by the fixatives is not nearly so great as that of AcP-ase, and again a differential between the two fixatives exists. Whereas acetone fixation inactivates the original enzyme by 30–35%, alcohol destroys only 10–25% of the activity. In so far as alcohol is concerned, this confirms the findings of Gomori mentioned above (*3*). Here, as in the case of the AcP-ase, the bulk of the loss of enzyme occurs in the processes attendant upon embedding and sectioning, since an over-all loss of 70–80% is found after these processes, confirming Danielli's observation (*1*).

Since this investigation was undertaken with purely technical objectives, no attempt has been made to determine the cause of the behavior of these tissue enzymes during microtechnical procedures. Undoubtedly, a study of such factors as magnesium ion diffusion in relation to the type of fixative and to the size of the block of tissue, physical structures of the different tissues, and length of exposure to high temperature in the paraffin oven would result in data that might contribute to the explanation of the mechanisms involved, but such studies are beyond the scope of this paper.

From these data it may be concluded that (1) AcP-ase is inactivated by both acetone and alcohol fixation to a far greater extent than AlP-ase; (2) alcohol fixation preserves a somewhat greater amount of AlP-ase activity than does acetone fixation; and (3) the enzyme activity remaining in paraffin-embedded tissue sections is approximately 5% in the case of AcP-ase and 20–30% in the case of AlP-ase.

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A Simple Stereoscope for Viewing Double-Lens Camera Stereographs Without Transposition

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A single-film stereograph taken with a double-lens stereoscopic camera may be viewed qualitatively in correct perspective through the use of the stereoscope described herein, which accomplishes the necessary transposition of the two images by optical means. Therefore, the stereoscopic images do not have to be transposed physically, as would be necessary if they were viewed with the usual stereoscope, and the original spatial relationship between the images is preserved for any subsequent quantitative distance-measurements that might be made from the stereograph. Viewing such a stereograph with an ordinary stereoscope is to be avoided, since it results in a pseudoscopic view that is confusing under most circumstances (*1*).

A simple prism-stereoscope which has been built by the author for viewing untransposed stereographic transparencies is shown in schematic plan view in Fig. 1. A suitable light source (A) and a diffusing screen of translucent glass (B) provide uniform illumination for the untransposed stereograph (C). This is viewed by the observer (G) through the lenses (D) and the prisms (F). In the prism-stereoscope built for viewing stereographs taken on 35-mm color film with $2\frac{1}{2}''$ separation, the lenses are planoconvex, and each has a diameter of 3″ and a focal length of $4\frac{1}{2}''$. The lenses are cut and placed together about 1″ in front of the stereograph so that they provide complete enlarged virtual images of both views.

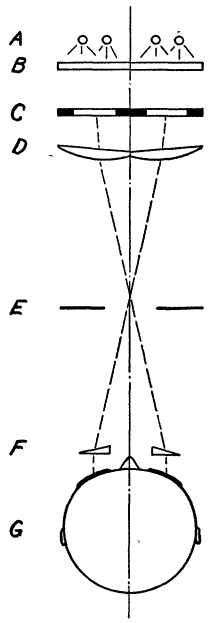

Fig. 1

To effect the necessary image transposition, by making the right eye of the observer see the left picture of the stereoscopic pair and vice versa, two 10-diopter deviation prisms are mounted about 12″ from the transparency. A mask (E) is interposed so that the right transparency is blocked from view by the right eye and the left transparency is not visible to the left eye. Since the glass-mounted stereograph is flat and each picture is viewed at an angle with this arrangement, a small amount of keystone distortion is present on the upper and lower margins of the pictures. This can be corrected by tilting the joined sections of the two lenses slightly away from the stereograph, as indicated in Fig. 1. The inside of the housing box (not shown) should be painted white in the region of A and B and dull black elsewhere. The stereograph (C) is inserted through a slot that provides for proper positioning of the images.

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