COULD COLUMBUS HAVE PASSED PEER REVIEW?

The Columbus quincentennial is certainly the right time to submit to you the following excerpts from the correspondence between Christopher Columbus and the royal referees. It goes without saying that this correspondence is absolutely fictitious, and any similarity to real events and people is purely coincidental.

3 July 1483, letter from Columbus to Editor-in-Chief, Royal Society: *Why does refereeing take months rather than a mandatory two weeks? Isn't five months the* Royal Review Letters *average (for Spaniards, and nine months for others)—not exactly rapid publication? Shouldn't the refereeing climate change from malignant to benign? I have the feeling that often authors-turned-referees vent their former frustration with the refereeing process, without a care for the newborn baby-paper: The referee saves time, and takes revenge, by killing it.*

17 November 1483, royal referee A report on Columbus's paper "Proposal for a Transatlantic Voyage to Cipangu [Japan] and the Indies": *I am not an expert in transport hopping theory to Japan and India. From my experience with this paper, I have to state that it is not comprehensible to the general astronomer. Because I was frustrated with the paper I asked a mariner who worked some years ago on hopping theory in transatlantic voyages, but he was also puzzled by it. For example, the basic statement of this paper that each degree of longitude along the equator equals 5622/3 Roman miles is not explained, nor is a reference given where the derivation can be found. Confusingly enough, the only comment in connection with this statement is that it is presented in the geographical tract* Imago Mundi. *Does this statement hold on an ocean or in general? I am highly skeptical about the value of this paper, but suggest that it not be published in its present form.*

3 January 1485, royal referee B report on "Proposal for a Transatlantic Voyage. . .": *I cannot recommend publishing this paper in its present form. No matter how much I work at it, I am unable to comprehend the message, in spite of the fact that the paper is presumably in "my field." Nevertheless I have given the paper my best effort; it would be a great tragedy if the only ideas that may be published were those written in language that I understand. Here are my observations.*

In the abstract, I do not know what is meant by "The Far East is the Far West." Does anyone?

After some hunting, I found that symbols are defined in the reference list under reference 5. Unfortunately, with the help of these definitions, I determined that the top of page 2 speaks of degrees and its bottom speaks of minutes. Believing that I had somehow missed the point, I went to the library and looked up the references cited. However, they had precious little to offer pertaining to this paper. At least the experience exposed me to interesting literature: I was intrigued by Esdras's statement that the world was six parts land and one part earth in reference 6. Aristotle's idea of a small sea between East and West in reference 7 seems interesting. I also enjoyed reading about the idea of a spherical Earth, which was the essence of reference 4.

Apparently I was unable to appreciate the interesting ideas contained in this article.

3 March 1488, royal referee C report on "Proposal for a Transatlantic Voyage. . .": *I agree strongly with referee B that this paper is unsuitable for publication in* Roy. Rev. Letters, *due to its results' being uninteresting and not illuminating for transatlantic voyages, in spite of claims by the author. I note that this paper does not address the interesting questions of geography of the Indies. It says nothing about transportation except for the statement on page 6 that the tides in these places are high. True transportation would require the introduction of large caravels and the calculation of their response function. In conclusion, this paper offers only a technical advance over results of previous papers, and definitely does not represent*

important new work.

15 January 1497, royal referee report on Columbus's paper "The Discovery of the Indies, Ophir or Cipangu": *I cannot recommend this paper for publication. First, the discovery was made long before Columbus. Second, he is mistaken in his claim that what he discovered is the Indies. Third, in our time such a discovery is trivial and of little general interest.*

18 June 1500, letter from Columbus to Editor-in-Chief, Royal Society: *Bad, irresponsible referees are the single most hazardous thing to any explorer. They are far more dangerous than hurricanes, which can be handled by a skillful mariner. Who can estimate the psychological damage from a direct hit and humiliation by anonymous arrogance, with little hope for future satisfaction? The most endangered papers are the most innovative. They are the most demanding of the referees' time and efforts, and quite often a referee prefers to suggest, "Reject it" rather than admit, "I didn't have the time to think it over." The first solution to a problem is seldom transparent and easy to understand. To substantiate the rejection, a referee may not care to read even the abstract but goes straight to section 2 to look for minor faults. As a result, some great explorers, who can live without* RRL *credit, have decided never to submit their papers to* RRL. *But what about the famous-to-be?*

Our students rate their professors in anonymous questionnaires. Our authors should rate referees! Every referee report should be accompanied by a questionnaire from the journal. Referees must remain anonymous, but they must not remain unimpeachable. Some should be "fired." The explorers' community must protect itself against these anonymous killers.

30 October 1500, letter from Editor-in-Chief, Royal Society, to Columbus: *Thanks very much for your thoughtful letter of 18 June. I can hardly disagree with your comments; as one who has published maybe 100 papers myself in* Royal Rev., *I guess I have screamed some 25% of the time! And when it comes to* RRL, *I have also joined the coterie of "some great explorers" who refuse to send them papers—even after assuming my present exalted position!*

If you have any substantive ideas about how we might actually restructure our operations—within the constraints of our current budgets and huge submission rate—I would be delighted to know them. Nothing we do is at all perfect or graven in stone. I just want to see that we publish the world's best exploration journals.

15 November 1500, letter from Columbus to Editor-in-Chief, Royal Society: *Thank you very much for your letter of 30 October. I believe the most reluctant referees are established explorers with enormous demands on their time. I also believe that the most productive and creative age is the one at which an explorer is desperately short of money. Hence the recipe: Pay the referees generously, and choose them from the youngest and the most ambitious adventurers. They will learn a lot; they will be responsible (lest they lose the income!); they will be careful, when in doubt, to discuss the paper with and to turn for advice to their senior colleagues, thus involving them in real (their students are there to judge them!) refereeing. This will save for the doing of true science at least 30% of the time that is now wasted in an uphill battle for the survival of one's papers. And since every single paper is worth well over 1000 florins, if referees get 200 florins total (a fortune for young ones), 100 extra florins will still be saved for research! Those 200 florins may be the best investment of all publication-related expenses. They also will benefit those who need them most—on both ends, author and referee. The money must be overhead on all research grants and funding.*

This last letter was never answered or acknowledged. Columbus died, ultimately rejected. America was named after Amerigo Vespucci, not after Columbus. It is amazing that almost five centuries later, in 1936, a certain Albert Einstein was so outraged by the refereeing at *Physical Review* that he stopped publishing his papers there.[1] It is even more amazing that nobody cared, and little changed.

Reference

1. A. Einstein, letter to J. T. Tate, 27 July 1936, in A. Pais, *"Subtle is the Lord . . .": The Science and Life of Albert Einstein*, Oxford U. P., New York (1982).

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11/92

Early Glimmerings of Optical Microcavities

I was surprised, and amused too, to find, on reading the brilliant report by Barbara G. Levi on semiconductor microlasers (September 1992, page 17), no reference to the contribution of the Quantum Optics Laboratory of the University of Rome to the field

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