

head the list. The name still is *Rhynchagrotis* Smith; but any student who attempts to identify the Smith genus as it stands now, from the Smith description as it was written, will inevitably fail to understand how Smith could have written up such an inapplicable set of characters for his genus. My genus no longer has any existence, though the name proposed by me remains to represent a set of characters specified by Hampson.

It does seem to me as if, when an author has recorded a given set of characters as representing his conception of a genus, any arbitrary rule that limits his generic term to any species or set of species that does not include that combination is both illogical and unscientific. It seems like holding to the letter to avoid an inquiry into the spirit of truth.

JOHN B. SMITH

NEW BRUNSWICK, N. J.,
April 22, 1907

THE ANTHROPOLOGICAL EXHIBITS IN THE AMERICAN MUSEUM OF NATURAL HISTORY

TO THE EDITOR OF SCIENCE: The communication in your issue of April 12, by Dr. Dorsey on 'The Anthropological Exhibits in the American Museum of Natural History' suggests the important question: For whom should the public exhibits in such museums be designed? Should they be for scientists, for college students or for the general public?

The needs of these three groups are so very different that it is quite evident that the same style of exhibit can not be satisfactory to all. If designed for the public the exhibit should come within its comprehension and should lead in a definite manner to a general appreciation of some of the more important features of the subject; for it is to be presumed that the public will see little beyond that which is prepared for them. If they are to obtain definite ideas it is best that the exhibit aim to impart a limited number of fundamentals rather than lose itself in a multitude of details. In other words, effectiveness is dependent on concentration in aim and in limiting the number of objects shown. It is unavoidable that such an exhibit should partake somewhat of the character of a text-book

illustrated by specimens, though it is probably advisable to disguise as far as possible the mechanism of this; for people like better to think they are discovering facts and principles than that these are forced upon them. However, if any considerable portion of the public is to be guided aright it is necessary that the text-book character of the labels shall be at least pronounced enough to be discernible to the trained specialist and consequently to be offensively kindergartenish to him if he imagines that the exhibit was made for him.

An exhibit designed for students having had the advantages of text-book and oral instruction would needs be more advanced, less explanatory, and with a greater wealth of detail.

For an advanced specialist an exhibit of all the material in the museum, each specimen accompanied by its field label, would probably be as satisfactory an arrangement as could be made in exhibition cases; but I am very certain that most anthropologists, like mammalogists and ornithologists, would prefer to have the specimens in trays in storage cases where they could be handled and minutely examined.

The exhibits in our museums twenty or twenty-five years ago were largely of a character that reached no class of people as they should be reached; but catered principally to naturalists. Those were the days when the exhibit expressed what the official occasionally put into words: "The public be d——." Within a very few years it seems to have come to most museums that they were on the wrong track; that their exhibits were not conducive to the best use of the specimens by naturalists and that they utterly failed to reach the public. The keeping open to the public of the halls of a large museum is a matter of great expense, justifiable only on the ground of public instruction, and quite uncalled for if the exhibits are not intended for them.

Most museums are supported to a considerable extent by their communities and therefore the taxpayer has a right to demand that something be done for him; and every fair-minded museum director will see to it that he receives considerate treatment.

If it is conceded that an exhibit for the specialist is of practically no educational value to the public—is to it primarily a collection of meaningless curios—then it is patent that museums drawing largely on public funds can not honestly adopt such an arrangement, but must follow one that will give a fair equivalent for value received.

Museums that may be privately endowed so as to be independent of public funds may, of course, adopt any method they choose; but it would appear to be a foolish waste of energy and money to throw open to the general public a specialists' museum.

The college student is not here considered because his own institution makes special provision for him.

Looking from the standpoint of popular education at the ethnological exhibits of the American Museum, I have been greatly pleased to note the decided advance that the last few years has shown in the matter of arrangement. I can imagine a man of average education, with no special knowledge of the Eskimo or the Plains Indian, viewing those exhibits for an hour and coming away with a fair general idea of the peoples represented, such as he could not possibly have acquired in many hours under former conditions. This man will represent more than ninety per cent. of the visitors to the museum. He it is who is paying a considerable proportion of the expenses of the museum and now is getting his dues. At the same time I presume that the specialist can be amply cared for in this department, as I know to be the case in certain zoological branches.

I hope that there will be no backward step to the condition of storage exhibition with, to the public, its meaningless repetition of specimens that have little or no information to convey.

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PUBLIC MUSEUM, MILWAUKEE,

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MAGAZINE SCIENCE

THE science in the magazines is not always bad. Much of it is not only most illuminating to the non-specialist mind (including in the

term all those who are specialists in some one subject, but whose college knowledge of all other subjects is wholly antiquated), but is also of the highest order of authority. For instance, the March number of the *Century* contains a very important article by Professor Hugo de Vries on the work of Luther Burbank, and in the May number of the same magazine there appeared one by Professor Stratton on railroad signaling in connection with color-blindness. But the article on color in the number for April belongs to the class of the antiquated and the non-scientific to a degree that has become, fortunately, most unusual. Criticism of an article like this is not worth while, but one can indicate its character by a few quotations. We are told that "two tuning forks of discordant rates of vibration, set in action close together, will make no sound" (as if vibrations of exactly opposite phase were the only ones that give discordant notes); and that "it is possible that the harmonies of color waves may some day be reduced to mathematical tabulation." The writer believes in the 'capacity of brain cells to note rhythmic variations' of various degrees of speed; he affirms that "the brain receives impressions in the form of waves of vibration," and also that "two kinds of light waves are emitted from all objects, color waves and white waves."

After this one is not surprised to find that he thinks there are red-blind individuals who see green, and green-blind individuals who see red, and that, in fact, all the knowledge about color that has been gained in the last twenty years or so is *terra incognita* to him. It seems a pity that three full pages of bright colored illustration should be wasted in propagating error. And this is an article which the New York *Evening Post* took the trouble, upon two separate occasions, to praise! It is said that the *Youth's Companion* employs a reputable scientist whose sole duty is to see that no patently false science, or other matter of fact, appears in its columns. It would be wise if less modest journals followed the same plan.

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