

THE NEW BRUNSWICK MUSEUM

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ESTABLISHED 1842
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LE MUSEE DU NOUVEAU-BRUNSWICK

277, AVENUE DOUGLAS
SAINT-JEAN, NOUVEAU-BRUNSWICK
CANADA E2K 1E5
TELEPHONE 693-1196

August 5, 1976

Mr. Charles Brandt
Atlantic Conservation Centre
236 St. George Street
Moncton, New Brunswick
E1C 8M7

Dear Mr. Brandt:

We enclose photocopies indicating that the DesBarres charts were aquatints, and we also enclose a near-contemporary description of the process used in making aquatints.

We hope that this is the information you are seeking.



Yours truly,

Mrs. M. Robertson
Archivist
N.B. Museum

MR/ja
Encl.

John,

Please return.

Charles

Aquartia ||
Aquatinta. the 11th sign in the zodiac, reckoning from Aries; from which also the 11th part of the ecliptic takes its name.—The sun moves through Aquarius in the month of January; it is marked thus, ☿.

The poets feign, that Aquarius was Ganymede, whom Jupiter ravished under the shape of an eagle, and carried away into heaven, to serve as a cup-bearer, in the room of Hebe and Vulcan; whence the name.—Others hold, that the sign was thus called, because, when it appears in the horizon, the weather usually proves rainy.

The stars in the constellation Aquarius, in Ptolemy's catalogue, are 45; in Tycho's 41; in Hevelius's 47; in Flamsteed's 108.

AQUARTIA, in botany, a genus of the tetrandria monogynia class. The calyx is campanulated; the corolla is rotated, with linear divisions; and the berry is four-seeded. There is but one species, the *aculeata*, a native of America.

AQUATIC, in natural history, an appellation given to such things as live or grow in the water.

AQUATINTA, a method of etching on copper, lately invented, by which a soft and beautiful effect is produced, resembling a fine drawing in water-colours or Indian ink.

Previous to the operation upon the plate, the following powder must be prepared.—Take of asphaltum and fine transparent rosin, equal parts, suppose two ounces of each, and pound them separately. Through a muslin sieve (which may be formed with part of a chip-box of three or four inches diameter) sift upon a sheet of paper a thin stratum of the asphaltum, above which sift a similar layer of the rosin, and upon this another layer of asphaltum, continuing these alternate layers till both of the powders are exhausted: then pass the mixture through the same sieve upon the paper once or twice, or till both appear to be sufficiently incorporated; when the powder is ready for use. Some, instead of the above mixture, use gum sandarach pounded.

The main process is as follows.—A copper-plate being polished in the usual way, lay the etching ground upon it, and etch the outlines of your design in the manner directed under the article **ETCHING**: The ground is then to be softened with a little grease, and wiped off with a piece of rag; leaving, however, as much grease upon the plate as just to dim the copper. You now sift your powder upon the surface of the plate; after which, strike the other side of it pretty smartly against the edge of the table, in order to discharge it of the loose powder: This done, with a hand-vice hold the back of the plate over a chaffing-dish of charcoal fire, till it become so hot as to give pain upon being touched with the back of the hand; and the powder which adhered to the grease will now be fixed to the plate. The plate being then suffered to cool, take turpentine varnish mixed with ivory black; and with a hair-pencil dipt in it, cover all the lights or places where there is no work or shades. A rim or border of bees-wax is now to be raised round the plate: Then having reduced the aquafortis to a proper strength by vinegar or water, you pour it on, and let it stand five minutes for the first or lightest shade: after which, pour it off; and having washed the plate with water, set it on edge to dry: Then with

the varnish stop up your light shades, pour on the aquafortis for the second tint, and let it stand five minutes more; proceeding in the same manner for every tint till you produce the darkest shades. If a bold open ground is wanted in any part, this requires an after-operation: The ground must be laid as the other, by sifting on the powder; only this powder is much coarser, and the plate must be much more heated in order that the particles of the powder may spread, and form small circles: even good clean rosin will do by itself.

In etching landscapes, the sky and distant objects are also performed by a second operation, and the powder is sifted upon the plate with a finer sieve. If the trees or any part of the fore-ground require to be higher finished, the plate must be entirely cleaned from grease with bread, and a ground laid in the common way of etching; when you may finish as highly and neatly as you please with the needle or point, by stippling with dots, and biting up those parts, or by a rolling-wheel.

The preceding is the method for prints of one single tint. But if different colours are to be expressed, there will be required as many different plates, each plate having only the part etched upon it which is designed to be charged with its proper colour: unless (as may happen in particular subjects) some of the colours are so distant from each other as to allow the printer room to fill them in with his rubber without blending them; in which case, two or more different colours may be printed from the same plate at once.—Where different plates are necessary, a separate one, having a pin in each corner, must be provided as a sole or bottom to the aquatinta plates; and these again must be exactly fitted, having each a small hole in their corners for passing over the pins of the sole: the said pins serving the double purpose of retaining the plates successively in their due position, and of directing the printer in placing the paper exactly on each plate so as not to shift; by which means each tint or colour will be exactly received on its proper place.—This is the method practised at Paris. A landscape or similar subject, however, may be printed off at once in the different proper colours, by painting these upon the plate. In this case, the colours must be pretty thick in their consistence; and the plate must be carefully wiped in the usual way after the laying on of each tint, as well as receive a general wipe upon its being charged with all the tints.

This art is kept as secret as possible by those who practise it; and it is believed that no particular explanation or directions, before the present, have been communicated to the public. In order to succeed, however, great care and judgment are requisite; and much depends upon a certain nicety of management, which is only attainable by practice.

AQUAVIVA, a town of the kingdom of Naples, and province of Barri.

AQUEDUCT. See **AQUEDUCT**.

AQUEOUS, in a general sense, something partaking of the nature of water, or that abounds with it.

AQUEOUS Humour. See **ANATOMY**, p. 767.

AQUILA, in ornithology, a synonyme of the eagle. See **FALCO**.

AQUILA, the **EAGLE**, in astronomy, a constellation of the northern hemisphere; usually joined with **ANTINUS**.

The

Aquarius ||
Aquila.

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VOL. II.

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claim. There was no other authority from whom he could seek assistance, and, thus he was left unsatisfied and resentful, cherishing a bitter grievance, and, undoubtedly, expressing his feelings with a caustic tongue to all who would listen to him. He must have made himself obnoxious to many officials in Whitehall. The stoppage of his salary of £1. a day after 1780 is inexplicable except on the ground that some one in authority over DesBarres was determined to punish him. Yet for four years the salary was not paid, though DesBarres continued to carry on work for the Government. Even promotion in military rank was bestowed in a niggardly spirit. When he undertook his great work in 1763 he was a Lieutenant, and only obtained a Captaincy in 1775. He was made a Major in 1783, a Lieut.-Colonel in 1794 and a full Colonel in 1798.

ESTIMATE OF THE ATLANTIC NEPTUNE

The work must be regarded as one of the most remarkable products of human industry which has been given to the world through the arts of printing and engraving. This might be regarded as an exaggeration by one who has seen only a narrow folio edition, with folded plates, or even the large folio with full-size plates. But when Mr. Stevens' collection is examined with its enormous number of the various states in which the plates, both of views and charts, were produced, one is filled with amazement at the magnitude of the work which DesBarres directed.

Apart from the practical value of the *Atlantic Neptune*, the artistic excellence of the views alone would give it high rank. This feature is solely due to DesBarres. He drew with great sensitiveness and had an exquisite sense of color. Many of his aquatints, whether in monotone or colors, are of the highest quality.

We may wonder why so many views, both large and small, were made and the criticism that many of them had little practical value is just. But, this may be forgotten, when we consider their aesthetic value, and we should be thankful that the first important efforts in cartography on the coasts of Canada and the United States should have been presented to the world with such delightful artistic accompaniments.

The practical value of the *Atlantic Neptune* was soon demonstrated. It became the standard guide for ships of all nations in American waters. Yet the charts were in many instances defective, especially in regard to soundings. This is not surprising considering the extent of area covered. These defects gradually became known during the

nineteenth century and fresh surveys had to be made by trained officers with competent staffs, with more means and a better equipment and organization than DesBarres, Holland and other pioneers of the eighteenth century enjoyed. The charts of the East coast of North America at the present day bear little resemblance to those of the *Atlantic Neptune*, nor can the influence of the latter be traced in them.* Yet while modern investigation has led to their displacement, this should not be with disparagement. Though we have relegated the volumes of the *Atlantic Neptune* to Museums and Libraries as mere curiosities, let us not forget the circumstances in which they were produced, the hardihood of those who made the original surveys, and the devotion, persistence and idealism of DesBarres, through whose efforts the Monumental work was prepared for publication.

*DesBarres' charts were standard until Bayfield began his surveys in the thirties; they extended from Gaspé to Cape Breton. In the forties Owen surveyed the south shore of New Brunswick from Saint John to Passamaquoddy Bay. In the fifties Shortland charted the Head of the Bay of Fundy and the coast of Nova Scotia as far as Cape Breton, and published a book on his methods.

Shortland abandoned all of DesBarres' names, and used local designations. Holland's exotic names in Prince Edward Island have mostly been retained.

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Joseph Frederick Vallet Des Barres and The Atlantic Neptune

By JOHN CLARENCE WEBSTER, F.R.S.C.

The family of Vallet des Barres (the old spelling) is a very ancient one in the county of Montbéliard in the South East of France, not far from the Swiss frontier, the village of Héricourt having been probably its place of origin, according to the late Professor Viénot of Paris, himself a native of Montbéliard. This district has had an interesting history. After belonging to the Franks and Burgundians it was joined to Lorraine in 843. In the 11th Century it again reverted to Burgundy and later to the German Empire. In 1397 it passed to Württemberg, to which it belonged until 1793, when it was annexed by France of which it has formed a part ever since.

Its population became largely Protestant at the time of the Reformation and, later, in the days of religious persecution after the revocation of the Edict of Nantes, they endured much suffering and many were forced to flee to other countries, especially Switzerland, Holland, Germany and England.

In 1750-53, the British Government, deciding to encourage settlement in Nova Scotia, advertised in Germany for emigrants. Several hundreds were secured in this manner, partly native Germans, partly Swiss and expatriated Protestants from the district of Montbéliard. Under guarantee of assistance and protection they went to Nova Scotia, and established a settlement on the South shore at Merliguesch Bay, which was officially named Lunenburg on May 10th, 1753.

According to Viénot, while the name Des Barres has been found as far back as the 13th century, the first of the family of whom a record exists was Jean Vallet des Barres, a Councillor of the Province of Montbéliard in 1685. He was dismissed from this position and banished to Basel in Switzerland, on account of his religious convictions; there he died in 1719 leaving six children. One of these was named Joseph Léonard, who married Anne-Catherine Cuvier, of the family of the celebrated Cuvier, who also belonged to Montbéliard. They had the following children:—

1. Joseph-Frédéric Vallet des Barres, the subject of this Memoir;
2. Charles Christophe Henri;
3. Catherine Elizabeth.

The mother, Anne-Catherine, died March 12th, 1747. The father's record has not been found but in 1765 he was alive, being 83 years of age.

