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This text evaluates the complementary and overlapping professional roles attributed to architects and engineers during the interwar period in Belgium. The porosity of these two positions remains largely under-researched in the contemporary historiography of modern building, as historians tend to follow the historical practice of ascribing authorship to the architect without recognising the marks of the intense collaboration between engineers and architects. Focussing on the practice of consulting engineer Eugène François (1870-1957) and his collaboration with architect Alexis Dumont (1877-1962), this article studies two public buildings designed by this duo to examine the day-to-day responsibilities of engineers and architects during the interwar period. The paper demonstrates how, prior to the legal protection of both professions, the tasks and duties that are nowadays attributed to architects were often covered by engineers. The intervention of architects on the other hand was considered necessary to preserve the aesthetic qualities of appropriate facades in the public domain. As the Belgian law of the protection and title of architects of 1939 tried to clarify the roles and responsibilities of architects, these findings shed a new light on the practices of designing and building, and on the attribution of authorship among the professional ‘Builders’ in Belgium during the interwar period.
Introduction

As Pierre Bourgeois (1898-1976) acknowledged in 1938, ‘Architects and engineers don’t know each other.’¹ In Belgium as in wider Europe, the interwar period witnessed an increasing rapprochement between both professions in order to face the new technological challenges in building. However, many scholars of early twentieth century history tend to attribute the authorship of most buildings to one single designer, in most cases the architect, without recognizing the intense collaboration between both. The multi-faced practices and profiles of twentieth century architects are well-researched in the historiography of the architecture profession,² and the design capacities of engineers have received numerous scholarly consideration in the last decades, both in the international context,³ and in the case of Belgium.⁴ Still, studies of day-to-day collaborations between architects and engineers in the early twentieth century remain limited. Andrew Saint made a valuable effort to gap this bridge in the Anglo-Saxon context,⁵ and recent attempts have been made to tackle this important challenge elsewhere during the interwar period.⁶

This paper wants to add another perspective to the study of collaboration between architects and engineers by focussing on the day-to-day workings of consulting engineers to analyze the practices of architects. The explicit study of the contributions of both an engineer and an architect to two specific public buildings constructed in interwar Brussels, shows how engineers were appointed tasks and responsibilities that are nowadays considered the responsibility of the architect. Additionally, the paper also demonstrates that the main unique aptitude of an architect during this period was considered to design facades that had an appropriate architectural style in the public domain.

In Belgium, the interwar period was shaped by harsh and pervading socio-economic conditions, such as the difficult reconstruction after World War I and the economic crisis of the 1930s, which called for a reduction in building costs and even caused straightforward
unemployment in the sector. At the same time, the question rose on how contemporary building design should deal with new, scientific insights in engineering, with the rising professionalization of standardised steel construction elements and especially the widespread use of reinforced concrete. The challenge of how building engineering influences the practices of architects dates back to the nineteenth century debates between reformists and traditionalists on the role of art and aesthetics within the architecture profession and schooling. In wider Europe as in Belgium, professional organisations campaigned for the registration and protection of the title of ‘architect’ from the middle of the nineteenth century onwards. Their decades-long campaigns came to a conclusion during the interwar years in most countries with the installation of a legislative framework that protected the title of ‘architect’ and linked it to specific schooling.

Simultaneously to other foreign organisations such as the Royal Institute of British Architects (RIBA) in 1834, professional organisations such as the Société Centrale des Architectes de Belgique (S.C.A.B.) had already been established in 1872 in Belgium, as was the Chambre des Ingénieurs-Conseils in 1913. The rising complexity of building in the first decades of the twentieth century, however, drove prominent members of these professional organisations to undertake initiatives to enhance and control the quality of construction. One of these initiatives was the foundation of the controlling office SECO in 1934 by engineers Eugène François (1870-1957) and Gustave Magnel (1889-1955), based on the French Société SECURITAS. By 1938, SECO had over 125 members, including entrepreneurs, engineers, professors, architects and industrials. That same year, the Belgian law on the protection of the profession of ‘engineer’ was enacted, as was the law on the protection of the title and free profession of ‘architect’ in Belgium followed in 1939.

By the third decade of the twentieth century important voices defended that architects should rely on engineers’ knowledge, with prominent architects such as Le Corbusier
acknowledging the geometric and harmonious design by engineers as a ‘direct line of good art.’

Architecture critic Sigfried Giedion contributed in 1941 that the engineer ‘promised the regeneration of Architecture and not its destruction’, and referred to Le Corbusier’s opinion on standardization and mechanization in architecture as ‘the solution of the break between the architect and the engineer’. In Belgium, architectural critic Pierre Bourgeois declared in 1938 that ‘the architect (...) can no longer claim the totality of knowledge and competence,’ indicating the necessity of engineering knowledge in architecture. In reality, by 1938 the scope of the architects’ responsibilities had gradually diminished as the authority of engineers expanded. However, the two cases studied in this paper show how the acceptance of engineers in the role of designer of plans and surveyor of the construction site was not generally installed in Belgium during the interwar period. Depending on the program and status of a building, the intervention of architects as designers for public buildings was put forth as indispensable when the elite of the future was to be housed, and defenders of the profession believed a well-designed plan could have a positive influence on the users of the building.

This research aims to contribute to the historiography of the professional ‘Builders’ in Belgium, dealing with both the history of buildings as well as the actors involved in their ‘making’; both in ‘designing’ and ‘building’. In addition to architects and engineers, a third important actor in this story is the building contractor. However, this paper focusses less on the activities of this party, although recent studies start to highlight the important role of this actor in twentieth-century building practices. In particular, this paper concentrates on consulting engineer Eugène François and his collaboration with Beaux-Arts-trained architect Alexis Dumont(1877-1962) in the city of Brussels in order to gain a better understanding of the ambiguous responsibilities and tasks of architects during the interwar period. This article analyses not only architectural plans, but a variety of primary sources related to the building process, the authors that created these buildings, and their critical reception in both the field of
architects and public opinion. A close reading of this ‘paperwork of building’ offers insight in the actual day-to-day practices as well as in the official responsibilities appointed to both actors by contracts or clients.\textsuperscript{19} As archives of engineers are extremely rare and usually linked to professional building companies,\textsuperscript{20} it is necessary to study the activities of François via other means. The two cases discussed in this paper are specifically chosen because they were widely reported and critiqued in both architectural journals and popular press, leaving a unique trace of primary source material. Additionally, as both buildings are public (education) buildings, the correspondence discussing their genesis is meticulously kept in ministry (state) and university archives. This paper will start with an overview of two press articles to gauge the roles attributed to engineers and architects by contemporary architecture critics and journalists. Subsequently, it will compare plans and contracts produced by (or linked to) François, which each raise different questions on his role in design and construction processes between 1921 and 1933.

Two large projects will be covered in this paper: the creation of the Solbosch campus of the Université Libre de Bruxelles (ULB, 1921-1928), and the higher technical education Institut des Arts et Métiers in Brussels (1919-1933), both usually attributed to architect Dumont.\textsuperscript{21} The design of the Solbosch campus has been the subject of an intense debate on architectural style during the 1920s. The Institut des Arts et Métiers, of a similar size and program, was plagued by a long delayed design process, partly due to economic constrains. Both projects are designed by the engineer-architect duo François-Dumont and facilitate new types of higher education. A comparison of various stages in the design process of these two projects illustrates how consulting engineer François often took up the tasks and responsibilities often attributed to architects. At the same time, these projects demonstrate how the intervention of architects such as Dumont was focussed on designing aesthetic facades, a limitation Dumont actively questioned.
The roles of François and Dumont in these two projects are therefore not directly echoed in the law on the title and profession of architects established a couple of years later. In 1939, the title of ‘architect’ became linked to specific schooling and examination, but more importantly—and quite uniquely in Europe—, hiring an architect for each building permit, to be submitted by this architect only, became an obligation in Belgium, which granted more work and power to architects.

*Criticising Engineers acting as Designers*

Born in 1870, Eugène François obtained the degree of ‘Ingénieur des Arts et Manufacture’ at the University of Liège in 1890. After gaining international experience in the United Kingdom, Germany, the United States, and Russia, he became an established ‘ingénieur-conseil’ in Brussels in 1898. A consulting engineer was an independent engineer who assisted the commissioner in the design or control of the technical aspects of building plans, and who was legally accountable for their construction afterwards. Simultaneously, François became professor of ‘Constructions du Génie civil’ at the Université Libre de Bruxelles in 1908, researching and publishing various articles on the construction process of public works, and more specifically, on the design of research laboratories, both in engineering journals and government periodicals.23 During his career, he offered technical counsel on the design and construction of various buildings, mainly public tenders, such as the Université du Travail (Charleroi, 1905-1907), the Entrepôts de Delhaize (Brussels, 1913), the Solbosch campus (Brussels, 1921-1928), the École de Médecine (Brussels, 1923-1928), the Institut des Arts et Métiers (Brussels, 1919-1933), and the Brugmann hospital (Brussels, 1927-1933).24

After housing part of the World Exhibition in 1910, the City of Brussels granted the university the Solbosch terrain in 1921, a plot of land in Ixelles defined by the avenue
Franklin Roosevelt, avenue Antoine Depage, avenue Adolphe Buyl, and the avenue Jeanne. François was the first to compose a design for the new campus of the ULB on the terrain in 1921 by combining the previously scattered university buildings in an American-style ‘campus’. The plans for the new Solbosch building complex were entrusted to François in collaboration with contractor Louis De Waele. Strongly imbued with Anglo-Saxon conceptions of organization of teaching and work in general, François designed the laboratories in consultation with his colleague professors and future users. The construction of The Faculty of Sciences started on November 1st, 1921, and by October 1922 the first courses were taught in the new building, largely 40,000m². This swift construction process was claimed to the ‘remarkable’ and ‘rational’ management of the building site, organised by François. However, of the entire campus design, only the building for the Faculty of Sciences was constructed (Figure 1). After an intense debate on the lack of architectural quality and style in the design of the building in 1923, an architectural competition was launched in search of a different designer for the remaining buildings of the campus, which was eventually won by architect Alexis Dumont. This Beaux-Arts-trained architect launched his career at the architectural firm of his father, Albert Dumont (1853-1920). Starting with the construction of various housing projects, he was later known for the design of a wide variety of private and public buildings, such as the iconic Citroën Garage and Shell building in Brussels in the 1930s.

The Belgian newspaper Le Soir, a popular politically-independent and liberal newspaper, published an article on the Faculty of Sciences in 1924, in which the author questions François’ design of this ‘factory without beauty’ (Figure 2). Having seemingly no qualms about modern architecture or factory architecture, the author considered the lack of an aesthetic façade inexcusable, and continued that ‘nobody can think about defending this
architecture, if one can give this term to this mode of construction.' The interior of the university building functioned well, but the exterior was appraised more as an expression of vulgarity than one of simplicity or functionalism. Even if there are no explicit accusations made against François, the article puts the fault inevitably on him, as he was the sole person overseeing the design and construction of this building.

[Figure 2 near here]

Simultaneously, in 1923 architecture theorist and critic Paul Bonduelle (1877-1955) claimed that the main reason the Faculty of Sciences failed, was the absence of an architect during the design process. This Beaux-Arts-trained architect designed various public buildings in Brussels at the beginning of the twentieth century in a classicist style. After his studies at the École Gasset in Paris, he taught courses on 'Architecture Theory and Design' at the Brussels based Académie des Beaux-Arts, where he noticeably argued for architectural design in a neoclassicist style, based on eighteen-century French Classicism. Bonduelle was an active member of the Société Centrale des Architectes de Belgique, and broadcasted his architectural convictions in the publication of the S.C.A.B.’s architectural journal L’Émulation, which he ran from 1919 until 1930. He argued in his article in L’Émulation in 1923 that the role of an architect is not the same as the role of an engineer or an entrepreneur. Only architects had the skills to devise an appropriate character to buildings, and engineers and entrepreneurs did not, so architects should always be responsible for designing public buildings. The article continued that a lack of funding was no excuse for the ‘absence of all plan’ in the Faculty of Sciences, nor is the argument of pursuing functionality. Public buildings, certainly university buildings, needed to be designed by architects in the context of open architectural competitions, as they would house the new elite, in this case the engineers of tomorrow, who need a stimulating environment to study their profession. The reason why the Faculty of Sciences
failed, both in façade as in plan, he concluded, was because the design process lacked proficient collaboration with a professional architect. With this article, Bonduelle joined in the debate on the role and capacities of Belgian architects during the interwar period, in which the S.C.A.B. argued for the importance of architects and architectural competitions for public tenders.36

The second project discussed in this paper is the realisation of the Institut des Arts et Métiers in the centre of Brussels. Previously called the Université du Travail, the building was inaugurated in 1933 at the Boulevard de l’Abattoir, finalising a seven-year construction period (Figure 3). As early as 1919, Emile Jacqmain (Alderman of Public Education and Fine Arts) and Adolphe Max (major of Brussels) set their aim of unifying the dispersed professional technical institutions for higher education in one single facility. Based on the earlier collaboration during the construction of the Université du Travail in Charleroi (1907), the City of Brussels appointed the same three protagonists to design a similar building in 1913: Eugène François, Alexis Dumont, and pedagogue Omer Buyse. Previously Directeur de l’Université du Travail of Charleroi, Omer Buyse (1865-1945) was the front runner of the reformation of the Brussels’ technical education. As Directeur Général de l’Enseignement Technique des Beaux-Arts et des Fêtes Publiques (1913-1930), he was the closest correspondent for François and Dumont, defending the interest of the City of Brussels.37 The building was constructed in collaboration with contractor Blaton-Aubert38, and inaugurated in the presence of King Albert I and the Minister of Education. Both the design and the inauguration of building, as well as the corresponding reform of the higher technical education into one building, were widely reported by local and national media.39

[Figure 3 near here]

An article on the design of the Institut des Arts et Métiers, published in Le Soir in 1929 (Figure 4), demonstrates how the collaboration between architects and engineers was perceived
during the interwar period. Naming François ‘ingénieur du bâtiment,’ and Dumont ‘architecte de la façade,’ Le Soir affirms the relation of Dumont as François’ subordinate. Early in the design process, Dumont complained to Buysse about his limited role, who concluded in 1920: ‘you collaborate, not only with him [François], but under his supervision.’

The notion of ‘architect of the façade’ seems somewhat surprising here: the term – and the role to be covered – seems to be well-established and strongly recalls practices and discussions dating from the end of the nineteenth century and the beginning of the twentieth century in Belgium. An important part of the academic discourse on architecture was then centred on the façade, where discussions on style, representation and national identity were key. Designing facades was one of the core challenges of the architectural profession in those years and this preoccupation seems to have resulted in a lingering division of tasks in the designing and building process, even when concepts on architecture, volume and representation were changing in the 1920s. Moreover, as the hierarchy for the Institut is set by its commissioner, it is clear that at least the latter does not consider the ‘beauty’ or ‘delicacy’ of the façade the major challenge of the commission.

The article continues with how the Institut was ‘a modern building designed in factory style and cast in reinforced concrete,’ and questions if it even needs a decorative façade. When building public buildings such as schools, do we need to waste money on an elaborate façade? The author of the article agrees with what he considers the opinion of the City of Brussels: a façade needs to be decent, harmonious, and without luxury, but most of all, it has to be appropriate to the building. The article finishes that the main priority of both architects and engineers, is to focus on the program and to design a building appropriate to its purpose. The author defends the style of the façade by Dumont specifically ‘without luxury’, as if ‘luxurious’ was considered as a negative aspect of public buildings. This shift in focus of popular press from ‘aesthetics’ to ‘appropriateness’ and ‘program’ can be partly explained by the evolution
of the architectural styles, which ran parallel with the rise of public outrage on expensive public buildings. Additionally, the roles of architect and engineer in this project were clearly delineated, making the S.C.A.B. less inclined to argue, as Dumont designed the façade of the building and fulfilled his role as an architect as was defined by his contract.

[Figure 4 near here]

Both articles in the popular journal *Le Soir* raise questions on beauty in architecture and the design of façades, discussing the importance of aesthetics versus appropriateness in the public domain. The popular press articles suggest the opinion of popular journalists has shifted during the 1930s, probably due to political and economic considerations. However, Bonduelle more specifically relates this question to the role, competence, and function of architects by claiming that only architects have the skills to incorporate beauty in a plan. Additionally, he defends the need for architectural competitions for public buildings as a well-designed plan would have a positive and stimulating influence on the users of the building, a deterministic view on architectural design mostly argued by modernist architects a decade before.45

**Plans as a Tool for Design**

[Figure 5 near here]

[Figure 6 near here]

The first series of plans discussed in this text are drawn and signed by Dumont in 1925, to conclude the final preliminary design phase of the *Institut des Arts et Métiers* (Figure 5). They depict the program and dimensions of the entrance hall and the peristyle, as well as a representation of the materials of the stairs, floors, windows and doors. Although these plans
appear to be drawn in an architectural code, with indications of floor and ceiling patterns and a
detailed section of the façade, water drainage and ventilation shafts can also be discerned, as
well as indications of both spatial and structural dimensions such as the columns. The initial
‘A’ is written in the bottom right of the plans and sets this series of plans apart from a
complementary set of plans initialled ‘X’. While the drawings of Dumont (set ‘A’) are recorded
to the date of January 24, 1925 (Figure 5), the rest of the ‘X’ set are marked with the date
February 19, 1926 (Figure 6). We have little information on the actual date the original
drawings were made, only that these blueprints were combined by François on March 13, 1926,
in a letter to the client (City of Brussels) at the end of the preliminary design phase.⁴₆

The second series of plans (set ‘X’) was signed by François and shows a detailed
technical depiction of the building, with mainly dimensions of the structural aspects such as the
repetitive prefabricated concrete beams and vaulted ceilings (Figure 6). This ‘X’ set has a
different scale than the ‘A’ set, the latter zoomed in to the entrance and the peristyle, the only
part for which Dumont was responsible. However, we can also discern some aspects related to
architectural drawing codes on this ‘X’ set: the beams are drawn in dotted lines – and would be
drawn in full lines on an engineering plan –, and both the structural and architectural parts of
façade are depicted. The differentiation in signatures on the plans may reflect the delineation
and hierarchy of the two profiles in the design process of the Institut: a Beaux-Arts-educated
architect responsible for the decorative elements of the façade (Dumont), working under a
technical engineer, overviewing the total preliminary design (François). However, both sets of
blueprints have overlapping drawing codes of both engineering and architectural knowledge.
They both address spatial and structural elements and depict a similar degree of detailing, but
have different priorities.

[Figure 7 near here]
However, when we compare this set with a series of plans drawn by François for the Faculty of Sciences of ULB in 1921, the delineation between the two professions seems to be even less clear-cut. These plans do not only depict the program of the building, its general dimensions and heating system, François also drew specific furniture in some of the laboratories, thus instructing how these laboratories should be used (Figure 7). Additionally, the structural elements of the building (columns, stairs, beams) are only very rudimentary shown on the plans. As these plans are part of the preliminary design of the building, the goal of the author was to depict the ‘use’ of the building, how it functioned, so he focused less on the structural aspects of the construction. We can assume that François would draw more detailed plans of the technical elements of the building in a later phase in order to give the contractor sufficient information to start its construction, which was not unusual. The construction of the Faculty of Sciences started in 1922 and was overseen by François during the following two years. This construction phase illustrates how François was appointed with various tasks and responsibilities related to both ‘technical’ and ‘architectural’ aspects of the building process, making him solely responsible for the integrated design of the project.

The comparison of these two series of plans raises various questions on the historical roles of engineers and architects during the design process, as François was appointed roles we nowadays tend to attribute to architects. In the case of the plans for the Institut des Arts et Métiers, the division between François as engineer who signed (and drew) the structural plans, with symbols of ventilation shafts and the concrete structure, and Dumont, the architect responsible for the decorative and ‘architectural expression’ of the building, is an illustration of a clear division of responsibilities during the design process. However, the second set of plans for the Faculty of Sciences reveals how François produced drawings which, without his autograph, we would find difficult to ascribe to him based on today’s presumptions of the roles of architects and engineers. He took up a wide variety of tasks during the design and
construction of the Faculty of Sciences, tasks which seem to be more related to the contemporary role of architects like Dumont, and for which Bonduelle in his later article argued that they were to be reserved for architects only.

Additionally, the notion of authorship in design is evoked in these two sets of plans, as we can assume that both François and Dumont worked within an office, composed of employees with diverging profiles who drew most of these plans. Studying the working of their firms falls outside the scope of this article, but further research could offer valuable insights in the agencies and knowledge exchange of draftsmen, architects, and engineers working under the responsibility, and name, of others.\textsuperscript{48} In the following part, we will elaborate on the particularities in the profiles of architect and engineer by studying the juridical context of two official contracts concerning the Solbosch campus and the Institut des Arts et Métiers, the former a contract with the Beaux-Arts architect and the latter with the consulting engineer.

\textit{The Importance of Contracts in an absent legal Demarcation of both Professions}

An obvious way to explain the slippage between roles of François and Dumont is the lack of an official juridical framework to define the responsibilities of professional architects and engineers during the 1920s. In Belgium, the law on the protection of the profession of engineer was enacted in 1938, the one on the title and free profession of architect in 1939. However, taking a closer look at two contracts uncovers how the responsibilities of architects were framed by a specific terminology of the profession, which predated these laws, and can explain why professionals insisted on a general legal framework.

Based on the distribution of roles discussed in the previous sections, the case of the Institut des Arts et Métiers can be interpreted by allocating the decorative plans to Dumont and the technical plans to François. However, when we examine the official contract between the
City of Brussels and François of 1919, it becomes clear how François’ role went beyond designing the technical aspects of the building (Figure 8). François is appointed the responsibilities linked to ‘the law charged to the architect-builders,’49 which not only shows that there was already a form of legally binding responsibilities linked to the role of architects, but more remarkably, that the City of Brussels assigned this role to an engineer such as François. The law quoted in this contract referred to the Code Civil (de Napoléon), the French civil code of 180450 which came to Belgium with the French oppression, and was only binding if officially quoted in a contract.51 Similarly, in Germany, France, Luxemburg, and Greece, the Code Civil was used as a guideline for the deontology and responsibilities of architects before the installation of a law protecting the title.52 The contract quotes how François is acting both as engineer and as architect, and lists the responsibilities François should take during the construction process: ‘1. Draw up plans, quotations and tenders; 2. Conduct the necessary preliminary surveys; 3. Supervise the execution of the building; […]’53 Reading this contract shows how the design of the Institut des Arts et Métiers was considered a complex project of which the realisation could not be allocated to one person. It sums up the specific responsibilities of François, but leaves out several others, including design questions like the decorative aspects. The City of Brussels adds that they will search an architect for the latter in a later phase. In search of a clear hierarchy, the client appointed the ultimate responsibility to François, with Dumont working as his inferior.

[Figure 8 near here]

The second contract examined in this text is the contract between the Université Libre de Bruxelles and Dumont in order to construct the second phase of the Solbosch campus (Figure 9). Dumont won the competition set forth by the American Commission for Relief in Belgium: Educational Foundation in November 1923, and designed the Faculty of Law, Faculty of Philosophy and Literature, an administrative building and a library to complete the new
The official client of this new university complex was the university, but the Commission for Relief in Belgium: Educational Foundation funded the project, therefore the American commission could put pressure on the ULB on the specific definition of the projected skills of the architect. The official competition reported how the style of the building should express a ‘Belgian character’, indicating the importance of a thought-out architectural representation. This was most likely a reaction to the accusations of the absence of a well-designed façade for the Faculty of Sciences two years earlier. The client wanted to prevent a similar reaction, even stating in the public tender that the new buildings should ‘hide as far as possible the large facade of the Faculty of Sciences.’ This contract granted Dumont the title of ‘architecte-dirigeant,’ and charged him with drawing the final construction plans and directing the construction site (Figure 10). Furthermore, it states that the responsibilities of the ‘architecte-dirigeant’ are linked to the ‘Code des droits et obligations,’ once again referring to the Code Civil.

Although the term of ‘architecte-dirigeant’ has no official functional definition, the contract suggests that the responsibilities linked to this notion were well-known in the architectural field. The term appears numerous times in the consulted archival material, used by correspondents of both the City of Brussels as the ULB. However, the tasks and responsibilities of such ‘architecte-dirigeant’ are clearly specified in these contracts, marking their importance in this uncertain institutional context. Contracts lost a major part of their importance with the installation of the law of 1939, but they would remain in use during the twentieth century as a way to detail out the responsibilities and tasks of architects, as well as structure the stages of the building process. As Belgium was the only country in Europe in which the commissioning of an architect became mandatory for all building permits in 1939,
the significance and extensive use of contracts was undeniable in comparison to other European countries, although various countries installed ‘contract-types’ during the twentieth century. At the same time, these early contracts base themselves on concepts of ‘architecte-dirigeant’, ‘code des droits’, and even ‘la loi à charge des architects-constructeurs’, which appear to be well-known and used by both parties. The use of these terms points at the existence of legal practices determining the roles of both independent and state architects and engineers in the 1920-1930s in Belgium, demonstrating how the laws of 1938 and 1939 represented less of a rupture of day-to-day practices as if often projected.

Conclusion

When studying the modern buildings produced during the interwar period, at first sight, few of them seem to bear the marks of an intense collaboration between engineers and architects. The question rises if this is a consequence of the discrepancy between historical writing and actual building in architects’ circles, or if it is a result of the narrow focus of historiographical practices in both architecture history and engineering history. Both domains of study take an interest in the actors of design and building, and both ask the question of the process of creation – ‘how’ buildings are conceived and made – but their fields of reference, points of interest, and even their vocabulary, are rarely the same. Although this paper focusses on Belgian cases, scholars have noticed, for some time already, similar tendencies in other European spheres.

Combining the different orientations and interests of both professional groups and cultures, our research goes beyond this ‘superficial dichotomy between the design and the execution of a building,’ in which the authorship of modern buildings is too often reserved for the figure of the architect as single actor.
Today’s need for collaboration between engineers and architects to tackle the complex and always-changing building industry is well-recognised. However, this study shows how the overlap in tasks and knowledge of architects and engineers during the interwar period responded to a similar need, resulting in a complex authorship of buildings. Consulting engineer François was appointed design tasks and surveyor responsibilities that nowadays are attributed to architects, while Dumont’s intervention remained limited to the design of ‘appropriate’ facades in the public domain. The latter development was in line with well-critiqued decline of architect’s activities to facadism in Europe, while the former was a common occurrence before the recognition of the title and protection of architects, not only in Belgium.

Studying press articles illustrates how the design and construction of public buildings gained importance towards the end of the 1930s, as the public opinion on ‘appropriateness’ and ‘beauty’ vs. societal and economic motives was more broadly discussed in popular newspapers. Simultaneously, architectural professional organisations argued for a juridical delineation of the responsibilities of professionally-schooled architects, with Bonduelle even claiming only architects could design plans that had a positive influence on the users of the building. The analysis of the plans breaks the unambiguous link between architectural drawing conventions and architects, broadening the perspective of the design of a plan from one singular actor to a collaboration of both architect and engineer, both working in offices where the drawing tasks were divided along various personnel. Finally, the contracts accentuate how specific sets of tasks were linked to appellations such as ‘architecte-dirigeant’, which pointed to actors in the design process regardless their schooling or profile. The appellation and terminology in these archival documents invokes how this slippage was not a singular occurrence as these terms seemed to be well-known by both parties. Even if the establishment of the law on the protection of the title of ‘architect’ in Belgium has been the object of study before, these studies focus mainly on architects and their legal responsibilities, ignoring most forms of collaboration with
other professionals. Scarcely they consider the actions of individuals in designing and building in their full complexity.

This paper demonstrates how the law of 1938 was more than a consolidation of the pragmatic division of the task and responsibilities to both architects and engineers during the interwar period, but rather the manifestation of a decades-long search for recognition of the profession of both. In these times of increasing technical and societal complexity, it were the engineers who were appointed the tasks that the law later attributed to architects, while the role of architects remained limited to 19th century notions of designing a façade and well-organised plan related to representation and national identity. The law on the title and profession of ‘architect’ officially attributed more power and work to architects, reducing the tasks and responsibilities of buildings engineers in Belgium from 1939 onwards. As a result, the Belgian interwar context is an important witness to the long-standing, and lasting, complexities of the division of roles and responsibilities in modern building and can lead us to put the question of professionalization back on the table. By focussing on two specific cases and taking the day-to-day practices of consulting engineers as starting point, this article is a first step in understanding the reality of how the collaboration of Belgian architects, engineers, contractors and other specialists constructed ‘modern’ buildings in the twentieth century.


11 Architects of United Europe. Liaison Committee, Vademecum of the architectural profession (Delft, Delft University Press, 1984)


13 P. Radelet-de Grave, p. 7.


17 ‘l’architecte (…) ne peut plus prétendre à l’entièreté de la connaissance et du pouvoir’ P. Bourgeois, p. 15.


20 Such as the archives of contractor Blaton, which can be found in the CIVA archives, Brussels.


22 Architects of United Europe, *Vademecum of the architectural profession.*


24 Archives of Université Libre de Bruxelles.

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28 Archives of entrepreneur Louis De Waele can be found in the State Archives, Brussels.


30 ‘Cette promptitude de réalisation fait honneur à la Ville de Bruxelles et à l’Université. Elle est due à l’adoption de plans étudiés d’une manière rationnelle, à une remarquable organisation de chantier et à la collaboration attentive des services techniques et administratifs de la ville.’ Anon. ‘Les Nouveaux Locaux de l’Ecole Polytechnique’ p.154.


33 ‘personne d’ailleurs ne songe à défendre cette architecture, si l’on peut donner ce nom à ce mode de construction.’ Ibid.

34 A. Van Loo. pp. 163-164.


37 Brussels City Archives (BCA), Public Education Fund, II 1763.

38 ‘Blaton’ is a blanket term for the different companies of the family Blaton, which started their business in contracting in 1865. Blaton-Aubert is one of the general contracting companies of the family, active in the nineteenth century and later during the interwar period. See M. Culot, et. al. Blaton: Une Dynastie De Constructeurs (Brussels, Archives d'architecture moderne, 2018)


40 Anon. ‘L’Université des Arts et Métiers-I’. Le Soir, 1-4-1929 (Brussels, Le Soir, 1929)

41 ‘vous collaborez, non seulement en contact avec lui [François], mais sous sa direction’ Lettre from Buyse to Dumont, November 9, 1920. (BCA, PE II 1763)

42 L. Van Santvoort, Brussels architecture in the last quarter of the 19th century – the search for national Identity linked to the desire of architectural innovation (Unpublished conference paper, National Identity and International Trends, 2006)

43 ‘tirez parti de la construction pour y faire une façade décente, harmonieuse et sans luxe. Sans luxe. Il faut avant tout s’inspirer de la destination du bâtiment.’ Le Soir, 1-4-1929

44 ‘Avec toute l’audace de quelqu’un qui n’est pas spécialiste, pourquoi ne dirions-nous pas ce que nous pensons? Si le bâtiment est approprié à ses fins, ne faudra-t-il pas que l’esprit qui l’anime soit aussi bien adapté au but poursuivi?’ Le Soir, 1-4-1929

45 Le Corbusier, p. 74.

46 BCA, PE II 1763. / CIVA archives, Alexis Dumont Fund (March 13, 1926)

47 ULB Archives, 01BB, NB_056_A1.

48 For the rise of professional architectural firms and the accompanying drawing codes, see G.B. Johnston, Drafting culture: a social history of Architectural graphic standards (Cambridge Mass, MIT Press, 2008) / M. Osman, Modernism’s visible hand: architecture and regulation in America (Minneapolis, University of Minnesota Press, 2018)

49 ‘toutes les responsabilités prévues par la loi à charge des architectes constructeurs et reconnaît de ce fait à la ville tous recours éventuels’ Institut des Arts et Métiers Convention between the City of Brussels and François. September 25, 1919. (BCA, PE II 1763)


Architects of United Europe, *Vademecum of the architectural profession*.

‘M. François, agissant en qualité d’ingénieur et d’architecte, s’engage jusqu’à et y compris la réception définitive, à exécuter toutes les études et tous les plans sans exception, nécessaires à l’édification de l’Université du Travail, à construire Place de la Marine, à Bruxelles, et notamment: 1. Dresser les plan, devis et cahiers des charges; 2. Procéder aux sondages préliminaires nécessaires; 3. Assurer la surveillance d’exécution des travaux; […]’ L’Institut des Arts et Métiers – Convention between the City of Brussels and François. September 25, 1919. (BCA, PE II 1763)


‘il … est chargé de dresser les plans d’exécution des locaux décrits dans le programme ; il dirigera la construction de ceux de ces bâtiments’ Solbosch C.R.B. Educational Foundation Inc. - Convention between the Université Libre de Bruxelles and Dumont. (ULB Archives, NB_056_A1. 1923)

‘Tous les cas non prévus dans la présente convention, y compris celui de décès ou d’éviction de l’architecte-dirigeant, seront régulés suivant des clauses et conditions contenues dans le Code des droits et obligations et barème de l’architecte, adopté par la Fédération des Sociétés d’Architecture de Belgique en séance du 26 mars 1912, clauses et conditions que les parties soussignées déclarent connaître et accepter.’ Solbosch C.R.B. Educational Foundation Inc. - Convention between the Université Libre de Bruxelles and Dumont. (ULB Archives, NB_056_A1. 1923)

J. Delvaux, *Droits et obligations des architectes : étude de droit belge et de droit français sur la situation juridique des architectes vis-a-vis des propriétaires, des entrepreneurs et des tiers et sur la propriété artistique des œuvres d’architecture*. (Brussels, Emile Bruylant, 1923)

Architects of United Europe, *Vademecum of the architectural profession*.


Figure 1. Faculty of Sciences at the Solbosch Campus, Université libre de Bruxelles, 1924. (Source – https://solbosch.wordpress.com/2016/05/15/le-solbosch-vu-du-ciel/)
Figure 2. Le Soir. Les fêtes universitaires : une première visite au Solbosch. 1924, pp. 134-136. (Archives of the Université Libre de Bruxelles, Interwar Fund)

649x1553mm (72 x 72 DPI)
Figure 3. Façade de l’Institut des Arts et Métiers. 1928. (Archives of Modern Architecture, Brussels, Alexis Dumont Fund)

640x868mm (72 x 72 DPI)
Figure 4. Le Soir. L’Université des Arts et Métiers. I-Le Bâtiment. April 1, 1929. (Archives of the City of Brussels, PE II 1763)

712x1116mm (72 x 72 DPI)
Figure 5. Alexis Dumont. Université des Arts et Métiers. Plan du rez-de-chaussée. January 24, 1925. (Archives of Modern Architecture, Brussels, Alexis Dumont Fund)

1228x800mm (72 x 72 DPI)
Figure 6. Eugène François. Université des Arts et Métiers. Plan du rez-de-chaussée. January 24, 1925. (Archives of Modern Architecture, Brussels, Alexis Dumont Fund)

1084x727mm (72 x 72 DPI)

(Archives of Université Libre de Bruxelles, Solbosch cartography Fund)

319x229mm (300 x 300 DPI)
Figure 8. Institut des Arts et Métiers – Convention between the City of Brussels and EugèneFrançois.
September 25, 1919. (Archives of the City of Brussels, PE II 1763)

1598x1264mm (72 x 72 DPI)
Figure 9. Faculty of Law, Faculty of Philosophy and Literature (front), and Faculty of Sciences (back) at the Solbosch Campus, Université libre de Bruxelles. 1924.
(Source: https://solbosch.wordpress.com/2016/05/18/1923-premiers-cours-su-solbosch/)

183x159mm (72 x 72 DPI)
Figure 10. Solbosch C.R.B. Educational Foundation Inc. - Convention between the Université libre de Bruxelles and Alexis Dumont. November 24, 1924 (Archives of the Université Libre de Bruxelles, Interwar Fund)

2355x1381mm (72 x 72 DPI)