The construction of fantasy.
Ephemeral structures and urban celebrations in France during the eighteenth century

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In the eighteenth century, temporary constructions celebrating the most important events in the kingdom introduced both new urban ephemeral contexts and fictions with surprising atmospheres. This paper will first focus on the role of practitioners and workers involved in this process of creation. It will then study the properties of the construction materials of these ephemeral projects. At last it will consider practical issues related to the cost and the speed of construction, the safety and solidity of these inventive ephemeral buildings.

THE PROTAGONISTS

Directors and craftsmen

The projects were co-ordinated by artists or architects who had previous experience with the construction of decorations for theatres and spectacles. Most of them were familiar with wooden frameworks and were also accomplished draughtsmen. For example, Jean-Nicolas Servandoni was one of the most famous fête designer in France in the middle of the eighteenth century illustrating the very strong technical relationships between the scenic art in theatres and ephemeral projects constructed in the most important cities in the kingdom.

It is noteworthy that Servandoni as well as Jean-Antoine Morand first began to work as a decorator at the theatre in the second part of the century. The latter had spent a few months studying with Servandoni to get experience about the making of scenic decorations and machines before he worked with Soufflot for the construction of the new theatre in Lyon. Morand also worked in Parma in the 1760’s as a decorator for the theatre and he also designed ephemeral constructions for the celebration of the wedding of the future Ferdinando II with Maria Amalia, the archduchess of Austria. Morand was a fine frame designer. He knew a lot about carpentry as set as the projects he designed to celebrate the entrance of the king of Denmark in Lyon in 1768, the wooden tribunes he created in 1769 for La Fête de Monsieur l’Intendant de Lyon, and the amphitheatre he constructed in 1784 for the ascension of the aerostat the Flesselle. At the end of the nineteenth century, Morand was still famous in Lyon for the wooden bridge he built on the Rhone River.

In Nantes, before he became the architect of the classical theatre of the city, Mathurin Crucy also worked with one of his brothers as a festival designer when he decorated the square facing the old stock-exchange and the façade of this building to celebrate the birth of the Dauphin in 1781. Crucy also knew many things about wood frames because he began his career as a naval carpenter working with his father who controlled all the wood trade in the west part of France during this period.

Feast designers had to manage many things at the same time. In 1802, in the treatise he wrote about pyrotechnics, Claude Ruggieri insisted on the many
aspects of this job. In the introduction of his book, he pointed out that pyrotechnicians had to know a lot about physics, mechanics, drawing, architecture and chemistry:

L’Artifice n’est par lui-même, qu’un travail mécanique, qui n’exige que la connaissance de la dose et du nom des matières que l’on emploie : mais pour mériter le nom d’artiste en ce genre, il faut être physicien, pour prévoir sans recourir aux épreuves, les effets d’une opération quelconque : mécanicien, pour la perfection d’une pièce que l’on veut d’inventer : dessinateur et architecte, parce que l’artificier peut seul savoir accorder tous les effets du feu, avec les règles de l’architecture, et qu’il n’est guère possible à un autre, de tracer un plan d’après votre propre idée.

One century before, in the treatise he published in 1706, Amédée-François Frézier had already outlined, all the knowledge and skills pyrotechnicians should master to excel in their art. He insisted on three main topics: the iconic composition, the construction of the fireworks machines and the correct location of fireworks and rockets on these ephemeral buildings:
Dans cette dernière Partie, il y a trois choses à considérer :
l'une qui a pour objet la composition du sujet du théâtre,
est du ressort des gens de Lettre ; la seconde qui concerne
sa construction, est l'affaire des Dessinateurs & des bons
Artistes; la troisième, qui concerne la disposition de
Feux, est celle d'un bon Artificier.
Ainsi un Feu d'Artifice bien conçu & bien exécuté ne
peut être l'ouvrage d'un seul homme.1

These subheadings indicate the many problems
creators had to solve when organising such
entertainments. Moreover there should be no
confusion between the management of the entire
celebrations and the part played by pyrotechnics
devices, usually the most impressive part of the
spectacles. For this reason fireworks machines such
as Hymen temples celebrating royal weddings were
planned very carefully. Although these creators were
involved in theatre decoration, military engineering
or festival organisation, they were really interested in
architecture. It is not necessary to recall the role
played by Frézier in the field of construction when he
published his treatise about stereotomy or in his
response to Laugier's *Essai sur l'Architecture* (1753).
Jean-Nicolas Suardand, Jean-Antoine Morand and
Mathurin Cruy also proved their interest in
architecture with their various architectural
productions.

Workers. The Assigning of Roles

Although festival organisers did choose and orientate
the final aspect of the ephemeral projects constructed
for the celebrations, they had to supervise hundreds of
people working to make everything ready for the
fateful day. Carpenters, ironsmiths, painters,
sculptors, draughtsmen and pyrotechnicians were all
involved in this process of construction, working in
concert to complete the projects on time. Sometimes,
very famous artists participated in the building of
these decorations as was the case for instance during
the preparation of the celebration organized for the
birth of the Duc de Bourgogne in 1750. Algieri began
to paint a triumphal arch and its surroundings while
Falconet sculpted some figures for a *Temple of Glory*.

The best way to assess and compare the
contributions of different workers is by observing the
invoices specially done for the projects. Although
frames and wooden structures represented the back
bones of a project, it is easily observed that this was
not the most expensive except in an occasion such as
1749, when the city of Paris celebrated the Peace of
Aix-La-Chapelle: at this time the Seine river was in
flood, so the *Bureau de la Ville* decided to build a
huge scaffold covering the Place des Canons which
was submerged under water. In general canvas and
paint were more expensive than wooden frames but
not as much as fireworks. Treatises on pyrotechnics
never denied the importance of scaffolding,
particularly for their solidity, nevertheless they
emphasise that most important was producing fantasy
and illusion using unexpected effects. Concerning the
unbalanced relationship between the structure and the
ornament of ephemeral buildings, it is interesting to
study for instance the invoice proposed for the

Figure 3
Ruggieri (Claude), *éléments de pyrotechnie divisés en cinq
parties*, Paris, 1802. Frontispiece
construction of a triumphal arch in Grenoble to celebrate the entrance of Monsieur le Maréchal et Monsieur et Madame La Marquise de Tonnerre. Even though this invoice did not take into account the paintings, the wooden ornaments cost more than twice the price of the whole wooden structure of the building. Moreover, the cost of the painted decoration covering such a construction accentuate the importance placed on appearance.

General plans and perspective views were presented to the Jurats et Échevins before full size plans, cross sections, front views and details of the projects were given to the wood workers and painters to build the construction. In 1750, the Arnoult brothers and Tremblin prepared a large fête to celebrate the birth of the Duc de Bourgogne. When the celebration was cancelled because the birth was unexpectedly of a princess, the conductors of the event made an invoice to point out the drawings they had prepared so that they could be paid for their work. More than sixty drawings had been given to the Clerk’s office of the city and to the workers involved in the construction of the decorations and ephemeral architectures: a map of the entire location of the celebration, plans and large drawings of the eleven buildings with all their ornaments, several cross sections and perspective views of the Temple which was planned on the Pont Royal, main elevations of the wooden frames and drawings of the triumphal arch that might have been located on the Pont Neuf, plans and an elevation of the framework of a great column and of a pyramid, plans, cross sections of grottos with a front view of their framework, details of ionic columns and many drawings of the boats planned to light the river where the celebration had to take place.

Sometimes, models made of wood, cardboard, wax or paper were made to survey the final appearance of the constructions. These models helped in the choice of the best solutions according to the function of the ephemeral buildings and they were also good tools for workers who could refer to them in case they needed more information about the final aspect of the constructions. Both Casimir Siemienowicz and Amédée-François Frézier insisted in their treatises on the role of models. They thought they were a very good way to emphasize and then correct the drawbacks of the projects:
Concerning firework machines, Amédée-François Frézier noted that models could be used to choose the right locations to put fireworks and rockets to prevent the ruin of the whole construction during the display and to allow pyrotechnicians to reach safely all of these places:

Il est même de plus convenable de faire en relief des modèles de ces édifices lorsqu'ils sont un peu composés, pour mieux prévoir l'arrangement des Artifices dans la situation la plus avantageuse, les moyens de les placer & d'y communiquer pour les faire jouer à propos, & prévenir les inconvénients qui pourraient arriver, si l'on manquait de ces commodités de communication, pour aller & venir où il sera nécessaire.4

The report prepared after the suspended celebration of 1750, tells us about the many models planned to help workers in their job. This document explains how the models gave information about the assembling of wood pieces, the location of the constructions in the site and the exact place of the fire-pots in the whole composition:

Ce fut pendant cet intervalle que les conducteurs de la fête continuèrent les modèles qu'ils avaient déjà commencés et les mirent en état de pouvoir servir à donner à chaque entrepreneur et surtout aux décorateurs l'intelligence de leurs ouvrages en leur mettant sous les yeux l'ensemble de toutes les parties qui devaient composer chaque édifice.

Ces Modèles construits en bois, cire, carton et papier auraient été déposés dans les ateliers des Bernardins pendant le temps des travaux, et auraient servi encore à donner à chaque ouvrier des indications justes pour la pose de son ouvrage et surtout pour la disposition et les quantités de lumières.6

All these drawings and models prove that ephemeral projects were carefully designed before beginning the slightest construction. Drawings seem to be as important as in the field of architecture. Even though these projects were only ephemeral ones, this process shows the serious nature of such events.

**The Materials**

The study of the materials used to build these ephemeral constructions raises three major kinds of questions. First it was necessary to develop a global approach concerning the cost and the speed of the process of construction. Money and time did represent the most important criteria of this process of construction. Second, we have to study the connections between ephemeral proposals and permanent architecture. This point orientates the choices creators make to produce illusion. Third and last, festival designers had to consider safety and therefore the solidity of the projects they propose.

**Cost and speed of construction**

One of the most important challenges of such projects was to transform urban sites without disturbing the city’s daily organization. It was impossible to block off a street and temporarily stop the circulation of carriages and people in a part of the city. Everything had to go on inside the city without any trouble. This supposed the projects had to be assembled very quickly, sometimes only few hours before the event starts. So, ephemeral structures had to be prefabricated, tested and proved before they were erected on their final location. This meant carpenters and other workers had special work sites, large enough to prepare the whole projects.

Secondly, although they temporarily changed the townscapes of the main cities of the country, these constructions were not intended to make durable marks that might disturb the existing shape of their location. Many invoices describe how wooden frames had to be strongly fixed in the ground of the places where they were located. This was unfortunately damaging the ground of the urban public space and hampered the circulation of carriages. In order to avoid the multiplication of holes in the main squares of the city, Jacques-François Blondel formulated the solution by proposing durable foundations where the fireworks machines could be installed without causing any trouble in the site:
D’ailleurs pour éviter toute dépense accessoire & de préparation, ne pourrait-on pas établir à demeure, des fondations sous l’aire du pavé pour les Fêtes terrestres, préparer & conserver des équipages pour celles qui se donneraient sur l’eau ; de manière qu’il ne s’agit plus que d’en confier le posage à des inspecteurs intelligents, qui pourraient en presser l’exécution au gré du Prince ou du Magistrat.7

In the Plan Général du cours de la rivière de Seine et de ses abords dans Paris Moreaux published in 1769, the author proposed something quite similar. In his embellishment project for the Place de Grève Moreaux planned a special area for the location of the fireworks machines. This spot was located along the river so that thousands of people could have attended to the fireworks displays from both banks of the river. It is no coincidence that when he prepared the celebration of the birth of the Dauphin in 1782, Moreaux decided to locate the huge fireworks machine on this location according to his previous plan.

In the chapter he devoted to “les Edifices Elevés en Charpente à l’occasion des Fêtes publiques” (framework constructions for public celebrations), Jacques-François Blondel also insisted on the notion of modularity. It seemed very important to him to use modular construction so that basic elements could be used and reused for many projects, thereby avoiding waste. He would not tolerate temporarily buildings were so expensive because of their totally extravagant designs. The solution Blondel suggested was to keep money thanks to the creation of a good modular system of construction that may have supply any imaginative project:

Pourquoi ne se prémunirait-on pas de magasins pourvus de hangars & d’ateliers où se préparerait & se façonnerait d’avance ces sortes de décorations ? Pourquoi les Chefs de ces entreprises d’éclat n’occuperaient-ils pas leur plaisir à préparer différents objets de ce genre ? Pourquoi ne pas conserver une certaine quantité de corps d’Architecture, toujours préparés, mais composés partie par partie, d’après un ensemble général & une dimension relative au lieu où devrait se passer la scène, soit sur l’eau, soit sur la terre, de manière qu’il devienne possible, à l’occasion d’un événement imprévu, d’élever en très peu de temps, telle ou telle sorte d’édifice qu’il conviendrait ?8

Although Jacques-François Blondel did insist on this point, ephemeral constructions were quite often stored as best as possible to be reused later for other projects for economic and temporal reasons. Decorations were carefully taken down the day after the celebration and placed in municipal sheds. Invoices prove how old decorations were repaired and adapted to the subject of new events as they were often unpacked many years after their creation. The decorations used to celebrate military victories generally represented soldiers fighting near a city gate. Although the topic of the celebration was quite similar between two victories, it was necessary to adapt the decorations to their geographic context as much as possible. In 1758, the decorations and
firework machines constructed to celebrate the military victory on *les hessois et les hanovriens*, were the same used a few months before for the victory of Hartembeck. Ornaments were quickly renewed with painting:

1. Sera fait le changement de disposition à toutes les masses de rochers au pourtour et seront peints les châssis de trois pieds de haut sur cent quarante quatre pieds de pourtour par le bas pour les trois faces principales.
2. Seront retouchés les quatre parcs occupés et peints en pierre, et ces panneaux seront retracés et faits en pierres.9

Architects sometimes made small changes to adapt old decorations to new projects. This example is quite clear when the architect also asked to get back six figures formerly painted to celebrate the victory of Port Mahon:

8. Seront repeintes en marbre blanc avec leurs attributs et socles en rochers, de six pieds de large sur quatre pieds de haut, les six figures qui ont servi au feu des réjouissances qui ont été faites à l'occasion de la prise de Port Mahon.10

Wooden decorations placed against the façades to support illuminations were also reused several times even thought they were not always located on the same buildings. As our electric Christmas fairy lights, these elements could be adapted to different façades to make them temporarily more regular with the symmetry of geometric patterns traced at night by hundreds of fire pots. In Paris, the buildings of the Echevins were usually emphasised during public celebrations as follows:

— The lighted portico designed for the façade of the house of M. Mirey in 1751 and in August 1752 to celebrate the birth of a prince and the recovery of the Dauphin was reused in September 1753 to celebrate the birth of the Duc d'Aquitaine and placed on to the façade of the Hôtel of M. de la Frenaye to make it more regular and symmetrical.
— The lighted ceremonial door located on the first floor of the house of M. Gilet in 1751 was exactly transferred to the house of M. Caron in 1753 without any change, because of the identical width of the two houses.
aerostat Le Flesselle, belonged to the carpenter who constructed it, only one month after it was built. It was clearly stipulated that in case the festival continued after this date, the municipality would have to rent the whole construction from its new owner. This kind of contract did make the events less expensive and it was a new way to tackle the problem of the price of these ephemeral celebrations. This process allowed cities to keep money by renting ephemeral decorations only when needed or by asking private directors to manage the organisation of the whole event. People who were interested in attending the events had to pay for their seat several days prior, so that the event could take place thanks to the money previously collected. Unfortunately, we must note that such subscriptions did transform public celebrations into private spectacles. In Nantes, during the second part of the eighteenth century, Le Seur was the promoter of several festivities organised on the place de la Bourse. The same decorations were reused many times to ornament the square. Le Seur was used to organising public subscriptions before the events. In 1764, he organised a last festival and then sold all the different decorations as mentioned in the advertisement for the event. This may prove how it was difficult to manage successfully this kind of entertainment.

Residents were usually allowed to build tribunes in front of their houses in order to make money by renting seats to spectators. These constructions participated in the planning of the festival area. Carpenters were also allowed to erect tribunes all around the spots of public celebrations. This was a way to increase their wages and give them an incentive to build. When he proposed a magnificent project to celebrate the entrance of the Spanish Infant in Bordeaux in 1744, Jean-Nicolas Servandoni insisted that it would be necessary to thank carpenters for their work, by allowing them to build tribunes all around the royal square. This process also shows how municipalities successfully assigned to private directors the task of managing a part of these celebrations.

According to the process of creation of public celebration, thrift and speed of construction are closely linked principles. In his *Cours d'architecture*, Jacques-François Blondel does consider both of these notions at the same time. These principles also seem to orientate the very aesthetic dimension of the ephemeral projects. Blondel proposed to compensate for the lack of invention that might result from the use of prefabricated standard modules, by adding moulded cardboard sculptures following to the theme of the celebration. Ultimately, the beauty of the project came from its convenience of execution and from its ability to resemble permanent architecture. This last effect mainly depended on the work of painters who had to make illusion thanks to their watercolours:

Pourquoi ces mêmes magasins ne contiendraient-ils pas aussi un certain nombre d’accessoires, tels que des armoiries, des devises, des bas-reliefs, des statues, des trophées moulés en cartonnage, qui serviraient à symboliser ces différentes décorations, lesquelles pourraient, selon l’occasion, se composer ou se décomposer dans leurs dimensions. La Peinture à son tour déployerait toutes ses ressources pour les imprimer en pierre, en marbre, y appliquer l’or ou l’azur: ressources peu dispendieuses qui embellirait ou simplifierait l’ordonnance de ces monuments.

**Imitation**

Ephemeral constructions had to look like permanent ones. In this way, the fête designers created the illusion of unexpected worlds and phantasmagorias.
The Encyclopédie résonnée des sciences, des arts et des métiers defines this idea, in other words l'architecture feinte:

... [on appelle architecture feinte] celle qui a pour objet de représenter tous les plans, saillies & reliefs d'une architecture réelle par le seul recours du coloris ... ( . . . ) ... celle qui concerne les décorations des théâtres ou des arcs de triomphe peintes sur toiles ou sur bois, géométralement ou en perspective, à l'occasion des entrées ou fêtes publiques, ou bien pour les pompes funèbres, feux d'artifices, &c.\textsuperscript{13}

Ephemeral constructions were a kind of architectures feintes. The only way to make them similar to durable architecture was through the use of colour as mentioned in this definition. Before the structure, everything was based on imitation of true construction materials especially stone. The challenge was to simulate stability with paper, canvases, cardboard and of course painting. Jean-Nicolas Servandoni knew the secret recipes to attain this goal as for instance in 1739, when he designed a Temple de l'Hymen on the far west side of the Ile de la Cité in Paris, to celebrate the wedding of Madame Première with the Infant Dom Philippe. Apart the brilliant composition of the façade of the building, he advised to use paint simulating the colour of stone:

L'on avait emprunté de la peinture qu'une couleur de pierre générale & uniforme, dont on avait recouvert toutes les matières qui avaient été employées pour la construction de cet Edifice.\textsuperscript{14}

Five years later, he wrote a similar sentence to describe the painting that decorated the magnificent hall and triumphal arch he built in Bordeaux for the entrance of the Dauphine, managing to associate a perfect coherence between the shape and the appearance of the construction:

Tout le Bâtiment est en relief composé dans la sévérité des règles, il est aussi bien construit et imite si parfaitement la pierre qu’hors de le toucher, l’on s’y trompe par la seule apparence.\textsuperscript{15}

The success of these projects also depended on the illusion of abundance and luxury they created. Ephemeral wine fountains imitated water fountains made of marble, with bases and columns often painted in gold to accentuate the value of the whole construction. Colours and figures covering ephemeral construction were chosen to resemble famous buildings, such as with the colonnade designed for the Pont Neuf in Paris to celebrate the first wedding of the Dauphin in 1745. The painting of the ceiling of this wooden ephemeral construction was directly inspired by the colonnade of the Louvre located just nearby the spot of the fête:

Le plafond de la galerie dans toute sa longueur aurait été peint dan le goût de celuy de la colonade du Louvre qui regarde St Germain lauxeroix.\textsuperscript{16}

Even fantasy, however, was guided by the rules of classicism. Fête designers attempted to follow
related to the orders determined by Vitruvius, Casimir Siemienowicz tried to apply the same criteria to his ephemeral constructions. This shows how even these temporary constructions had to be coherent and harmonious according to standard architectural practice. From Casimir Siemienowicz to Claude Ruggieri the five architectural Orders prevailed, even when considering pyrotechnic machines or decorations. In his treatise, Ruggieri devoted a chapter to «Les Règles d’Architecture pour l’Artifice» (architectural rules for fireworks displays).

The connection between durable and ephemeral architecture could also be found in treatises on pyrotechnics which began to take account of architectural aesthetic restraints. Fascinating palaces, triumphal arches or small ancient temples were the main architectural themes developed for eighteenth-century festivities. Jacques-François Blondel suggested that ephemeral constructions should be embellished by using the five canonical Orders. As regards the aesthetic rules for classical architecture

classical rules of composition to build their constructions according to Convenance (suitability and regularity). The hall Servandoni created in Bordeaux in 1745 did strictly respect the principles of classical architecture:

Ce bâtiment était composé dans la plus grande sévérité des règles selon les anciens, les colonnes, leurs bases, chapiteaux, entablement, fronton, bas relief et ornements étaient totalement de relief...⁹

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Sometimes, ephemeral proposals could also influence durable architecture because of the quality of their intrinsic composition. The drawing of the temple Servandoni designed in 1739 was mentioned a few years later in the compilation of analytic architectures published by Neufforge at the end of the
1750's. At the same time, Jacques-François Blondel encouraged his students to draw some fireworks machines as a way to train themselves in the composition of various architectural styles.18

Safety and Solidity

In his treatise on pyrotechnics, Amédée-François Frézier also dwelt on public safety by insisting that all materials used for the construction of urban decorations be fireproof or fire-resistant. This cautious step to avoid the risk of fire was a novel consideration. For example, Amédée-François Frézier noted that it was safer to use watercolors instead of oil paint for the scenery and decorations covering large boards or canvasses stretched on the wooden ephemeral structures. The effectiveness of this admonition is suggested by the rapidity with which it was adopted, for subsequent invoices repeatedly specify watercolors.

Although these ephemeral structures were only decorative, architects had to build them solidly enough so that they would not fall on people. According to the Vitruvian principle the ephemeral constructions had to last long enough for these short-lived celebrations. However, it was not possible to predict the exact level of solidity these projects should have, because of unpredictable weather conditions. As Amédée-François Frézier and Claude Ruggieri suggested, the safest way to tackle the problem was to follow the technical know-how of construction. To check the strength of the projects, special commissions were called as for instance in the two following examples:

- Firstly, to celebrate the birth of the «Dauphin» in 1729, the Spanish Ambassadors in Paris ordered a great ephemeral hall to be located next to the Hôtel de Bouillon. A big storm caused the first construction to collapse. A new structure was erected and closely inspected when completed. The commission was led by Robert de Cotte, first Royal architect, and even the chief of the Royal Police in Paris was a member of the commission, as mentioned in the text Le Chevalier Daudet published in 1731.

- Secondly, at that time most of the Parisian celebrations took place on the place de Grève, in front of the Town Hall. The tribunes set up by the residents in front of their houses were thoroughly verified by no less than a dozen officials, such as bailiffs, aldermen, the Attorney General and his men, and finally the architect in charge of the safety report. The
commission controlled the arrangement of the wood pieces and how they were put together so people could properly sit on the tribunes. They also made sure they were built in accordance with the previous submitted outlines.

A WHOLE PROCESS OF CONSTRUCTION

To conclude, it is noteworthy that the various aspects we mentioned in this paper all contributed to the definition of a very specific field of production. Artists, architects and workers involved in this process of creation were trying to make fantasy thanks to the clever use and assemblage of the most basic materials of construction.

The success of these projects depended on the way designers managed to control the events according to the many constraints of the chosen sites. The surprising shapes of the projects and the new townscapes or lightscapes they set up in the city allowed many experiments and could also introduce innovations in the field of architecture. By answering questions of location, construction, safety and solidity, festival designers managed to transform daily common places into unexpected fictions where people could temporarily imagine they became the main actors of a phantasmagoria.

NOTES

1. Ruggieri (Claude), éléments de pyrotechnie divisés en cinq parties, Paris, 1802, p.xii.
2. Frézier (Amédée-François), Traité des feux d'artifice pour le spectacle, Paris, 1747, 1st edition, 1706, p.IX.
3. Siemienowicz (Casimir), Grand art d'artillerie, mise de latin en français, par Pierre Noisel. 1651, p.381.
4. Ibid. In his treatise, Frézier devoted some lines to the same topic: «Il faut former le dessein d'un Théâtre qui convienne au sujet de la réjouissance dont il s'agit, comme nous avons dit cy-devant, de chacun de ces Sujets en particulier. Il faut coucher ce dessein sur du papier pour en voir l'effet, ou ce qui est encore mieux, pour en prévoir les inconvénients, en dresser un petit modèle de bois ou de carton collé», in Frézier, (Amédée-François), Traité des feux d'artifice pour le spectacle, Paris, 1747, 1st edition, 1706, p.364.
8. Ibid., p.274
9. «Etat des ouvrages de peinture à faire de l'ordre de Messieurs les Prévôt des Marchands et Echevins de la Ville de Paris pour faire servir les décorations du feu de la fête donnée pour la Victoire d'Hartembeck à celle du feu qui doit être tiré devant l'Hôtel de Ville, le 28 Octobre 1758, pour la Victoire remportée sur les hessois et les hanovriens, les dites peintures faites par le S'. Dumesnil, Peintre ordinaire de la Ville». Archives nationales, K 1013, n°2457.
10. Ibid.
11. «Devis du charpentier Joseph Guillet, afin d'ériger l'enceinte en bois de sapin destinée à accueillir la célébration du lancement du Flesselles». Archives
15. *Description abrégée des ouvrages faits dans la ville de Bordeaux à l’occasion du passage de Madame La Dauphine.* Archives Départementales de la Gironde, C 3638, p.2.
16. Archives Nationales, H/2/1861