

EXCERPT MINUTES OF COUNCIL MEETING

*Held at 116 Victoria Street, June 25th, 1885.*

The Rev. Prof. BONNEY, D.Sc., President, in the Chair.

Messrs. F. H. BUTLER and H. ROBINSON were elected members.

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GENERAL MEETING

*Held at the Rooms of the Philosophical Society, 207 Bath Street, Glasgow,  
Tuesday, June 16th, 1885.*

Mr. JOHN YOUNG, F.G.S. (Visitor), in the Chair.

The following Papers were read :—

“ On a New Locality for Barytes.” By THOMAS WALLACE, Inverness  
(Communicated by the Local Secretary).

“ On the Chemical Composition of some Samples of Graphite from  
Aberdeen.” By W. IVISON MACADAM, F.C.S., F.I.C., &c. Edinburgh.

“ On the Chemical Composition of Butyrellite.” By same.

“ Analysis of a Sample of Strontianite from Strontian.” By same.

“ Notes on an Association of Minerals from Utah.” By GEORGE S.  
MACKENZIE, Ph.D.

“ On Monazite and Connellite from Cornwall.” By H. A. MIERS, M.A.

(Note on "*Cone in cone*" Specimens).

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Mr. John Young, F.G.S., exhibited a series of specimens and polished transparent sections of Cone in cone structures from the carboniferous strata of Western Scotland, and stated, that recently he had been led to make a careful examination of this peculiar structure in specimens that he had obtained at Waterland Quarry, Dunlop, Ayrshire. In these specimens the cone structure is well preserved, and the upward termination of the cones on the surface of the bed is so clearly displayed, that he has been led to form a different explanation as to the origin of the structure from any of those formerly advanced. He stated, that in the explanations of former observers, cone in cone had been ascribed to the action of various causes, such as chemical precipitation, the action of pressure on concretions in process of formation, and to a kind of crystallisation in the stratum after the deposition of the sediment of which the bed is composed. Mr. Young pointed out, that in his specimens there are revealed external characters and points of internal structure which apparently had not been recorded, or at all events had been overlooked in all the descriptions that had come under his notice. Briefly stated, the following are the chief conclusions to which he had been led. 1st. That Cone in cone was in all probability formed by the upward escape of gases, generated in the sediments in which it is found by the decomposition of the organisms present; these being either plant remains, Entomostraca, shells or fishes, as seen in the specimens exhibited. 2nd. That the cones start from a point near the lower portion of the stratum, and ascend upwards; their bases gradually expanding as they reached the surface of the bed. 3rd. That there exists in all the cones, large and small, a central axis or tube, through which the gases escaped that elevated the calcareous sediment in successive layers, and of which the cone structure is built up. 4th. That the transverse wrinkling, seen upon the inner surface layers of the cones, appears to be due to a creeping downwards through gravitation of the plastic sediment upon the slopes of the cones in the intervals between the ebullition of the gases that elevated the sediment. 5th. That a thin layer of clay of varying thickness is seen to exist between the several calcareous layers of the cones, and which was probably deposited from the waters in which the cone structure was being formed; and that it is owing to this layer of clay that the cones now, in most instances, separate readily from one another when the stratum is fractured vertically. Transparent sections also show that this layer of clay must have been deposited

within the cones whilst their bases remained open, the argillaceous layers being seen to unite with the central axis or tube. 6th. That coprolites of fishes, shells or other solid materials in the sediment are seen to have often interfered with the formation of the cone structure in their vicinity, and are sometimes found plugging up the orifice of a cone. 7th. That the cone structure was brought to a close in the stratum in which it exists by the gradual decrease of the gases that generated the mechanical action. In the Waterland specimens we find that the bases of the larger cones, where they terminate on the surface of the bed, are filled with groups of small minor cones, and that these continued in many instances to erupt sediment, layer within layer, until their bases now rise above the general level of the stratum, indicating that the last ebullition of the gases was small in quantity and very feeble. Mr. Young in conclusion stated, that his remarks, and the explanation he offered on cone in cone structure, were wholly founded upon the specimens and sections exhibited, and in these he thought it was clearly evident that the formation of the structure was contemporaneous with the deposition of the sediment, which, from the nature of the organisms, appears to have been deposited over the area of wide, shallow, freshwater lakes, either as a thin stratum, or in lenticular or nodular masses. He had carefully studied the specimens exhibited, in connection with the other explanations of the structure that had been recorded, but he failed to find in the chemical, crystalline, or concretionary theories, an explanation that would serve to illustrate the varied points of structure that are seen in the best preserved specimens of cone in cone from Western Scotland.

*Note on Minerals exhibited.*

Mr. D. C. Glen, F.G.S., exhibited a series of mineral specimens from the district around Glasgow, and from one or two other localities within the area of the Estuary of the Clyde, upon which he and the chairman made some remarks. The specimens consisted of examples of the group of Zeolitic minerals that are found in the basic olivine traps of the Kilpatrick and Renfrewshire hills, and embraced crystallised varieties of prehnite, analcite, laumontite, natrolite, Thomsonite, stilbite, heulandite, chabasite, &c. Mr. Glen also exhibited specimens of native copper from the trap of Boyleston Quarry, Barrhead, and some crystals of the rare mineral Greenockite from the trap of the Bishopton Tunnel, also specimens of the Arran pitchstones, and spherulites, from Corriegills and Invercloy.