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Transposing Micrographics (images obtained from a microscope)

Tool and object of educational work, micrographics is present in junior high and high school. Biology, as a discipline, relies significantly on iconographic documents, and more specifically, on optic and electronic microscopic images.

1. Does instruction take into account the taking out of context of these iconographic images?
2. Is the help that micro-graphics supposedly offers to users, and specifically, to students, real and above all, evident? Are micrographics as analytical, realistic and concrete as one thinks?
3. How does one prepare students to give them a minimum of understanding about their contents?

When the information contained in micrographics has to be passed to the domain of diffusion—here, instruction—the resulting image of that transposing will be different from the one which was developed in the laboratory: its status as well as its characteristics will be modified. Moreover, the author, the reason for which it was made clear, the fabrication date and history as well as its presentation will be forgotten.

The analysis of educational manuals show above all, that the explanation of preparatory techniques (fixing, cutting, coloring) applied to the object in order to observe it, is given less and less attention: in some of these it is altogether non-existent.

Our study also shows that the student is unable to re-do the micrographic work without having foreknowledge of the methods of obtaining such images.

The results of our research show that as soon as micrographics has been considered as something other than an image to be contemplated, in other words, as an instrument of work whereby the students are supposed to demonstrate a relationship, they have found themselves facing significant problems. Micrographics which were to be nothing more than an intermediary for the acquisition of concepts turns out to be a stumbling-block for students.

Our choice of investigation is one of operational and functional interpretation of micrographics. As such, we are fully aware of our desire to move towards the use of micrographics as an instrument of activity and not as a means of illustration.