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[ARITHMETIC]. [J[ean]-François BONNOFOUX]. <i>L'arithmétique dans son jour ou Livre facile pour apprendre de soy même sans le secours d'aucun maître, contenant les regles les plus utiles, un traité des fractions et une explication des caractères romains</i>

In French with some Latin, illuminated manuscript on paper
France, Brittany (Saint-Nazaire), dated 1770

[V] + 132 ff, preceded by a single paper flyleaf, complete [collation: i¹⁰, ii-v¹², vi¹⁰, vii¹⁴, viii¹⁰, ix¹⁴, x¹⁰, xi¹⁴, xiii¹⁰], on paper (no apparent watermark), written in brown ink in a highly legible cursive script with some pen flourishing, text on each page copied in frames traced in ink and colored in various colors in wash, title-page decorated with full borders of floral and foliate motifs traced in brown ink and colored in wash, same type of floral or foliate motifs scattered on other pages, particularly at the start and end of each of the eight parts that compose the textbook, some contemporary corrections throughout. Bound in period rigid vellum over pasteboard, original boards with inscription traced in faded brown ink: "Livre d'arithmétique pour Laurent Augier de Saint-Nazaire. MDCCLXX [1770]," smooth spine (rebacked), traces of ties now wanting (Binding scuffed and worn although still preserving original vellum boards, some worming to paper, never affecting text). Dimensions 380 x 245 mm.

Composed by J.-F. Bonnofoux, mathematician and regent of the schools of Saint-Nazaire, and dedicated to his student Laurent Augier, the present arithmetic textbook or manual was apparently copied by the student himself. With its charming decoration and clear script, the work is a good example of French pre-revolutionary pedagogical material, here elaborated in the Breton town of Saint-Nazaire, a town destined to a brilliant commercial future, but still a small port in 1770. The exercises chosen to instill the essential arithmetical notions often refer to maritime commerce.

PROVENANCE

1. Copied and illuminated in the port of Saint-Nazaire (Port in Brittany, Estuary of the Loire River, leading to Nantes). This arithmetic textbook or manual for learning the basics of arithmetics was composed by an identified master named J.-F. Bonnofoux for the specific use of his student Laurent Augier, "maître arithmétique, regent des écoles de St. Nazaire" and also inhabitant of Saint-Nazaire. If one reads well the formulation of a given exercise, Laurent Augier was born in 1755: "Je suis né le premier octobre 1755 jusques aujourd'huy que je fais cette regle 20 novembre 1770..." (f. 48). A number of references to a commercial vocation and the utility of arithmetic for all things commercial suggest that the young dedicatee Laurent Augier was a member of a family engaged in commerce (perhaps maritime commerce, given the numerous references to ships, captains and merchants?), or that Augier was destined to a profession involving commerce and merchandising of some sort. Although clearly composed

by his master for the use and advancement of his student (aged 15 years old in 1770), the actual copying of this manuscript appears to have been done by the student himself, perhaps copying from another source, or under the guidance of his master Bonnofoux, with the student Augier resolving the exercises and arithmetical dilemmas as they present themselves in the work devised by his professor. There are a number of clues that suggest the manuscript was copied by Augier himself and over a period of three months: "Du 22e 8bre [octobre] 1770. Augier"; "Fait par moy Laurens Augier le 4e 9bre [novembre] 1770 a St-Nazaire" (f. 28).

TEXT

f. I, Title-page, "L'arithmetique dans son jour ou Livre facile pour apprendre de soy même sans le secours d'aucun maître, contenant les regles les plus utiles, un traité des fractions et une explication des caracteres romains. Par J. Francois Bonnofoux maître arithmeticien, regent des ecoles de St. Nazaire, pour l'usage de Laurent Augier dudit S. Nazaire. MDCCLXX [1770]";

f. Iv, blank;

ff. II-VI, Preface, heading, *L'arithmetique dans son jour. Preface*; incipit, "La plupart de la jeunesse s'imaginent que l'arithmetique consiste seulement a compter quelques petites sommes, je veux dire a ajouter, soustraire, multiplier et diviser simplement. Mais ils se trompent en cela aussy grossierement que le faisoit un homme qui se croiroit grand geometre parce qu'il auroit quelque petite pratique de la regle du compas..."; explicit, "[...] Je me fairay toujours un plaisir de donner de l'explication a ceux qui me feront l'honneur de me demander. Voila mon cher lecteur ce que j'avois a vous dire sur mon ouvrage puisse-t-il vous etre utile et vous donner toutes les instructions conformes a vos talens. Fin de la preface [these last words inscribed on a scoll]. [Added by the scribe and dedicatee]: Du 22 8bre [octobre] 1770 [signed] L. Augier";

f. VI verso, blank;

ff. 1-12, *L'arithmetique dans son jour. Part I*, heading, *L'arithmetique dans son jour ou Livre facile pour apprendre de soy même sans le secours d'aucun maître. Premiere partie, contenant les principes fondamentaux de l'arithmetique*; incipit, "I. Des figures qui composent l'arithmetique. L'arithmetique est la science des nombres ou L'art de compter juste..."; explicit, "[...] laissant au lecteur a reflechir sur ce que j'en viens de dire. Fin de la I^e partie";

f. 12v, blank;

ff. 13-29, *L'arithmetique dans son jour. Part II*, heading, *L'arithmetique dans son jour ou Livre facile pour apprendre de soy même sans le secours d'aucun maître. Seconde partie, contenant les quatre premieres operations generales de l'arithmetique qui sont: l'addition, la soustraction, la multiplication et la division, le tout simplement*; incipit, "I. De l'addition simple..."; explicit, "[...] Liber scriptus profereur in quo totum continetur, unde mundus judicetur. Ce n'est que par sa pratique que l'on apprend l'arithmetique";

f. 29v, blank;

ff. 30-40, *L'arithmetique dans son jour*. Part III, heading, *L'arithmetique dans son jour ou Livre facile pour aprendre de soy-même sans le secours d'aucun maître. Troisieme partie, contenant les fractions simples et composées, les fractions de fractions et les quatre regles en fractions*; incipit, "I. Des fractions simples et composees..."; explicit, "[...] je vais commencer d'expliquer en la quatrieme partie suivante";

f. 40v, blank;

ff. 41-69, *L'arithmetique dans son jour*. Part IV, heading, *L'arithmetique dans son jour ou Livre facile pour aprendre sans le secours d'aucun maître. Quatriesme partie, contenant les quatre regles composées sur divers sujets, ou les parties allcotttes qu'on nomme ordinairement parties doubles sont comprises, avec quelques exemples du toisé*; incipit, "I. De la composition en terme d'arithmetique..."; explicit, "[...] l'espace que le premier quotient doit donner";

f. 69v, blank;

ff. 70-84, *L'arithmetique dans son jour*. Part V, heading, *L'arithmetique dans son jour ou Livre facile pour aprendre de soy-même sans le secours d'aucun maître. Cinquiesme partie, contenant différentes questions abregées sur differents sujets, sans le secours de la regle de trois*; incipit, "Des regles de cent en general..."; explicit, "[...] et les divisions donneront le profit de l'escompte";

f. 84v, blank;

ff. 85-109, *L'arithmetique dans son jour*. Part VI, heading, *L'arithmetique dans son jour ou Livre facile pour aprendre de soy même sans aucun maître. Sixieme partie, contenant diverses questions de l'arithmetique rediotes par regles de trois*; incipit, "Des differentes regles de trois..."; explicit, "[...] pour etre payé 3 mois et demy avant le terme";

f. 109v, blank;

f. 110-121, *L'arithmetique dans son jour*. Part VII, heading, *L'arithmetique dans son jour ou Livre facile pour aprendre de soy même sans maître. Septieme partie, contenant les racines quarrées et cubes*; incipit, "Des racines quarrées simples..."; explicit, "[...] de sorte que tout es[t] parfaitement quadré";

f. 121v, blank;

ff. 122-127, *L'arithmetique dans son jour*. Part VIII, heading, *L'arithmetique dans son jour ou Live facile pour apprendre de soy-même sans aucun maître. Huitieme partie, contenant les quatre regles simples en caracteres romains*; incipit, "Pour donner une plus grande idée de caracteres romains..."; explicit, "[...] Je finis icy ce traité d'arithmetique croyant avoir asses fourny de maittre a lecteur dignes de toutes les attantions et de ses plus serieuses reflexions";

f. 127v, blank;

ff. 128-132, Table of contents, heading, "Table du contenu du present livre"; explicit, "Fin de la table [inscribed on a red scroll]. [Added colophon]: Fini le present livre d'arithmetique instructif le

22e decembre 1770. [Added, in a different hand, likely that of J.F. Bonnofoux] Je souhaite, Augier, que le present livre serve a votre plus grand avantage, et que Dieu vous prospere, et qu'il vous accorde des heureuses fetes et bonne annee et a toute votre maison, mettés au nombre de vos amis celui qui sera toujours tout a vous [signed] Bonnofoux. [change of hand] A mon tour mon cher precepteur je vous desire toute sorte de bonnheur et en vous remerciant de votre education, croyés moy le plus sincere de vos ecoliers [signed] Augier."

The present pedagogical treatise was composed specifically by a master for his student: "[...] Un bon arithmeticien a toujours a coeur l'instruction et l'avancement d'un elleve, et sy y a peu de personnes en etat de resoudre et calculer avec aisence, c'est qu'il y a sy peu de bons maitres..." [A good arithmetician always has at heart the instruction and advancement of a student, and one of the reasons so few people are good in calculations, is simply that are few good masters...] (Preface, fol. V). It is a textbook or manual of some sort, beginning with all the basics in arithmetic, progressively covering the more complex notions needed to resolve mathematical problems and to calculate correctly in all circumstances.

In the introduction to his work, the author, Jean-François Bonnofoux, indicates his work is divided into eight parts, which he explains and subsequently develops. The work is destined to a young man, Laurent Augier, whose name is provided on the title-page. He appears to have been destined to a profession related to a commercial activity of some sort. There are a number of references to arithmetic applied to commerce. For instance: "L'arithmetique qui en sont la base, principes aux quels un commerçant doit s'apliquer avec attantion..." (Preface, fol. III) and again, "L'arithmetique est assez enbarassante par elle meme, et le commerçant a besoin de certaines instructions pour les rendre plus intelligibles..." [Arithmetic can be quite complicated in itself, and the businessman (or man of commerce) requires tutoring to understand] (Preface, f. V). The examples, practical cases and arithmetical exercises, invariably refer to merchants and/or men of commerce (marchands et commerçants). Noteworthy, amongst the examples preferred, one finds a number of examples referring directly to captains, ports, ships and merchants (see, for instance, f. 98: "Le capitaine vient d'arriver en le port avec un batiment charge de 1200 charges de bled. Trois marchand (sic) se sont presentés..."; again, f. 102: "Un capitaine en partant avoit embarqué sur son batiment..."; f. 67: "Six marchands negociateurs sont convenu par convention avec un constructeur de leur construire un batiment [ship]...").

When the present textbook was copied, Saint-Nazaire was just at the start of its development, still very much of a small port town, located in the Loire River estuary, leading to Nantes. It was to become a central port in the triangular trade that operated during the seventeenth, to early nineteenth centuries, carrying slaves, cash crops, and manufactured goods between West Africa, the Caribbean or American colonies and the European colonial powers. There a commercial gentry developed and thrived in the eighteenth century. In addition, Saint-Nazaire became a central location for the thriving activity of naval construction.

The highly personal tone of the preface and closing colophon render the present treatise quite endearing. The work takes at heart the progress of a young boy in need of a good grasp of arithmetic for his future occupations [a snide remark states that some poor teachers appear to know even less than girls: "[...] les autres moins sincerés...s'y trouvent eux memes enbarassés des qu'on

les tire de certains comptes que meme le sexe [feminin] n'ignore pas..." [...other less sincere people...are embarrassed when faced with certain accounts that even members of the (female) sexe seem to be able to resolve...] (Preface, p. V)]. Clearly, the master appears to be devoted to his pedagogical ideal, gives tips to his student (always study with a pen and paper close at hand!), and encourages him on the arduous path of learning. The present copy appears to have been copied by the student-dedicattee of the work, perhaps under the supervision of his master, or following another "master-copy." We are thus in the presence of a student creating his own textbook, resolving the arithmetical problems over the time period that spanned between October to December 1770. The work is thus a sort of textbook-exercise-book put together by the student, under the expert eye of his "precepteur."

LITERATURE

Charbonneau, F. (ed.). *L'art d'écrire la science: anthologie de textes savants du XVIIIe siècle français*, Rennes, Presses universitaires de Rennes, 2006.

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