellect in his own existence, but also of a broader world where the forces depicted operate.

Throughout the décor, twisting ironwork, swirling mosaic lines in vortex or free patterns, and lamp fixtures descending and branching out are suggestive of the inner forces that drive their transformation. In the flat mural, forces of nature which drive linear and cyclical transformations are present in three depicted elements on overlaid planes: the uprising movement of lianas rooted in the ground, driven by an inner force towards the light on the first plane, the stylized free flowers flowing in the air pushed by a breeze in the second plane, and the graded colour of the background suggesting the change of light in a moment of the day.

One final ambiguity arises in front of Horta's mural. The lianas rise against a graded background, a warm ochre-orange at the bottom that turns into a lighter tone towards the top. Is this color gradation suggestive of a sunrise or a sunset? Does the visitor finally stumble upon this corner of fictitious nature at dawn or at dusk? In Japanese prints and in Western works inspired by them, the colour scheme would have stood for the twilight, though the tones presently found in the house are only restorations. There is a second indication that the transition depicted may be that of a closing season: the free-flowing flowers, possibly stylized chrysanthemums were symbols of autumn in Japanese interiors, in which life unfolded in communion with the cyclical changes of nature. Besides the out-of-centre linear composition scheme of lianas, these additional elements connect this work to the Far East and to a vision of life in close intimacy with nature which the Japanese house provided.

The lack of Horta's original colour scheme creates further interpretive problems, yet, the image remains revealing even in such ambiguity. At the close of the nineteenth century, the images

of twilight and aspiration could coexist to describe a present moment in history. The idea of a century as we know it, a unit of time that defines an age, was a realization in the aftermath of the French Revolution, when the end of a century first coincided with the end of the *ancien régime*. Those who looked back to grasp the significance of what had ended, and what lay ahead, discovered the ambivalence of that historical moment: the last century of an old world, and the onset of a new one pushed open by the philosophers of the Enlightenment.⁵⁸⁵

At the next close of the century, the widespread cultural “fin de siècle” was an ambivalent phrase, associated with a mood of disillusionment and decline, but also an optimistic one, as the nearing of a beginning.⁵⁸⁶ Though the former meaning came to prevail, it concerned above all a widespread pattern of thought in the letters of the time. Not all the protagonists of the historical reality of the turn of the 1890s saw themselves or their age as being in decline. But, they could see that a century and was drawing to its close and wonder what the meaning of this moment was in their personal lives and in this historical moment. They could raise the same question years or even decades, looking back at the significance of this particular moment. In Horta’s own career, the 1890s corresponded to a great turn, the start the most creative period of his life, only to become a bright, brief interlude as he realized many years later when he wrote with a melancholy tone that, after the war his star had faded.⁵⁸⁷

⁵⁸⁵ Alain Finkielkraut, “Qu’est-ce qu’un siècle,” in *Nous autres, modernes: Quatre leçons* (Paris: Ellipses, 2005), p. 190.

⁵⁸⁶ Hubert de Phalèse discusses briefly the two opposed connotations, contrasting the optimistic use of the phrase in writings such as Zola’s novels of 1885, and the pejorative connotations in writings such as Édmond de Goncourt’s, following a pattern set by Baudelaire; and in Huysman’s *A Rebours*, the novel that came to represent the fin-de-siècle as a mental state and aesthetic mood, though it does not employ the term itself. De Phalèse, *Comptes à rebours: L’Œuvre de Huysmans à travers les nouvelles technologies* (Paris: Nizet, 1991), p. 27.

⁵⁸⁷ Horta, *Mémoires*. pp. 282-283.

To the circle around Solvay, the turbulence of their time in their own close of the century, raging in the country and inside the lodges themselves suggested new developments to come—perhaps the rise of a new society which *La Société nouvelle* sought to anticipate. It was the inevitability of change which struck Solvay as the salient characteristic of his own time, and he sought to influence the course of events. To Freemasonry, human agency was central in improving the world. Tassel's house showed nature in constant transformation. Common underlying forces drove the transformation of matter and beings alike in linear movement and in cyclic changes. At its heart, perhaps the Hôtel Tassel also reflected the twilight of an age and the aspiration towards a new one, evoked by lianas rising towards the light and the ascending stairway, an image that came to represent that fin-de-siècle.

Appendix 1: The Hôtel Tassel in the early reception and Horta's own accounts: origins of an interpretive problem

"I was not the first to discover the flaws of house plans 6-7-10 or 12 m wide, which differed from one another only by the addition of a verandah or a carriageable entrance, but I was the first to draft the plans of a 7.2 m house with cloakroom, lavatory and parlor at the entrance, and the first to make cast iron supports whose hollow interiors took hot air into the floors," notes Horta on the Hôtel Tassel.⁵⁸⁸ Horta wrote about this house only in his late years, in his memoirs, a project he undertook from 1939 but did not complete, and in his mementos, short commentaries on his agenda notes, begun two years later. Horta wrote primarily from the perspective a practicing architect, engaged in a myriad of concrete design problems, relations with clients, collaborators, contractors, and friends. At the height of 1930s modernism Horta saw his name eclipsed and the product of the most creative period of his life which brought him fame and joy heading into oblivion, and he sought to recast the Hôtel Tassel project for the eyes of posterity, emphasizing those new solutions in design that remained valid over time. It appeared that the décor was not so timeless, as the profound change in reception during the 1920s-1930s showed. The Art Nouveau ornament was a topic he sought to omit rather than emphasize. The Hôtel Tassel's décor or any vague recollections of his wintergarden are absent in this account. Surviving agenda notes have allowed to establish a rough chronology of the building, and the fact that Horta designed the decorations of the centre of the house. Valuable

⁵⁸⁸ [Je n'ai pas été le premier à découvrir les défauts des plans de maisons de 6-7-10 ou 12 mètres, qui d'un groupe à l'autre ne différaient que par l'ajout d'une véranda ou d'une allée cochère : mais j'ai fait le 1er plan de maison de 7.20 avec vestiaire et W.C. et parloir à l'entrée à faire des supports en fonte dont le creux portait l'air chaud aux étages et ainsi de suite]
A.H. Memento for the year 1895.

documentation which may have existed such as preparatory sketches, executive drawings and notes on the décor of the Hôtel Tassel were lost when Horta sold for scrap paper most of his archives in 1945.⁵⁸⁹

Tassel's lot was purchased at 12 rue de Turin (today 36 rue Paul-Émile Janson) in April 1893, and the building permit submitted in early August 1893.⁵⁹⁰ In September, Horta travelled to the quarries to select the building stone. In November, construction reached the basement level and the façade was about to rise.⁵⁹¹ Around January 1894, the iron framework of the central court was in place.⁵⁹² In the fall of 1894, Horta designed the iron balustrade and the ramp of the stairway, along with a few elements of the decorative program marked in his agenda.⁵⁹³ In January 1895, the glass

⁵⁸⁹ A.H. 1.11, Two receipts, "Mise au pilon" with the dates of 3 August 1945 and 9 October 1945. Delhay managed to save a pile of documents, as he recalls in the preface to the French edition of Franco Borsi and Paolo Portoghesi, *Victor Horta* (Bruxelles: Vokaer, 1974), pp. 9-10. Hanser mentions that Delhay told him that unfortunately he had no time for a triage ("The early works of Victor Horta," p. 23). Many items in the archives have survived by chance. The majority, however, consists of documents that Horta decided to keep, such as records related to earlier controversies which he kept to clear his name in the future, correspondence and articles that attested to his international fame, documents on major commissions and other papers. On Tassel's project, there is the early correspondence with the landowner who sold the lot, a few notes and letters from contractors and suppliers on the building site and Tassel himself during the construction and after the house was complete.

⁵⁹⁰ A.V.B. TP 23312, also republished in Goslar, *Victor Horta*, p. 94. The building permit of August 1893 indicates the iron component marked in blue, within the stone façade: the cornice of the balustrade supporting the upper level, the beam supporting the balcony, the iron columns of the bow-window and balcony door.

⁵⁹¹ In September, Horta was corresponding with the building entrepreneurs on the basement masonry works at the Autrique House, and he demands to go directly to the quarries to select the stone for Tassel's (Letter from Aug. Grégoire, Entrepreneur, 18 rue Archimède; 5 November 1893). Correspondence about Tassel's is contained in A.H, Folder XXII.4 "Maison Tassel." Additionally, A.H. Notebok, "Liste des maisons (hôtels, villas, magasins, hopitaux, 1887-1928) construites par Monsieur Horta, 1887-1928, Collaboration aux monuments", p. 7, lists Pelseneer as entrepreneur general, Rousseau, Henri Baes, and Leorneaux for the details.

⁵⁹² A.H. XXII.4.4. On 11 January 1894, Bertraux's *Usines de constructions métalliques* sends the bills for the metal framework, suggesting that the iron structures of the central court were placed by then.

⁵⁹³ A.H. Memento for the year 1894 starting from August. The exact month for Tassel's items is not indicated, but they appear after the voice on the ironwork for Devreese's atelier from the entrepreneur De Waele, marked 3 September. Tassel's entris indicate "*Etude balustrade en fer de l'escalier et rampes. Table de*

panes and other decorations of the smoking room in the mezzanine were produced “according to the drawings of Horta,” as the glassmakers specified in their correspondence.⁵⁹⁴ In July, in the new house Horta and Tassel met Siegfried Bing, the well-connected art dealer, patron and publisher of *Japon Artistique*, based in Paris. A few days later they travelled together to his shop at 22 rue de Provence in Paris to select items for the house. The decorations of the house were largely complete by the fall of the 1895 when photographs of the house appeared in *L'Émulation*.

Hanser argued for the first time that there may have been no comprehensive design for the décor of the Hôtel Tassel—Horta’s imagination grew freer and his style evolved as construction advanced. Horta’s agendas indicate with certainty the dates for the iron columns, the balustrade, and the smoking room glass panes. The two iron columns must have been designed and placed first, around December 1893, since the bill from Bertraux was sent in early January 1894. The mural is missing, but considering the order of progress in the building site, it must have been among the last works, painted around the spring of 1895, after the mezzanine’s glass panes were installed in the month of January. Most of the Hôtel Tassel’s rooms were furnished with commercially-available items, though specialized retailers providing included English fabrics and objects from the Far East.

bureau” and in the next entry “*Dessin à 005% porte de Tassel. Patris fait au 28Xbre le relevé de la chambre à coucher et du cabinet de toilette. En Xbre Salon = dessin Patris.*”

1894 was a key year not only with regard to Autrique’s and Tassel’s. As the two façades drew acclaim, Horta obtained commissions from Maurice Frison, Camille Wissinger, Armand Solvay, the atelier of Devreese, other interiors and smaller monuments. In October 1894, he moved into a new house at 70 chaussée de Charleroi with rooms for his dwelling and studio. Major commissions continued to tickle in early in the following year when Horta met Edmond Van Eetvelde, who had just purchased a new lot, and first discussed the new Maison du Peuple during an evening at Tassel’s in April 1895. Between 1894 and 1895 Horta worked on the interior of the Hôtel Tassel and all these other sites.

⁵⁹⁴ A.H. XXII.4.6, letter of 3 January 1895. The Société artistique de peinture sur verre, L. Overloop & Cie confirmed that they were preparing the glass panes. Doors and other woodwork were placed and polished in the same month. In January, the painter-decorator Baes was working on the site and acted as an intermediary in the dispute with Broerman. The decorations for the smoking-room were sent to Baes on 22 January 1895.

Limited elements from the decorative program developed in the main hallway continue into other areas, such as the vertical bands in the corners of the drawing and dining rooms, ending in vegetal-like motifs, or the lamp stem and its branches in the hallway of the upper floor, but the core of the decorative inventive effort and the relative problems of interpretation remains at the centre of the house. This component is largely absent in Horta's own accounts.

In his memoirs, the narrative on the Hôtel Tassel follows the common emphasis in Horta's writings on design innovations, its significance in Horta's career, and both generous and malevolent people. Tassel's house was the accomplishment of years of hard efforts: "the formidable labor finally receives its award: my architecture such as I had desired it: personal and alive [*vivante*]." ⁵⁹⁵ It marked a major turn of his career, after he entered the masonic circle of progressive minds—Tassel, Lefebure, Autrique, and others. Then, there is provincial malevolence. It must have been in early 1894, just as the iron framework of the central court was in place and the façade began to rise, when the first gossip began. Three things seemed wrong to passers-by: the basement windows were barely above the sidewalk so the house appeared not to have the conventional semi-underground service area, an essential component of the bourgeois household. At the centre, the prominent iron structure was an unusual industrial presence. At the far end, on the garden side, the dining room ended in a five-parts projecting volume with the form of an apse which drew the mocking comments that the house looked like a chapel, then what seemed to be a house without windows so every new detail was criticized as the building progressed. Derision blended with incomprehension and malevolence: the stone-masons, it was said, ruined the bases and capitols of the entresol colonnettes out of spite. ⁵⁹⁶ In the commentary of the year 1895, Horta castigates Jean Baes, the artist-decorator who was in charge

⁵⁹⁵ Horta, *Mémoires*, p. 34.

⁵⁹⁶ Ibid., p. 37.

of the smoking room and who probably painted the mural as “the man who ruined his decorations at the Hôtel Tassel.”⁵⁹⁷ About fifty years later, Horta tours the house from the entrance to the office upstairs to respond to points of criticism arguing how those aspects offered new approaches to architectural design. He describes an innovative plan layout which responded to Tassel’s need to receive visitors, the office of the master of the house at the centre of the façade that had been criticized for the too-prominent bow-window, the ingenious cast-iron columns to support the “milieu” of the house, which also served as heating conduits, but which stunned the passers-by who saw them from outside.

The wintergarden is absent in this tour. Horta would not discuss it from the decorative point of view, but he is equally mute from the perspective of new approaches to planning. He explains why a toilet and a waiting-room adjacent to the entrance vestibule were logical solutions in the program of the house because not all guests were admitted into the drawing room. From the same perspective, he explains the smoking room, on an upper level, which also doubled as a balustrade from which Tassel, amateur of alpinism and photography, projected his slides across the hallway for his regular guests from a lantern placed in an in-built fixture. Yet, he offers no clues to the reason behind locating a wintergarden at the center of the house, despite the tremendous inventive effort he put in the design of this space. Being at the center of the house and only accessible to Tassel’s restricted circle of friends, the wintergarden was shielded from unwelcome scrutiny, in contrast to the exterior. Yet, not all aspects that Horta recounts are in response to criticism. It appears far more likely, then, that Horta deliberately omitted this part from the account of a building which he saw as a great accomplishment, a turning point in his career and in the history of architecture, and which he

⁵⁹⁷ A.H. Memento for the year 1895.

sought to present to his contemporaries and to posterity in a revolutionary light. To twentieth-century criticism, a wintergarden and hallway with its characteristic décor emerging from an underlying philosophy of nature and design could have appeared not only uninteresting, but perhaps as rooted in a decadent *fin-de-siècle*.

There may be a further reason for the omission, in particular, of the mural. Horta resented the quality of the decorations, as his grumblings on Jean Baes fifty years later show. Delhayé found traces of his corrections on the mural, in the lines of the stems, corrected at a second moment, and the colour of the free-flowing floral motifs changed from white to a darker hue to diminish the contrast.⁵⁹⁸ Another hint that Horta may have thought this work did injustice to his work comes from the fact that in 1895 *L'Émulation* showed several views of the house, but none of the mural (which was complete at the time of the photographs because its motifs appear in the smaller parapet of the second flight of steps). Finally, there is a clear indication that Horta was unhappy about this work and that his silence may have been deliberate in a rare, late note. Horta recollects the accomplishments and errors of years of hard efforts and his regret that his architecture, although “simple, logical, and classical,” could have been simplified further. Though the note reeks of 1930s modernism, he adds that this was not a reproach he made retrospectively, but he did so each time he saw his works completed. Moreover, it was often the intermediaries’ fault, not his own. Then he lists examples: “at the Autrique house, nothing to reproach. At the Tassel house: the painting of the stairway wall.”⁵⁹⁹ It is probably the only direct mention of the staircase mural in Horta’s surviving

⁵⁹⁸ Loyer and Delhayé, *Victor Horta*, p. 33.

⁵⁹⁹ A.H. Memento for the year 1897.

The full note reads: “Moreover, this physical advantage [which allowed him to work hard] was a drawback: it would have been possible for me to simplify not my architecture, which was simple, logical and classical in its general layout, but the decoration, the carpets, one accessory or another. It’s important to note that I do not think so only today, but it is a reproach that I levelled upon completion of most of

papers, and it is both unfortunate and revealing of the limitations of his accounts that the only reference to this masterpiece occurs in this context.

The importance he gives to the early hearsay in the recollection of events is understandable, given that such criticism must have marked a young architect profoundly. The subsequent condemnation of Art Nouveau was another reason for him to recall such episodes and emphasize technical innovations. Yet, Horta's version cannot fully account for this architecture. Not even the configuration of the plan can be explained solely in terms of practical innovations suited to Tassel's lifestyle as Horta sought to present them, let alone the décor. There were other motives to its form, on which Horta remained silent in a memoirs project intended for posterity. He was unsuccessful in both ends, to convince the reader that the radical novelty of the house stemmed from practical considerations alone, and to remove key components of its interior décor from critical attention. When posterity re-discovered the Hôtel Tassel, commentators were fascinated by the staircase mural, the very work that Horta sought to hide from scrutiny for over fifty years and which ironically became the image of Horta's architecture.

Horta's memoirs were published in 1985 and they did not truly influence the ongoing critical assessments of this building. A factor that affected the interpretations of the Hôtel Tassel was the early reception of this work. Horta singled out the malicious hearsay, but there were also critics who praised his work. His contemporaries could have facilitated our understanding of this work had

my works. On top of it, it was the intermediaries' fault rather than mine. Examples: At the Autrique house: nothing to reproach. At the Tassel house: the painting of the stairway wall."

[D'ailleurs cet avantage physique avait un défaut : il est bien possible que j'eusse simplifié non pas mon architecture qui était simple, logique et classique en dispositif général, mais la décoration, les tapis, l'un ou l'autre accessoire. Notons que je ne pense pas cela aujourd'hui, mais que c'est le reproche que je me faisais à la plupart des achèvements de mes travaux. Au surplus les intermédiaires y étaient aussi souvent la cause que moi-même. Exemples : A la maison d'Autrique il n'y a rien à reprocher. A la maison Tassel : la peinture du mur d'escalier]

they described what the Hôtel Tassel's interior suggested to them. In Paris, Guimard's architecture, inspired by Horta, drew literary critics and aesthetes who conceptualized its strangeness. Castel Béranger in Paris became a pilgrimage site for Decadents and Symbolists who consecrated Guimard a "priest of eternal beauty" and flocked to drink from the "fountain of youth"—an iron water fountain in the courtyard of the building.⁶⁰⁰ To others, its architecture was unsettling.⁶⁰¹ Horta's architecture did not draw this type of critique, and this difference is important because it left the field of meaning unexplored. With the exception of the French authors, Thiébault-Sisson, already mentioned, and Émile Sedeyn, to whom we shall return briefly and who barely began to explore the imagery of nature in the Hôtel Tassel's interior, contemporary critics focused on other aspects of Horta's architecture. Horta was mostly published in specialized architectural editions showing plans and photographs, accompanied by short commentaries praising the pursuit of a modern architecture, when there was any text at all. Art critics looked at his buildings too, but, they related them to a broad movement of renewal underway in architecture and the applied arts, their main interest. They focused not on what made his design unusual, but what made it modern, "born out of the necessities and aspirations of our age" and the will to surpass historicism, as Belgian art critic Octave Maus described it in 1900.⁶⁰² They assessed his work as a corpus of buildings and artefacts that shared key features, in which the Hôtel Tassel was only the first of a series of houses all begun within a few years from one another, between 1894 and 1897. Then, they related Horta to artists and architects engaged in similar pursuits, in particular, Paul Hankar (1859-1901) who built his own house not far

⁶⁰⁰ Roger-H. Guerrand, *L'Art Nouveau en Europe* (Paris, Plon, 1965), p. 153.

⁶⁰¹ To Émile Molinier, it had the effect of the fragment of a lost civilization that had suddenly come to light; to André Hallays, its unsettling strangeness turned into a nightmare (Eleb, *L'Invention de l'habitation moderne*, p. 450).

⁶⁰² Octave Maus, "Habitations modernes: M. Victor Horta," *L'Art moderne*, no. 28 (25 July 1900), p. 221.

from the Hôtel Tassel in 1893.⁶⁰³ Maus, editor of *L'Art moderne* and patron of the salons of Les XX and Libre Esthétique remarked on the two architects:

they both have a legitimate right to the title of innovator, each of them pursuing with determination the expression of a style which is free of the influence of the past and is a concern of our age. They both understand architecture as a synthesis of plastic manifestations, embracing, besides the building, the decoration and the furniture of all its parts.⁶⁰⁴

Maus had visited the interior of the Hôtel Tassel as early as November 1894.⁶⁰⁵ He corresponded with Horta through the 1890s and featured the dining room set designed for the Hôtel Van Eetvelde in the 1897 salon of Libre Esthétique. But, his interest as art critic lay primarily in the general renewal of all arts *and* architecture, and he assessed Horta's work in this broader context. At the time

⁶⁰³ With no precise label and often referred to by the general "style moderne," this corpus of work was grouped under the name of Art Nouveau architecture in the latter twentieth century, the moment of its historical rediscovery. Franco Borsi published its first systematic study *Bruxelles 1900: Capitale de l'Art Nouveau* (Bruxelles: Vokaer, 1974), a few years after the 1971 exhibition *Brussel 1900: Capitale de l'Art Nouveau* and its eponymous catalogue edited Robert Delevoy, Hans Wieser-Benedetti and Maurice Culot (Bruxelles: Archives d'architecture moderne, 1971). The book set a pattern of publications documenting Art Nouveau architecture in Brussels, featuring introductory studies, information about buildings and their authors, and extensive illustrations. Latter publications of this type include Jos Vandenbreeden and Linda Van Santvoort, *Encyclopédie de l'Art Nouveau: Quartier Nord-Est*, vol. 1 (Bruxelles: Centre d'information, de documentation et d'étude du patrimoine, 1999), intended as the first volume of a series to document the entire Art Nouveau heritage of the city in a discontinued editorial project; Françoise Aubry and Jos Vandenbreeden, *Art Nouveau: Architecture & intérieurs* (Paris: Bibliothèque des Arts, 1991), Françoise Aubry, *Art Nouveau à Bruxelles: De l'Architecture à l'ornementalisme* (Bruxelles: Quo Vadis, 2006), Luc Legrand et al., *Guide de l'Art Nouveau à Bruxelles* (Bruxelles: Archives d'architecture moderne, 1982), and Pierre Loze, *Belgium, Art Nouveau: From Victor Horta to Antoine Pompe* (Ghent: Snoeck-Ducaju & Zoon, 1991).

⁶⁰⁴ [Novateurs, ils le sont au même titre, chacun d'eux poursuivant avec un égal acharnement l'expression d'un style qui échappe aux influences du passé et relève directement de notre époque. L'un et l'autre, ils comprennent l'architecture comme la synthèse des manifestations plastiques, embrassant, outre le bâtiment, la décoration et l'ameublement de toutes ses parties.] Octave Maus and Gutave Soulier, "L'Art décoratif en Belgique: MM Paul Hankar et Adolphe Crespin," *Art et Décoration* 2 (July-December 1897), p. 91. Maus published a two-installment study on Horta and Hankar in his own periodical "Habitations modernes: M. Victor Horta," *L'Art moderne*, no. 28 (25 July 1900): 221-223, and "Habitations modernes: M. Paul Hankar," *L'Art moderne*, no. 29 (22 July 1900): 229-231.

⁶⁰⁵ A.H. XV. M. 4.3, letter from Maus to Horta in November that year asking for an introduction to Tassel so that he may visit the house.

of his writings, designs by different artists were not grouped under a single label, but stylistic affinities and a common leitmotif soon drew attention, and it was established that a new style had emerged out of these individual pursuits, spread over a larger geographical area and a range of artistic media. In 1899, *L'Art décoratif* called Horta a representative of “what has been rightly or wrongly called the Belgian style,” who had “replaced straight lines with combinations of curves and hooks, which his compatriots, Horta and Van de Velde were the first to employ.”⁶⁰⁶ The new style soon earned the appellation of *Art Nouveau* which originated in France, but encompassed the Belgian manifestations. At Bing’s shop and pavilion *La Maison de L'Art Nouveau* at the 1900 Paris International Exhibition the public recognized common stylistic features and associated them with the name of his venture.⁶⁰⁷ Then, the *Architectural Record* and *The Craftsman* published a series of articles in 1902 under the title “L'Art Nouveau”, to introduce the American public to the “recent architectural, sculptural, decorative and metallic work which goes by that name.”⁶⁰⁸ Guimard, who always managed to stay in the spotlight and was invited to contribute to the series, defined the main characteristics of the new architecture—“logic, sentiment and harmony”—and listed Horta, Van de Velde, and himself for inspiring “the productions described by the term ‘Art Nouveau.’”⁶⁰⁹ The stylistic episode, its label, and Horta’s place in it were thus established for the historiography of the following century.

The 1902 articles appeared at the height, but also near the close of the recent trend. After the brief acclaim followed criticism and oblivion. Despite significant innovations in architectural design,

⁶⁰⁶ [G.M. Jacques?] “Nos illustrations,” *L'Art décoratif* (July 1899), p. 148.

⁶⁰⁷ Pevsner has traced the etymology from Bing’s shop in Paris in his *The Sources of Modern Design (The Sources of Modern Architecture and Design*. New York: F.A. Praeger, 1968), p. 43.

⁶⁰⁸ Editor’s introduction page, *The Architectural Record* 12 (1902), p. 49.

⁶⁰⁹ Hécator Guimard, “An architect’s opinion of ‘L'Art Nouveau,’” *The Architectural Record* 12 (1902), p. 131.

Horta's corpus of works, now ascribed to Art Nouveau, followed the general pattern of decline in reception. The stylistic leitmotif, not the technical innovations prevailed as the defining characteristic. Hence Horta's insistence on technical innovations in his memoirs. When historians of the earlier twentieth century turned to the developments described by Maus or *The Architectural Record*, now a closed episode, they maintained the broader perspective of a movement encompassing a range of artistic media besides architecture. It was an additional reason to overlook aspects specific to the design of the Hôtel Tassel. The wintergarden at the centre of the interior disappeared physically in the 1920s. Soon after and for over half a century, most historians were not aware that it had ever existed.

One of Horta's late regrets was that he did not take greater care to publish his work at the height of his career, not only to save what was disappearing, but also to orient its place in history.⁶¹⁰ Between 1895 and 1900 he received continuous requests from publishers who wanted to show his buildings either in dedicated studies or larger works on modern architecture, but he rarely accommodated them. Most publications reproduced the plans from *L'Émulation*. However, he kept the correspondence with publishers which attested to the international fame he had enjoyed. The German art critic Julius Meier-Graefe and his collaborators were among the first who, between 1897 and 1900, solicited Horta for photographs for a full study in his journal *L'Art décoratif*, photos which he seems to have promised them, but which he never sent.⁶¹¹ Horta assisted another German

⁶¹⁰ Horta, *Mémoires*, Appendix 3, undated note, p. 282.

⁶¹¹ It may serve no purpose to speculate whether Horta was unresponsive out of neglect, or because he did not want to assist Meier-Graefe, who was close to Van de Velde. In fact, the first issue of *L'Art décoratif* was dedicated to the Van de Velde's work, and he also designed the offices of the journal in Paris. Meier-Graefe and the Count Harry Kessler had stayed at Van de Velde's Bloemenwerf in Brussels. Horta's correspondence with Meier-Graefe and *L'Art décoratif* is kept in A.H. documents XV.M.7.1 to XV.M.7.19.

editor, Wasmuth, who sent his photographer in 1899. A letter from Octave Maus in that year asks Horta to act as an intermediary with Wasmuth so that he may have the shots for a conference on the decorative arts that he was preparing,⁶¹² suggesting that the two had collaborated for the photographs the *Neubaten in Brüssel*. Then, three of Wasmuth's photographs were published by *L'Art décoratif* in 1900, in a short article by M. Jacques, "Deux façades de Horta."⁶¹³ The long study that the journal had pursued since 1897 finally appeared in 1902 and it was written not by Meier-Graefe, but Sedeyn.

Five years after Thiébault-Sisson's 1897 article, Sedeyn was the second author to inquiry into the theme of nature. He assessed Horta's architecture as a corpus, showing the main buildings that he had erected since the Hôtel Tassel, houses which Sedeyn commended as "harmonious and alive" [*harmonieuse et vivante*].⁶¹⁴ He described some of the characteristics of these works, such as the simplicity of the façades, the effects of light and color tones in the atmosphere of his interiors, the stairways ascending from darkness towards light. He noted the leitmotif of his style, Horta's authentic curve [*cette courbe bien à lui*]⁶¹⁵, and raised the poignant question that has persisted in the

⁶¹² A.H. XV.M.4.8, letter of 10 November 1899, in which Maus asks for the clichés for a conference he was planning to give at Keller and Ranier, and for a forthcoming article on the decorative arts.

⁶¹³ G. M. Jacques, "Deux façades de Horta," *L'Art décoratif* (February 1900): 209-213.

The two façades are Tassel's and Frison's. The article was short and it only contained general glowing remarks on Horta's architecture. It seems as though that it was hastily compiled to accompany the recent photographs of the interior which the journal had obtained. *L'Art décoratif* appeared in two editions, one in French, published in Paris, the other in German, published in Munich under the title *Dekorative Kunst*. Thus, Jacques's article and Wasmuth's views of the wintergarden were also published in a second German source. The German reception of the image is particularly important because, as Van de Vijver observes in his "Victor Horta's staircase '12 rue de Turin,'" Pevsner probably relied on German sources for his *Pioneers*, and he may have first seen the image of the interior of the Hôtel Tassel in Wasmuth's album or one of the editions of the *Dekorative Kunst*. In turn, it was the *Pioneers* which helped diffuse the staircase image to an international public.

⁶¹⁴ A.H. typescript copy in Box 9 "Correspondence, Montald—Smolderen (XV)," Émile Sedeyn, "Victor Horta," *L'Art décoratif* (October 1901), p. 3.

⁶¹⁵ *Ibid.*, p. 6.

historiography of Art Nouveau since, “Where does this line come from, which has caused some criticism, while all the same stimulating much emulation, in Belgium and elsewhere? Here I hear the eloquent and empty word Nature; but this is not an adequate answer.”⁶¹⁶ He felt that it required elaboration, and he described how Horta drew his design principles: the line, drawn from nature, passing through the architect’s mind, became an autonomous principle imbued with “power, movement, expression.” To a principle drawn from nature Horta added “reason, sentiment, and logic.” Sedeyn sought to explain a key relationship, yet his own terms may sound as vague as “nature,” of which he complained.

Five years earlier, Thiébault-Sisson had realized regarding the Hôtel Tassel’s wintergarden that nature was the point of departure for Horta’s new pursuits: he had extracted the secrets of its “delicate undulations or the gracious curves of its stems,”⁶¹⁷ or the hidden laws which guided the growth of plants from which he drew the capricious motifs of his décor. In Horta, “nature was reduced to a suggestion.”⁶¹⁸ Thiébault-Sisson and Sedeyn dealt with the evocative power of Horta’s architecture, tracing the first connections between his suggestive images and the manifestations of vegetal life. They were barely able to explore this field. The turn of events in the historiography of Art Nouveau changed perspectives. Soon, the interpretive path they just begun and the Hôtel Tassel’s wintergarden were all but forgotten.

Sedeyn’s contribution is important in another respect. Compared to the previous requests, Horta seems to have been unusually accommodating. He received the French critic in his house and

⁶¹⁶ [d’où vient cette ligne qui a provoqué quelques critiques, tout en stimulant beaucoup d’émulations, en Belgique et ailleurs? J’entends d’ici le grand mot si éloquent et si creux: de la Nature; mais c’est pas un réponse]

Ibid.

⁶¹⁷ Thiébault-Sisson, “L’Art décoratif en Belgique, un Novateur: Victor Horta,” pp. 16-17.

⁶¹⁸ Ibid, p. 17.

introduced him to his family, accompanied him to his buildings, even guiding the photographer during the visit, as the correspondence indicates.⁶¹⁹ Horta may have suggested some of the ideas that appear in his article, such as the role of nature, the movement of stairways, and the adjective of an architecture brought to life. Sedeyn's article featured extensive illustrations, but they tended to show more lavish interiors such as Solvay's and Horta's own houses. It did not show the Hôtel Tassel, even though Sedeyn raised the fundamental question of the role of nature in the genesis of Horta's style, which first appeared at the Hôtel Tassel. This omission may have been because the Hôtel Tassel's interior was already published by Wasmuth and republished in smaller images by *L'Art décoratif*. It may have been due to the way that, whenever Horta dealt personally with this interior, he never drew critical attention to the mural, but sought to dismiss it instead. It is possible to speculate about other reasons, and it is unavoidable to wonder what an alternative study by Sedeyn would have looked like if Horta had guided the photographer in the Hôtel Tassel's interior, discussed the mural and the role of nature in his new architecture.

When Sedeyn wrote his article, about ten years had passed since the foundation stone of the Hôtel Tassel had been laid and passers-by began to notice the unusual house rising in the fall of 1893. Between 1893 and 1903, Horta built the Hôtel Tassel and Wasmuth provided the image that condensed his creative efforts and became its iconic image, whereas Sedeyn asked what the significance of this décor was. In the ten year span, the object, the premises of its historical reception and the key interpretive question all came into existence.

⁶¹⁹ A.H. XV.M.7.19, Letter from G. M Jacques of *L'Art décoratif*, 10 December 1901.

Appendix 2: The Hôtel Tassel in the historiography of Art Nouveau

German authors were the first to study the *Jugnedstil* as a closed historical episode. Ernest Michalski's *Die entwicklungsgeschichtliche Bedeutung des Jugendstils* (1925) and Fritz Schmalenbach's doctoral dissertation *Jugnedstil, Ein Beitrag zur Theorie und Geschichte der Flächenkunst* (1934) saw it as an essentially "flat art" whose origin lay in decorative design, as Schmalenbach's title "Flächenkunst" suggests. This view profoundly affected the inquiry into the origins of the Hôtel Tassel, whose staircase mural was indeed, a flat decorative work. It was another German author, Nikolaus Pevsner, who developed this argument and diffused it to an international audience in his seminal chapter on Art Nouveau in *Pioneers of the Modern Movement, from William Morris to Walter Gropius* (1936), expanded in the subsequent editions of the *Pioneers* and *The Sources of Modern Architecture and Design* (1968). Pevsner's remained a seminal chapter to the extent that, as he remarked in the introduction to *The Anti-Rationalists* (1973), it kept his book in public favour after his broader theses on the Modern Movement lost their traction.

Pevsner placed Art Nouveau in a teleological history of the Modern movement which traced the slow but inevitable emancipation of architecture in the twentieth century. In this developmental line, Art Nouveau was a transitory and deviant phase, a "short but very significant fashion in decoration,"⁶²⁰ which arouse initially in the decorative arts. Its sources lay in the English *Flächenkunst*, in the works of the Century Guild and the Arts and Crafts circles, all connected to William Morris. In France, its sources were the glass vessels of Émile Gallé's school at Nancy and

⁶²⁰ Nikolaus Pevsner, *Pioneers of Modern Design: From William Morris to Walter Gropius* (New Haven: Yale University Press, 2005), p. 84.

Paul Gauguin's pottery. In the pictorial field, its influence lay in the works of avant-garde artists such as the Dutch painter Jan Toorop. All these works were shown at the exhibitions of Les XX in Brussels at the turn of the 1890s. The decorations of the Hôtel Tassel arose out of these visual sources. To Pevsner, the building marked not the birth of a new style, but its passage from the decorative arts to architecture. The Art Nouveau leitmotif had already appeared in Mackmurdo's, Beardsely's and Toorop's designs before Horta applied it to the mural of the "memorable staircase."⁶²¹ Pevsner's statement rests on visual similarity, but he argues that it would be unbelievable that Horta could have invented this decoration without knowledge of the English works. The stylistic leitmotif passed from the mural into the ironwork, the wall and floor decoration reflecting the transition of Art Nouveau as a decorative style from flat design into space. Horta had accomplished this passage in the interior of the Hôtel Tassel and he was primarily a decorator.⁶²²

Siegfried Giedion, the other major historian of the Modern movement in the earlier twentieth century, traced this history in his *Space, Time, and Architecture* (1946) as the gradual but inevitable affirmation of the latent, "constituent facts" of architecture such as structure and the free plan. In this developmental line, the Hôtel Tassel appeared "revolutionary" in the way it created future opportunities with its flexible plan and the exposed iron structure which Horta transposed for the time from industrial buildings of the 1850s into a residential interior.⁶²³ Industrial structures offered not only new structural design principles but also visual sources for Horta's ornament. Giedion included the renowned photograph of the staircase alongside a detail drawing of Alphonse Balat's winter-garden at Laeken, showing the decorative ironwork in the ribs springing from the

⁶²¹ Ibid., 84-85.

⁶²² Ibid., p. 85.

⁶²³ Siegfried Giedion, *Space, Time and Architecture*, p. 233.

masonry base, a simplified reproduction from plate 50 of Arthur Vierendeel's *La construction architecturale en fonte, fer et acier* (1897-1902) whose plates portfolio in the second volume provided the most extensive illustration of the project.⁶²⁴ Giedion argued that the industrial sources of Horta's ornamental motifs became obvious in this comparison: they were the unrolled curls and rosettes in Belgian railway stations, striped of their Gothic and Renaissance clothing, and the strap-iron works at Balat's glasshouses at Laeken, all quasi-industrial constructions which he had transformed and transposed into a residential building. Horta's sources were in ironwork, not two-dimensional design.

Giedion was the first author to draw a direct relationship between the decorative ironwork of the Hôtel Tassel's interior and Balat's wintergarden. However, he was familiar only with the main wintergarden and not Balat's smaller glasshouses such as the Serre des Palmiers and the Embarcadère which had not been published at the time, but whose ironwork bears an even closer resemblance to Horta's ornament. Tracing the emancipation of industrial or semi-industrial iron structures, Giedion overlooked the fact that the part of the building by Horta which he was describing was, like Balat's, a wintergarden.

In the second half of the twentieth century the renewed interest in Art Nouveau resulted in a pattern of studies which continued to inquire into its origins, but which was less concerned with its place in the genealogy of the Modern movement. Robert Schmutzler maintained the view of an essentially ornamental style but he rejected the notion of a style of transition. He complemented

⁶²⁴ Vierendeel's *La Construction architecturale en fonte, fer et acier* (Bruxelles: Lyon-Claesen, 1897-1902) illustrates Balat's winter-garden in coloured plates. In Giedion's book, the illustration is simplified in black and white linear drawing. Dirk Van de Vijver has located this version in another German publication, *Eisenbauten: Ihre Geschichte und Aesthetik* by Alfred Gotthold Meyer and Wilhelm Freiherr von Tettau (Esslingen: Paul Neef 1907). This was a book on modern iron construction which features several works of Horta. See Van de Vijver's "Victor Horta's staircase '12 rue de Turin,'" n.11, p. 206.

Pevsner's sources with a series of English objects and he offered the original idea of a narcissistic psychological force behind the artistic phenomenon and the leitmotif of Art Nouveau. The long, sensitive line, evoking seaweed or creeping plants, moving in a sort of "narcissistic self-delight," gave the impression that it was in love with itself.⁶²⁵ Discussing the mural of the Hôtel Tassel, Schmutzler advanced Mackmurdo's illustrations as the main visual source and argued that an underlying urge of exhibitionism was common to both works.

Tschudi-Madsen, a doctoral student of Pevsner in London, published a pioneering focused study "Horta, Works and Style before 1900" in *Architectural Review* (1955), and a book dedicated thoroughly to an historical problem, *The Sources of Art Nouveau* (1956), in which he expanded his inquiry into nineteenth-century revivals such as Louis XV and the neo-Gothic, non-Western traditions, and contemporary "impulses" that Horta received from Viollet-le-Duc, Gauguin, Gallé, Grasset and the post-Impressionists. Horta's greatest accomplishment at the Hôtel Tassel was to gather these artistic tendencies and apply them to a house. Belgian art historian Robert Delevoy maintained a similar position in 1958 in the first monograph dedicated to Horta.⁶²⁶ He traced the influence of French Symbolism which first spread in literature, painting and sculpture. The arabesque line was developed as a means to transpose nature into the domain of intelligence and imagination by Odilon Redon, Gauguin and the Nabis, artists who were featured in the salons of Les XX. Horta caught this motif "in the atmosphere of the time,"⁶²⁷ gave it the nerve of a whip-lash line, and introduced it to architecture at the Hôtel Tassel.

⁶²⁵ Robert Schmutzler, *Art Nouveau* (London: Thames and Hudson, 1964), p. 12. Previously, Schmutzler published "Blake and Art Nouveau" *Architectural Review*, no. 20 (1955): 91-97, and "The English Origins of Art Nouveau," *Architectural Review*, no. 648 (1955): 108-117.

⁶²⁶ Robert Delevoy, *Victor Horta*.

⁶²⁷ *Ibid.*, p. 9.

The joint influence of the avant-garde pictorial sources, French rationalism, and English design seemed the most plausible explanation of Horta's sources and has remained the most accepted view since. It appears, for example, in William Curtis's section on Horta in his *Modern Architecture since 1900* (1982), and in the monographs published from the 1990s by Françoise Dierkens-Aubry, the curator of the Horta Museum. Formal inspiration was supplemented by the ideological stances of Viollet-le-Duc's calls for a rational architecture and the English joint program to reform society and the applied arts. However, in the very years when this thesis emerged and began to gain currency the architectural historian Alfred Hitchcock found it inadequate to explain the origins of the Hôtel Tassel. He reviewed the three supposed areas of the influence in the chapter on Horta in his authoritative *Architecture: Nineteenth and Twentieth Centuries* (1958), and in his contribution to Peter Selz's book *Art Nouveau: Art and Design at the Turn of the Century* (1959), arguing that however relevant the developments from French iron construction and English decorative design and avant-garde art may have been, there was still a gap between them and the birth of Horta's new architecture that remained unexplained. Neither Sumner, nor Beardsley or any of the contemporary artists Horta was supposed to have known such as Gallé, Ensor, Khnopff, Toorop or Munch could have counterbalanced his academic training. Heywood Sumner's wallpapers, for example, exhibited in Belgium in the early 1890s, praised by Van de Velde in two Belgian journals, and used in the drawing rooms of the Hôtel Tassel interior proved to Hitchcock "no more than that Horta was familiar with the English proto-Art Nouveau design," although, he adds, to the art historian they suggested a major source of influence.⁶²⁸ To Hitchcock it was impossible to give a final answer to the problem of origins in the absence of Horta's drawings prior to 1893 and other clues, and he

⁶²⁸ Hitchcock, "Art Nouveau architecture", in *Art Nouveau: Art and Design at the Turn of the Century*, ed. Selz, p. 125.

concluded, “why the Art Nouveau should have been initiated full-fledged by Victor Horta in Brussels in 1892 remains a mystery.”⁶²⁹

In 1957-1958, Vittoria Girardi co-authored an eight-installments article in the Italian journal *Architettura* (1957-1958). It was the first consistent study of Horta’s architecture, based mainly on the visual evidence of his buildings. The pioneering articles were part of a series titled *Eredità dell’Ottocento* [Legacy of the nineteenth century] that sought to rediscover the architecture of the period in an open polemic with a dogmatic modernism entering its last stage. Questions of influence were secondary to the article’s main purpose, to establish the historical significance of Horta’s architecture. Earlier studies in broader histories of architecture and Art Nouveau discussed only a few buildings and aspects of Horta’s work that were pertinent in the larger narratives, but Girardi considered them as a corpus, tracing its inner evolution, from the genesis, to maturity, and the final demise. Horta’s buildings marked the different stages of this cycle, defined by dominant design themes. It began at the Hôtel Tassel, was fully affirmed in the hôtels Wissinger, Frison and the Maison du Peuple, began show the signs of a crisis at the Saint-Ghislain kindergarten, aggravated at the Wolfers department store, and finally collapsed at the Beaux-Arts palace and the Central railway station.

The study in *Architettura* paved the way for the first large monograph on Horta by two Italian authors, Franco Borsi and Paolo Portoghesi, published in 1969. For the first time, it drew not only from visual evidence, but from Horta’s papers, including his memoirs manuscript. The two authors employed a set of notions drawn from semiotics and other theories of art. They interpreted Horta’s architecture as a language of signs and signifiers and explained form through the empathetic and

⁶²⁹ Hitchcock, *Architecture: Nineteenth and Twentieth Centuries*, p. 287.

vitalistic conception. They established further connections with Belgian architecture such as the seventeenth-century Baroque houses at the Grande Place in Brussels. These contexts facilitated readings of Horta's architecture, but sources and meaning of the interior decoration remained open to more than one interpretation. Motifs of the interior decoration could be read as "symbol of an undefined aspiration,"⁶³⁰ an image of fin-de-siècle *ennui* or contradictory feelings. They were inspired by metaphors, suggesting that Horta sought existential themes such as birth, growth and death.

Two studies of the 1990s sought to provide a definitive answer to the problems of sources and meaning. David Dernie's monograph *Victor Horta* (1995) argued that his architecture was rooted in the Symbolist art of his time and that its literary tropes may fully explain its meaning. This interpretation rests merely on analogies between verbal descriptions of Horta's interiors and themes of Symbolist literature, and the assumption that Symbolist art was so pervasive in the culture of the time that it must have influenced Horta. Dernie describes Horta's interiors as highly subjective environments, defined by the psychological impulses of their owner or their author, places of withdrawal, poetic contemplation and reverie, imbued with double meanings that transcend their materiality, and he draws analogies with themes in Symbolist letters. The mirrors in his interiors, for example, create ambiguities between surface and depth, being and dissolution, recalling the figures of water, glass, mirrors and transparency in the *Les vies encloses*, the *Aquarium mental* (1896) or the atmospheric rendering of the city in *Bruges-la-morte* (1892) by Georges Rodenbach. Fascinating as it may be to read Horta's interiors in this way, there is no evidence that Horta read Symbolist authors,

⁶³⁰ Borsi and Portoghesi, *Victor Horta*, p. 16.

and even if he did, their opaque texts would not have provided the clear themes expounded over decades of literary studies which have allowed Dernie to build his analogies.

In his doctoral dissertation “The early works of Victor Horta: The origins of Art Nouveau architecture” (1994), David Hanser argues that Symbolist pursuits in visual arts should be seen as parallel to Horta’s, not a major influence on him. The core of his argument is that all new aspects of his new architecture can be accounted for by his Beaux-Arts education, his training under Balat, and above all, the study of French rationalist theory and practice, all aspects that lay within the discipline of architecture. However, it is harder for Hanser to maintain a pure rationalist lineage when he discusses the decorations of house. Motifs such as the iron column tendrils were indeed logical in that they were derived from the structural and constructive components of the building, as he argues, but it is hard to ascribe their form in its entirety to a rational idea.

Hanser, however, makes for the first time the key observation that there may have been no comprehensive design for the Hôtel Tassel, but, that the decorative project was developed in several stages in which Horta’s style evolved. Faced with the lack of conceptual drawings and adequate explanations, Hanser determined a probable order of the construction and decorative design, based on the building permit, existing notes from Horta’s memoirs and mementos, and his own considerations on the progress of a building site of that size. Hanser argues that Horta invented the decorations as the building site progressed, and his imagination grew freer. In the interior, the starting point of the decorative schemes must have been the iron column in the hallway which, as a structural member, was designed and placed before the others. The mural must have been the last among the major decorations, and Hanser believes that its theme, like other decorative motifs, was derived from the tendrils of the columns. For the first time, Hanser reversed the *Flächenkunst*

genealogy: the flat art of the mural was derived from the motifs of the iron column tendrils. Horta's Art Nouveau was born in space.

Hanser's analysis of the Hôtel Tassel drew from technical knowledge and documentation that had recently come to light. Jean Delhayé purchased the building in 1976 and restored it with a team of specialists between 1982 and 1985. At that time, the house had been thoroughly transformed and a large part of the decorations was lost. The glazed iron structures were destroyed, the mural was covered by a coat of green latex paint, most stained glass panels had disappeared, and the interior was divided into rental studios. Delhayé was able to restore it based on photographs of the house and surviving traces. Upon completion of the works, he published a monograph which documented the restoration, *Victor Horta: Hôtel Tassel 1893-1895* (1986). Accompanying the technical drawings, coloured renderings and photographs were two texts, an interview with Delhayé and a study by the architectural historian François Loyer, biographer of Paul Hankar.

Loyer's critical study "The theatricality of Art Nouveau, Victor Horta's Hôtel Tassel" discussed Horta's innovations, but also his roots in nineteenth-century architecture. Loyer emphasized the classical derivation of the project: the axial and hierarchical plan in the purest Beaux-Arts tradition, the classical scheme of the façade whose bow window detaches without rupture in the manner of French hôtel particulier, the choice of ashlar over brickwork, all aspects that were rooted in the monumental and sculptural traditions, and which effaced rationalist solutions. Loyer was keen to identify anachronisms and contradictions in Horta's architecture because this implied that the true innovator of the time was not him, but Paul Hankar. The path towards modern architecture went from Viollet-le-Duc and passed by Hankar who understood the French master's true lessons. Horta too read Viollet-le-Duc, but he remained dependent on Balat's daemonic classicism. He chose

ashlar over brickwork, the modern material according to Loyer and Hankar's favorite. Accepting Loyer's implicit conclusions depends, upon other things, on whether or not one agrees that brickwork, the building material of the medieval Flemish town, denoted indeed modernity. More fundamentally, it also depends upon a singular vision of modernity, with an indentifiable genealogy.

The subsequent monographs on Horta and Belgian Art Nouveau incorporated imagery in color from the restored interior, conveying decorative details and its general atmosphere. The wintergarden was restored in the building and in its history. The papers of the Horta archives and additional research into archival and printed sources of the time have cast light on lesser-known aspects of Horta's activity before 1893, such as his projects at the academy, his collaboration with sculptors and his involvement in Freemasonry. The contributions in the monograph *Horta: Art Nouveau to Modernism* (1996), co-edited by Françoise Dierkens-Aubry and Jos Vandenbreeden, explored different aspects of his career and buildings with an introductory essay by Lieven De Cauter on "Walter Benjamin on Art Nouveau." In a way, the close of the 1990s marks the end of major scholarship on Horta. Michele Goslar's 2012 monograph, physically the largest published to that date, has filled some biographical gaps on Horta, his family and his clients which Goslar has researched using population registers and a few other rare archival sources. People are a special concern of her study. The book shows building permits and drawings published for the first time, however it contains no new critical perspectives, if not erroneous ones such as the case of the transom panel of the Matyn house (1890), which Goslar attributes to Horta and deems an early Art-Nouveau work. If this were true, Art Nouveau would have indeed been born in decorative flat design, and in a transom panel.

Recent studies by Deborah Silverman and Amy Catania Kulper have laid fresh new interpretative claims upon Horta's architecture, but they bring no new historical information. Deborah Silverman has published two studies on the topic, *Art Nouveau in Fin-de-Siècle France: Politics, Psychology, and Style* (1989), and "Art Nouveau, art of darkness: African lineages of Belgian modernism" (2011). In France, she saw Art Nouveau as an art of withdrawal, intimacy, and feminine subjectivity. In Belgium, the title of her study is an allusion to Joseph Conrad's *Heart of Darkness* because she saw Belgian Art Nouveau as an art of colonial domination. Art Nouveau was a "specifically colonial art," embedded in imperial culture of the time and the colonial will of its designers who consciously or subconsciously drew its ornamental repertoire from the contemporaneous colonization of Congo, including the motifs of the flogging whip, the coiling rubber lians, and the abstracted elephant. Silverman sees these motifs in Horta's architecture. In the interior of the Hôtel Tassel, she substitutes Mackmurdo's undulating tulips for wild Congolese rubber vine coils as a source of the mural painting, and sees the "hook" and "whiplash" in ironwork, specifically drawn from the tools employed in the atrocities committed in Congo. Visual analogies always require some degree of shared ideological conviction before they become persuasive. Pevsner's attribution of Mackmurdo's wall-papers as a source did not rest on visual similarity alone, but on the premise of a general movement of renewal in architecture and the applied arts, inspired by the English Arts and Crafts. Silverman's, however, require a whole new level of imagination and ideological conviction. They require, above all, accepting the premise of ubiquitous colonialism which manifested itself in the subjects of her study, including Tassel.

Kulper has written several articles that trace contexts from which Horta's architecture draws its meaning. "Of stylized species and specious styles" (2006) and "From will to wallpaper: Imaging

and imagining the natural in the domestic interiors of the Art Nouveau” (2008) explore metaphors and images of nature in the nineteenth century. The latter traces a shift in the conceptualization of the natural, from the rational and systematic to the volitional, capricious and generative exemplified in philosophical works such as Schopenhauer’s. Kulper associates this philosophical shift with Horta’s ornamental design, which does not represent nature in regularized, taxonomic forms but suggests instead a nature that is “generative,” “emergent,” and “volitional,” rendered in murals, not in the repetitive patterns of a wallpaper.⁶³¹ Wallpapers “de-situate” ornament, murals situate ornament and create a dialogue between motifs and their spatial environment⁶³² which allows Horta, amongst other things, to render the idea of a volitional nature. Kulper then reads the different ways of rendering a volitional nature in three components of the Hôtel Tassel’s hallway: the mural below the mirror, the decorations below the curved soffit, and main staircase mural which reflects the “thematic topography” of the house in the ascension from darkness to light. Evolving ideas in philosophy and natural sciences offer a body of meaning in which elements of Horta’s design can be placed. However, Kulper traces links between an outer context and motifs based on what they suggest to her, but she leaves out the connecting agents in this system of relationships.

In “Art Nouveau gardens of the mind: Bell jars, hothouses, and wintergardens—preserving immanent natures” (2015), Kulper draws from reflections of modern philosophers to discuss Horta’s glasshouse in a highly speculative and un-historical form. She does, however, emphasize that Horta merged the typology of the glasshouse with the townhouse at the hôtels of Tassel, Solvay and Van Eetvelde. Kulper’s articles attest to the re-emerging interest in the wintergarden of the Hôtel Tassel

⁶³¹ Amy Kulper, “From will to wallpaper: Imaging and imagining the natural in the domestic interiors of the Art Nouveau,” p. 157.

⁶³² Ibid., p. 178.

and the role of the images of nature at its origins. Over a century after Thiébault-Sisson, Sedeyn and Guimard remarked the role of nature in Horta's design and three decades after Delhayé restored the wintergarden at the centre of house, nature has returned to the scholarship on Horta's Hôtel Tassel.

Abbreviations:

A. H. Archives Musée Horta, Bruxelles.

A.B.C. Archives Bois du Cazier, Macinelle, Belgium.

A.E.B. Archive de l'État, Bruxelles

A.J.B. Archives and Library of the Botanic Garden, Meise, Belgium.

A.M.I. Library and Archives of the Musée de l'Industrie, Bois du Cazier, Belgium.

A.P.R. Archives du Palais Royal, Bruxelles

A.V.B. Archives de la Ville de Bruxelles

B.N.E. Biblioteca Nacional de España

K.R.B. Bibliothèque royale de Belgique (Royal Library of Belgium), Brussels

M.R.C. Musées royaux d'art et de l'histoire, parc du Cinquenaire.

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Illustrations



Fig. 1.1 - Hôtel Tassel, central hallway, view towards the staircase. Photograph by Christine Bastin & Jacques Evrard [Françoise Aubry, *Horta ou la passion de l'architecture* (Ghent: Ludion, 2005), reproduced with the photographers' permission]



Fig. 1.2 - Hôtel Tassel, central hallway, view towards the wintergarden. Photograph by Christine Bastin & Jacques Evrard [Aubry, *Horta, habitations majeures* (Ghent: Snoeck, 2013) reproduced with the photographers' permission]



Fig. 1.3 - Hôtel Tassel, view from the drawing room towards the main landing of the hallway, the vestibule and the mezzanine above. Photograph by Christine Bastin & Jacques Evrard [Aubry, *Horta, habitations majeures*, reproduced with the photographers' permission]



Fig. 1.4 - Hôtel Tassel, view from the mezzanine balustrade towards the main landing of the hallway and the double door leading into the drawing room, photograph by Christine Bastin & Jacques Evrard [Aubry, *Horta ou la passion de l'architecture*, reproduced with the photographers' permission]

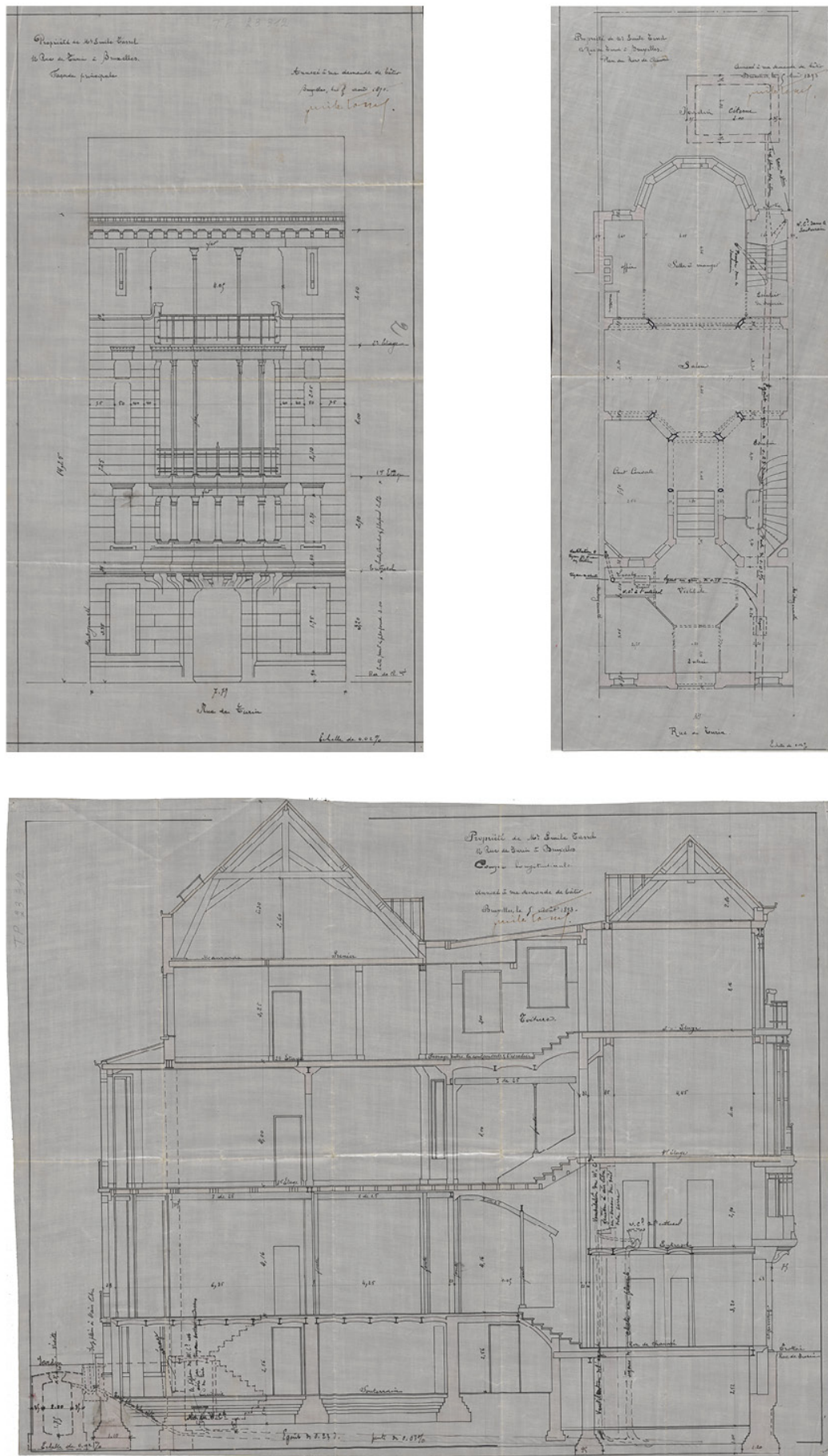


Fig. 1.5 - Hôtel Tassel, elevation, plan and section in the building permit application, 1894 [Archives Ville de Bruxelles]

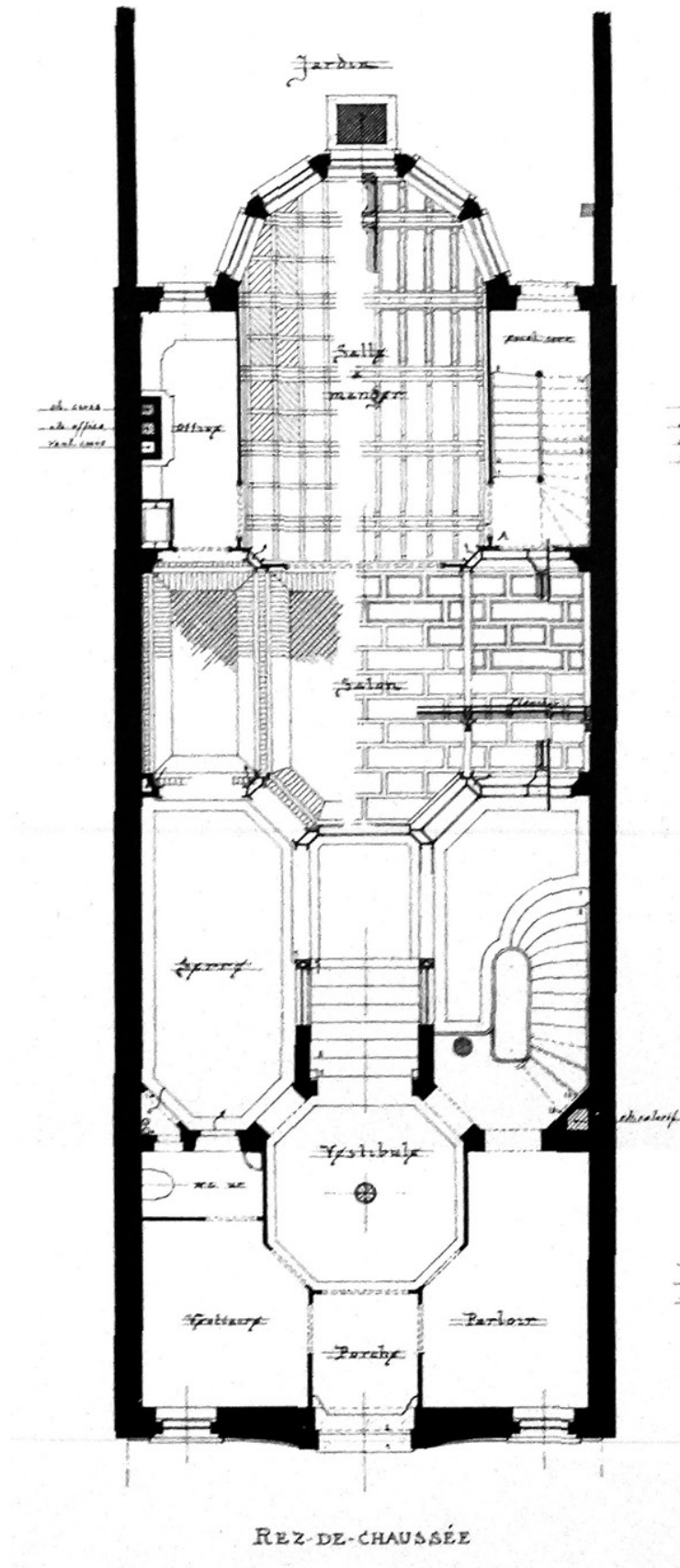


Fig. 1.6 - Hôtel Tassel, plan of the main floor from *L'Émulation*, 1895, plate 39 [Canadian Centre for Architecture] 369

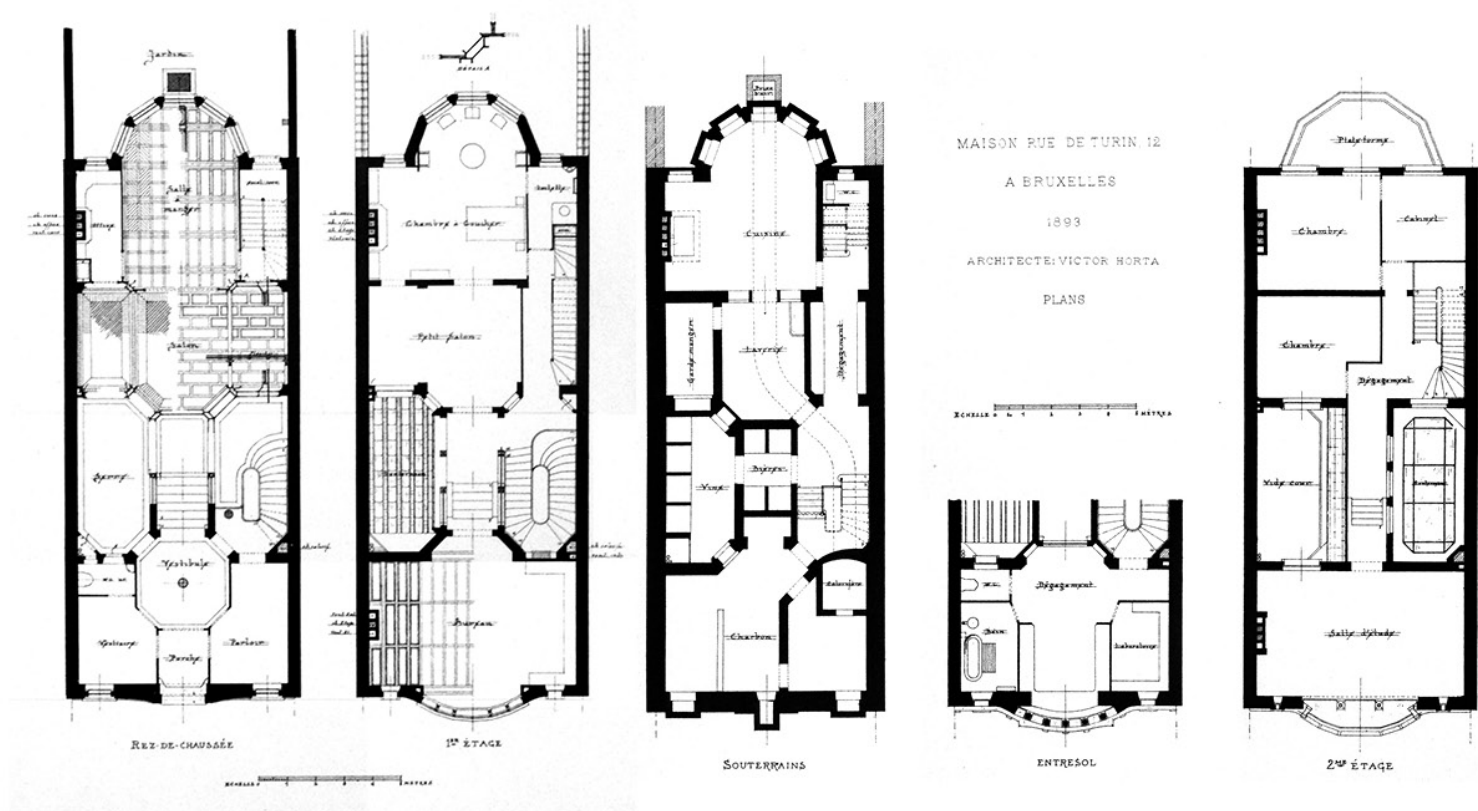


Fig. 1.7 - Hôtel Tassel, plans from *L'Émulation*, 1895, plates 39, 40: left to right: main floor, first floor, basement level, mezzanine, second floor [Canadian Centre for Architecture]

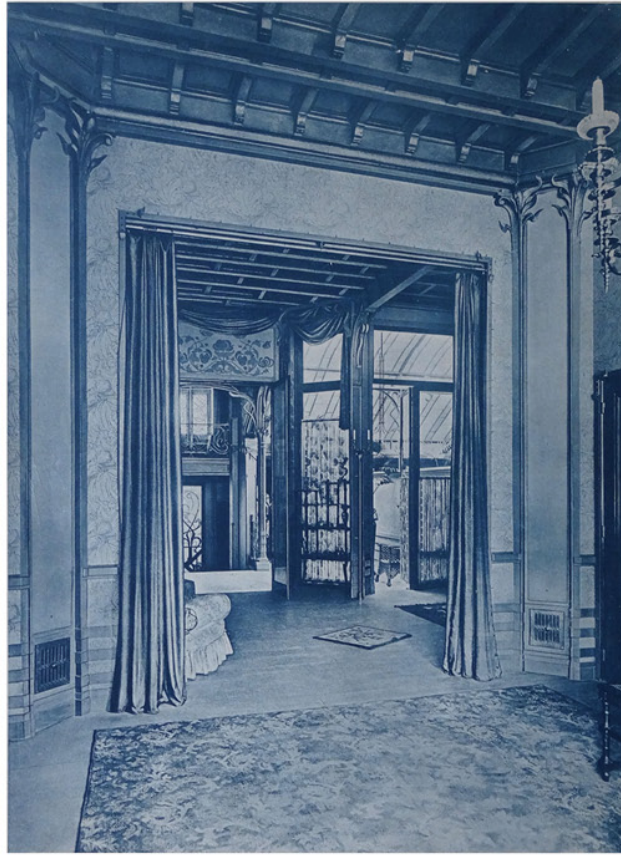


Fig. 1.8 - Hôtel Tassel, view from the dining room towards the drawing room, *L'Émulation*, 1895, plate 42 [Canadian Centre for Architecture]



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Fig. 1.11 - Hôtel Tassel, view towards the
wintergarden, detail, *L'Émulation*, 1895, plate 41

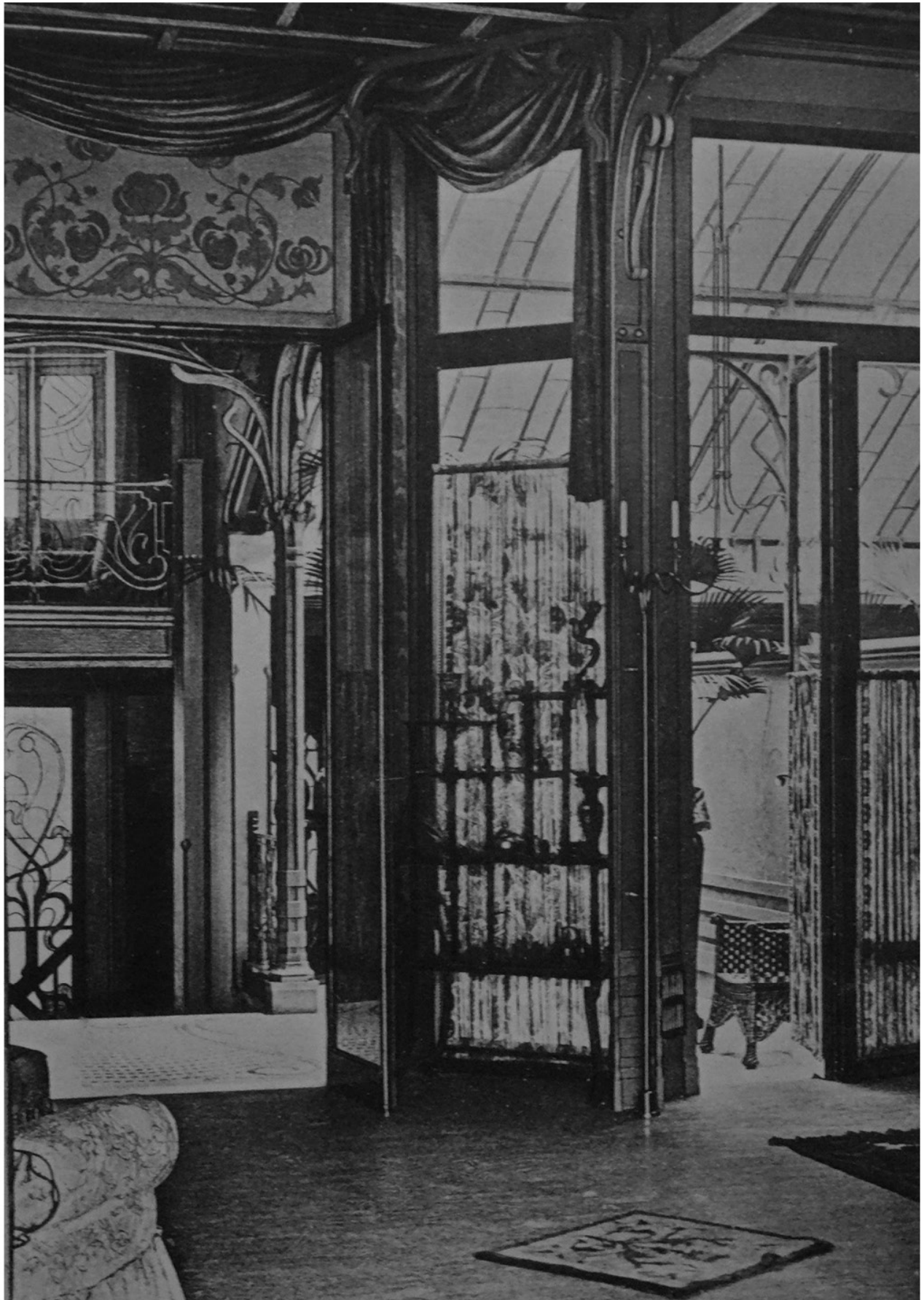


Fig. 1.12 - Hôtel Tassel, view from the dining room towards the drawing room and the wintergarden, detail, *L'Émulation*, 1895, plate 42



Fig. 1.13 - Hôtel Tassel, view towards the staircase, 1899ca, *Neubauten in Brüssel*, 1900, plate 10 [Archives Musée Horta]

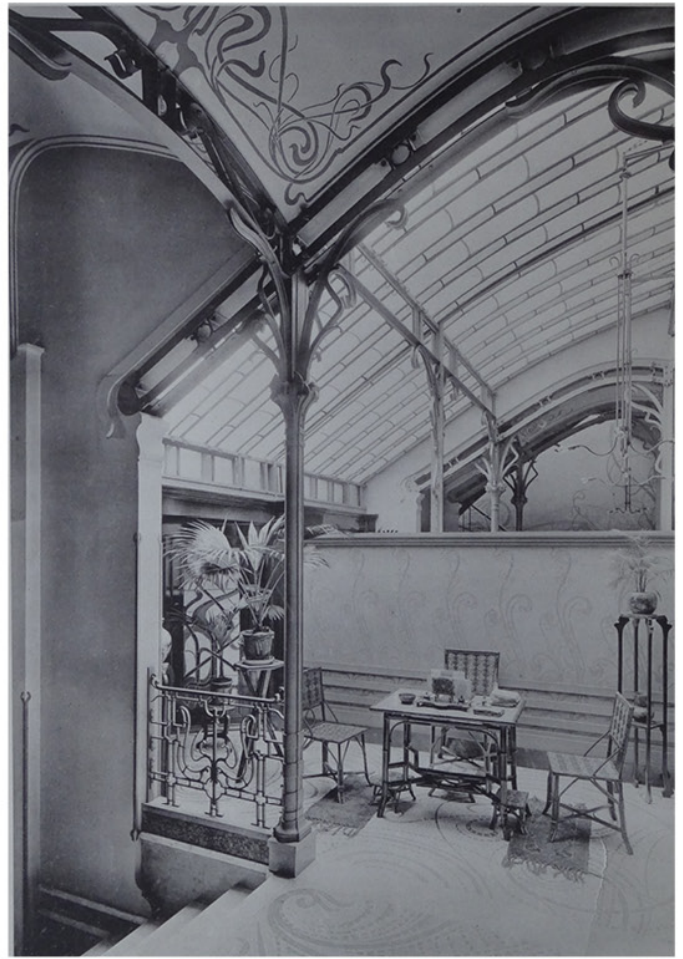


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Fig. 1.15 - Hôtel Tassel, view towards the staricase, *Neubauten in Brüssel*, 1900, plate 12 [Archives Musée Horta]



Fig. 1.16 - Hôtel Tassel, view towards the staircase, *Neubauten in Brüssel*, 1900, plate 11 [Archives Musée Horta]



Fig. 1.17 - Hôtel Tassel, view towards the double door of the vestibule, *Neubauten in Brüssel*, 1900, plate 13 [Archives Musée Horta]



Fig. 1.18 - Hôtel Tassel, façade, *Neubauten in Brüssel*, 1900, plate 8 [Archives Musée Horta]



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Fig. 1.21 - Hôtel Tassel, façade, detail of the two iron columns of the last storey [author's photograph, 2012]



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Fig. 1.22 - Hôtel Tassel, façade, detail of the entrance portal under the mezzanine [author's photograph, 2012]



Fig. 1.24 - Hôtel Tassel, façade, detail of the screen of columns of the mezzanine [author's photograph, 2012]



Fig. 2.1 - The glasshouses of the Botanical Garden of Brussels [author's photograph, 2017]



Fig. 2.2 - The glasshouses of the Botanical Garden of Brussels, details of the colonnade of the central rotunda and former lean-to forcing-houses [author's photograph, 2017]

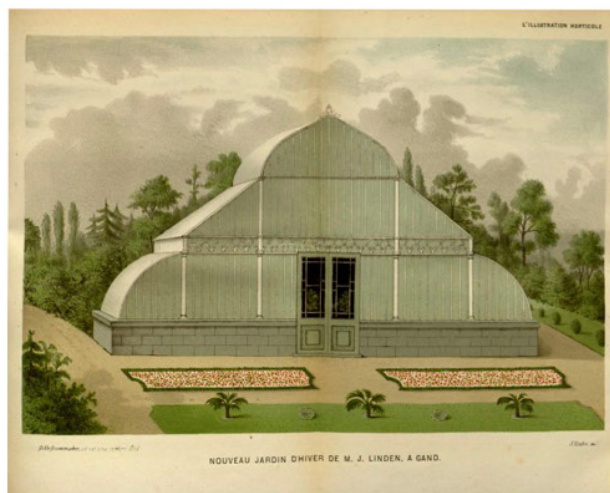


Fig. 2.3 - Linden's commercial establishment near Ghent, wintergarden, *L'Illustration horticole*, 1875 [Biodiversity Heritage Library]

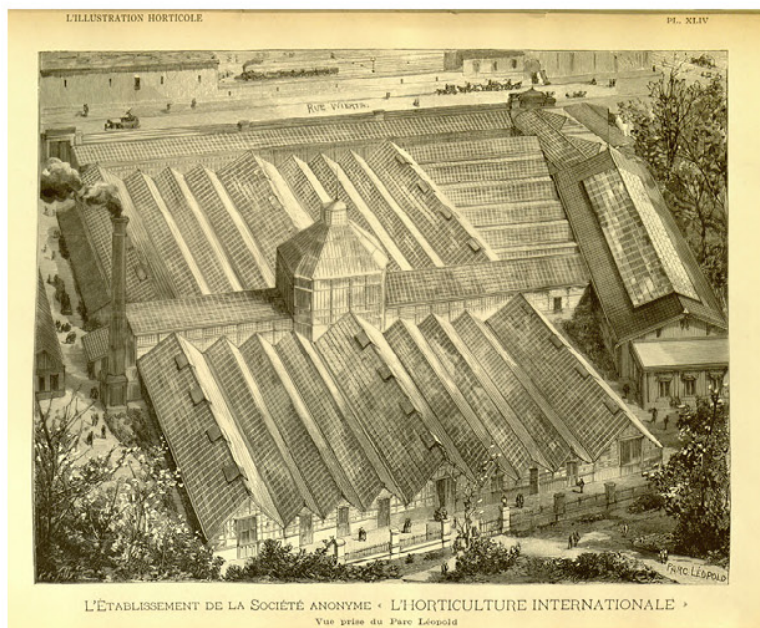


Fig. 2.4 - Linden's "L'horticulture internationale" in Brussels, *L'Illustration horticole*, 1888 [Biodiversity Heritage Library]



Fig. 2.5 - Van Houtte's commercial establishment near Ghent, *Flore des serres et des jardins de l'Europe*, 1850-51 [Biodiversity Heritage Library]

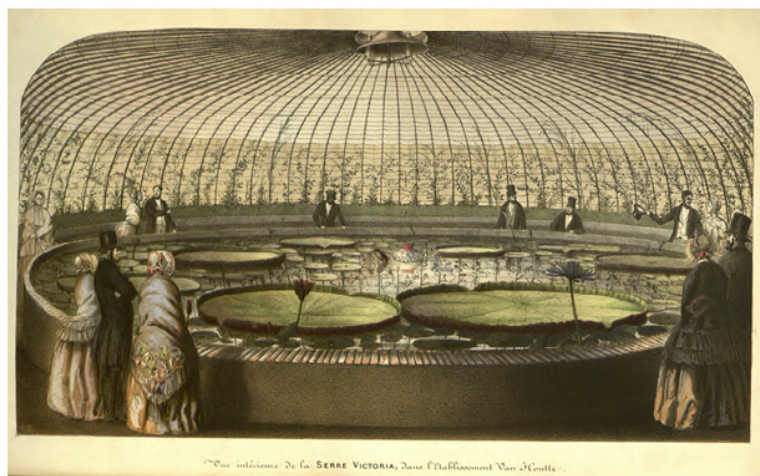


Fig. 2.6 - Van Houtte commercial establishment near Ghent, Victoria Regia interior [*Flore des serres et des jardins de l'Europe*, 1850-51 [Biodiversity Heritage Library]]

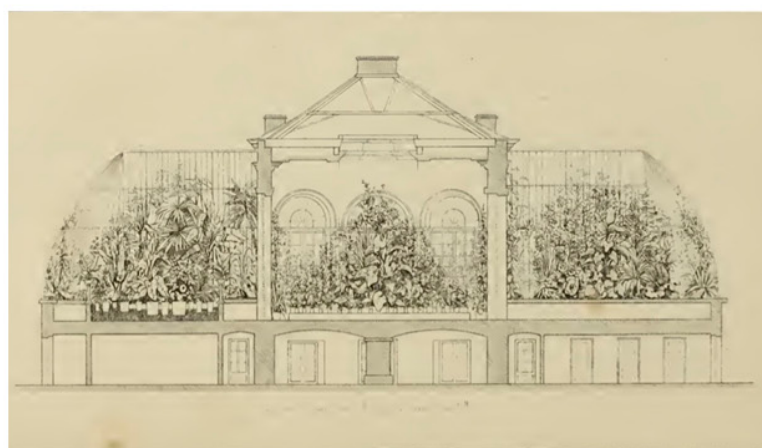


Fig. 2.7 - Heynderyck's villa and glasshouses near Ghent, *Annales de la Société Royale d'agriculture et de botanique*, 1845 [Biodiversity Heritage Library]



Fig. 2.8 - Alphonse Balat's former Victoria Regia at the National Botanical Garden at Meise [author's photograph, 2017]

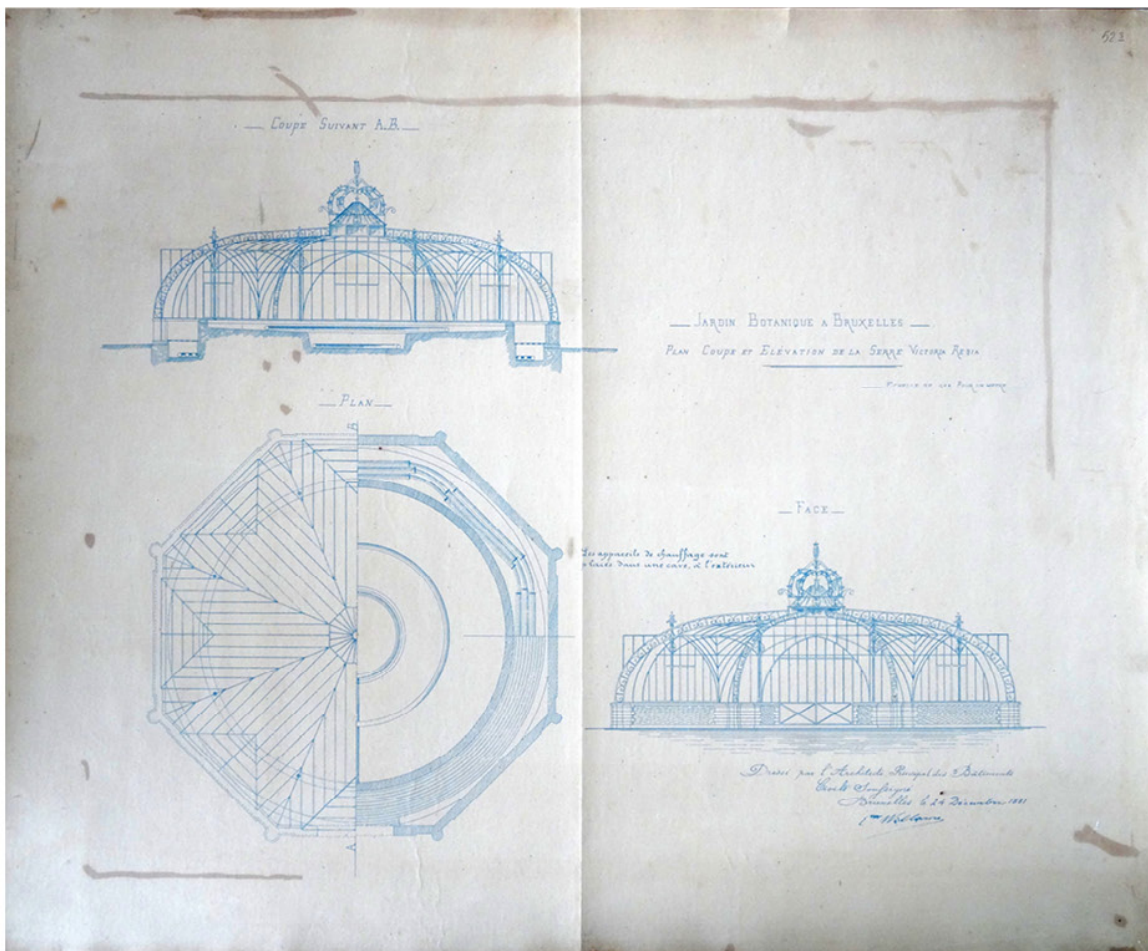


Fig. 2.9 - Wellens plans of Balat's Victoria Regia, 1881 [Collection of the Belgian Federal State, on permanent loan to the Botanical Garden, Meise]



Fig. 2.10 - Noel Humphrey, “*serre d’interieur*”—conservatory attached to the drawing room, *La Belgique horticole*, 1852 [Biodiversity Heritage Library]

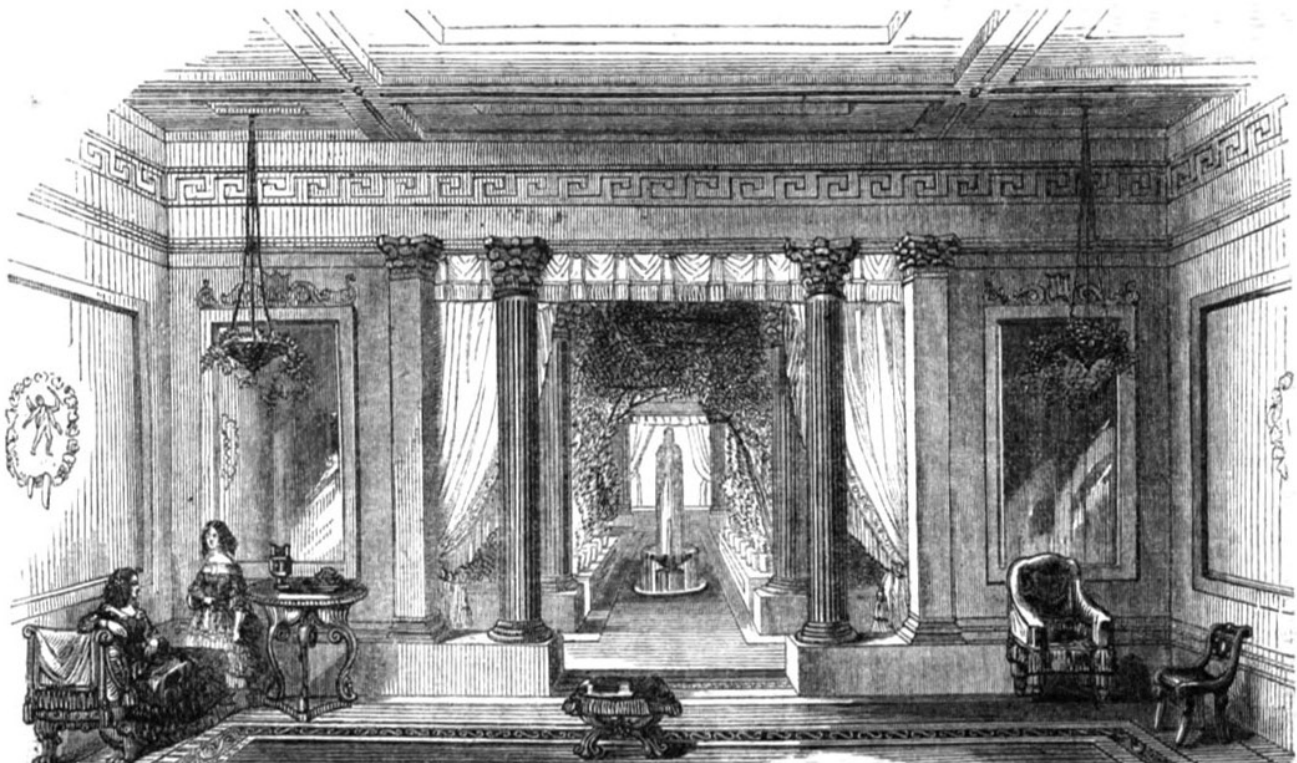


Fig. 2.11 - Edward Buckton Lamb, “*Salon-serre*”—conservatory attached to the drawing room “in the Greek style,” *La Belgique horticole*, 1855 [Biodiversity Heritage Library]

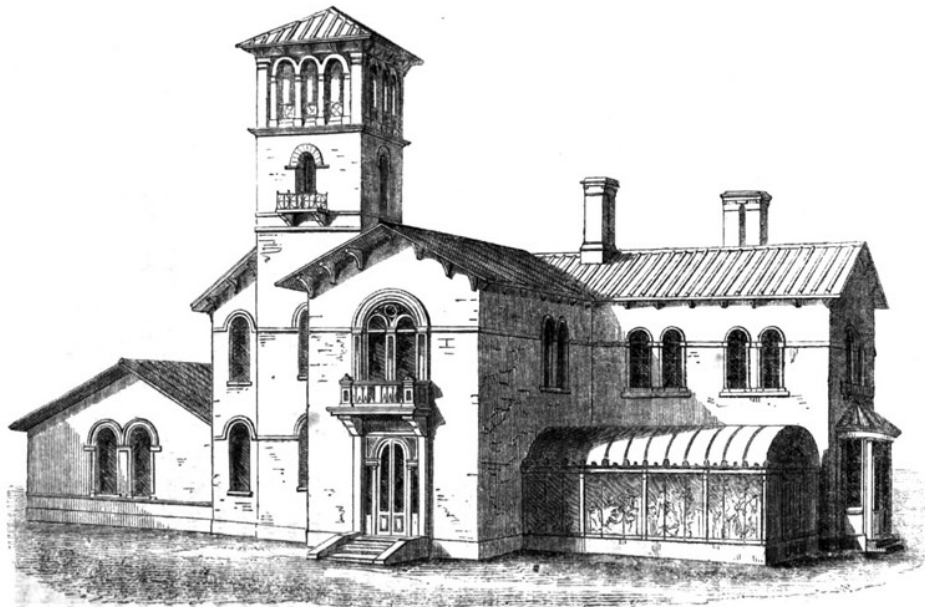


Fig. 2.12 - Liège, zinc glasshouse by Saint-Paul de Sincay, *La Belgique horticole*, 1852
[Biodiversity Heritage Library]

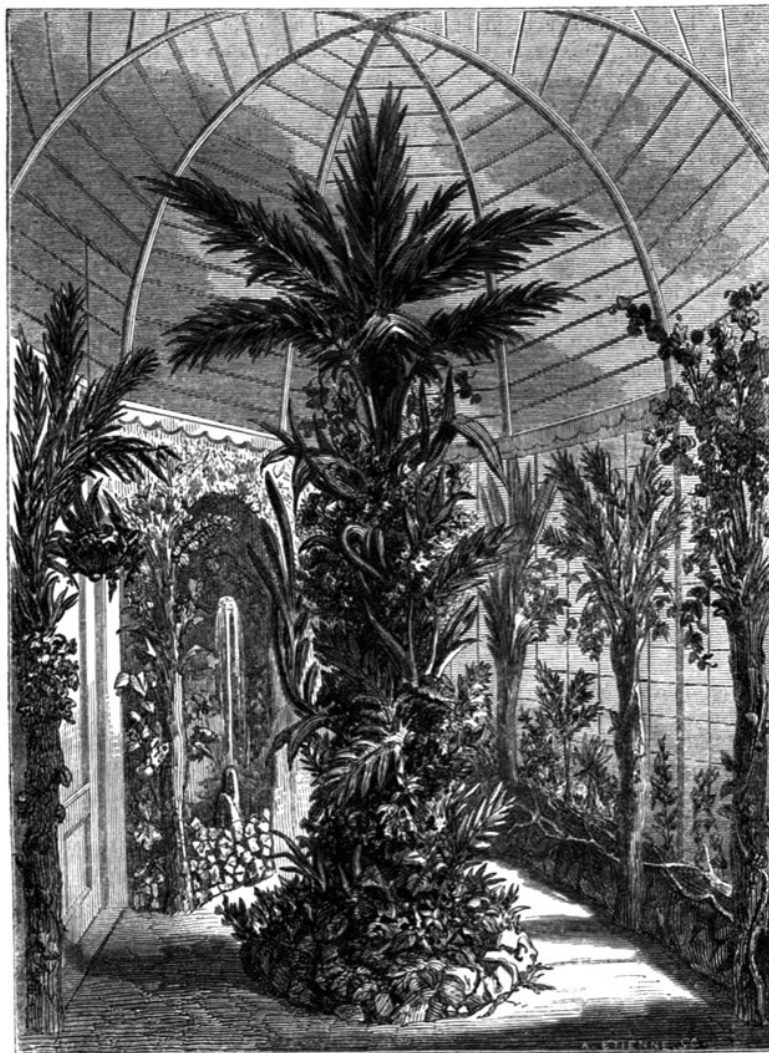


Fig. 2.13 - Liège,
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Library]

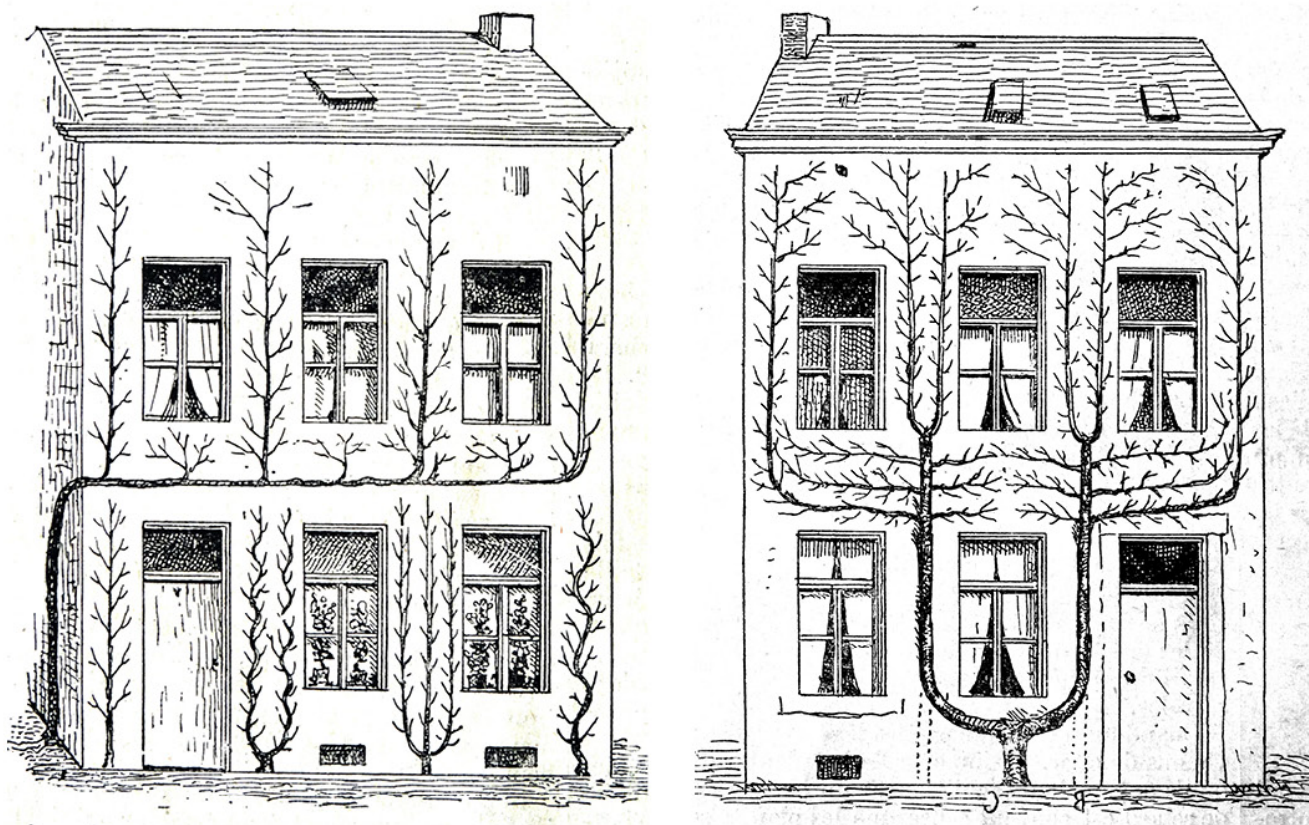


Fig. 2.14 - Proposal to decorate façades with crawlers, *Le Bulletin Horticole*, 1886 [Library of the Botanical Garden, Meise]

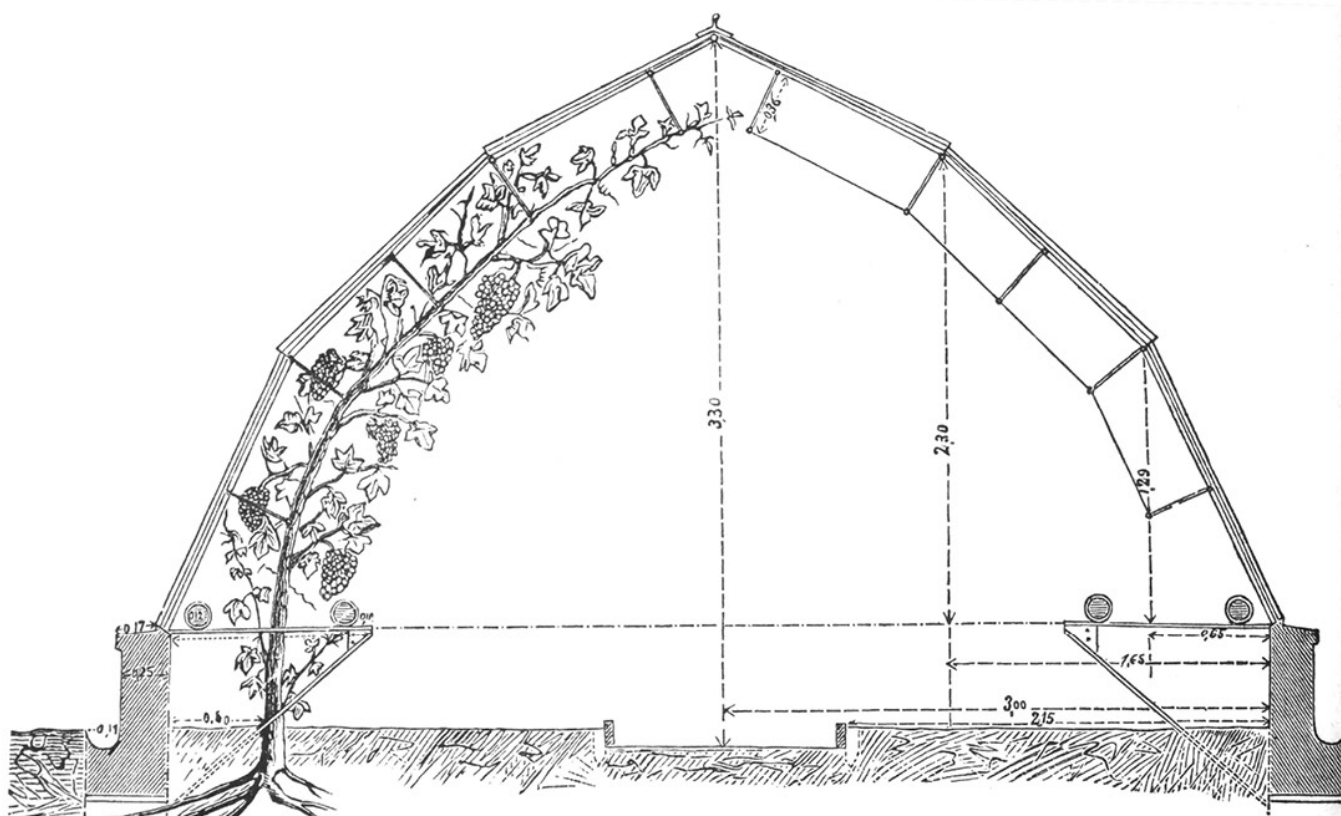


Fig. 2.15 - Vines glasshouse with mobile frame at Versailles, Éd. Pynaert, *Les serres-vergeres* (Paris: Victor Masson, 1888) [Library of the Botanic Garden, Meise]

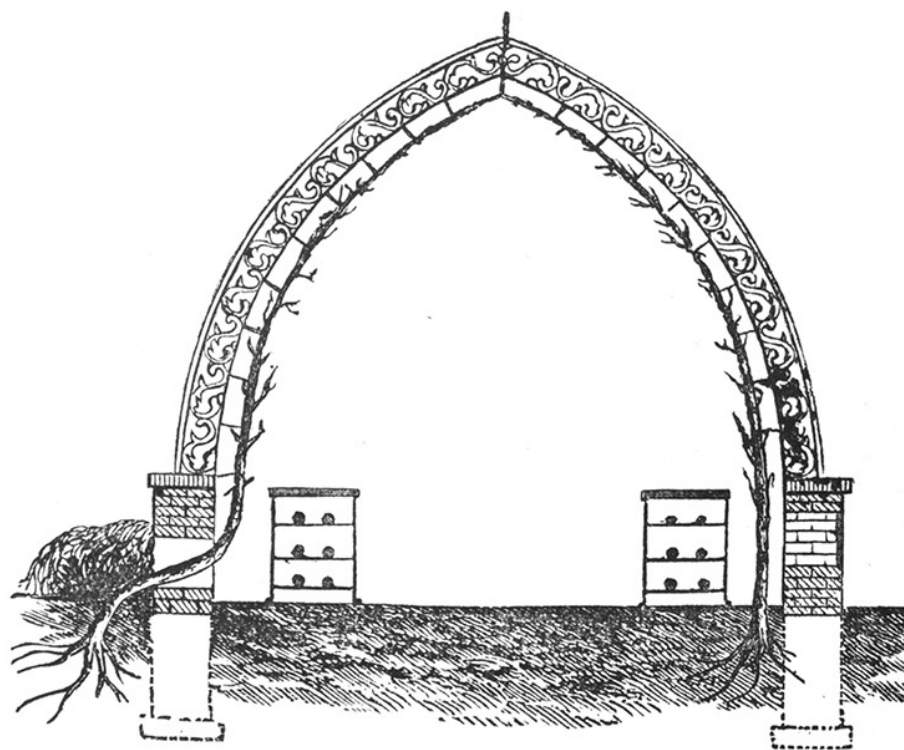


Fig. 2.16 - Vines and decorative ironwork, Éd. Pynaert, *Les serres-vergeres*, 1888

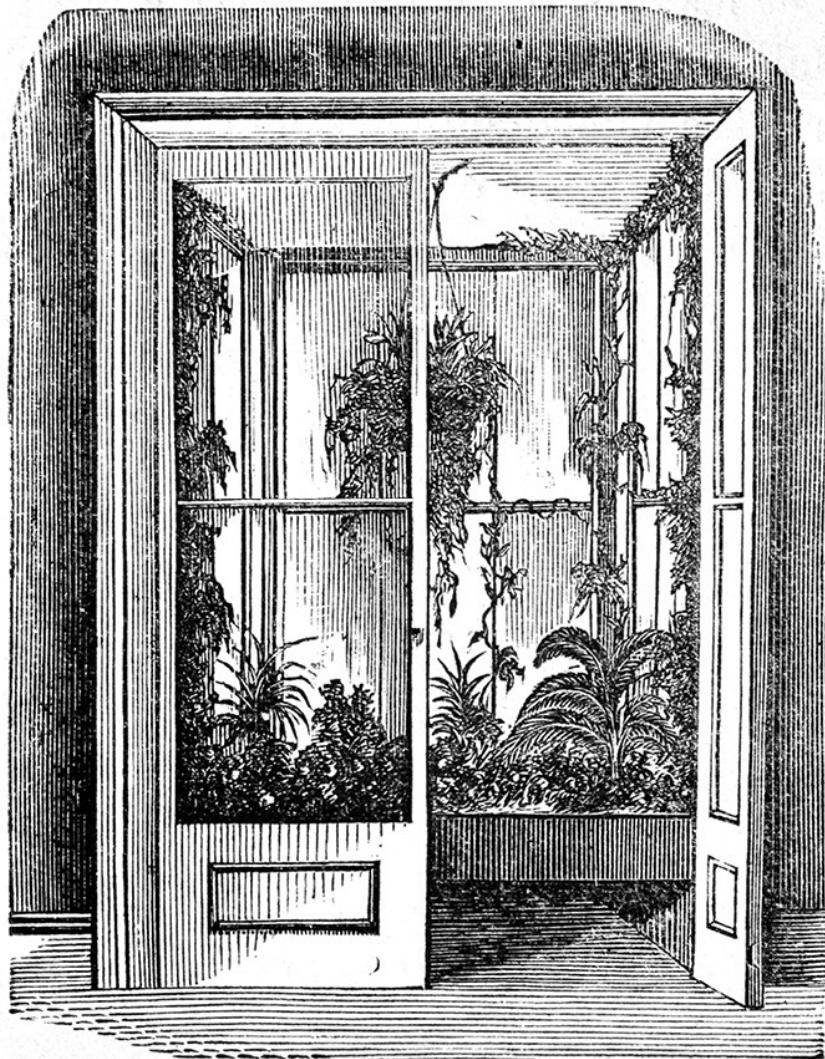


Fig. 24. — Double fenêtre ou petit balcon vitré garni de plantes.

Fig. 2.17 - Glasshouse between doors, *Revue de l'horticulture belge et étrangère*, 1878 [Biodiversity Heritage Library]



Fig. 2.18 - The complex of glasshouses at the royal domain of Laeken, plan of 1931: in blue, glazed structures; in orange, masonry structures; dotted blue line: circulation sense for the Garden party of 11 May 1931, from the higher to the lower plateau [Archives du Palais royal, Bruxelles]



Fig. 2.19 - The complex of glasshouses at the royal domain of Laeken: Embarcadère - Serre du Congo - Wintergarden [author's photograph, 2017]



Fig. 2.20 - The complex of glasshouses at the royal domain of Laeken: Frontage of the orangery with the wintergarden behind [author's photograph, 2017]

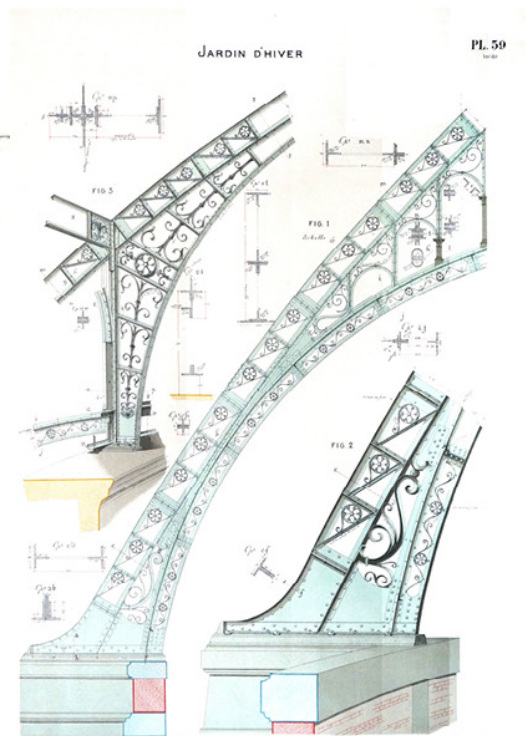
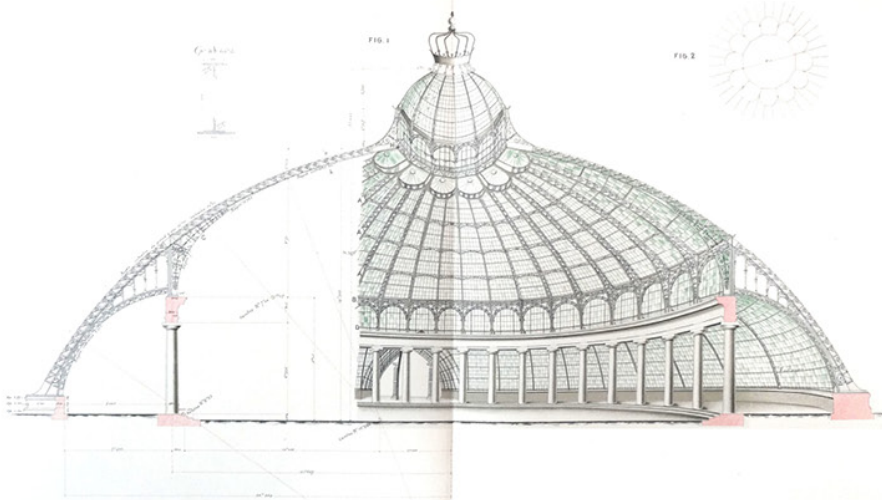
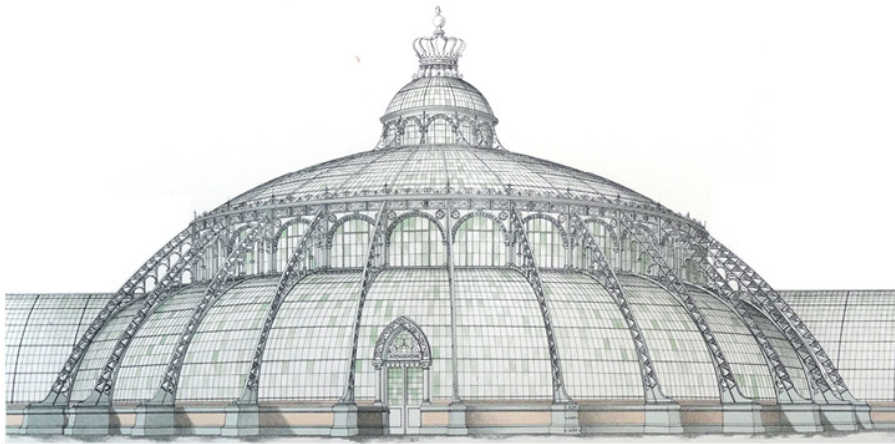


Fig. 2.21 - Alphonse Balat, The wintergarden of the complex of glasshouses at the royal domain of Laeken, 1874-1879, plates in Arthur Vierendeel, *La construction architecturale en fonte, fer et acier* (Paris-Bruxelles: Lyon-Claesen, 1879-1902) [Canadian Centre of Architecture]

Fig. 2.22 - The royal domain of Laeken, construction of the wintergarden, summer 1874 [Archives du Palais royal, Bruxelles]

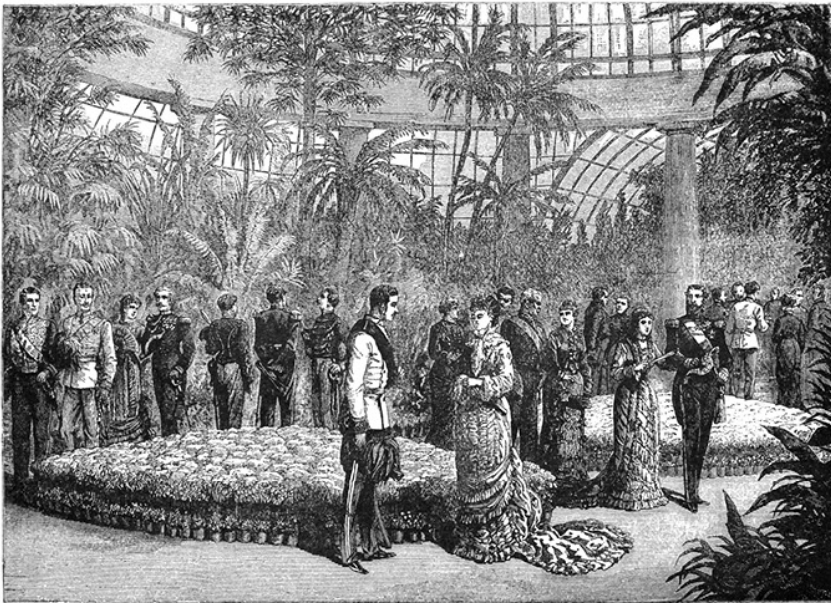


Fig. 2.23 - The royal domain of Laeken, construction of the wintergarden, summer 1875 [Archives du Palais royal, Bruxelles]





AUBADE DANS LA SERRE DE LAEKEN.



VUE INTÉRIEURE DANS LA GRANDE SERRE DU CHATEAU ROYAL DE LAEKEN.

Fig. 2.24 - The royal domain of Laeken, the wintergarden in 1880: concert of the Viennese choir, engagement ceremony of Stephanie of Belgium and Archduke Rudolph, in Édouard Morren, *Les serres du Château royal de Laeken* (Ghent: Annoot-Braeckman, 1883) [Library of the Botanic Garden, Meise]



Fig. 2.25 - The royal domain of Laeken, the wintergarden [author's photograph, 2017]

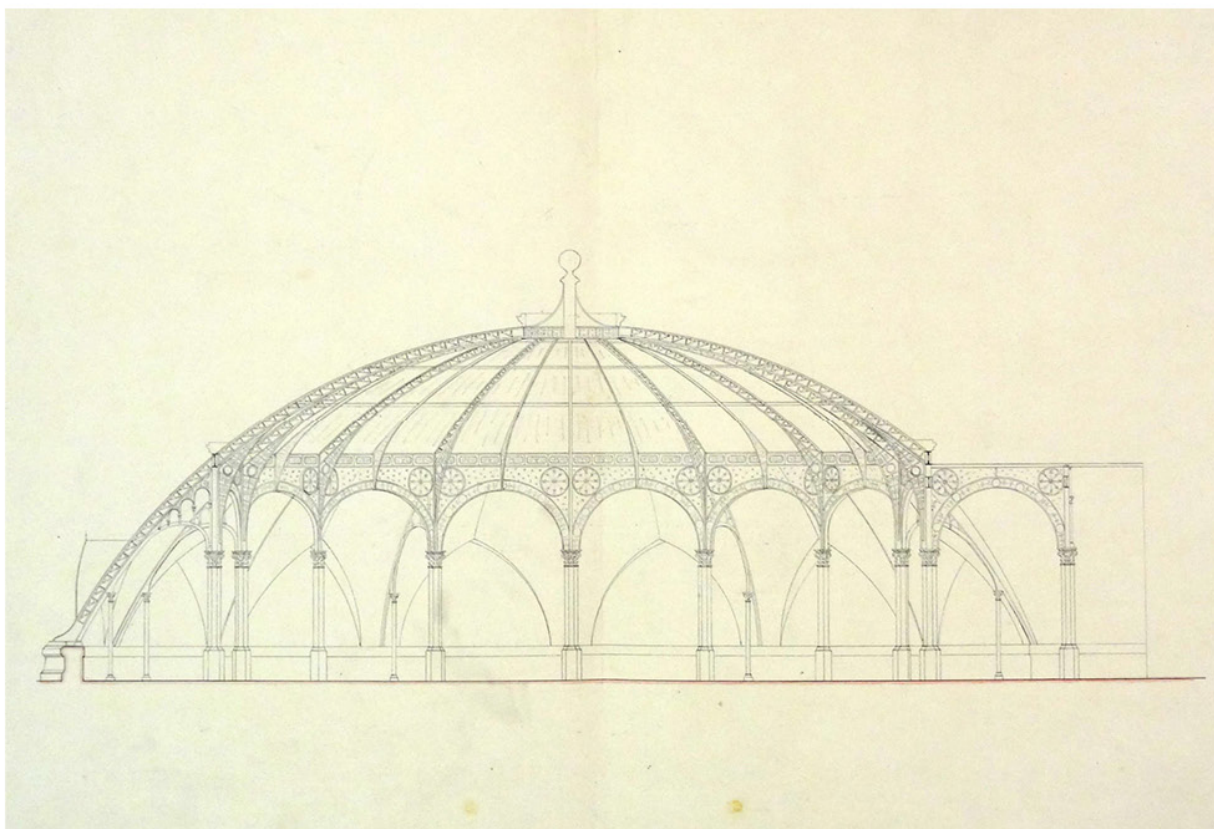


Fig. 2.26 - Alphonse Balat, intermediary versions of the wintergarden [Archives du Palais royal, Bruxelles]

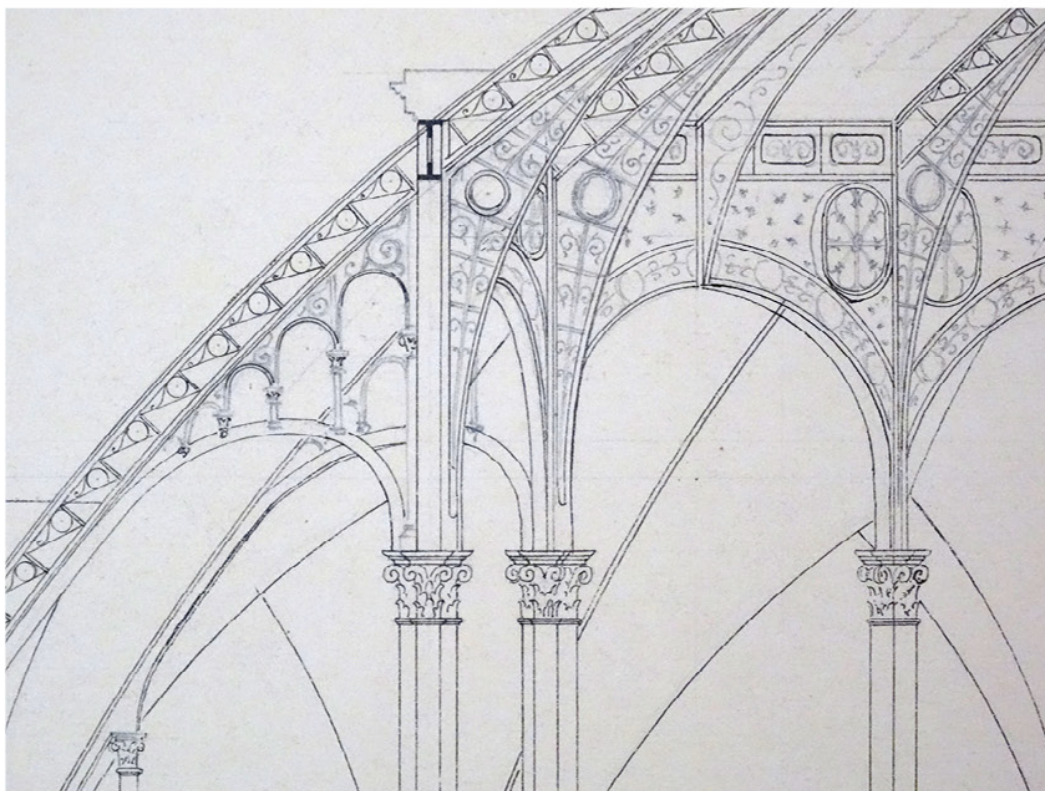


Fig. 2.27 - Alphonse Balat, intermediary versions of the Laeken wintergarden, detail



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Fig. 2.29 - The royal domain of Laeken, Embarcadère, light fittings above the cloakroom walls [author's photograph, 2017]



Fig. 2.30 - The royal domain of Laeken, Embarcadère, light fittings and electrical cables bundle [author's photograph, 2017]



Fig. 2.31 - The royal domain of Laeken, gallery connecting the wintergarden to the Serre du Congo, detail of the ornamental work of the trusses at night [author's photograph, 2017]



Fig. 2.32 - The royal domain of Laeken, the wintergarden (Serre du Congo in the background), detail of the ornamental work of the trusses, [author's photograph, 2017]

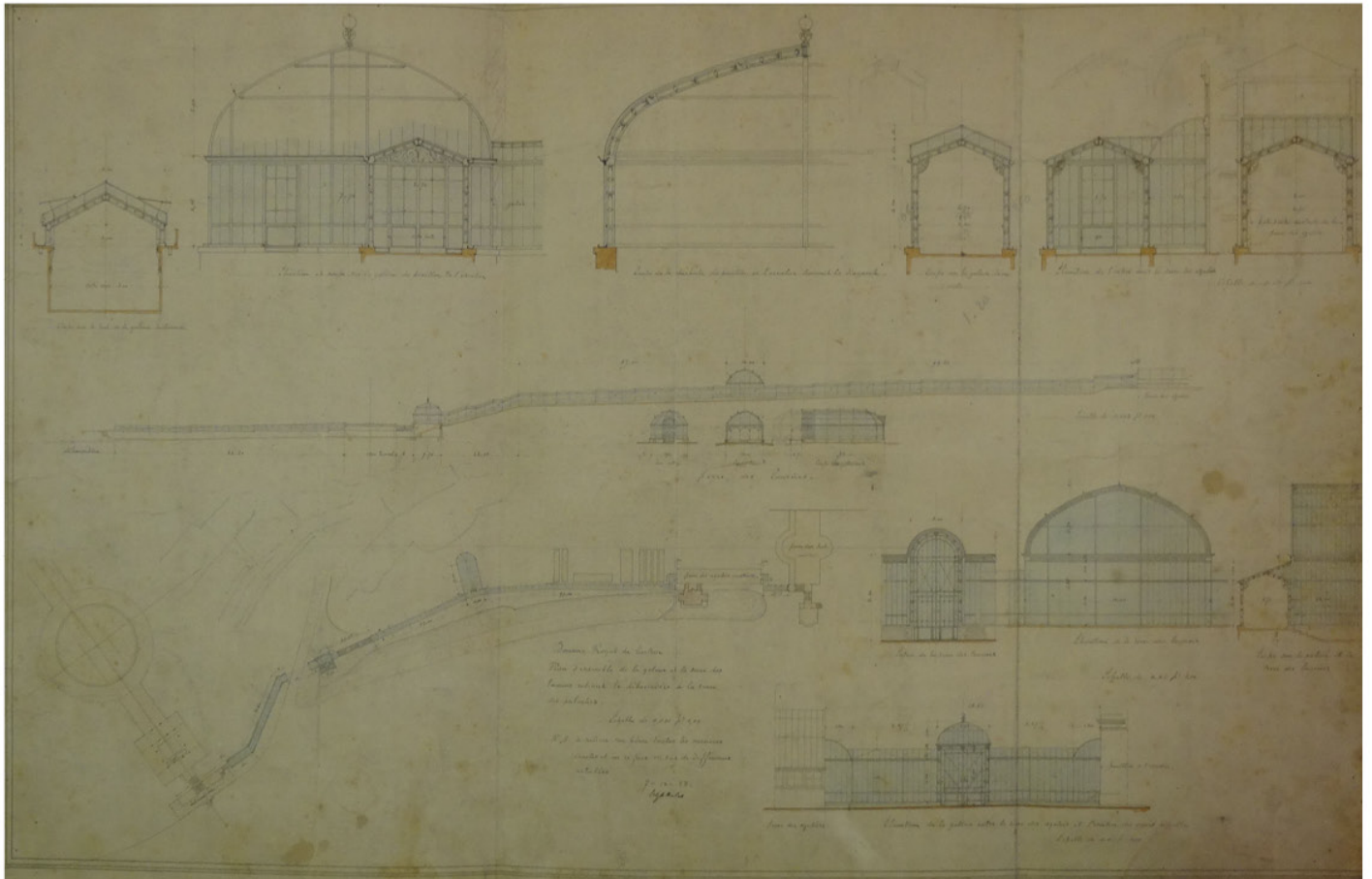


Fig. 2.33 - Alphonse Balat, plans of the long gallery connecting the plateau des palmiers to the Embarcadère in the lower part [Archives du Palais royal, Bruxelles]



Fig. 2.34 - The royal domain of Laeken, end of the gallery accessing the Embarcadère [author's photograph, 2017]



Fig. 2.35 - The royal domain of Laeken, the Embarcadère at night, view towards the cloakroom [author's photograph, 2017]



Fig. 2.36 - The royal domain of Laeken, the Embarcadère at night, view towards the flights of steps leading to the Serre du Congo [author's photograph, 2017]



Fig. 2.37 - Plan of the electrical installations running between the Embarcadère and the orangery, signed by Julien Dulait, 1891. The plan specifies the location and type of lamps [Archives du Palais royal, Bruxelles]

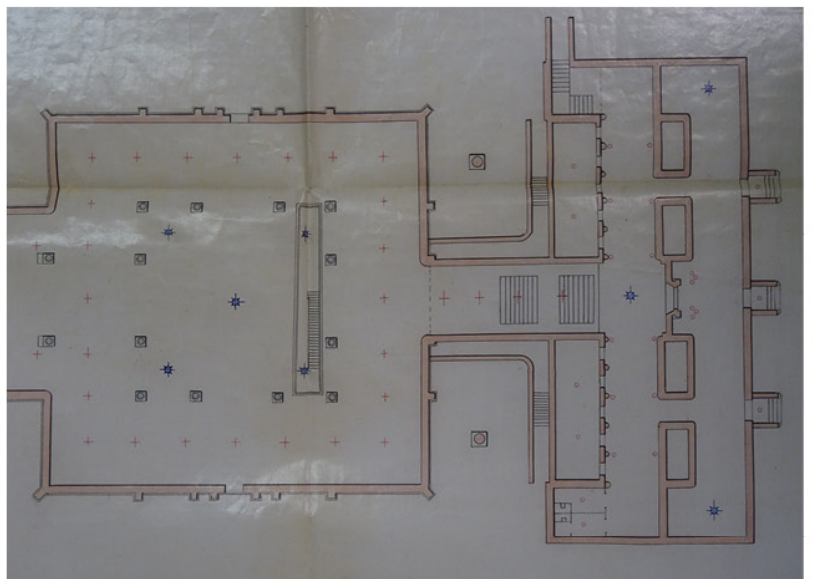


Fig. 2.38 - Plan of the electrical installations, 1891, detail of the Embarcadère and Serre du Congo

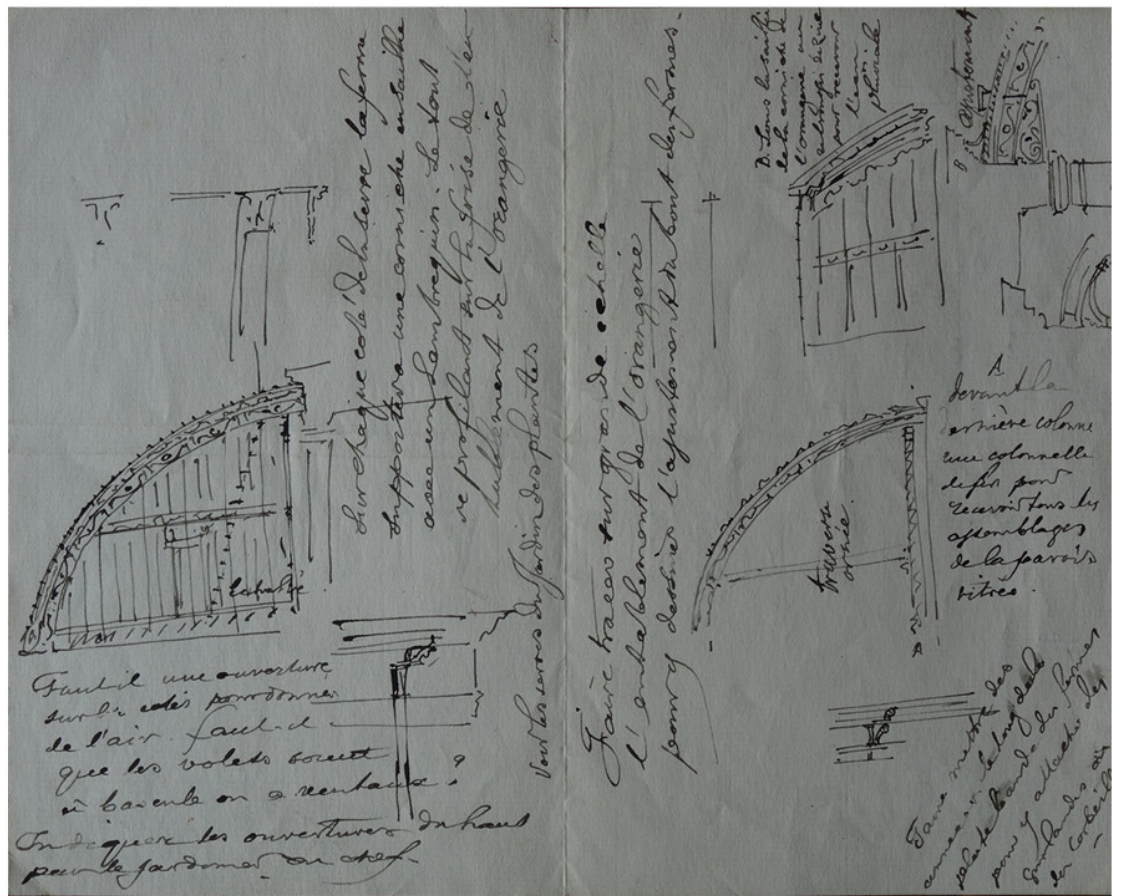


Fig. 2.39 - Alphonse Balat, Sketches of glasshouses [Archives Musée Horta]



Fig. 2.40 - Alphonse Balat, Sketches of décor [Archives Musée Horta]

Tableau schématique des différentes directions des travaux poursuivis par M. E. SOLVAY.

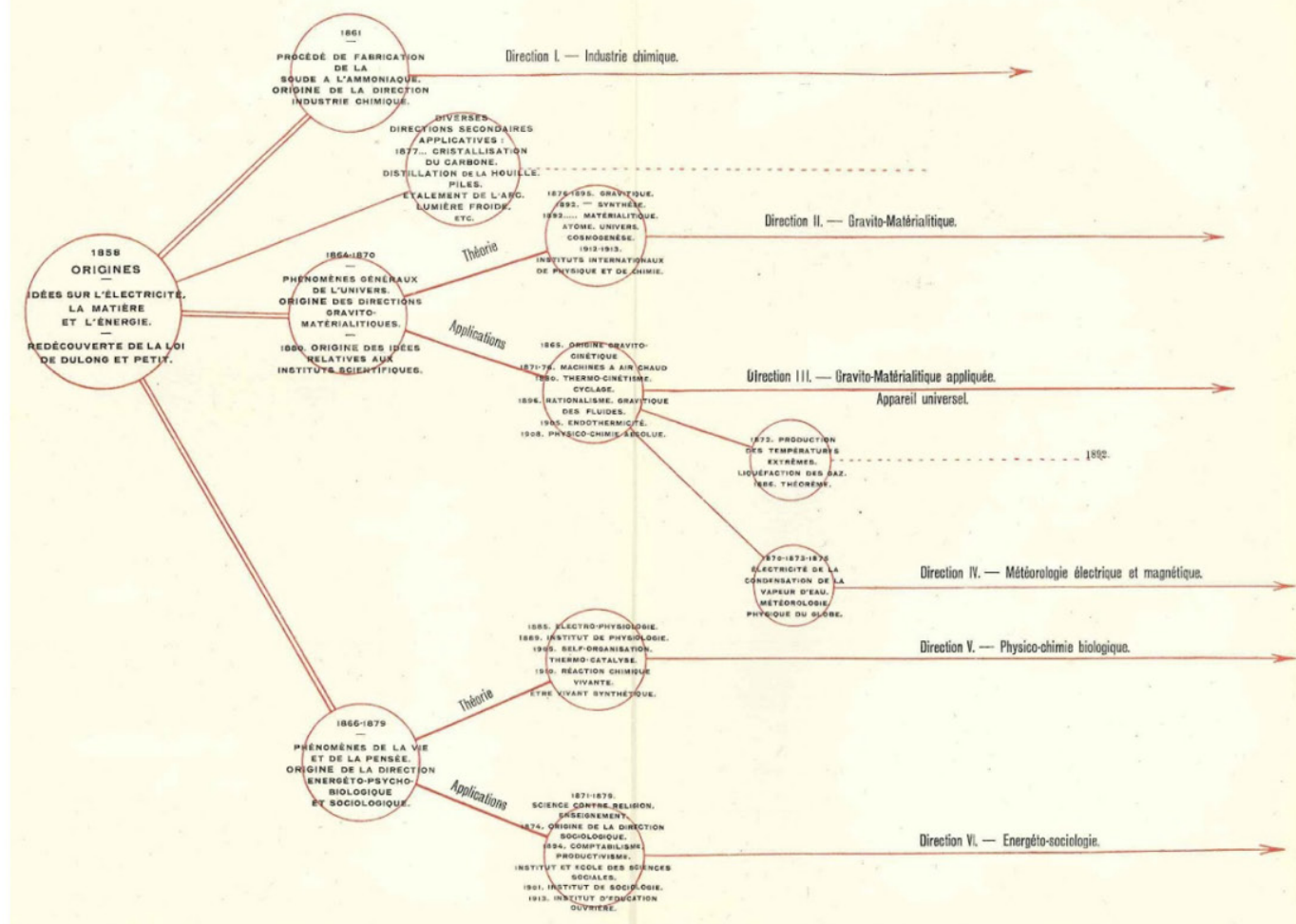
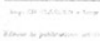


Fig. 3.1 - Émile Tassel, Diagram of Ernest Solvay's pursuits, 1920 [Solvay Heritage Collection]



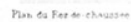
Fig. 3.2 - Ernest Solvay's bedside photographic chart consisting of portraits of thinkers and scholars who influenced him in his scientific quest, 1877 [Solvay Heritage Collection]



ORGANE DE LA 3^{ME} CLASSE D'ARCHITECTURE DE BELGIQUE

1928

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PROJET COURONNÉ AU CONCOURS TRIENNAL
DE L'ACADEMIE DES BEAUX ARTS DE BRUXELLES 1887
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Fig. 5.3 - Competition results for the monument Breydel and De Coninck in Bruges, L'Émulation, 1884
[Canadian Centre for Architecture]



Fig. 5.4 - Victor Horta, *Pavillon des Passions Humaines*, front and side [author's photograph, 2017]

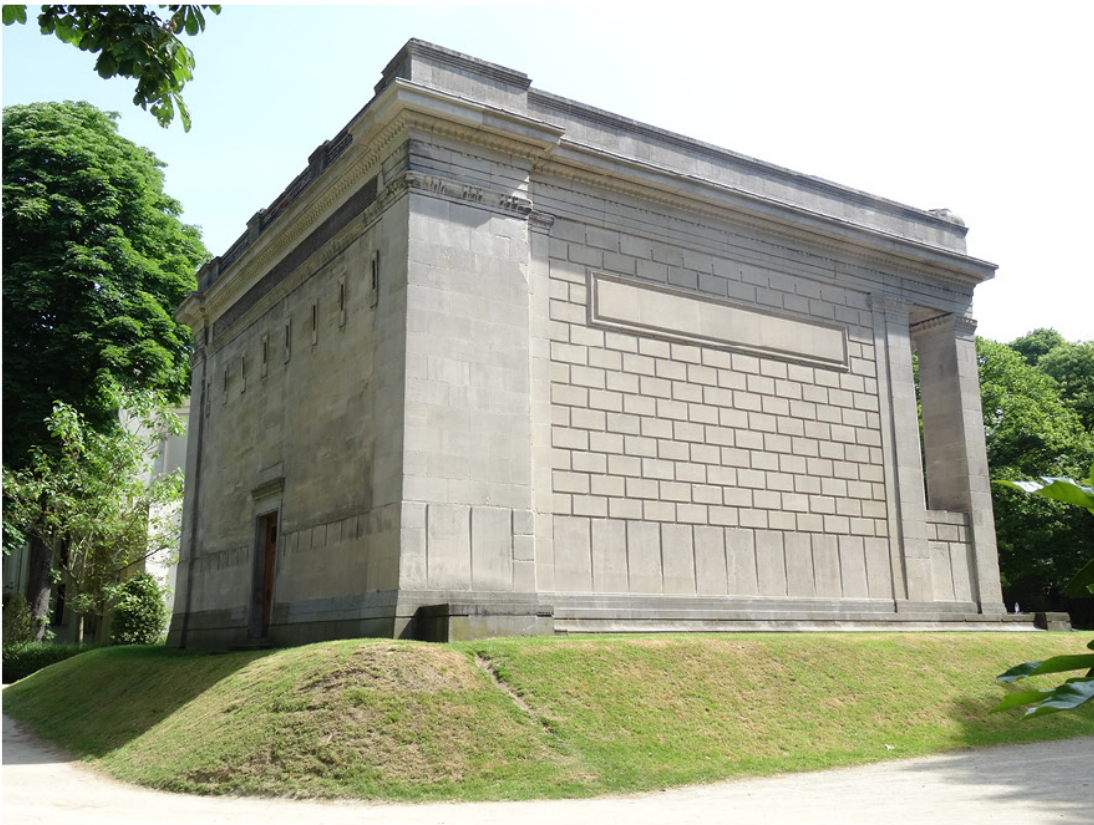


Fig. 5.5 - Victor Horta, *Pavillon des Passions Humaines*, rear and side [author's photograph, 2017]



Fig. 5.6 - Victor Horta, rear windows of the Pavillon des Passions Humaines and last storey of the Hôtel Tassel [author's photographs, 2017, 2012]



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Fig. 5.8 - Victor Horta, Pavillon des Passions Humaines, interior, detail of the base [author's photograph, 2017]



Fig. 5.10 - Maison Autrique, stained-glass panel in the staricase [author's photograph, 2016]

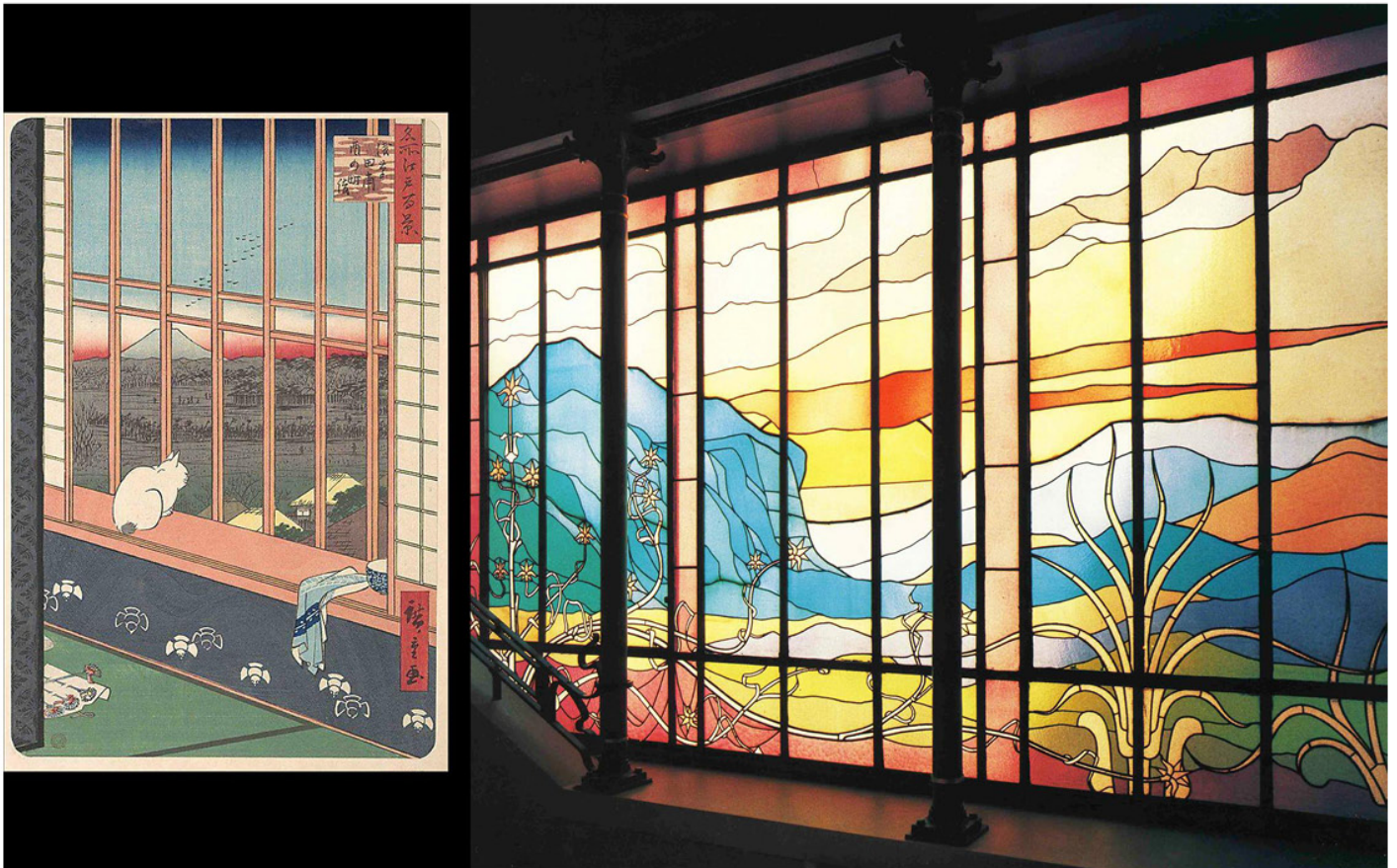
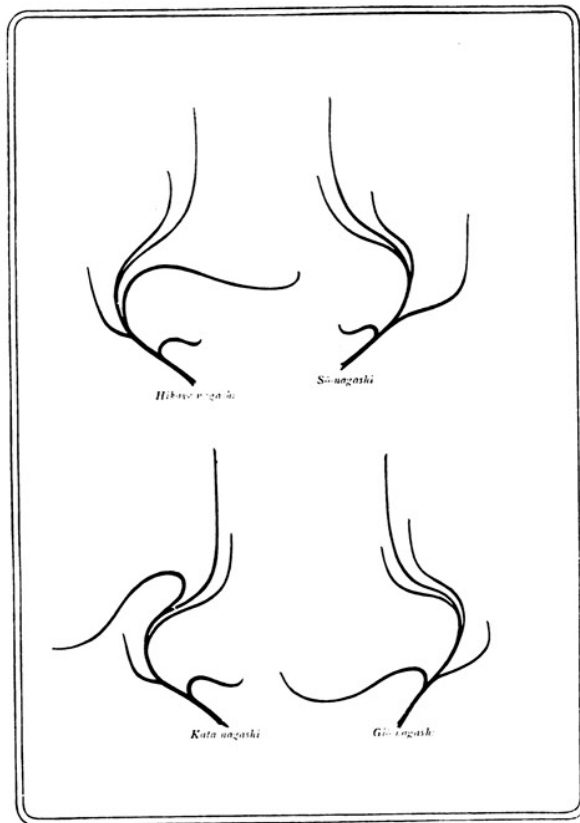


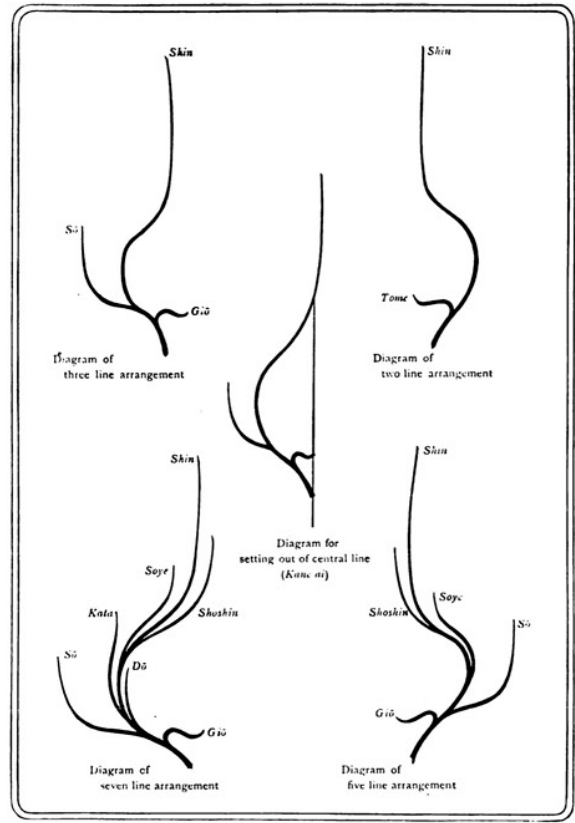
Fig. 5.9 - Jos Vandenbreeden, Collage with Hiroshige's Asakusa Ricefields and Torinomachi Festival and the stained-glass panel in the first floor of the Hôtel Tassel, in "La nature et les structures dans l'architecture de l'Art Nouveau," in *L'Art nouveau et l'Asie*, ed. Chantal Zheng (Aix-en-Provence: Presses Universitaires de Provence, 2016) [reproduced with permission]

PLATE 5.



Lineal diagram for stems with streamers.

PLATE 3.



Lineal diagram for stems

Fig. 5.11 - Josiah Conder, Stem compositions schemes, "The theory of Japanese Flower Arrangement" (Read 13 March 1889), *Transactions of the Asiatic Society of Japan*, 1890 [McGill University Library]

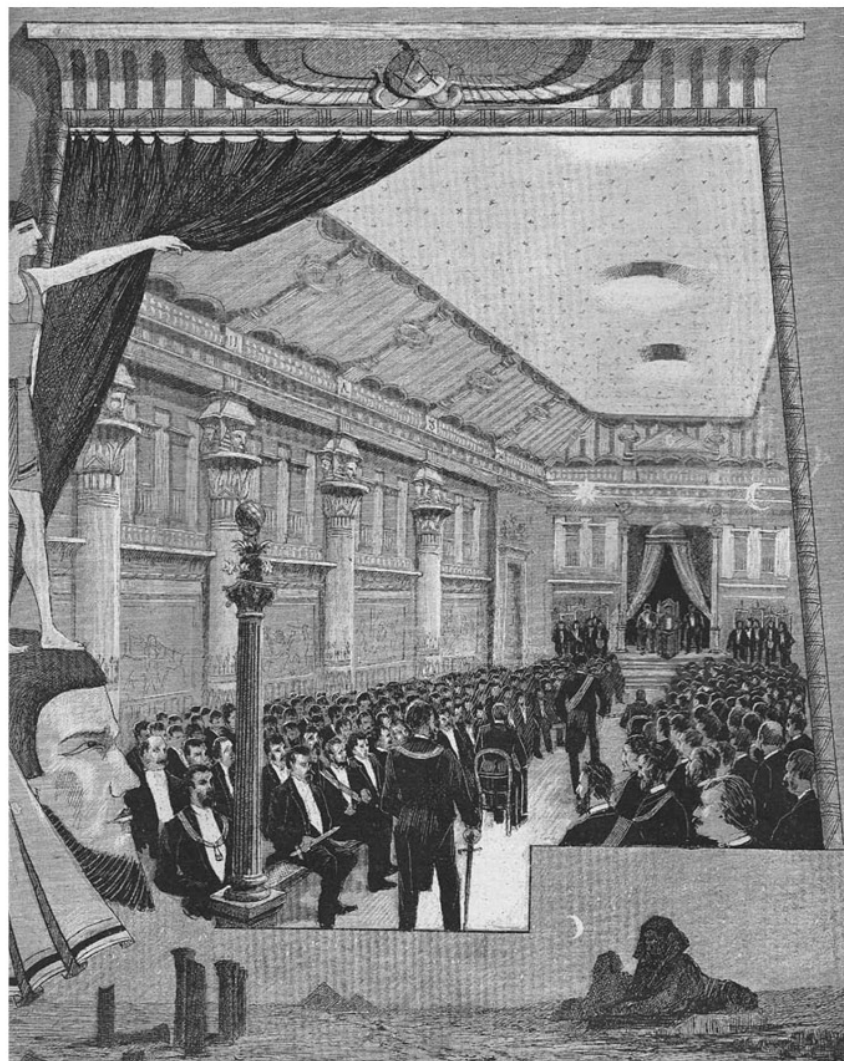


Fig. 6.1 - Engraving of a masonic temple, *Le Patriote illustré* (27 juillet 1890) [Musée virtuel de la musique maçonnique]

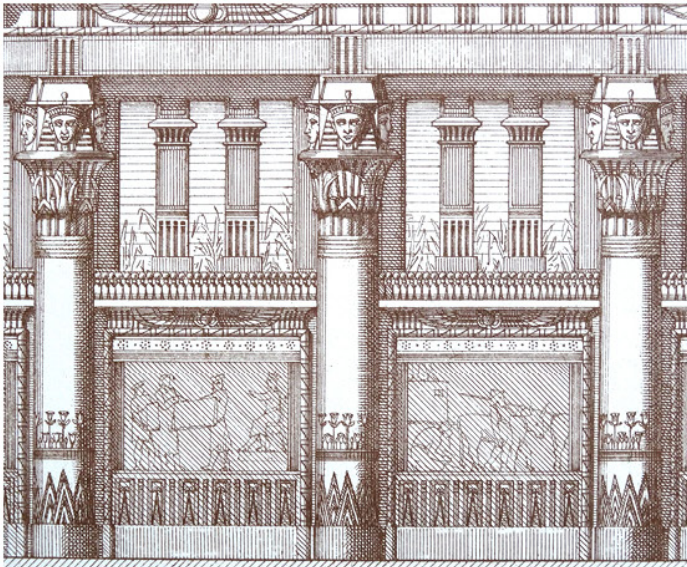


Fig. 6.2 - Adolphe Samyn, Temple of Les Amis Philanthropes at 8 rue Persil, Brussels, section, decorative detail, *L'Émulation* (1884), pl. 30 [Canadian Centre for Architecture]

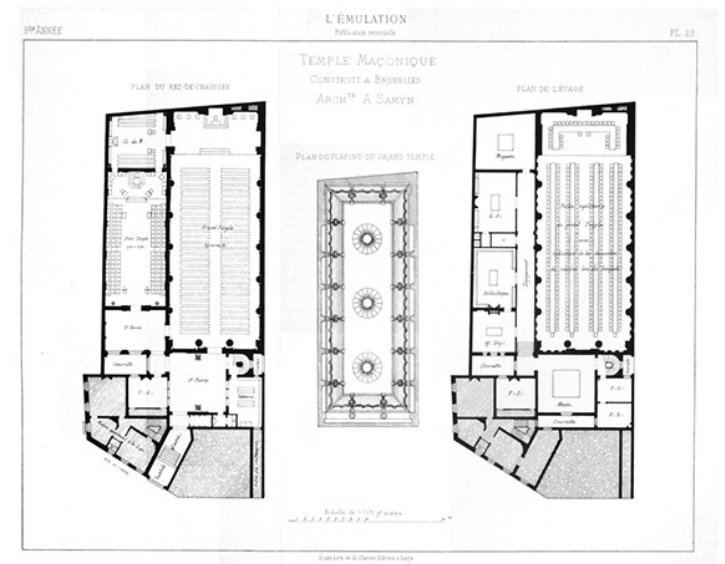
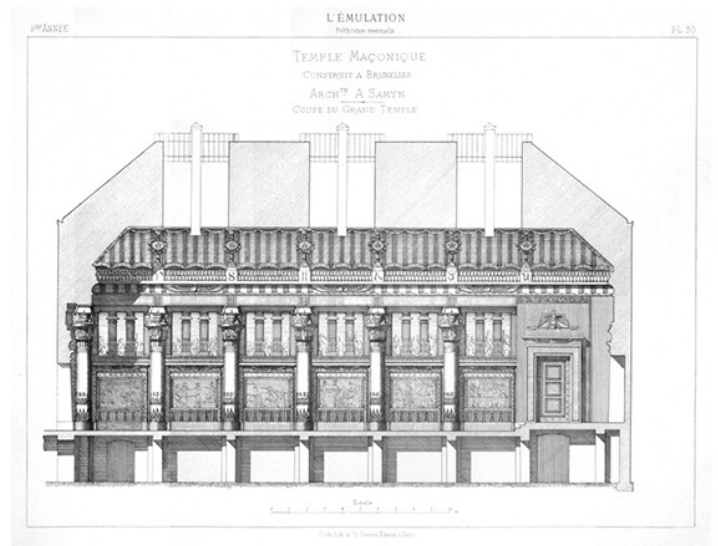


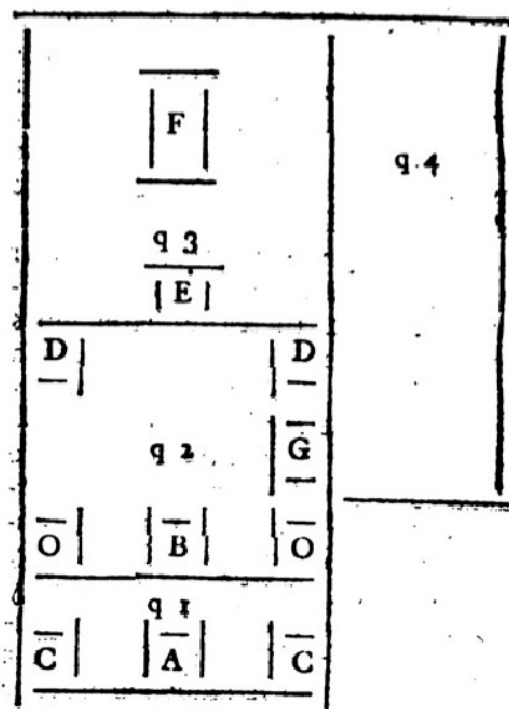
Fig. 6.3 - Adolphe Samyn, Temple of Les Amis Philanthropes at 8 rue Persil, Brussels, plans and section, *L'Émulation* (1884), pl. 29, 30 [Canadian Centre for Architecture]



Fig. 6.4 - Medal of Les Amis Philanthropes, dedicated to the Union Royale of The Hague, 1861 [Musée virtuel de la musique maçonnique]



Fig. 6.6 - Portal of La Parfaite intelligence, Liège [author's photograph, 2017]



Toute la Loge est de niveau , & divisée en quatre Quartiers, désignés par les chiffres 1. 2. 3. 4.

Fig. 6.5 - Plan of a masonic hall, Gabriel-Louis Pérau Larudan, *Les Francs-maçons écrasés* (Amsterdam, 1766) [Bibliothèque archives nationales du Québec]

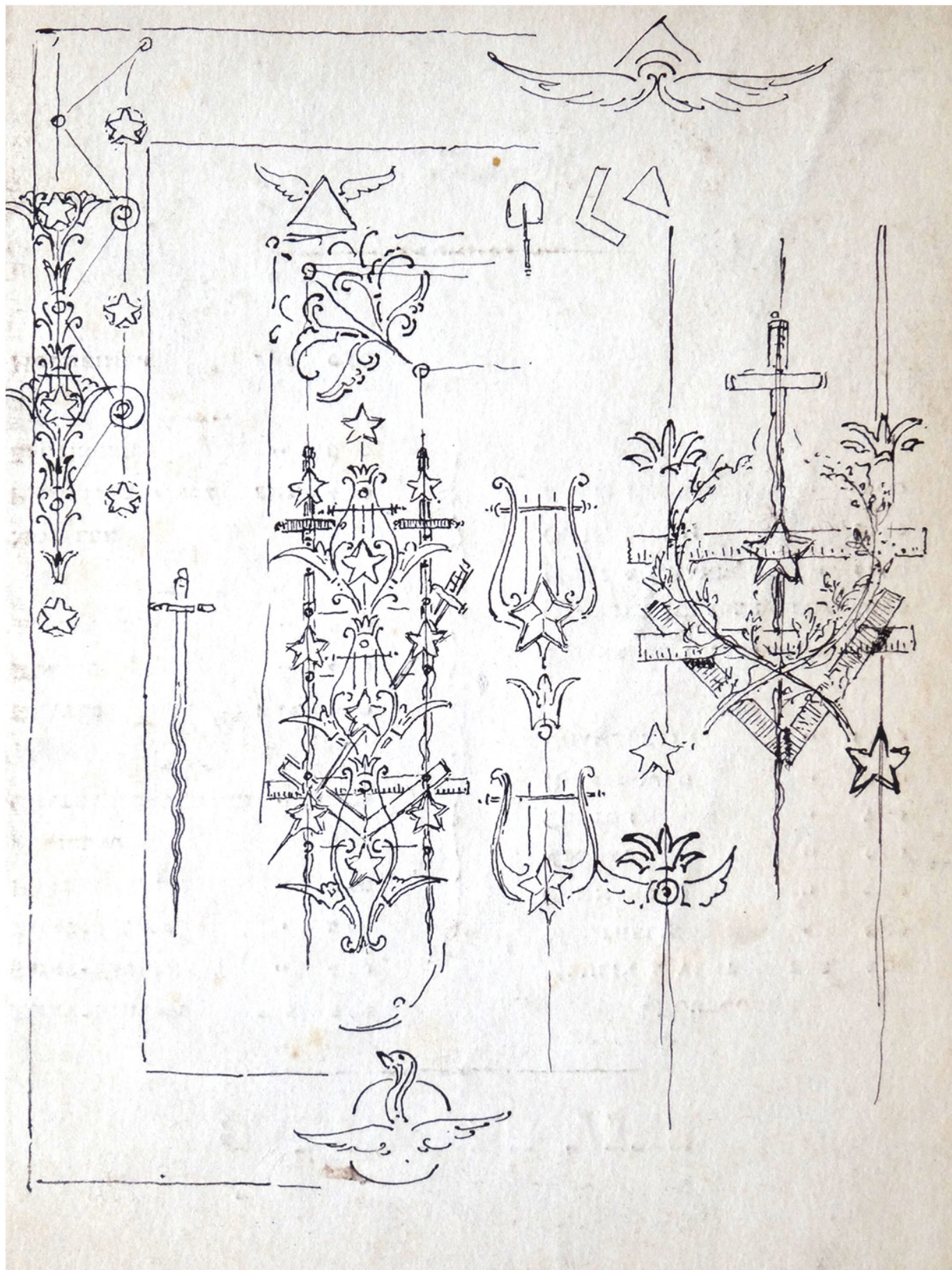


Fig. 6.7 - Victor Horta, cover study featuring masonic symbols, 1891ca [Archives Musée Horta]



Fig. 6.8 - Victor Hora, Autrique House, 1893-1894 [[author's photograph, 2016]



Fig. 6.9 - Victor Hora, Autriquer House (1893-1894), details of the loggia [author's photograph, 2016]