



*Naar inzicht en vakmanschap. A.-J. Roubo's L' Art du menuisier over
interieurbouw en meubelmakerij in de achttiende eeuw*
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To the best of knowledge and ability. *A.-J. Roubo's L'Art du menuisier on interior woodwork and cabinetmaking in the eighteenth century*. Summary

The eighteenth-century treatise entitled *L'Art du menuisier* (Paris, 1769-1775) is widely considered to be the richest source of information on the manufacture of interior woodwork and furniture. The work was intended to be an all-encompassing description of the joiner's craft, numbering 1316 pages of text and 382 plates. The *menuisiers'* guild was made up of interior joiners, coach builders, cabinet makers and trelliswork makers. *L'Art du menuisier* gives a description of the craft of each of these.

The book is not merely voluminous but was edited in a most sumptuous way; it can be said without exaggeration that the plates are of even higher quality than those in Diderot's *Encyclopédie*. The work came to be regarded as something of a Bible within the trade, reflecting the ambition of every joiner. Up until 1930, it was repeatedly being updated and reedited, to be used in contemporary professional practice. It did not become obsolete thanks to the strong focus of french joinery on its glorious eighteenth-century. It seems likely that the high standards of the original work and the fact that much of its content proved its mettle in the course of a century and a half, together made publishers decide to adhere to at least the original title, helped no doubt by the inspiring character of the author, André-Jacob Roubo. My research does not, however, concern the many later editions, but rather the *editio princeps*, because of its essential role in post-war research into historic production methods in interior woodwork and cabinet making in general, and eighteenth-century french furniture in particular.

Although *L'Art du menuisier* has furnished historical information to hundreds of publications, it is curious that the work itself nor its author have ever been the subject of serious scientific investigation: in other words, this 'prime historical source' has been quoted over and over without its essence, background or reliability ever being looked into. Not knowing its origins and intentions can, however, lead to mistaken interpretation of certain information contained in it. Quotations from *L'Art du menuisier* are taken from a relatively limited number of paragraphs, generally without any regard for the structure and internal links within the work. This suggests that researchers who use *L'Art du menuisier* as a mine for factual data, have little knowledge of the whole. Furthermore, it is clear that the plates are being used frequently with too little or no attention at all being paid to the accompanying text. Not being aware of the fact that some plates illustrate methods that are to be avoided, one is vulnerable to drawing inappropriate conclusions.

This study aims to analyse the structure and content of *L'Art du menuisier* and surveys the context in which it came into being. Will the work prove to be as essential to our knowledge and interpretation of interior woodwork and furniture as it is generally supposed to be? With the answer to this first question in mind, it

needs to be determined what particular role *L'Art du menuisier* has to play in modern approaches to conservation and restoration.

Context.

Even a first brief survey of the historical context in which *L'Art du menuisier* was produced, turns out to be unexpectedly rewarding and interesting. The author we meet is not an average *menuisier* who meant to record his experience and knowledge of his craft for the benefit of his colleagues or of posterity. The author, Jacob-André Roubo, did in fact start out as a apprentice-joiner, but with the backing of a number of high-placed protectors, he managed to become an entrepreneur and, more importantly in our context, a man of letters and a fine draughtsman. The Enlightenment of the middle eighteenth century provided an environment in which his talents and ambition could bear fruit. One of his protectors, the duc De Chaulnes, introduced him at the Académie Royale des Sciences, no doubt having in mind that Roubo should contribute to the *Description des arts et métiers*, the description of all trades and industries on which the Académie had been engaged since 1761. The idea to collect and publish all existing knowledge from within professions, was first developed by Francis Bacon around 1600. Colbert charged the Académie with this project in 1675 and several academicians, Réaumur in particular, collected a great deal of material for it, without, however, publishing anything. The incentive to do so came from Diderot's publication of the first volume of his *Encyclopédie* in 1751. The *Description*-project is technological in character rather than encyclopaedic and was not aimed, as the *Encyclopédie* was, at the general eighteenth-century reading public, but at *les artistes du premier ordre*. The project was meant to make descriptions of all trades and industries in France and bring them to a higher level by enriching them with knowledge and insights from both science and from cross-fertilization by other trades and industries. The objectives were to increase prosperity and to provide industries with the means to compete with, in the first place, England. Invention and deployment of new machines and rationalisation of production methods were seen as means to achieve these objectives. Machines such printing presses and spinning jennies had led to important steps forward and thus machines were expected to bring great rewards wherever man found ways of putting them to use. The publication of the *Description des arts et métiers* was intended to be a prime stimulus to rationalizing production techniques. In the eyes of enlightened *savants*, many trades displayed no inclination whatsoever towards technical innovation, ensconced as they were behind the privileges which guilds accorded them; professional expertise was passed on to the next generation without ambition, inventiveness or sense of progress. The Académie (and in a broader sense, Enlightenment generally) intended to counter this attitude with openness, innovation and enhanced professionalism.

The treatises that together make up the *Description*, vary widely in extent but all are laid out along the same lines, describing the manufacturing processes in any trade or industry: materials and their properties, tools and machines, methods of

production, and end products. The series covers a wide range of activities, from making pipes for smoking to ship building. Publication of books which the Académie looked upon as examples, had begun back in the sixteenth century. Agricola's *De re metallica* on mining, in particular provided general principles for ordering of subject matter, the use of appropriate language and of illustrations (in fact, even much of its content was still of use). Technical treatises as such thus had a long lineage, the conventions of which Roubo had to adhere to. Generally speaking these treatises were written for a readership of investors and managers, without however neglecting ample attention being given to details of production methods. To fulfill its function, a treatise had to be complete up to the last detail and contain so much information that any man emigrating to Canada with a copy of *L'Art du menuisier* in his trunk, would find himself able upon arrival to set up a first-rate joiner's shop.

Joinery and joiners' techniques are described in a fair number of historical sources prior to 1769, the year the first part of *L'Art du menuisier* was published. None of this provides anything like a full and systematic treatment of the subject. Technical aspects of joinery are only to be found in the *Encyclopédie* and a handful of books on architecture. One of the more important people in this respect is the architect/educator and architectural theorist Jacques-François Blondel. He had a marked interest in the technical aspects of building and *menuiserie* features in many of his writings and drawings. Roubo came to be a pupil in his *École des Arts*.

Before Roubo took up his pen, none of what had been published on joinery, had been written by a practising *menuisier*. The act of writing, in fact, would seem to be viewed by *menuisiers* as something completely alien. After Roubo, anything published on cabinet making or interior woodwork was compiled by technical writers who would write with the same ease on steam engines or gutta percha. Books by practising joiners on their trade have become more common only in the last few decades, probably as a result of an influx into cabinet making, and more specifically into furniture restoration, of people with high levels of education for whom a sense of fulfillment prevails over economic returns.

Content of *L'Art du menuisier*

Searching Roubo's *L'Art du menuisier ébéniste* (book III, 3 of *L'Art du menuisier*) for information on techniques used in the manufacture of fine furniture, the reader finds much on exotic wood species, colouring agents and a number of marquetry techniques, but very little on wood joints, the use of glue or the way that carcass work for such pieces was made. This stems from the fact that Roubo treats each woodworking technique only once, it being impossible to describe all stages of production of each of the wide range of types of objects that *menuisiers* create. Thus, Book I (on windows, doors and ?) treats woodworking joints and glues, but, by implication, also carcass work: in Roubo's perception, any type of joiner's work, be it a chair, a state bed or a coach, is basically an assemblage of stretchers, rails and panels. *L'Art du menuisier* does not offer narrative descriptions of each

consecutive step in the realisation of a project, but it separates out all techniques, arranging them into a grammar with which any type of object may be composed. Dividing the joiner's art up in this systematic fashion does not give the reader a picture of actual workshop practice but tends to remain rather abstract.

Roubo will not venture outside the domain of the joiners' guild. This restricts our overall picture as professionals from a great number of trades, from metal workers to upholsterers, make a contribution to the manufacture of interior woodwork and furniture. Roubo urges the *menuisier* to learn about the trades he cooperates with, but steers well clear of conflicts about areas of competence. Metalwork, upholstery and a host of other trades were to be the subject of future *Description*-publications.

The Académie required its authors to describe best practice in each trade or industry, and perfect existing working methods wherever possible. The workshop practices we encounter in *L'Art du menuisier* can therefore hardly be considered to be those of an average joiner. Roubo set high standards and did not hesitate to be scathing about incompetent work. His text contains scores of suggestions to improve techniques. What is aimed for, are almost invariably improvements in the quality of products, not more efficient or quicker ways to make them. The quality of joiners' work depended to a great extent on the competence of joiner himself. The development of woodworking machinery had to await developments in metals technology and would not be around for another 50 years. In Roubo's line of work *perfection* was therefore not to be attained by deploying machines. The few machines that Roubo did present, were either almost unworkable or, paradoxically, outdated.

Taking all into account, it appears that *L'Art du menuisier* conjures up a picture of the manufacture of furniture and interior woodwork for a restricted elite clientèle, far removed from current practice of Paris ateliers of around 1770. In some instances it is not even altogether clear whether he is describing existing methods or one his idealized perfections. Roubo was himself active in *menuiserie en bâtiment* (manufacture of windows, doors, floors, and all manner of domestic and church woodwork) to which he devotes Book I and II of *L'Art du menuisier*. Coachbuilding, chairmaking and veneered furniture together make up Book III; Book IV concerns trellis work and garden architecture. There are presumably several causes for this obvious lack of equilibrium witnessed by this arrangement. The two books on *menuiserie en bâtiment* turned out much more voluminous than originally intended, which caused the other three branches of *menuiserie* to be compressed into a single book. The fourth book needed to be added when the *treillageurs* came to be recognized as a separate branch within the *menuisiers*-guild in 1769.

As can be expected, the first two books most convincingly bring out Roubo's expertise in the joiner's art. He was highly skilled and experienced and in church woodwork, a field of work where quality comes before cost. Apart from technical matters pertaining to interior woodwork, Roubo devotes ample space to matters of design theory and the many practical rules resulting from it (as they do in Book IV

on trellis work). In the course of the eighteenth century, interior design developed into an independent and mature profession. It transpires from *L'Art du menuisiers'* pages that the architect or *décorateur* obtains more and more of the high-end assignments, at the expense of the *menuisier*. Only as long as he has the rules of interior design at his fingertips – the more so with the advent of neo-classicism – can he manage to stand his ground in this respect.

Roubo was indebted to colleagues for his expertise in other branches of joinery. What he writes about these, is no doubt adequate and correct but the reader somehow misses the hands-on experience that flavor the first two books. Even so, Roubo isn't shy about giving advice to coach builders, chair makers or cabinetmakers on better ways to carry out their work.

As an example of the method Roubo adopted to treat each of the trade's branches, I shall give a brief overview of book III, part 2, on the manufacture of seating furniture, beds and tables. It opens with description of the appropriate wood species and tools particular to chair making. Roubo continues with a concise history of seat furniture of the past. A description of earlier ancient forms indicates how objects developed, and establishes the level that has been attained in the present. Aetiologies like this are a standard ingredient of *Description*-treatises and much other eighteenth-century technical books. As space will not allow due treatment to all types of seat furniture, Roubo singles out two types of which he discusses all aspects, excluding techniques he already treated in books I, II and III, 1. He provides construction details, measurements and a general outline of the *chaise à la renie*, a chair type with a flat back and without arm rests, explaining the many choices to be made: the top rail of the back, for instance, should not be too high or it will spoil the hairdo, not only those of ladies but of men as well. It is elaborately explained how the rococo curves in this chair can be drawn with geometrical exactness using compasses. Roubo mentions that chair makers hardly carry out more actual woodworking than cutting out the parts and assembling them with mortise-and-tenon joints. All decoration is done by wood carvers. The end product leaves much to be desired. Roubo's sneers at sub-standard work is a recurring theme in the chapters on chair making; he does, however, acknowledge that the problem is caused by *marchands* paying chairmakers too little for their work. A technique particular to chairs, is caning. Roubo discusses material properties, the tools needed and the sequence in applying cane. A special difficulty arises when caning seats and back rests with rococo contours, as spacing between various strand of cane must be determined geometrically. The description of the second chair, a *fautenil en cabriolet*, a chair type with armrests and a complex, concave back rest, again contains an exposition of the geometry required for drawing three-dimensional forms. After discussing these two standard chair types, Roubo gives some examples for their decoration. Constant changes occurring in chair design are apparently not to his liking, which seems to tell us something about his character. But even though he feels that in most cases the decoration is *assez arbitraire*, he does include examples of many types of furniture. Carving is mentioned only in passing, it being the domain of the *sculpteur*, not the chair maker.

All the more room is allocated to stereometry, a drawing technique that allows three-dimensional forms such as curved back rests of chairs, to be represented on a flat surface or paper. The second half of book II of *L'Art du menuisier* constitutes a separate, 180 page and 60 plate, treatise on stereometry. This advanced drawing method was not learnt in the *atelier* but in drawing schools. Being proficient in it, one is able to draw three-dimensional objects most accurately. This not only leads to a more economical use of wood in the production phase, but it also puts the joiner into a position where he is able fabricate entirely new designs. It was a drawing technique used by professional draughtsmen. One can say without exaggeration that Roubo attempts to force it upon his fellow-joiners. In *L'Art du menuisier* all knowledge and skills are collected that the joiner needs in order to function independently in stead of merely carrying out what architects and *décorateurs* design. From his own experience Roubo had learnt that knowledge and expertise are needed to avoid being dependent on others. The book he published in 1777 on theater construction leaves us in no doubt about his ambition to be an architect, a goal that in the end he was unable to reach.

Design theory and stereometry are the two theoretical subjects Roubo elaborated most extensively. Domains such as mechanics, chemistry and materials' physical properties are treated much more succinctly. From his point of view, a joiner should not merely uncritically practice what he has learnt from his master, but he must accustom himself to making decisions on the basis of his knowledge of cause and effect. The treatises in the *Description*- series exhibit, as they must do, a normative character and present the reader with an idealised version of manufacturing methods. This is clearly observable in *L'Art du menuisier*. Nineteenth-century furniture illustrates that quality levels in joinery have improved markedly; the question in how far *L'Art du menuisier* contributed to this phenomenon falls outside the scope of my research, however, it has to be said that the book did not make much of an impact in the first 50 years after its publication. Not before 1835 did the professional community show any positive appreciation of it. If we exclude André-Jacob Roubo himself, the Enlightened Joiner never came to be.

My research shows that *L'Art du menuisier* is a highly important art technological source, written by a technical author with a solid background in practical woodworking. The book was intended to provide joiners having an enlightened frame of mind and truly caring about their profession, with the means to exercise their craft independently and on a high level. Its publisher, the Académie des Sciences, wished to set *menuiserie* on a solid rational groundwork, stimulating it technically and economically, and loosen the guild's grip on it. *L'Art du menuisier* does not provide a picture of working practices in the average *menuisier's* workshop but is concerned first and foremost with best practice. This must be borne in mind when making use of the information *L'Art du menuisier* contains that can be of help in understanding material and technical aspects of eighteenth-century furniture and interior woodwork. Beyond clear and elaborate technical explanations, Roubo

discusses theoretical issues of his craft elaborately. Any interpretation of woodwork or furniture must of course primarily be based on the objects themselves but *L'Art du menuisier* offers much information that cannot be deduced from the objects that have come down to us. In many instances Roubo adds valuable information to our knowledge.

As to the question what *L'Art du menuisier* has to offer to the conservator of furniture and woodwork, I come to the following conclusion. *L'Art du menuisier* offers no information on known historical pieces. On actual restoration techniques, *L'Art du menuisier* does not contain anything that might be applied, other than in the case of historically informed reproduction of parts that have gone missing. What the conservator can learn from *L'Art du menuisier* concerning materials, techniques and construction can be of help when analyzing woodwork and furniture in a more general sense. Quite apart from strictly material information, it transpires from Roubo's texts what joiners aimed to achieve as artists and entrepreneurs, and what were the possibilities and limitations they had to reckon with. *L'Art du menuisier's* has a role to play in the research preliminary to restoration work, in answering questions on historical manufacturing methods. This applies especially if the object under consideration comes from an eighteenth-century Parisian background. Used with due prudence, Roubo's work can be consulted to resolve questions surrounding objects from other periods and localities.