

# small

## WONDER

### THE MINISCULE MAGNIFIED

The Scanning Electron Microscope (or SEM) is one of the most important tools bioscientists use to investigate the world of the small - tiny objects and miniscule features beyond the ability of our eyesight to resolve. Developed in the middle of the last century, the power of the SEM lies in its ability to convey an almost three-dimensional picture of a specimen's surface. An SEM image, always in black and white, shows exquisite details of structure and texture.

Besides their scientific value, SEM images reveal the astonishing beauty and complexity of the natural world. Specimens, such as seeds, that might seem simple and ordinary when viewed with the naked eye, are shown to have remarkable diversity and intricacy when magnified by the SEM. Zoom in closer and even more complicated structures and patterns are discovered.

At the Royal Alberta Museum, several curators make extensive use of the SEM in their research, capturing images of mosses, insects, snail shells and seeds. Although there are thousands of specimens in these collections, most are too small to be easily displayed. Now, through SEM imagery, the surprising charm of this microworld can be seen and appreciated.