

COMMENT

Plankton, planktic, planktonic

The editors of *Limnology and Oceanography* are anxious to publish only correct and concise contributions, and I think you have succeeded exceedingly well. But apparently you, as well as many authors, are not aware of one kind of linguistic error that is very frequent not only in your journal but among limnologists and oceanographers in general: the incorrect use of various forms, particularly adjectives, derived from such common words as plankton, seston, nekton, epi-, meta-, and hypolimnion.

More than 50 years ago G. Burckhardt (1920) pointed out that if a derivation is made from a Greek or a Latin noun, only the stem but not the gender suffix has to be incorporated. The "-on" in the words mentioned is the suffix, indicating that they are in the neuter. Thus the corresponding adjectives are correctly: planktic, sestitic, nekctic, epilimnic, and so on (and not planktonic . . . hypolimnetic). Burckhardt also emphasized that it is wrong to say plankton instead of plankter and mentioned that

the adjective of benthos (the stem is benthē, with the masculine ending "-os") should be benthic. To me, however, benthic sounds quite acceptable, whereas benthonic is a hybrid and monstrous construction.

Burckhardt was upset about the misuse of the fine word plankton but hoped, optimistically, for a conversion of the sinners if only a few planktologists would use correct derivations. So far that has not happened, but I still believe the erroneous trend can be changed, provided you, your referees, and thus the influential *Limnology and Oceanography* adopt correct expressions only. As a by-product, you would gain a somewhat shorter printing.

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Reference

BURCKHARDT, G. 1920. Zum Worte Plankton. Schweiz. Z. Hydrol. 1: 190-192.

De rebus planctonicis

The conventions for assimilating classical words into English, if not into other European tongues, are clearly not rigidly based on static rules, but belong to the living, developing language. A successful word should have a past, a present, and a future. It should be used easily and naturally, to convey, in science, a clear, definite meaning. It should be euphonious and should fit into the usage of the language in which it finds itself, but euphony and assimilability clearly involve subjective preferences, presumably derived by the users from their experience with the language as it has been taught them.

With the help of my distinguished friends Professor Edmund T. Silk and Professor E. David Francis, respectively a Latinist and

an Hellenist in the Department of Classics of Yale University, I have learnt what follows.

Plankter is a highly respectable word, meaning wanderer or beguiler and anciently applied to Dionysius. *Plankton* is a participial form like gamont or schizont. The trouble with it is not a question of recognition of the stem, but that there is no verb from which plankton can be derived. The legitimacy of the participial form, where the verb exists, is however worth emphasizing to avoid the over-enthusiastic appearance of *gamer* and *schizer* in the protistological literature.

The question of the correct adjectival form is more difficult. Since plankton is from the neuter of *πλαγκτος* meaning wan-

dering or roaming, used of ships in poetry, the word as we employ it started out as an adjective. Neither *planktic* nor *planktonic* therefore can have any ultimate authority in ancient Greek. We must however use one of them, since we have turned the original singular adjective into a collective noun.

Planktic, with its terminal hard "c" coming so close to the identical sound of the "k," is definitely less pleasant to me than is planktonic; the latter is the only form given in the Oxford English Dictionary, though it is described as an irregular formation for the hypothetical planktic. Since there is, to me, no compelling reason in favor of planktic on linguistic grounds, I shall continue to use planktonic solely as the more euphonious of the two. Speakers of other languages must clearly be left to decide whether they prefer *planktonisch* to *planktisch*, *planctonique* to *planctique*, *planctonico* to *planctico*, etc. I see no reason to insist on uniformity even within a language. It may be worth noting that if someone speaking colloquially in the laboratory referred to a collection just submitted to him as looking *planktonish* (the strict cognate of *planktonisch*) it would sound natural and comprehensible; in these circumstances *planktish* would be meaningless.

Planctonicus sounds well as a Latin adjective and has often been used as a specific name; even though its formation can have no classical authority, it seems to fit.

The aesthetic objection to planktic does not apply to *benthic*, which is doubtless preferable to *benthonic*. I should however, be quite happy if we never got anything worse than the latter. We do, whenever we run into *biodegradable* or any of the other horrid bigenerous words of unkindly procreation with which the environmental crisis has polluted our language. But even such words may ultimately settle down, as has apricot, part Arabic, part Hellenized Latin, though filtered through the Portuguese.

It is obviously impossible to impose strict consistency, particularly in derivatives of somewhat synthetic nouns such as *plankton*, or for that matter *electron*, a word which is an accidental reconstruction of the original Greek, but with quite a different meaning. I do not suppose that anyone has proposed an editorial policy requiring that *electric* should be systematically substituted for *electronic*.

My position is that there is no need to enforce rigid rules if people will try to write clearly and with elegance. If they do not, little can be done, even with the strictest precepts. Perhaps that ardent Pauline scholar, E. A. Birge, would have preferred "not of the letter, but of the spirit; for the letter killeth, but the spirit giveth life."

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. . . occasionally, by raising our eyes from
the immediate problems that confront us,
we can achieve a partial synthesis which
gives fresh direction to our enquiries.

R. B. Clark

Environmental control of phytoplankton cell size

Two apparently divergent views have recently been expressed concerning the environmental control of phytoplankton cell size in the oceans. Semina (1972) offers what can be characterized as a physical

argument emphasizing the role of hydrodynamic forces in favoring the retention of large cells within the planktonic biotope. According to Semina mean cell size of a planktonic population is a result of 1) the