

# The Brinkmann Gel Column

## Slicing It Pretty Thin

It's a safe bet you won't find one in every household. Or in every laboratory. But if you're moving in the sort of specialized area of electrophoretic analysis of RNA, for example, and you have to serve up slices of polyacrylamide gels, a lot of laboratory types think the MICKLE GEL SLICER is the best thing since delicatessens.

It figures.

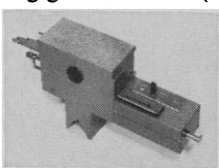
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deed, we carefully state that "... we are not, of course, arguing that the psychological dimension of internal-external locus of control is the sole, or even the primary, determinant of the tornado death rate. Almost certainly that phenomenon is a result of multi-various forces in combination, of which the sense of locus of control is but one." We then suggest that not only other *psychological* dimensions need exploration, but that "... traditionally considered factors, such as quality of housing and storm violence, need to be reexamined with more and better data." These statements were not ritualistic reservations; they were said because they were meant.

But if we insist upon being taken at our word, we pay these authors the same courtesy. Assuming the literature they cite is the "more and better data" needed to show that inferior housing and greater storm ferocity in the South are at work in determining the South's greater tornado death rate, we take it that they are *not* therefore arguing that this "proves" *them* to be the "controlling" factors, nor that this would disprove the *contributory* influence of the psychological factor we discuss. Our data remain, and as Davies-Jones, Golden, and Schaefer themselves avow: "... human response to potential danger is always a factor in survival."

We agree with Pine's main argument that there are more basements and root or storm cellars in the North (the implication being that fewer Southerners have an available refuge). But if so, isn't it important to ask why? Assuredly, climatic differences and corresponding differences in building costs would figure in determining the relative infrequency of basements as integral parts of homes in the South. But can such reasoning also account for fewer storm cellars? Were the once commonly found "cyclone" cellars in the rural North there because its farmers lived in a colder climate, were richer, or because they thought it would be a good idea to have a safe place to go to in case of a tornado?

Landsberg's letter rightly stresses both the diffusiveness of tornado forecasts and the usefulness of one's own senses in judging the local imminence of the danger. But we were not advocating the nonuse of one's ears and eyes, we were calling attention to the Southerners' seeming neglect of the benefits to be derived from their technological extension—the communications media.

The danger in exclusive reliance on one's own senses seems supported by Landsberg's argument that there is a need for proper education.

We fail to see the logic of Pedersen's argument. Are we to generalize to millions of Southerners both his parents' forethought in having a storm cellar and the good sense to use it? The point is that our Alabamians showed no inclination to join him in his uncomfortable but safe hole in the ground.

The considerable amount of mail we have personally received regarding this article comes in three kinds—complimentary, helpful (citing more references, suggesting other relevant variables, and so forth), and outraged. It is the strength of the anger expressed in these last which strengthens our conviction that the basic argument made in the article needs to be made again and again: the quality of man's interaction with nature is, in part, determined by forces within himself of which he is unaware. The fact that many find this thesis to be infuriating, repugnant, or humiliating is not new. In a lecture delivered in 1917, Freud, attempting to explain the antipathy to psychoanalysis, reviewed three blows to man's self-love: the realization that our earth was not the center of the universe, the realization that man was descended from the animal world, and finally, "... the third and most bitter blow from present-day psychological research which is endeavouring to prove to the 'ego' of each one of us that he is not even master in his own house" (1).

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## References

1. S. Freud, *A General Introduction to Psychoanalysis* (Washington Square Press, New York, 1966), p. 296.

## A Doctorate Earned

William D. Metz, in "Physics at a turning point?—Interview with Freeman Dyson" (Research News, 16 Mar., p. 1114) reports that "Freeman Dyson never earned a doctorate, but rose very rapidly. . . ." The "never" clause is misleading, and the "but" should be "and."

Dyson was never *awarded* an earned doctorate, since he was obviously good enough that the incremental value to him of such credentials was trivial (or even negative). Dyson *earned* a doctorate many times, quite possibly more times than any other physical scientist in the generations since Debye, von Neumann, and Bethe.

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### Computer Assisted Instruction

In his excellent editorial on computer assisted instruction (14 July 1972, p. 121), Philip Abelson says, "The new technology also seems to have good potential for off-campus instruction of adults." At Penn State we can endorse that notion with facts. For the past 26 months we have had a mobile CAI (computer assisted instruction) facility in the field, providing graduate level accredited courses to elementary school teachers and other educators, at convenient times and locations. Since December 1970 about 2500 Pennsylvania educators have taken the CAI course on early recognition of children's handicapping conditions (CARE I), at ten different locations. In addition, we have provided a "hands on" demonstration of quality CAI at three major conference sites, to a total of more than 15,000 persons.

We are encouraged by some favorable evidence on course achievement. Our students tell us that they very much enjoy this new method of updating and refurbishing their skills. In spite of the obvious success of CAI and the mobile delivery system for meeting the needs of teachers in an off-campus setting, it is proving difficult to expand and extend the service. The education enterprise, unlike business, is handicapped in responding to new technological opportunities, because it lacks experience in providing capital investments for necessary development and hardware costs of new programs. Government (state or federal) must play the role of "angel" for implementing the new computer technology in the service of better education, or we shall continue to experience overlong delays and stagnation.

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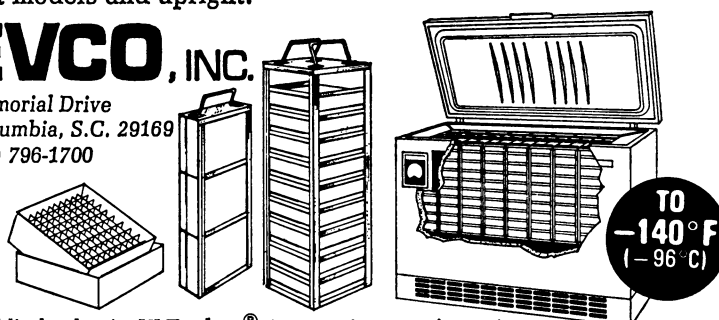
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