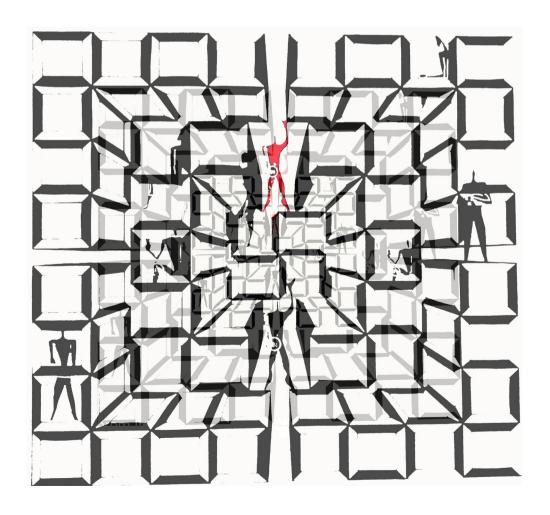


De_Sign Environment Landscape City_2020 Atti

a cura di Giulia Pellegri





De Sign Environment Landscape City/Di Segnare Ambiente Paesaggio Città

International Conference on Drawing/Conferenza Internazionale sul disegno

Genoa 21 October 2020 / Genova, 21 Ottobre 2020

Department Architecture and Design DAD/Dipartimento Architettura e Design DAD

Polytecnich School of Genoa/Scuola Politecnica dell'Università degli Studi di Genova

Scientific Director/Direttore Scientifico

Giulia Pellegri, Scuola Politecnica di Genova, Dipartimento DAD

Organizing Committee/Comitato Organizzatore

Sara Eriche, Scuola Politecnica di Genova, Dipartimento DAD

Marina Jiménez Jiménez, Universidad de Valladolid, ETS Arquitectura

Michela Mazzucchelli, Scuola Politecnica di Genova, Dipartimento DAD

Giulia Pellegri, Scuola Politecnica di Genova, Dipartimento DAD

Francesca Salvetti, Scuola Politecnica di Genova, Dipartimento DAD

Michela Scaglione, Scuola Politecnica di Genova, Dipartimento DAD

Scientific Committee/ Comitato Scientifico

Marta Alonso, Universidad de Valladolid, ETS Arquitectura

Gianandrea Barreca, Architetto Studio professionale Barreca & La Varra

Enrica Bistagnino, Scuola Politecnica di Genova, Dipartimento DAD

Paolo Clini, Università Politecnica delle Marche, Dipartimento di Ingegneria Civile, Edile e Architettura, DICEA

Roberto de Rubertis, Università degli Studi di Roma Sapienza

Raffaella Fagnoni, Scuola Politecnica di Genova, Dipartimento DAD

Maria Linda Falcidieno, Scuola Politecnica di Genova, Dipartimento DAD

Patrizia Falzone, Scuola Politecnica di Genova, Dipartimento DAD

Francesca Fatta, Università degli Studi Mediterranea di Reggio Calabria, Dipartimento Architettura e Territorio

Massimiliano Fuksas

Marco Gaiani, Alma Master Studiorum Università di Bologna, Dipartimento di Architettura

Noelia Galván Desvaux, Universidad de Valladolid, ETS Arquitectura

Carmine Gambardella, Cattedra UNESCO in Beni Culturali, Paesaggio e Governo del Territorio al Centro di Eccellenza della

Regione Campania sui Beni Culturali, Ecologia, Economia e Design dei Servizi (BENECON SCaRL).

Manuel Gausa, Scuola Politecnica di Genova, Dipartimento DAD

Adriana Ghersi, Scuola Politecnica di Genova, Dipartimento DAD

Marco Giovine, Università di Genova, Dipartimento di Scienze della terra, dell'ambiente e della vita DISTAV

Clara Gonçalves, Università Lusíada (Portogallo)

Marina Jiménez Jiménez, Universidad de Valladolid, ETS Arquitectura

Jesus J. Lara, The Ohio State University

Adriano Magliocco, Scuola Politecnica di Genova, Dipartimento DAD

Giovanna A. Massari, Università di Trento, Dipartimento di Ingegneria Civile, Ambientale e Meccanica

Michela Mazzucchelli, Scuola Politecnica di Genova, Dipartimento DAD

Giampiero Mele, Università degli Studi eCampus

Alessandro Melis, Università di Portsmouth (Regno Unito)

Giulia Pellegri, Scuola Politecnica di Genova, Dipartimento DAD

Franco Purini, Professore Emerito, Università degli Studi di Roma "La Sapienza"

Maria Elisabetta Ruggiero, Scuola Politecnica di Genova, Dipartimento DAD

Francesca Salvetti, Scuola Politecnica di Genova, Dipartimento DAD

Michela Scaglione, Scuola Politecnica di Genova, Dipartimento DAD

Maria Benedetta Spadolini, Scuola Politecnica di Genova, Dipartimento DAD

Antonio Tordesillas, Universidad de Valladolid, ETS Arquitectura

Segreteria organizzativa/Local organizing office

Sara Eriche, Scuola Politecnica di Genova, Dipartimento DAD

tel. 010.2095570 Email. giornatadistudi@arch.unige.it

Patronage/Patrocinio

Università degli Studi di Genova, Scuola Politecnica di Genova, Dipartimento Architettura e Design; ADDgenova Dottorato in Architettura e Design; Universidad de Valladolid, ETS Arquitectura; Comune di Genova; A.I.T.I.V.A Associazione Italiana Tecnici Industrie Vernici ed Affini; Cts_colorLabCts_culture technology science_Laboratory of Colour; Unione Italiana Disegno UID;

De_Sign Environment Landscape City_2020 Atti

a cura di Giulia Pellegri





è il marchio editoriale dell'Università di Genova



De_Sign Environment Landscape City International Conference on Drawing Genova, 21 ottobre 2020

Dipartimento Architettura e Design DAD, Scuola Politecnica dell'Università degli Studi di Genova

Questo volume contiene contributi sottoposti a blind peer review da parte del Comitato Scientifico della Conferenza Internazionale De_Sign Environment Landscape City, tenuta presso il Dipartimento Architettura e Design dell'Università di Genova.

Patrocinio:













Impaginazione grafica a cura di: Sara Eriche

In copertina:

Animated City Modulor @Giulia Pellegri su schema geometrico di Alessia Bergaglio

© 2020 GUP

I contenuti del presente volume sono pubblicati con la licenza Creative commons 4.0 International Attribution-NonCommercial-ShareAlike.



Alcuni diritti sono riservati.

Realizzazione Editoriale **GENOVA UNIVERSITY PRESS** Via Balbi, 6 - 16126 Genova Tel. 010 20951558 - Fax 010 20951552

e-mail: gup@unige.it http://gup.unige.it

ISBN: 978-88-3618-042-4 (versione eBook)

Pubblicato novembre 2020

CONTENTS/CONTENUTI

T1. Survey and Representation of Architecture and Environment

T1. Rilievo e Rappresentazione dell'Architettura e dell'Ambiente

- 9 THE FORTRESS OF HVAR TVRDALJ IN CROATIA. SURVEYS AND MODELS L. Corniello, A. de Cicco, L. Giordano
- 17 UNIFIED SURVEY AS COGNITIVE TOOL S. Eriche, G. Pellegri
- 29 DETECT VS REVEAL. THE SURVEY AS AN INVESTIGATIVE TOOL IN THE DIDACTIC EXPERIENCE OF THE ARCHITECTURAL PROJECT P. Mei
- 35 THE MOSQUES OF THE CITY OF BERAT IN ALBANIA
 A. Trematerra, E. Mirra
 - T2. Drawing for the Landscape

T2. Disegno per il Paesaggio

- 43 NEW SIGNS FOR THE URBAN LANDSCAPE. THE BUS RAPID TRANSIT REDESIGNS THE CITY
 - F. Bianconi, M. Filippucci, M.Meschini, G.Pelliccia, M. Seccaroni
- 59 ORTHODOX MONASTERIES IN THE LANDSCAPE OF ISLAND GREECE D. Carleo, L. Corniello, G. Pio Lento
- 69 SLOW MOBILITY-BASED REPRESENTATION OF COASTAL TERRITORY. THE COSTA DEI TRABUCCHI CASE STUDY D. D'Uva, F. Eugeni
- 75 REGENERATING CHIASCIO: THE FIRST GREEN COMMUNITY IN UMBRIA A. Fancelli, F. Bianconi, M. Filippucci
- 89 COMPLEXITY, COHERENCE AND DISTINCTION: PIET OUDOLF AND THE DESIGN OF SPONTANEITY INSPIRING BY NATURE

 S. Melli
- 101 FOOD AS A MEANS OF CHANGE FOR CITIES AND LANDSCAPES
 G.Tucci
 - T3. The drawings for the project: tracks visions and previsions
 - T3. I Disegni per il progetto: tracce-visioni e pre-visioni
- 111 TERRAFORMING MARS VS EARTH'S ANTHROPOCENE
 F. Burlando
- 123 THE DISSOLUTION OF ARCHITECTURE ACCORDING TO YONA FRIEDMAN E. Lo Giudice, M. Scaglione

ARTISTS IN THE FRENCH ARSENALS OF LOUIS XIV C. Tacchella	131
THE DRAWING AS A COGNITIVE PROBE FOR THE PROJECT M. Valentino	147
T4. Margins: the signs of memory and the city in progress T4. Margini: i segni della memoria e della città in progress	
OB PORTUS. LANDSCAPE AS MEDIUM AND STRATEGY IN AMERICAN PORT-CITY ARTICULATION F. Bellora	157
NEO-PRIAMÀR. NEW SHAPES FOR THE BORDER HERITAGE L. Mandraccio, B. Moretti, D. Servente	171
T5. Visual Culture and Communication: from idea to project T5. Cultura visiva e Comunicazione: dall'idea al progetto	
FROM CONFINED SPACES TO INFINITE SPACES: THE REPRESENTATION IN SCREEN-MEDIATED GAMES G. Attademo	183
DESIGNING WITH PERSONAL DATA – A PARAMETRIC VISUAL EXPERIENCE AT TEDXGENOVA A. Vacanti	195
WHAT IS THE BEST GRAPHIC TOOL FOR CO-DESIGNING "HOME" SPACES WITHIN REFUGEE CAMPS? F. Vercellino	201
T6. Architectural Features T6. Emergenze architettoniche	
NATURAL OR ARTIFICIAL? AESTHETICS AND FUNCTIONS ON BUILDINGS GREEN ENVELOPES	209
M. Canepa, A. Giachetta, A.Magliocco, K. Perini A SENSORIAL APPROACH TO NATURAL LANDSCAPE D. Opincariu, A. Motu, L. Vartic	219
T7. The colour and the environment T7. Il colore e l'ambiente	
FROM THE "SMOKEY BLUES" OF THE GRAN CARRÉ IN THE TUILERIES GARDEN TO THE ORNAMENTAL SPONTANEOUS GRASSES IN THE AEOLUS' GARDENS IN PARIS A. Ghersi	231
THE DIGITAL CATALOGING OF THE PAINTED FAÇADE DECORATION G. Pellegri, F. Salvetti	241
COLOURS FOR URBAN ARCHITECTURES: THE LUSO-BRASILEIRA AZULEJARIA (XVII-XX CENTURIES), NOTES FOR A CRITICAL SURVEY M. Spesso, G.L. Porcile	253

T8. Perception and territorial identity

T8. Percezione e identità territoriale

- 263 THE 'GREEN' AS ELEMENT OF REGIONAL IDENTITY P. Burlando, I. Vagge
- 273 TRACKS, STORYTELLING, CONTEMPORARY. DESIGN FOR THE TERRITORY R. Fagnoni, C. Olivastri
- 285 MAPS FROM PUBLIC SPACE TO RELATIONAL SPACE M. Gausa. N.Canessa
- 295 SLOW TOURISM LINKS HANDICRAFTS AND TELLS THE IDENTITY OF THE TERRITORIES L. Parodi
- 301 THE PERCEPTION OF INTERMITTENT RIVERS IN URBAN AREAS M. Pitanti
- 313 INSIDE THE SECRET GARDEN **D. Repetto**
 - **T9.** Iconographic Cultural and Landscape Heritage: art, literature and design effects T9. Patrimonio iconografico culturale paesaggistico: arte, letteratura e ricadute progettuali
- 325 DUAL_MIND: FROM CULTURE TO DESIGN
 A. Bertirotti
- 331 ANIMATED REFLECTIONS: AN EVERYMAN'S GUIDE TO POSTMODERNITY A. Canevari, G. Galli
- 349 SYMBOLOGY AND MYTH IN ANCIENT SHIPS: THE APLUSTRE M. Corradi
- 365 THE DRAWING THE IMAGE THE SPACE OF THE GARCÍA SANABRIA MUNICIPAL PARK IN SANTA CRUZ DE TENERIFE

 A. Donelli
- 375 LA RAPPRESENTAZIONE DELLO SPAZIO NELLA LETTERATURA CINEMATOGRAFICA ORIENTALE. IL RAPPORTO TRA UOMO E SPAZIO IN PARASITE R. Marrocco
 - **T10.** Signs and Drawings for Design T10. Segni e disegni per il design
- 393 THE ART OF WOVEN VEGETABLE FIBER, DECORATIVE SIGNS AND FUNCTIONAL SHAPES DERIVED FROM THE ENVIRONMENT E. Carassale
- 405 SIGNS AND THICKNESSES OF THE CITY: THE ROLE OF PRE-MODERN CARTOGRAPHY
 A. Iacomoni
- 413 DECOMPOSITION AND RECOMPOSITION OF NATURAL LANDSCAPE **D.Opincariu, A.Motu, L. Vartic**

COMMUNICATION, ORIENTATION AND WAYFINDING ABOARD GREAT SHIPS: TOWARDS AN INTEGRATED AND USER-CENTRED SYSTEM N. Sorrentino	423
T11. Advanced Representation T11. Rappresentazione avanzata	
BERAT (ALBANIA) DIGITAL MODELING FOR ADVANCED REPRESENTATION D. Carleo, A. De Cicco, M. Gargiulo, F. Guerriero, G. P. Lento	433
FEATURES OF LANDSCAPE, A VISUAL INTERPRETATION D. Opincariu, A. Motu, L. Vartic	443

Artists in the French arsenals of Louis XIV

Claudia Tacchella

Department Architecture and Design DAD (University of the Study of Genoa) cla.tacchella@gmail,com

Abstract

During the reign of Louis XIV (1638-1715), thanks in particular to the Minister of Finance, Jean-Baptiste Colbert (1619 - 1683), and his son Jean-Baptiste Antoine Colbert, Marquis de Seignelay (1651 - 1690), France experienced an important Navy development. The world of shipyards went on to transform and new figures emerged in the evolutionary, design and construction process of the ships. Among these, mathematicians played a role of fundamental importance as they brought improvements in shipbuilding using the study of geometry, statics and more specialized disciplines such as hydrostatics and hydrodynamics, the foundations of what we call architecture naval. However, in the world of French arsenals, we compare another figure, who also carries innovations, especially on an aesthetic level: the artist. In fact, it is true that boats are "functional objects", because their shape is the result of changes implemented by virtue of a continuous succession of construction and nautical improvements, it is equally true that in Louis XIV's France everything had to affirm national power, both in the Kingdom and on the seas. As evidence of that, not only marvelous palaces were built, like the Palace of Versailles, but also prestigious ships; the ships of the Navy will then become a means of showing off the glory of the Sovereign. Therefore, the new fleet was not only meant to be effective in combat but it was also to affirm the French grandeur through its abundance of decoration and formal beauty. Among the figures in charge of dealing with this ambitious project, notable artists in France at the time were involved, such as Jean-Baptiste de la Rose (1612-1687), Pierre Puget (1630-1694) pupil of Charles Le Brun (1619 - 1690) and François Girardon (1627 or 1630 - 1715). The artists' task was therefore to design the sumptuous decorations of French vessels and the interior furnishings, the realization of the works and manage the workers composed of selected minor artists and carpenters who had to carry out the decorations. From the union between artists and shipbuilders, sailing masterpieces such as Saint Philip (1663) or Royal Louis (1668) were born, both built in the arsenal of Toulon. In this way, then, the image of the France was present in what is another and not secondary variation of art: the naval art.

Abstract

Durante il Regno di Luigi XIV (1638 - 1715), grazie in particolare al ministro delle finanze, Jean-Baptiste Colbert (1619 - 1683), e a suo figlio Jean-Baptiste Antoine Colbert, Marquis de Seignelay (1651 - 1690), la Francia assistette a un importante sviluppo della Marina militare. Il mondo dei cantieri navali fu oggetto di importanti trasformazioni e nuove figure si delinearono nel processo evolutivo,

progettuale e costruttivo dei vascelli, soprattutto da guerra. In particolare, i matematici rivestirono un ruolo di fondamentale importanza, in quanto portarono migliorie nella costruzione navale tramite lo studio della geometria, della statica e di discipline più specialistiche come l'idrostatica e l'idrodinamica, i fondamenti di quella che noi oggi chiamiamo architettura navale. Tuttavia, nel mondo degli arsenali francesi, comparve un'altra figura, portatrice anch'essa di innovazioni, soprattutto a livello estetico: l'artista. Infatti, se è vero che le navi sono "oggetti funzionali", nella misura in cui la loro forma è il risultato di modifiche attuate in virtù di una continua successione di migliorie costruttive, è altrettanto vero che nella Francia di Luigi XIV ogni cosa, così nel Regno come sui mari, doveva affermare la potenza nazionale. A testimonianza di ciò, non furono realizzati solo meravigliosi palazzi, uno fra tutti la Reggia di Versailles, ma anche navi prestigiose; i vascelli della Marina diventarono allora un mezzo per ostentare la gloria del Sovrano. Perciò, la nuova flotta non doveva solo essere efficace in combattimento, ma doveva anche affermare, attraverso la sua ricchezza e la sua bellezza formale, la grandeur francese. Tra le figure incaricate di occuparsi di questo ambizioso progetto, emergono artisti di rilievo nella Francia di allora, come Jean-Baptiste de la Rose (1612 - 1687), Pierre Puget (1630 -1694) allievo di Charles Le Brun (1619 - 1690) e François Girardon (1627 o 1630 - 1715). Compito dell'artista era quello di progettare le sontuose decorazioni dei vascelli francesi e l'arredo interno, la realizzazione dei lavori e anche di gestire le maestranze composte da selezionati artisti minori e falegnami che dovevano realizzare le decorazioni. Dall'unione tra artisti e costruttori navali nacquero opere d'arte naviganti come ad esempio la Saint Philip (1663) o la Royal Louis (1668), entrambe realizzate nell'arsenale di Tolone. In questo modo, l'immagine della Francia era ostentata in quella che è un'altra declinazione, non secondaria, dell'arte: l'arte navale.

Introduction

Century changed drastically thanks to an important development processes of ports, arsenals and shipbuilding that created a strong and powerful Navy. The world of shippards went on to transform and new figures emerged in the evolutionary, design and construction process of the boats. Among these, mathematicians played a role of fundamental importance as they brought improvements in shipbuilding using the study of geometry, statics and more specialized disciplines such as hydrostatics and hydrodynamics, the foundations of what we call architecture naval. However, in the world of French arsenals, we compare another figure, who also carries innovations in vessels, especially on an aesthetic level: the artist.

Colbert and the naval development

During the reign of Louis XIV (1638 - 1715), the France Navy and the shipbuilding lived a great development especially thanks to the work of the finance minister Jean-Baptiste Colbert (1619 - 1683), helped by his son Jean-Baptiste Antoine Colbert, Marquis de Seignelay (1651 - 1690), both eager to make France a naval power like other rival nations, in particular England, Holland and Spain. Colbert was a disciple of Cardinal Mazarin (1602 - 1661), who were the prime minister since 1643 until his death, after Cardinal Richelieu (1585 - 1642). Shortly before die, Mazarin sent a letter to the king writing: « Je vous dois tout, Sire; mais je crois m'acquitter en quelque manière en vous donnant Colbert. » ¹, giving to the monarchy what we could call a reference letter. And so it was that in the 1661

¹La Roncière, Charles de. *Histoire de la marine française*. Vol. 5. Paris: E. Plon, Nourrit, 1899; p. 312.

Jean-Baptiste Colbert got the assignment to organise and manage the France Navy that was in critical condition; all the efforts Richelieu had made in order to strengthen the Navy had been nullify under the regency of Anne of Austria (1601 - 1666), who became the *Grand Maitrise de la Navigation*² in 1646. That title was created by the prime minister Richelieu in the 1626 in order to remove the Navy from the aristocracy control putting it directly under the king control through the medium of the *Grand-Mâitre*³ In 1661, an inquiry taken by the prime minister showed the state of neglect of the French Navy and Colbert himself commented:

« Depuis dix ans l'on n'avait jamais vu en mer plus de deux ou trois vaisseaux de guerre François; tous les magasins de guerre étaient entièrement dénués; tous les vaisseaux réduits à vingt, – plusieurs mesme hors d'estat de servir, - toute la chiourme à huit on neuf cens forçats, la pluspart malades et affoiblis; six meschans corps de galeres; enfin cette nature d'affaires en laquelle reside la mailleure partie de la gloire du prince et le respect de son nom dans les pays estranders, reduite au plus pitoyable estat que l'on puisse imaginer. » ⁴

In 1664, a further inquiry showed the evident French Navy numeric inferiority compared to the other European powers. The national fleet, indeed, was about 130.000 tons while the English one was 200.000 tons, almost twice the French fleet, and the Dutch fleet was even more than the double with its 600.000 tons⁵, the Dutch *gouden eeuw*. Colbert carried out a manoeuvre to resolve the situation restarting the shipbuilding industry. He recalled many French shipbuilders who had moved abroad⁶ and he also drew many shipwrights from foreign countries, especially Italy and Holland. Doing this, Colbert let the French shippard learn the Dutch shipbuilding techniques considered to be the best of the time. To get a numerous fleet in the shorter possible time, the prime minister not only started a local ship production, but he also start several negotiations on buying ships from Italy, United Provinces (1581 - 1795), Denmark and Sweden. Furthermore, a fundamental operation started by Colbert included the expansion of ports as Brest, Toulon and Marseille, and the construction of new naval arsenals as Rochefort (1666) ⁷. Among those shipbuilding centres there were Brest, Port-Louis and Rochefort on the Atlantic coast, Durkerque on the North Sea, Marseille and Toulon on the Mediterranean Sea⁸.

As we can see, any access to the sea was exploited for the expansion of the naval industry.

Not only shipyards were developed in those centres, but also shipbuilding schools, ship control and management and naval artillery practice, as well as guns foundries⁹.

About this business, Colbert had to create a industry from nothingness. Although some French guns foundries successes in the 16th century, the political crisis lived by the Reign had lead to the vanishing of this industry. Even Richelieu, acting for create a strong Navy, did not deal with guns construction and when Colbert became the prime minister, France completely depended on foreign armaments, especially the Dutch ones. The prime minister, nevertheless, was firmly convinced of the need to develop a national iron armament industry in order to develop a internal trade and to exploit French the iron mines. Thus, from the 1660s a national plan was implemented. It included the extraction and

² Chack, Paul. Marins à bataille, Volume 1. Le gerfaut, 2001; p. 169.

³ James, Alan. The Navy and Government in Early Modern France, 1572-1661. Woodbridge (UK): Boydell & Brewer, 2004; p. 55.

⁴La Roncière, Charles de. *Histoire de la marine française*. Vol. 5. Paris: E. Plon, Nourrit.,1899; p. 325.

⁵Thierry, Sarmant. Louis XIV: homme et roi. Paris: Édition Tallandier, 2012.

⁶ Stoll, Mathieu, Thierry Sarmant. Le grand Colbert. Paris: Édition Tallandier, 2019.

⁷Lacroix-Lintner, Dominique. *Marine, beaux-arts et mécénat au XVIIe siècle en France*. 124-Sorbonne. Carnet de l'École Doctorale d'Histoire de l'Art et Archéologie, 2016; p. 3.

⁸ Thierry, Sarmant. Louis XIV: homme et roi. Paris: Édition Tallandier, 2012.

⁹ Thierry, Sarmant. Louis XIV: homme et roi. Paris: Édition Tallandier, 2012.

transport of minerals in carefully selected centres to supply the all arsenals and the birth of large private companies for the processing of raw materials was stimulated. Despite that, results were not satisfactory, not because of an inability of workers in processing materials, but because of the unsuitable quality of French iron for casting. France did not develop a powerful iron armament industry until the second half of the 18th century, long after Colbert died¹⁰. Except for the failure in the guns production, the other naval development operations were successful. When the Dutch war (1672-1678) broke out, France had 120 ships of the line¹¹ and in 1676 it won a naval battle at Palermo against the Dutch fleet supported by Spain. On that occasion Louis XIV wrote to Colbert:

« (...) Voilà ce que nous souhaitions il y a longtemps vous et moi et il n'y a plus rien à désirer de ce côté-là. Il faut toujours travailler à perfectionner ce qui commence déjà à passer les autres nations. Il faut faire en sorte que la France l'emporte par mer sur les autres nations comme elle le fait sur terre. » 12



Fig. 1 Jan van Beecq. La jonction de la flotte française commandée par l'amiral d'Estrées et la flotte anglaise commandée par le duc d'York avant la bataille de Solebay. 1672. Preserved at: Musée national de la Mari, Paris

In 1690, the French Navy had almost 150 hips. Three of them were première grandeur ships with 120 guns; these were the Soleil-Royal (1671), the Royal-Louis (1668) and the Dauphin Royal (1668). In the fleet there were also 30 second-rate ships mounting 70-90 guns, 60 third-rate ships mounting 50-70 guns and 30 galleys exclusively used in the Mediterranean Sea¹³. The Roi Soleil was satisfied of Colbert's results and, after a trip to Dukerque, in 1680, the king wrote him a letter saying:

¹⁰ Cipolla, Carlo Maria. Vele e cannoni. Bologna: il Mulino, 2019; p. 35-39.

¹¹ Thierry, Sarmant. Louis XIV: homme et roi. Paris: Édition Tallandier, 2012.

¹² Murat, Inès. Colbert. Paris: Fayard, 1980; p. 336.

¹³ Thierry, Sarmant. Louis XIV: homme et roi. Paris: Édition Tallandier, 2012.

« J'entendrai bien mieux présentement les lettres de marine que je ne faisais, car j'ai vu le vaisseau de toutes manières et faire toutes les manœuvres tant pour le combat que pour faire route. Je n'ai jamais vu d'hommes si bien faits que sont les soldats et les matelots ; si je vois jamais beaucoup de mes vaisseaux ensemble, ils me feront grand plaisir. Les travaux de la marine sont surprenants, et je ne m'imaginais pas les choses comme elles sont: enfin je suis satisfait. » ¹⁴

The aesthetic pomp of Versailles in the French arsenals

Today, Louis XIV is remembered overall for the aesthetic pomp of his reign exalted and exasperated by the decorative abundance present in every element and detail. From the fashion of the rich gold-covered clothes and laces worn at court, to the elaborate hairstyles worn by ladies and gentlemen and again by the decorative richness that made the celebrations and architecture of that period famous and unforgettable, like, above all, the famous Palace of Versailles. The taste of the time was justified by the desire to show the wealth and power of the French nation to the world. The maritime power of France also had to become a bringer of a message which showed the abundance and the greatness of the nation in the seas. In order to do this, a large and powerful fleet was not enough, king's ships had to be also recognizable for their beauty and they had to had more ornaments and decoration than any other foreign ship. This aesthetic tendency to glorify everything was therefore also applied to the ships of the Navy. From the second half of the 17th century, in fact, the French ships were large and heavy sailing vessels with low draft, made with sturdy oak wood¹⁵ characterized by the abundance of decorations. The stern part in particular became a stage in which to show the grandeur of Le Roi Soleil to the world.

Since 1660, the will to decorate and adorn ships makes artist come to work in shipyards to create amazing ships worthy of Louis XIV. We can only image the ferment of those shipyard in those days. In the 1668, at Toulon, for example, three big ships were built at the same time, two of them were first-rate ships, the Royal Louis and the Dauphin Royal, both mounting 104 guns, and the other one was the second-rate Monarque, mounting 80 guns¹⁶. Nonetheless, coexistence on the shipyard between naval workers and artists was not easy; the complaints concerned in particular the insubordination of the latter, which, in the Toulon superintendent Louis Leroux d'Infreville (1642 - 1712) opinions, « (...) ne se gouverne pas comme les autres artisans », so much that the monarchy allowed to force these craftsmen to work even under threat of violence¹⁷.

¹⁴ Thierry, Sarmant. Louis XIV: homme et roi. Paris: Édition Tallandier, 2012.

¹⁵ Stoll, Mathieu; Thierry Sarmant. Le grand Colbert. Paris: Édition Tallandier, 2019.

¹⁶ De Montaiglon, M. Antole. Archives de l'art français. Recueil de documents inédits relatifs à l'histoire des arts en France. Paris: J.-B. Dumoulin, 1855-56; p. 253.

¹⁷ Martin, Meredith; Weiss, Gillian. A tale of two guns. Maritime weaponry between France and Algers. In: Fraser, Elisabeth A. (edited by). *The Mobility of People and Things in the Early Modern Mediterranean: The Art of travel*. New York: Routledge, 2019; p. 30.





Fig. 2 Jean Bérain. Soleil Royal Stern and bow drawings. XVII century. In: Toudouze, Georges G.- et alii. Histoire de la Marine. Paris: Les Éditions de L'Illustration, Baschet et Cie, 1959; Tome premier, pp. 148-149

In order to organize this new shipyards reality, the artistic work was divided in ateliers, each of which had an artist in charge. These artistes entretenus had to design the ships decorations, to supervise the work of craftsmen ensuring a successful outcome and also to manage the administrative operations related to works in progress. Their job, therefore, was not to work alone but in synergy with other artists and craftsmen. Nevertheless, often the artistes entretenus, who were leaders of those ateliers, realized the most important and visible elements by themselves, as the painter Jean-Baptiste De la Rose (1614-1687) made with the decorations of the boiseries present in the Chambre du Conseil (also called Chambre de Volontaires, the room were the Council had its reunions and in the three-decks ships it was placed in the middle deck above the Santabarbaras¹⁸). Local and less-known artists were thus just executors supervised by the superintendents' watchful eye. Working for the shipyard there were also important artists who were not entretenus and they had a contract work; their job was not exclusively concerned with making the decorations on ships but they also have other tasks, as Pierre Puget (1620 - 1694) who realized drawings showing several ships¹⁹. Artists aspired to become artistes entretenus because the government issued a sort of patent, which was a real document with the same value of the title issued to the artists of the king by the Académie royal²⁰. During the seventeenth century the

¹⁸Aubin, Nicolas. Dictionaire de Marine contenant le termes de la Navigation et de Architecture navale. Amsterdam: Pierre Brunel, 1702; p. 187.

¹⁹ Lacroix-Lintner, Dominique. Marine, beaux-arts et mécénat au XVIIe siècle en France. 124-Sorbonne. Carnet de l'École Doctorale d'Histoire de l'Art et Archéologie, 2016; p. 6-8.

²⁰ Théron, Magali. Les ateliers de peinture et de sculpture des arsenaux en Provence en marge de l'Académie de peinture et de

French monarchy played a role of naval art patron and the arsenals became a point of attraction for many artists, sculptors and painters. These centers of artisan construction and practical work became real artistic centres capable of attracting talents from all over France. Among them there were many prominent artists as the sculptor François Girardon (1628 - 1715). He was called to work on the Royal Louis (1668) and the Royal Dauphin (1668) at the Toulon arsenal in the 1667 after finishing a group of sculptures of the Chevaux du Soleil, placed in the Versailles Palace²¹. Moreover, those atelier inside arsenals also attracted foreign artists especially from Flanders and Italy. The migration of artists to French naval production poles meant that « entre 1670 et 1680 plus de quatre-vingts sculpteurs et cinquante-cinq peintres se côtoyèrent ainsi à l'arsenal de Toulon, faisant de la ville l'une des plus peuplées de France en nombre de peintres et sculpteurs par habitant. » ²²

This massive introduction of the art of drawing into the shipbuilding process also had an important echo in the evolution of naval science. In fact, it must be kept in mind that at the time the construction of ships was still largely entrusted to skilled shipwrights who with their experience knew how to make the necessary elements for the construction of vessels. In fact, although shipbuilding treaties were beginning to be widespread thanks also to the impulse of the press, there was still no a real phase of design and study of ships. In those treatises the drawing was used to explain how to make the individual elements manually, but was not yet part of the actual construction process. The shipbuilder, in fact, did not draw the ship elements before making them, but he relied on his empirical knowledge and experience to translate the raw material into construction elements. In this perspective, therefore, the choice to introduce skilled designer artists into the world of French arsenals can be considered a boost to the growth and progress of shipbuilding. In order to make statues and decorations on different materials and surfaces these artists previously prepared sketches which were preparatory drawings. This procedure, which was typical of the artistic world, was therefore translated and acquired by shipyards given that artists in charge of the external decoration of vessels began to produce different drawings of sterns, bows and profile of ships. This meant that the ships, or at least their external parts, slowly began to be drawn before they were built. The accuracy of the drawings led to systematise the transposition of an experiential project on paper. Colbert did not miss the great advantages obtainable thanks to this phase of graphic processing. In fact, understanding the potential of these drawings, the minister began to request that all artists send their sketches, creating collections of drawings. Furthermore, Colbert did not had to do only with the national Navy development since he decided to make the world of the French Navy appreciated by the king as Louis XIV was not particularly interested in a faraway world not immediately glorifying his image. And since the king was not used to frequent ports and arsenals, Colbert decided to show the naval world to him through a « tableaux de l'armée navale »23 specially made by the painter De la Rose. Then, Colbert went further ordering to artists as Pierre Puget and De la Rose to create a collection of drawings illustrating all the elements of a galley or showing « Tous les bâtiments de la Méditerranée». Moreover, this practice of creating albums containing the ships types remained a trend in use even many years later as the collection Collection de toutes les espèces de bâtimens de guerre et de bâtimens marchands qui naviguent sur l'Océan et dan le Méditerranée (c. 1810) made by Jean-Jérôme Baugean (1764 - 1819) in the early 19th century shows.

sculpture de Marseille. In: Rives méditerranéennes. 2018/1 (n. 56); p. 149.

²¹ Weigert, Roger-Armand. L'époque Louis XIV. Paris: Presses Universitaires de France, 1962; p. 85.

²² Théron, Magali. Les ateliers de peinture et de sculpture des arsenaux en Provence en marge de l'Académie de peinture et de sculpture de Marseille. In: *Rives méditerranéennes*. 2018/1 (n. 56); p. 150.

²³ La Roncière, Charles de. *Histoire de la marine française*. Vol. 5. Paris: E. Plon, Nourrit. 1899; p. 331.

Given the tendency to catalogue information on ships by drawing, to have uniformity in the information acquired the next step was the formal standardization of these catalogs. Drawing was becoming a detailed tool for knowing and investigating reality and the naturalistic and pictorial artistic approach was slowly supplanted by a more geometric vision accompanied by scales and measures. Moreover this process did not only concern the naval world but it also took place in architecture²⁴. This new trend also led to change the processes in French arsenals. In fact, while at first artists were called into the arsenals to assist and help shipwrights in some construction phases, soon the idea of training workers to the drawing directly in arsenals eliminating an external presence started to circulate. In 1672, François Girardon sent a large number (948) of « modèles de plâtre, dessins et estampes »²⁵ books to the ports of Toulon, Marseille and Brest so that artists present in the aforementioned ports could have useful texts for their artistic training. Over time, the arsenals were even equipped with structures for teaching art, drawings and graphic representations arriving to train future ships designers (as much as it may be premature to use this term) on site. During the second half of the seventeenth and early eighteenth centuries, this innovation in the naval world led to the founding of a school of engineers and shipbuilders in 1741 thanks to the initiative of another great person who led the the French Navy world after Colbert, Henri-Louis Duhamel du Monceau (1700 - 1782).

Floating artworks, the Royal Louis (1668)

« Je suis l'unique dessus l'onde, et mon roy l'est dedans le monde.»

This was the motto written in gold letters on a blue background that could be read at the foot of the mizzenmast on the third bridge of the Royal Louis, which was flagship of the Mediterranean fleet and one of the first vessels to be classified as premier rang. This imposing vessel can be considered one of the greatest examples of these fascinating ships made following the French pomp of the seventeenth century. Decorated under the artistic direction of Charles Le Brun and François Girardon, the Royal Louis had on the stern, point of maximum concentration of the ornaments, the statues of the gods Neptune and Thetis who offered the riches of the sea and land to the king, who was seated on the throne of justice surrounded by an abundance of sculptures and ornaments²⁶.

Certainly it has been one of the most majestic ships ever built and in the Navy commissioner Hayet opinion « On peut dire que jamais aucun Navire n'a esté si enrichy de peinture & de sculpture que cet incomparabile vaisseau. »²⁷The intent was, in fact, to build the largest and most majestic vessel ever made in France, worthy of bearing the name of the sovereign. For this reason the intendent d'Infreville decided to have three different projects for the decorations of the vessel made by three different artists; they were the painter Jean-Baptiste De la Rose and the sculptors Nicolas Levray (XVII sec.) and Rombaud-Languenu (c. 1637 - 1718) ²⁸. The latter, who was then thirty years old²⁹ and of Flemish origin, was instructed to travel to Paris to submit the three plans to the minister. After seeing them, Colbert submitted them to the court artist Charles Le Brun (1619 - 1690).

²⁴Théron, Magali. 2018. Les ateliers de peinture et de sculpture des arsenaux en Provence en marge de l'Académie de peinture et de sculpture de Marseille. In: *Rives méditerranéennes* 2018/1 (n. 56); p. 152.

²⁵ Théron, Magali. L'ornementation sculptée et peinte des vaisseaux du Roi. T. 1. Paris: Université de la Sorbonne, 2003. p. 81-83.

²⁶ Stoll, Mathieu; Thierry Sarmant. Le grand Colbert. Paris: Édition Tallandier, 2019.

²⁷ Hayet. Description du vaisseau le «Royal Louis» Dédiée à messire Pierre Arnoul, conseiller du Roy en ses Conseils, intendant général de la Marine de Levant. Marseille: Charles Brebion, 1677; p. 25.

²⁸ Lambert, Gustave. Histoire de Toulon. In : *Bulletin de l'Académie du Var*, nouvelle série – Tome XV, 2eme Fascicule. Toulon: Imprimerie du Var, 1890; p. 324.

²⁹ Lagrange, Léon. Pierre Puget: peintre, sculpteur, architecte, décorateur de vaisseaux. Paris: Didier et Cie, 1868; p. 111.

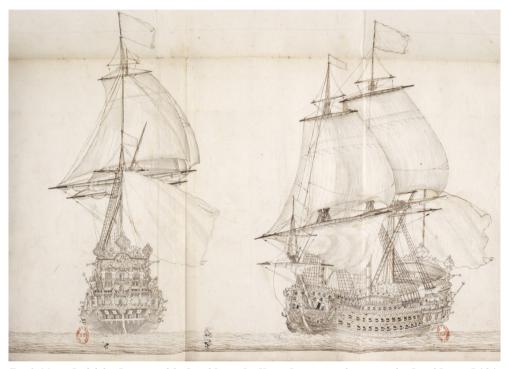


Fig. 3 Mâitre Rodolphe. Drawing of the Royal Louis. In: Hayet. Description du vaisseau le «Royal Louis» Dédiée à messire Pierre Arnoul, conseiller du Roy en ses Conseils, intendant général de la Marine de Levant. Marseille: Charles Brebion, 1677. Source: gallica.bnf.fr/Bibliothèque nationale de France

All three projects were discarded and Le Brun personally created a new project with a non-provincial style and in line with the tastes of Versailles. In addition, another court artist was sent to the Toulon arsenal to oversee the work related to the decorations, François Girardon (1628 - 1715). A lot of manpower was needed to build the Royal Louis, including a hundred craftsmen and artists³⁰. In the only Nicolas Levray's escadre there were seven craftsmen, two garcons, including his son Antoine Levray (17th century) and a Menuisier. His team was commissioned to build « tous les ornemens de la poupe, compris les chevaux marins, le jardin et balustrades, ensemble la sculpture qu'il conviendra faire aux fanaux, et s'assujetir autant quil pourra aux ouvrages de fer qu'il faudra faire pour cet effet. » Or again in the Rombaud-Languenu's escadre there were three craftsmen and two garcons with the task of realising « les figures (...) du costé de tribord ».

Many of these workers were unrelated to the shipyards world and because of the difficulty of managing these figures the superintendent of the artistic works d'Infreville wrote a letter to Colbert, dated April 21, 1668, saying:

« (...) je feray bien mon possible pour les tenir en leur devoir, mais il est absolument nécessaire d'avoir un commandant comme le sieur Girardon ou une personne de sa suffisance pour conduire un sy bel ouvrage et assujettir les gens de ce mestier (...). » ³¹

Work on the construction of the Royal Louis began in 1666 at the Toulon shippard. The direction of the works was followed by Rodolphe Gédéon (17th century), who was a Dutch shipbuilder called to work in France by Colbert.

The result was the construction of the largest ship ever built in France until then: 52.9 meters long, 14.40 meters wide, an immersion of 7.15 meters and a displacement of around 2,400 tons. Its firepower included 16 pairs of guns in the lower deck, 14 pairs of guns in the middle deck and 13 pairs of guns in the upper deck³² plus other guns located at the stern and bow, for a total of 104 guns. It was a three-deck vessel with 800 crewmen.

Talking about decorations, the stern was most expressive area of the artistic pomp of the time. The Royal Louis's stern was decorated with bay leaves, shells and festoons, all covered in gold. In the centre Louis XIV was depicted dressed as a Roman emperor sitting on the throne of justice and crowned by the divinities of the sea and the earth. He had two chained slaves on his feet; The prisoner to the king's right had his hair tied up in a hairstyle called topknot, which immediately identified him as a slave of Turkish origin. For the realization of this statue it is possible that a Turkish slave actually posed as model, indeed, in 1668 while Le Brun was designing his project for the Royal Louis, Colbert sent two exclave Turque as models for the Paris Académie Royale artists. It is therefore probable that some slaves also posed for the artists of atelier inside shipyards. The decision to represent a Turkish slave close to His Majesty was liked to a specific reason. War galleys were still being built in the Mediterranean and therefore rowing boats still represented an idea of naval power. In addition, they were fixed in the common imagination as the ships of the great Roman conquerors and of the Christian struggle against the infidels during the crusades. This is why the rowing slave was associated with the idea of naval power, a symbol of European domination over the rest of the Mediterranean. Representing Turkish

³⁰ Martin, Meredith; Weiss, Gillian. A tale of two guns. Maritime weaponry between France and Algers. In: Fraser, Elisabeth A. (edited by) *The Mobility of People and Things in the Early Modern Mediterranean: The Art of travel*. New York: Routledge, 2019; p. 30.

³¹ Lagrange, Léon. Pierre Puget: peintre, sculpteur, architecte, décorateur de vaisseaux. Paris: Didier et Cie, 1868; p. 113.

³² Winfield, Rif; Roberts, Stephen. French Warships in the Age of Sail 1626-1786: Design, Construction, Careers and Fates. Barnsley: Seaforth Publishing, 2017; p. 56.

slaves near Louis XIV therefore symbolized his power and also reaffirmed his loyalty to Christianity³³. The rest of the stern was occupied by mythological figures, such as mermaids, divinities and sea horses, and allegorical ones as the representation of the Four Continents and the Fame playing her trumpets. All these wooden statues were covered in gold creating an effect of magnificence and wealth. The sides of the vessel were equally decorated; under gun-ports there was a golden frame with a floral theme that ran all over the side and the gun-ports were decorated with lilies, suns and the king's initials, and everything was covered in gold. At the bow another allegory Fame supporting the royal coat-of-arms helped by a small triton standing out from many decorations.

The interiors were richly adorned with decorations and paintings too, and even here Turkish slaves were represented to enhance the superiority of the crew over the enemy. Even the Santabarbara, which was located on the lower deck, was decorated with drawings of fleurs-de-Lys enriched with gold threads. And the staircase had balustrades decorated with painted panels. In the middle deck, the Chambre des Volontaires was one of the areas that most exalted the artistic pomp. Here, on the walls two large frames ran for almost the entire wall; they depicted two scenes from the Apollo and Python story taken from Ovid's Metamorphosis. One depicted Cupid stretching his bow against Apollo, and the other showed Apollo chasing Daphne before she turns into a laurel. The room was adorned with several small painted panels and surrounded by golden mouldings. Inside a large painting there were painted the Armes du Roy, the royal coat-of-arms, supported by tritons and the coats-of-arms of the owners of the vessel. They were de Bourbon duca di Vendôme (1594 - 1665) on the right and his son François de Bourbon-Vendôme duca di Beaufort (1616 - 1669) on the left. The ceiling was painted blue with the king's symbols in gold, such as the sun, lilies and crowns, all intertwined with leaves. The floor also symbolized the magnificence of the Royal Louis, being made of precious materials such as olive, ebony and ivory³⁴.

The Corps de garde³⁵ was the room under the stern castle, always in the mid-deck. Here, above the entrance there was a panel with the king's initials placed above a golden globe. Inside, the ceiling was covered with golden lilies and crowns intertwined with greyness leaves (greyness is a technique of monochromatic painting in shades of gray). A large table stood at the centre of the room, whose legs consisted of eight fake jasper columns each with its own capital (jasper is a reddish stone with black veins). On the sides of the room there were four gun-ports decorated by cartouches³⁶, which are floral decorations in bas-relief, and everything greyness painted. Large paintings depicting seascapes and other landscapes with golden frames were positioned in the empty space between gun-ports. The officers' cabins, which were in the aft part of the vessel, were equally rich in decorations. The ceilings were adorned with blue panels with gold and greyness decorations representing royal symbols. Large paintings were hanging on the walls depicting mythological scenes, such as Apollo with satyrs, or portraits of sovereigns. Finally, the aft part of the upper deck was called dunette³⁷ and in the warships the private cabins of the senior officers, as the maître or the pilote, were positioned there.

 ³³ Martin, Meredith; Weiss, Gillian. A tale of two guns. Maritime weaponry between France and Algers. In: Fraser, Elisabeth A. (edited by) The Mobility of People and Things in the Early Modern Mediterranean: The Art of travel. New York: Routledge, 2019; p. 25.
 ³⁴ Hayet. Description du vaisseau le «Royal Louis» Dédiée à messire Pierre Arnoul, conseiller du Roy en ses Conseils, intendant

³⁴ Hayet. Description du vaisseau le «Royal Louis» Dédiée à messire Pierre Arnoul, conseiller du Roy en ses Conseils, intendant général de la Marine de Levant. Marseille: Charles Brebion, 1677; p. 26.

Aubin, Nicolas. Dictionaire de Marine contenant le termes de la Navigation et de Architecture navale. Amsterdam. 1702; p. 279.
 For some examples of typical Louis XIV cartouches see: Syracuse Ornamental Company. Ornamental borders scrolls and cartouches. New York: Dover Publications, 1923; in particolare tav. 92.

³⁷ Aubin, Nicolas. Dictionaire de Marine contenant le termes de la Navigation et de Architecture navale. Amsterdam. 1702; p. 336.

In the biggest warships, as the Royal Louis, the dinette was even divided into two areas. The access to the first dunette led to a corridor with two room's doors on each side, each one decorated with floral decorations and leaves of various colours. Inside the cabins there was once again the pomp that enveloped the rest of the ship. Wherever the eye looked, it found decorations of leaves enveloping gold lilies and royal initials, generally on a blue background. There were paintings hanging on the walls enclosed in large golden frames, which represented landscapes, military scenes with armies and fleets and naval combats. Raised compared to the first, the second dunette had eight small cabins all with interiors decorated and painted in perfect Versailles style and the bulkheads were made of marble and precious olive wood.

Its realization was undoubtedly expensive. In a letter from the superintendent d'Infreville addressed to Colbert, dated 4 November 1667, we can read the estimated cost for the realization of « sculptures, dorures et peintures des trois desseins par eux dressez de la poupe » by De la Rose and the other master sculptors of the Toulon arsenal. For De la Rosa's work, the cost was 37,060 lire [livre tournois³8], 21.300 lire of them were for sculptures and 15.760 lire for the payment of materials, including painting and gold to cover the ornaments, and workers' salaries. For Rombaud Langrune's designs the total amount was 25.850 lire and again 23.800 lire for the work of Nicolas Leyvray. A total of almost 89,000 lire which concerned only the expenses for the artists' work³9. Ten years later the d'Infreville's letter, in 1677, when the coinage had undergone changes in its value, a published text reported that overall the cost of the vessel was 65.800 livres of which 20.000 livres to pay for sculptures and paintings and 27.000 livres spent for carpentry work⁴0. Knowing that it would make no sense to compare the current coinage to understand its value, however, it is possible to make a reasoning for relationships, from which it can be deduced that the cost of decorations was almost equal to the cost of carpentry. This makes us understand that the aesthetic value of ships and the value attributed to the efficiency in navigation were placed on the same level of importance.

However, Colbert was able to bear the high construction costs thanks to his autonomy in the manoeuvrability of the economic flows resulting from the various political offices that the king had entrusted him because of his undoubted honesty. Indeed, besides being the superintendent des bâtiments, Colbert was also in charge of contrôle général des finances and he was the superintendent of des arts et des manufactures⁴¹. As a result, he was able to manage the different sectors synergistically without having to deal with other ministers.

In a letter to Colbert dated March 7, 1668, the intendant d'Infreville described a possible procedure for the launch. He proposed to create an special channel in the Esgoutier river and to drag the Royal Louisin this channel where there was sufficient water depth to reach the port and therefore the sea. Furthermore, d'Infreville also proposed to build a royal stage from where assist with the launching

³⁸ The lira was a coin made from a piece of metal from which precise a number of coins were made. Its value was therefore determined by the relationship with the weight of the metal. Since weights and measures often did not coincide in different areas of the country, coins with different values existed. To distinguish them, it began to combine the geographical place of origin with the common prefix *livres*. Among these, the two mainly used were the *livres parisis* (lp) and the *livre tournois* (lt), where the proportion between the *livre parisis* and *livre tournois* was 1.25. From 1667, the *livres parisis* was eliminated from and, from 1720, with all ambiguity gone, the coin could simply be called *livres*.

³⁹ De Montaiglon, M. Antole. Archives de l'art français. Recueil de documents inédits relatifs à l'histoire des arts en France. Paris: J.-B. Dumoulin. 1855-6; p. 233-35.

⁴⁰ Hayet. Description du vaisseau le «Royal Louis» Dédiée à messire Pierre Arnoul, conseiller du Roy en ses Conseils, intendant général de la Marine de Levant. Marseille: Charles Brebion, 1677; p. 11.

⁴¹ La Roncière, Charles de. *Histoire de la marine française*. Vol. 5. Paris: E. Plon, Nourrit. 1899; p. 337.

procedures admiring the flagship sailing in the water⁴².

Contrary to what one might think, the life of this majestic vessel was almost free of war events. It was built for François de Bourbon-Vendôme duke of Beaufort, who was Henry IV of France (1553 - 1610) illegitimate grandson and Louis XIV's cousin, and it should have left for a naval campaign in the Mediterranean, but it remained anchored in the port. In 1677, the Royal Louis left for its only military campaign to the port of Messina to support rebels against Spanish control. After this, in 1691, it was taken out of service and renamed Royal Louis Vieux in 1692. Five years later, in 1697, it was finally demolished. The little activity carried out was also shared by the Soleil Royal, its alterego in the Atlantic. That can be justified if we think that these huge and highly decorated vessels had a very high cost for their maintenance, and the crew needed to arm and operate them made management costs exorbitant. In addition, the massive volume of the topside due to the decorations negatively affected the aerodynamics of these vessels, thus making them not even easily manoeuvrable.

However, even if not employed in combat, thinking this floating masterpiece could not find other reasons for use would be wrong. In 1672, Marie de Rabutin-Chantal marquise of Sévigné (1626 - 1696), well known for her private letters letter, wrote to her daughter Françoise-Marguerite de Sévigné, countess of Grignan (1646 - 1705):

« (...) Rien n'est plus romanesque que vos fêtes sur la mer, et vos festins dans le Royal-Louis, ce vaisseau d'une si grande réputation. »⁴³

It suggests that a part of the French aristocracy's social life was delighted also by exploiting these wonderful floating artworks, not used for naval combat.

⁴² De Montaiglon, M. Antole. Archives de l'art français. Recueil de documents inédits relatifs à l'histoire des arts en France. Paris: J.-B. Dumoulin. 1855-56; p. 236.

⁴³ Sévigné, Marie de Rabutin-Chantal. *Lettres de Madame de Sévigné, de sa famille et de ses amis*. Tome III. Paris: Hachette et Cie, Imprimerie de Ch. Lahure et Cie, 1862; p. 78.

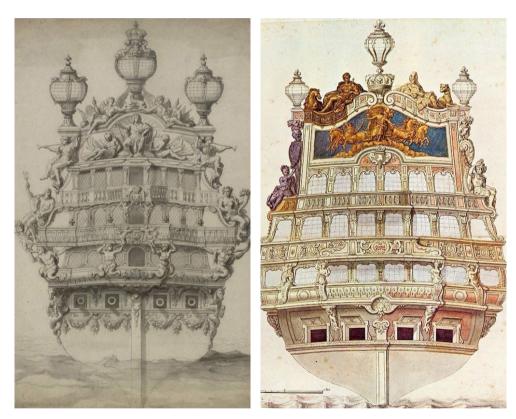


Fig. 4 (on the left) Pierre Puget. Poupe de vaisseau royal le Royal Louis. 1667. Preserved at:Ecole nationale supérieure des beaux-arts, Paris; Fig.5 (on the right) Jean Berain. Poupe du Soleil Royal. 1669. Preserved at: Musée du Louvre, Paris, D.A.G. Paris. Credit: © Musée du Louvre, Dist. RMN-Grand Palais / Martine Beck-Coppola

Conclusion

Reflecting on the results obtained since the introduction of the figure of the artist in the arsenal, two important moments can be identified that deserve to be reminded. Referring to the largest vessels built in this era by the French Navy, as the flagship of the Mediterranean fleet Royal Louis (1668), and the flagship of the Atlantic fleet Soleil Royal (1671), we can assume that these richly decorated ships probably did not have great nautical qualities, since they often remained anchored to the port instead of being used in navigation under the command of the respective naval teams. It therefore appears that this exaggerated attention to decoration and visual impact was in some way the main thought in the creations of these ships. Overall, it could be said that the aesthetics were so important as to monopolize the scene, even at the expense of naval efficiency⁴⁴. This certainly does not mean that all the boats built in that period had bad nautical qualities, but only that, in the French case, it can be found that where there is the triumph of decorative aesthetics we can witness the defeat of navigation skills in parallel. Thinking that boats have always been "functional objects" par excellence, this seems almost paradoxical. In fact, the ship itself and every element on board derives from an evolutionary process linked to tradition that has selected the most functional or best forms for navigation over the centuries. Nevertheless, the long-term implication that this French phase brought must be reminded too. In fact, the advent of artists in arsenals opened the shipwrights and carpenters world to representation and design, making it possible over time to create new professional figures, no longer only artisans, but also architects and naval engineers. Thanks to new developments in construction technology and technologies, they were able to further innovation and development in shipbuilding. In this sense we can therefore find a positive aspect, so precious, in hindsight, that we can consider the advent of artists in arsenals a stimulus to the progress of the French shipbuilding industry.

Henri-Louis Duhamel du Monceau kept alive the heredity of Colbert's successes by creating that discipline known as naval architecture. He was a botanist who studied carefully different wood drying techniques used for shipbuilding and he was appointed Navy inspector on August 1, 1739. Duhamel was determined to introduce mathematics in shipbuilding process allowing to calculate and solve stability and manoeuvring issues. In the 1741 he founded the l'École des ingénieurs constructeurs, which was one of the first European shipbuilding schools, then made official in the 1765 with the name École des ingénieurs-constructeurs des vaisseauz royaux.

Moreover, due to the high artists presence in French arsenals, new artists formation institutes were born. In the 1755, the Académie de Marseille, which was born in the 1752, started the project to create new artists intended to work at Provence French Navy arsenals. Doing that, the Marseilles academy was also dissolving the Parisian "monopoly" of artists professional training. Actually, the French capital already hosted the École des Beaux-Arts by 1648 thanks to Cardinal Mazzarino's will and the Académie royale d'architecture born in 1671 and inspired by Colbert.

Therefore, following Colbert's new cultural issues, not only referred to the Navy, eighteenth-century France was opening up to the écoles way of teaching, that is an institutionalized and systematized professional training, eradicating the knowledge from artisan workshops world, which had always served as centre for craftsmen, shipwrights and artists training.

⁴⁴ Stoll, Mathieu; Thierry, Sarmant. Le grand Colbert. Paris: Édition Tallandier, 2019.

References

Aubin, Nicolas. Dictionaire de Marine contenant le termes de la Navigation et de Architecture navale. Amsterdam: Pierre Brunel, 1702

Chack, Paul. Marins à bataille, Volume 1. Le gerfaut, 2001

Cipolla, Carlo Maria. Vele e cannoni. Bologna: il Mulino, 2019

De Montaiglon, M. Antole. Archives de l'art français. Recueil de documents inédits relatifs à l'histoire des arts en France. Paris: J.-B. Dumoulin. 1855-56

Hayet. Description du vaisseau le «Royal Louis» Dédiée à messire Pierre Arnoul, conseiller du Roy en ses Conseils, intendant général de la Marine de Levant. Marseille: Charles Brebion, 1677

James, Alan. The Navy and Government in Early Modern France, 1572-1661. Woodbridge (UK): Boydell & Brewer, 2004

La Roncière, Charles de. Histoire de la marine française. Vol. 5. Paris: E. Plon, Nourrit, 1899

Lacroix-Lintner, Dominique. *Marine, beaux-arts et mécénat au XVIIe siècle en France*. 124-Sorbonne. Carnet de l'École Doctorale d'Histoire de l'Art et Archéologie, 2016

Lagrange, Léon. *Pierre Puget : peintre, sculpteur, architecte, décorateur de vaisseaux*. Paris: Didier et Cie, 1868 Lambert, Gustave. *Histoire de Toulon. In : Bulletin de l'Académie du Var, nouvelle série* – Tome XV, 2eme Fascicule. Toulon: Imprimerie du Var, 1890

Martin, Meredith; Weiss, Gillian. A tale of two guns. Maritime weaponry between France and Algers. In: Fraser, Elisabeth A. (edited by) The Mobility of People and Things in the Early Modern Mediterranean: The Art of travel. New York: Routledge, 2019

Sévigné, Marie de Rabutin-Chantal. *Lettres de Madame de Sévigné, de sa famille et de ses amis.* Tome III. Paris: Hachette et Cie, Imprimerie de Ch. Lahure et Cie, 1862

Stoll, Mathieu; Thierry, Sarmant. Le grand Colbert. Paris: Édition Tallandier, 2019

Thierry, Sarmant. Louis XIV: homme et roi. Paris: Édition Tallandier, 2012

Théron, Magali. L'ornementation sculptée et peinte des vaisseaux du Roi. T. 1. Paris: Université de la Sorbonne, 2003

Weigert, Roger-Armand. L'époque Louis XIV. Paris: Presses Universitaires de France, 1962.

Winfield, Rif; Roberts, Stephen. French Warships in the Age of Sail 1626-1786: Design, Construction, Careers and Fates. Barnsley: Seaforth Publishing, 2017

Giulia Pellegri, è professore associato di Disegno presso il Dipartimento Architettura e Design dAD e Vice Preside della Scuola Politecnica di Ingegneria e Architettura dell'Università degli Studi di Genova.

La VI Conferenza Internazionale sul Disegno, De_Sign Environment Landscape City_Genova 2020 tratta di: Rilievo e Rappresentazione dell'Architettura e dell'Ambiente; Il Disegno per il paesaggio; Disegni per il Progetto: tracce - visioni e pre-visioni; I margini i segni della memoria e la città in progress; Cultura visiva e comunicazione dall'idea al progetto; Le emergenze architettoniche; Il colore e l'ambiente; Percezione e identità territoriale; Patrimonio iconografico culturale paesaggistico: arte, letteratura e ricadute progettuali; Segni e Disegni per il Design e Rappresentazione avanzata. Federico Babina, architetto e graphic designer presenta ARCHIVISION, e Eduardo Carazo Lefort, Docente dell'Università di Valladolid e Targa d'Oro dell'Unione Italiana Disegno la Lectio Magistralis.

The VI International Conference on Drawing, De_Sign Environment Landscape City_Genoa 2020, deals with: Survey and Representation of Architecture and the Environment; Drawing for the landscape; De-signs for the Project: traces-visions and previews; Margins, signs of memory and the city in progress; Visual culture and communication from idea to project; Architectural emergencies; The color and the environment; Perception and territorial identity; Landscape cultural iconographic heritage: art, literature and design implications; Signs and Drawings for Design and Advanced Representation. Federico Babina, architect and graphic designer presents ARCHIVISION, and Professor Eduardo Carazo Lefort-University of Valladolid and Gold Plate of the Italian Design Union presents his Lectio Magistralis.



