

PUBLICATIONS BY SHUMARD AND McCHESNEY CONCERNING
CRINOIDS AND OTHER FOSSILS

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ABSTRACT

The purpose of this paper is to establish accurate dating of certain paleontological publications, particularly those relating to the Crinoidea. Shumard's catalogue of Paleozoic fossils (1865-66) and four papers by McChesney on fossils from western states (1860-68) are discussed.

INTRODUCTION

Imprint dates on paleontological publications, even some of the ostensibly most reputable sort, must always be held subject to verification. This is particularly true of papers issued prior to 1900. The Civil War in the United States (1861-65) brought about severe dislocations and some curious bibliographic anomalies. In a period when several paleontologists were vying with one another to bring out descriptions of new species, the month and even the day of publication may assume importance in establishing priority. This is particularly true of papers concerned with the Crinoidea.

The determination of correct publication dates calls for careful study of published bibliographies, reviews of papers given in journals, and wherever available, such records as notations on separates of the date of their receipt by scientific organizations or individuals and information contained in letters. Some workers have gone to great trouble in the endeavor to learn facts that serve to establish nomenclatural priorities in their field of research. When discrepancies in the dating of publications are encountered, evidence relating to them generally is not given, which imposes on other investigators the task of trying to verify or discredit the attributed dating. It is desirable to publish the available records concerning the time when papers of doubtful publication date actually were issued. Paleontologists who have access to the libraries of older generations of paleontologists or their correspondence may furnish valuable help to others if they watch out for evidence of this sort and put it on record.

A special problem is presented in dealing with many publications of scientific organizations that appear on book shelves as bound volumes bearing a publication date on the title page. Each such volume may contain an accumulation of papers that

in fact were published and distributed on various dates within the year or perhaps ranging through several years. To recognize the date shown on the title page as applying to all papers contained in the volume, as is done very frequently, is absurd. Usually one can learn that either or both of two methods of distribution has been employed and this bears on determination of what may be accepted as the publication date. A scientific organization often sends out its publications as separate parts or numbers as they are printed, transmitting them at various time intervals to subscribers and exchanges. Some such parts may contain only a segment of a complete paper, which accordingly is published piecemeal during a more or less protracted period. The publication dates for each segment need to be learned and the content of respective divisions of the paper must be noted. When an author is furnished with separates (reprints) of parts of his paper published in this manner, he may distribute them as rapidly as they are received and thus they become available before the last-published segment. Such separates desirably might be called "pre-prints" except for the prevailing vagueness in use of this term. It seems proper to cite the date of the "pre-print" as the significant date of publication for purposes of priority, giving supplementary reference to the date of issuing the completed paper. Any reprint, whether consisting of "pre-prints" of parts of a paper or "pre-prints" of a complete paper issued in advance of the volume containing it, might well be styled as the "author's edition." Fortunately rare is the "post-print," which consists of a paper reprinted with changes of text or illustrations and thus differing from the originally published form. Here again, double citation seems to be necessary.

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SHUMARD'S CATALOGUE OF PALEOZOIC FOSSILS

The publication by B. F. Shumard entitled "A Catalogue of the Palaeozoic Fossils of North America," generally cited under the date of 1866 (although partly issued in 1865), should be checked carefully for bibliographic references to echinoderm literature, especially for dates earlier than 1866. This paper is important not only because of information given in it as to publication dates of scientific papers appearing in Shumard's time but because of descriptions and comments presented by the author in footnotes. Shumard was a careful worker and possessed a better knowledge of the Crinoidea than can be credited to most of his contemporaries. Accordingly, statements by him should be given a great deal of weight. Only F. B. Meek seems to have been equally careful, but his bibliographic data never were published. Such information as we have is gleaned from notes written by Meek on his copies of various papers which now are in the library of the U. S. National Museum. The dating of Shumard's catalogue can be based reliably on these notes.

In reprints of the complete catalogue distributed by Shumard, the title page bears the date 1865. The cover, in addition to the title given above, carries the subtitle "Part 1. Echinodermata." and gives the date as 1866. Nickles and other bibliographers have cited the catalogue as published in 1866, which was the year of its appearance in the Transactions of the St. Louis Academy of Science. Nevertheless, the notes made by Meek in his copy of the paper indicate that the major portion, comprising some 60 pages, was distributed by Shumard in parts during 1865. As concerns questions of priority, therefore, it seems necessary to recognize the first 60 pages of the catalogue as having been published in 1865. Such usage has been held valid in respect to other publications. No question exists concerning distribution of groups of pages in advance of sending out the complete paper; Shumard simply sent out the parts as they became available to him from the press.

The notes written by Meek in his copy of Shumard's paper are quoted exactly below. It is interesting to observe that the fourth part reached Meek before the third, which probably was a matter of

mailing. Meek's notes: (1) on title page, "First part to p. 346 inclusive recd. Aug. 24th, 1865;" (2) on page 347, "2d part to p. 362 inclusive recd. Sept. 18th, 1865;" (3) on page 363, "3d part to 378 incl. recd. Decr. 11th, 1865;" (4) on page 379, "4th part to p. 394 incl. recd. Decr. 5, 1865;" (5) on page 395, "5th pt. Recd. March 20th, 1866. At Springfield complete."

Volume 2 of the Transactions of the Academy of Science of St. Louis bears on the title page "Vol. II. 1861-1868" and near the bottom of the page "1868." The annual report of the president of the Academy (vol. 2, p. 239, Jan. 4, 1864) states that the "first number" of the volume of Transactions was completed and distributed in May, 1863. Also, the presidential address (p. 551, Jan. 8, 1866) includes statement that the "first number" of 218 pages and 11 plates was issued in 1863. Opposite page 218 in the completed volume is a note by the publishing committee recording that pages 1 to 114 were "printed and partially distributed May 1, 1862," the remainder of the "number" being completed May 5, 1863. The "second number," which contains Shumard's catalogue, is given a final date of May, 1866, in the president's address (p. 570). It should be noted that the "numbers" carry no official dates, either in part or whole, dating being established only by information given in the "Journal of Proceedings" as noted above.

Examples showing application of dating as defined here are *Catillocrinus* (Troost) Shumard (p. 357) and *C. tennesseae* (Troost) Shumard (p. 358), which correctly bear the date of November or December, 1865, although authors cite them as 1866. *Catillocrinus* (1865) clearly has priority over *Nematocrinus* Meek & Worthen, 1866.

A summary relating to publication of Shumard's catalogue may be set down as follows: (1) author's edition, distributed in parts with title page dated 1865; p. 334-394 actually distributed Aug.-Dec., 1865; p. 395-407 actually distributed Mar., 1866; issued complete with cover, 1866; (2) regular edition, Trans. St. Louis Acad. Sci., vol. 2, "second number," May, 1866; complete vol. 2 (1861-68), issued 1868.

McCHESNEY'S DESCRIPTIONS OF FOSSILS FROM WESTERN STATES

J. H. McChesney's paper on fossils from western states is often cited as of 1867 or 1868 in volume 1 of the Transactions of the Chicago Academy of Sciences. As a matter of fact, it appeared as four distinct publications, with five or more dates. The major portion of the text was privately issued in 1860 and 1861. The plates, identical in content and numeration with the 1868 edition, were privately issued in 1865. The various issues will be given in sequence, with information as to dating.

PUBLICATION OF 1860

A paper by McChesney bearing the title "Descriptions of New Species of Fossils, from the Palaeozoic Rocks of the Western States" was distributed by the author in 1860. A copy of this publication in Meek's library shows that it consists of 76 pages which include text and figures but no plates. The title page states "Ext. Trans. Chicago Acad. Sci., vol. 1; Chicago, 1859," indicating that

the paper is a reprint ("extract") from the first volume of the Transactions of the Chicago Academy of Sciences, ostensibly issued in 1859. Effort by Meek to determine the authenticity of this entry is recorded by notes on the explanatory page (un-numbered p. 3) of his copy of the paper, as follows:

"On examining the Records of the Chicago Academy of Sciences Vol. 1, p. 50 bearing date Oct. 12, 1859, I saw a memorandum reading as follows:— 'A letter was received from J. H. McChesney of Springfield Illinois, giving notice of descriptions of new species of Paleozoic fossils from the Western States.' This is all recorded here on the subject, there being no mention made of any paper or descriptions having been transmitted to the Academy then or at any subsequent date, by him.

On p. 61, of the same Vol. of Records (March 10, 1860) there is a memorandum of Prof. McChesney having presented 'casts and specimens of new species of fossils described in the Vol. of Transactions now in preparation.' From this it is evident this memoir, the only portion of the Vol. of Trans. then in progress, was in course of preparation on the 13th of March, 1860, and hence must have been published at a later date."

These notes obviously refer to the official publications of the Academy. It is otherwise evident that McChesney had copies of the paper printed at his own expense, of which Meek's copy cited above is one.

Shumard's catalogue (footnote, p. 340) states: "This paper by McChesney bears date 1859; it was, however, issued in three parts, at different times. Pages 1 to 56 inclusive were, I learn, first published January 3, 1860; pp. 57 to 76 about the 24th of May of the same year, while pp. 77 to 96 were not distributed until February, 1861."

Tipped into Meek's copy is a letter from the printer (Van Benthuyzen) to "Chas. Knickerbocker, Sec'y. Chicago," dated July 11, 1865. In part it says: "I have charged Mr. McChesney 'Jan. 3d. 1860 for 150 copies Description of Fossils' done during the last days of December, and another charge for continuation of same, May 18, 1860." This letter seems to have been obtained by Meek subsequent to the notes quoted above. Apparently on the evidence of this letter he wrote on page 3 of his copy: "Published January 3d, 1860." This letter from the publisher seems to verify Shumard's dates.

It seems certain that McChesney distributed the first "extract" in at least two parts. For this we have, in part, the evidence of Shumard. Meek's copy at the top of page 57 bears part of an instruction to the binder. Unfortunately, the page has been trimmed, and all that can be read is: "Add after page . . ." It seems evident that Meek had received the two parts separately and had put them together with instructions to the binder. Combining the evidence of Shumard and the printer Van Benthuyzen we would have a date of delivery from the printer of January 3, 1860, for pages 1 to 56,

inclusive. The delivery of the final pages should be May 18, 1860. As noted below, pages 57 to 69 (*pars*) seem to have an intermediate date.

A review of McChesney's article appears in the March, 1860, number of The American Journal of Science and Arts (ser. 2, vol. 29, no. 86, p. 285). Here, McChesney's paper is cited as "New Palaeozoic Fossils: by J. H. McChesney. Chicago, 1859. 8vo. pp. 64 (*sic*). The "64 pp." is evidently a misprint, for by checking the species listed, the text extends two-thirds down page 69. This would seem to be a logical stopping place since following this are second sections of "Gastropoda," "Brachiopoda," and "Lamellibranchiata," as well as descriptions of two corals. Being a review and not a mere notice, one may assume that a copy of McChesney's paper was delivered to the reviewer not later than February, 1860. Pages 69 to 76 (*pars*) of the McChesney publication do not seem to be noted in the Journal. Even the text of this "edition" sent to Silliman seems to vary from that of Meek's copy. For instance, the review gives direct quotations in regard to *Ambocelia* that I cannot find in Meek's copy. I have not seen the "edition" sent to the Journal.

A summary of McChesney's 1860 publication is as follows: "Descriptions of new species of fossils, from the Palaeozoic rocks of the Western States. Ext. Trans. Chicago Acad. Sci., Vol. 1; Chicago, 1859." P. 1-56 (?1-69) (*pars*) includes p. 1-2, title page; p. 3, explanatory note; p. 4, blank; p. 5 and following, descriptive text with diagrams of plate arrangement of crinoids published Jan. 3, 1860. P. 57-69 (?*pars*), published possibly in January, certainly in February or March, 1860. P. 69-76 (*pars*), published May 18, 1860. Privately issued.

PUBLICATION OF 1861

In 1861, McChesney published an additional account of fossils as follows: "Descriptions of new fossils from the Palaeozoic rocks of the Western States, from the transactions of the Chicago Academy of Sciences, October 11th, 1859. Contributed by J. H. McChesney. Extract No. 2." P. 77-96, with two text figures on p. 95. Privately issued Feb. 15, 1861.

This paper, though continuous in pagination with the preceding, has a title of its own and by all means it should be listed as a separate publication. As noted above, Shumard cites this paper as having been "distributed" in February, 1861. McChesney (1868, p. 35, under *Spirifer racinensis*) cites this paper as "Descriptions (Feb. 1861)." Elsewhere he cites it simply as "1861." Meek's copy bears the penciled notation "Recd. March 10, 1861," apparently referring to his own copy. Furthermore, he states: "Prof. Silliman received it Feby. 15th 1861." Above was a further notation: "Hall received it . . .," the remainder of the note having been trimmed off by the binder. It appears then that this paper may safely be dated as of February, 1861.

A review of this "Extract No. 2" appears in the July, 1861, number of The American Journal of

Science and Arts (ser. 2, vol. 32, no. 94, p. 122.) A footnote (p. 123) states that the paper was received February 15, 1861, which is the date cited by Meek as of "Prof. Silliman." The receipt of the paper was noted in the March, 1861, number (ser. 2, vol. 31, no. 92, p. 306). Thus, the 1861 publication by McChesney dates as of February 15 or earlier.

PUBLICATION OF 1865

McChesney's publication of 1865 consists mainly of illustrations of fossils described in his 1860 and 1861 papers. Its title and description are as follows: "Plates Illustrating in Part the New Species of Fossils, from the Palaeozoic Rocks of the Western States. And Two New Species, Noticed March, 1860. Chicago Academy of Sciences." Contains title page, one unnumbered page of text, 9 lithographed plates with explanations, and 2 unnumbered pages of plate diagrams of crinoids with accompanying text designated as plates 10 and 11. Privately issued in April, 1865.

The unnumbered page of text gives descriptions of two new species—*Natica altonensis* and *Discina subtrigonalis*. The first nine plates are identical in content and numeration with those subsequently appearing in the Transactions of the Chicago Academy of Sciences. They are lithographed on thin paper and pasted on sheets of heavy paper which bear at the top the imprint "Chicago Academy of Sciences Pl. (1-9)." Lithographed at the top of the plates proper are titles that were erased in the later edition. These are as follows: Plate 1, "Coal Measures (Carboniferous) Brachiopoda"; Plate 2, "Coal Measures (Carboniferous) Corals & Mollusca"; Plate 3, "Coal Measures (Carboniferous) Cephalopoda Etc."; Plate 5, "Mountain Limestone (Carboniferous) Crinoidea"; Plate 6, "Mountain Limestone (Carboniferous) Mollusca"; Plate 7, "Devonian & Upper Silurian Crinoidea & Mollusca"; Plate 8, "Upper Silurian. Mollusca"; and Plate 9, "Upper and Lower Silurian. Mollusca." A page of explanation that accompanies each plate provides page references to the text of the 1860 and 1861 papers by McChesney. The two "plates" 10 and 11 are really letterpress-printed figures consisting of a total of five plate diagrams of crinoids. These diagrams were incorporated as text figures in the final publication.

Meek's copy of this paper bears the notation: "Recd. at the Smithsonian Inst. May 13th, 1865." Nickles does not record the publication in his bibliography but Shumard does list it, stating: "Published in April, 1865."

These plates, with comments on the preceding text, were reviewed in The American Journal of Science and Arts of July, 1865 (ser. 2, vol. 40, no. 118, p. 116). Here the reviewer states that the author "now reissues the whole, consisting of ninety-seven large octavo pages of text, with intercalated wood-cuts and nine well executed plates. . . ." Because "plates" 10 and 11 are not mentioned in the review, one wonders if the publication sent to the

Journal constitutes still another edition of the work; I have not seen it. Other pertinent comments of the reviewer are: "Date of text between 1859 and 1861; illustrations, 1865;" and "letterpress of this memoir, issued in separate parts some time back."

PUBLICATION OF 1868

Materials contained in the 1860, 1861, and 1865 papers by McChesney were republished with some changes in 1868, title and description of this publication being as follows: "Descriptions of fossils from the Palaeozoic rocks of the Western States, with illustrations," Chicago Acad. Sci., Trans., vol. 1, pt. 1, art. 1, pp. 1-9. Issued in April or earlier, 1868.

The main title page of volume 1 of the Transactions of the Chicago Academy of Sciences bears the date "1867-1869" and the subtitle page of part 1 bears the date 1867. Bound in the volume, however, is an explanatory note inserted so as to precede the table of contents of part 1. This is dated February 4, 1868, and apologizes for delay in publication, owing to fires both at the Academy and at the printing establishment. This is not the Chicago Fire, be it noted. Meek's copy of article 3 of volume 1, part 1, which contains his own paper on the geology and paleontology of the Mackenzie River Valley, bears the notation in his writing: "From Trans. Chicago Acad., vol. 1—1868." In a Smithsonian Institution copy of volume 1, part 1, *ex libris* Laccoe, a form letter of presentation, dated April 5, 1868, is bound in. It is possible, but not probable, that McChesney sent out copies of his paper during 1867; of this I have no evidence. My own copy, purchased from a European book dealer, consists of articles 1 and 2, without title page. Wachsmuth's copy is like mine except that it contains the title page and explanatory note of February 4, 1868, as noted above. Until conclusive evidence to the contrary is forthcoming, it would seem best to date publication in volume 1 of the Transactions at least as early as April 5, 1868. It should be borne in mind that the 1860, 1861, and 1868 papers, although bearing approximately the same title, are distinct publications. The 1860 and 1861 papers were printed in Albany, N. Y. The 1868 paper was printed in Chicago. The type, pagination, and text of the publications printed in Albany and Chicago differ.

The receipt of volume 1, part 1, of the Transactions is noted in the May, 1868, issue of The American Journal of Science and Arts (ser. 2, vol. 45, no. 135, p. 427).

As a matter of information, R. P. Whitfield was responsible for the plate diagrams of Crinoidea published in McChesney's papers. This I had from Whitfield himself. Of even greater importance, while Whitfield had access to the crinoids, he made sulphur casts of many of them. Inasmuch as McChesney's types were destroyed at the time of the Chicago Fire, any available crinoid casts prepared by Whitfield are of great importance.