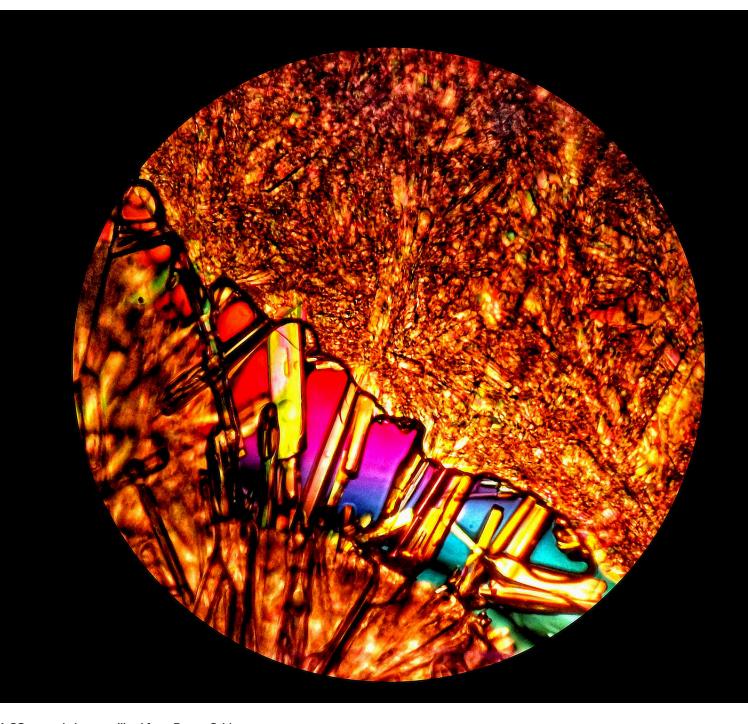


Fungi in spider web

Colourized SEM image of a fungi colony found in a spider web. A special collection method was applied to preserve the tension and the shape of a spider web as well as to allow for sample manipulation and imaging on both sides. The sample was coated with 7nm of platinum on both sides. Image processed and colourized with use of Mountains Map software. Equipment Used: Quorum Q150V S Plus coater, Tescan Amber FIB-SEM. Anna Walkiewicz, Quorum Technologies



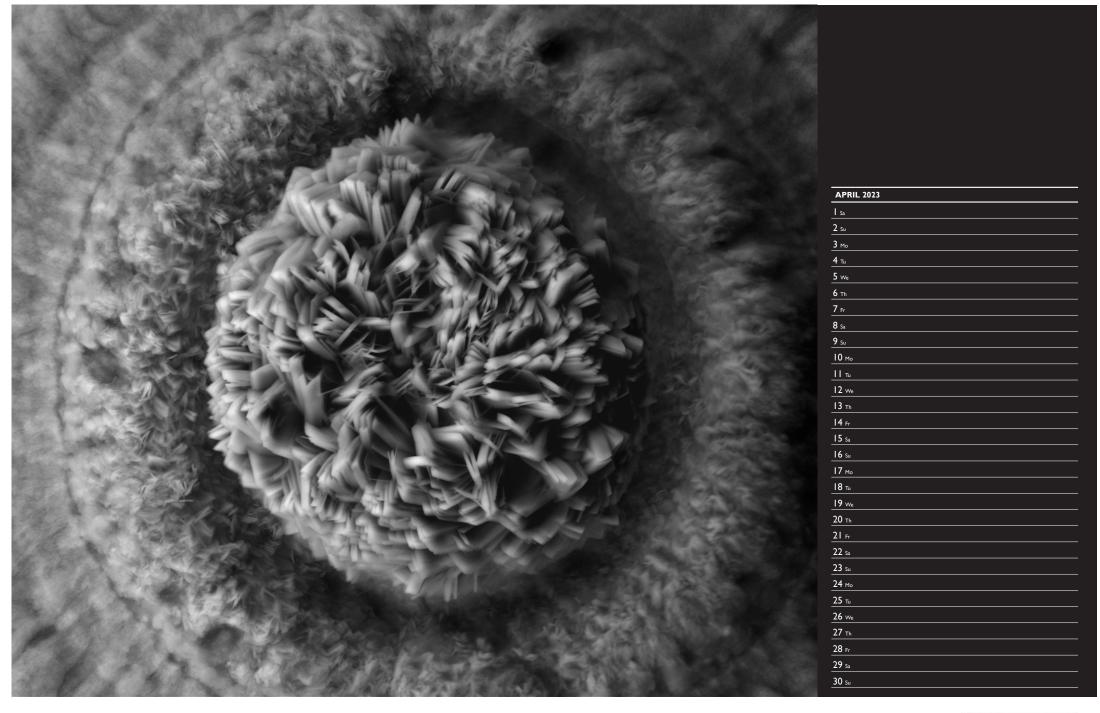




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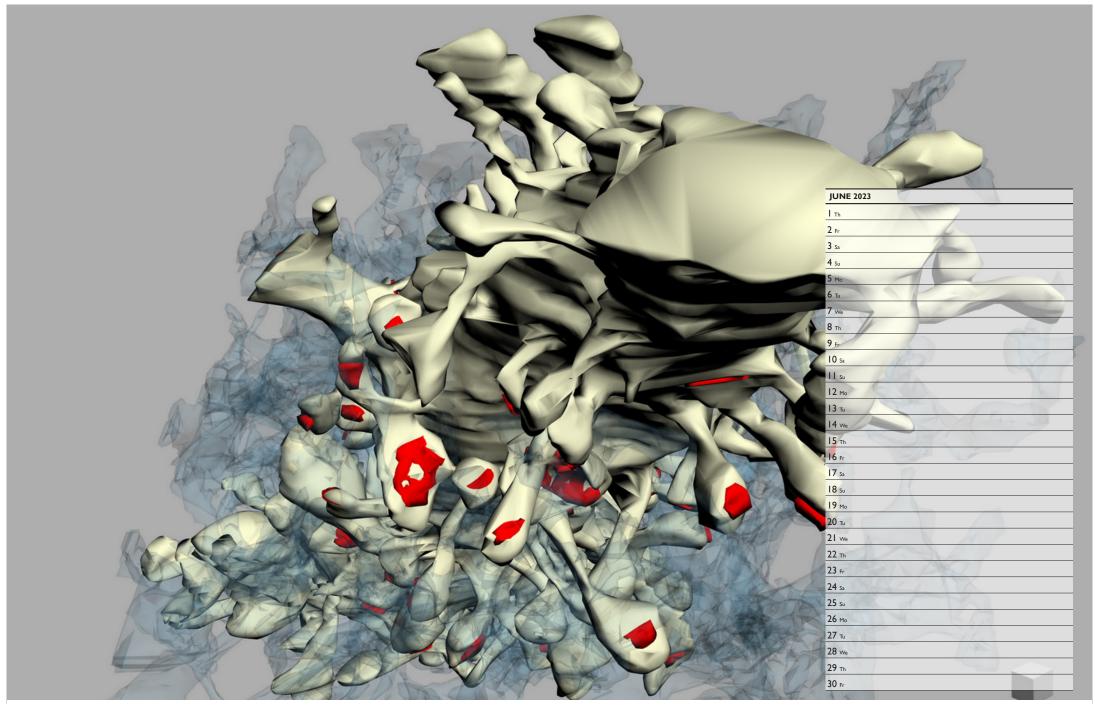


Side view of a jumping spider. Equipment Used: Dead, dried black spider was prepared for light sheet microscopy. Data acquisition based on autofluorescence alone using UltraMicroscope Blaze™. Rendering was done using Imaris





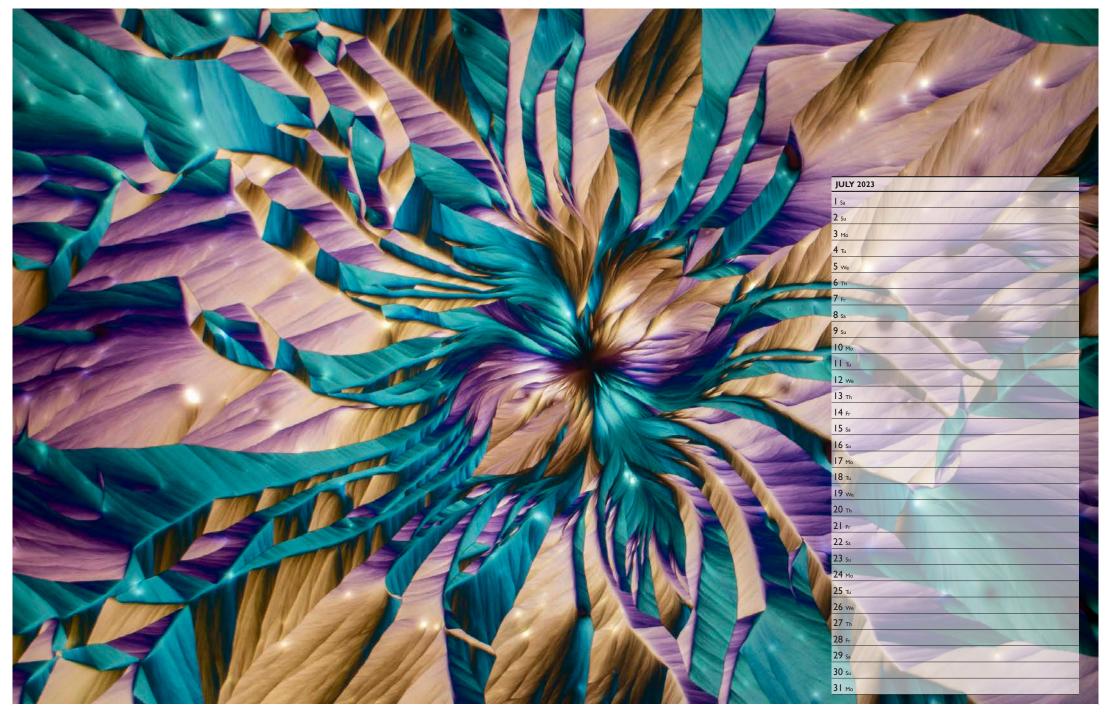




Still life of cerebral cortex

Dendrite of a pyramidal nerve cell from cerebral cortex surrounded by a glial network. On numerous drumstick-like dendritic spines, red-marked synaptic contacts are visible. Synapses are sites of electrochemical transmission of information signals and together with dendritic spines represent important structures for learning and memory formation. The image is a 3D reconstruction resulted from serial electron microscopy. Scale cube = 0.1 µm per side. Equipment Used: computer-aided serial electron microscopy. Josef Spacek, emertus professor of pathology, Charles University Hospital, Hradec Kralove, Czechia

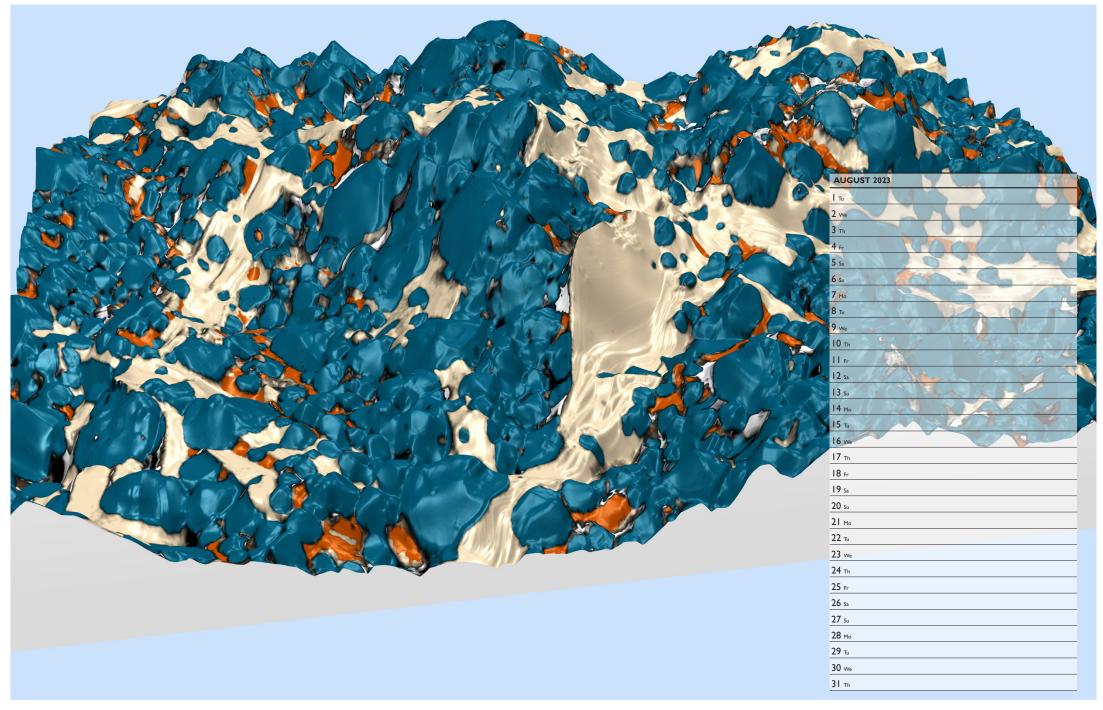




Chemical Flower

A chemical cocktail smeared on a glass slide self-assembles into a large number of convective cells. Within each cell there is a point called a nucleation site from which crystallization occurs via self assembly. This is a close up of one of the cells. The crystalline film itself is colourless and translucent to the unaided eye, however, when viewed through polarised light and using a retarder, an exquisite floral-like formation is revealed. The cocktail consists primarily of ammonium iron sulphate. Equipment Used: Olympus BX51. Karl Gaff, Art of Science Photography





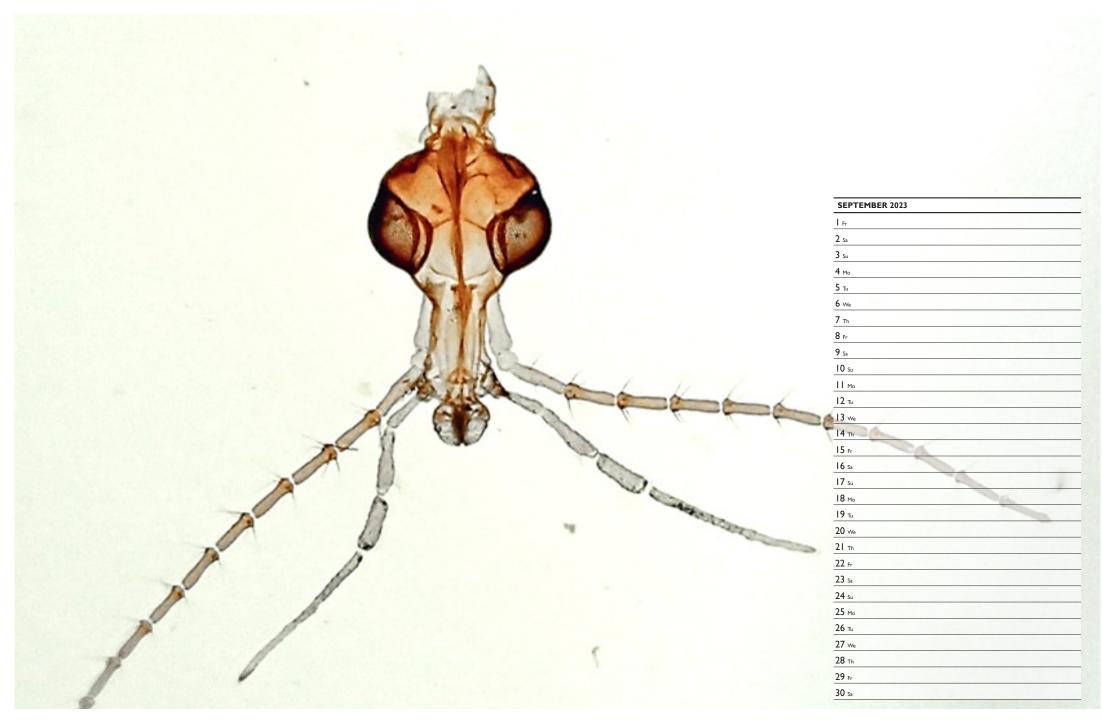
Mountain Valleys

3D model of surface topography with an overlay of chemical composition on a Cobaltite sample generated with MountainsSpectral® software. Equipment Used: JEOL SEM IT700HR and JEOL EDS system + SMILEVIEW™ Map software powered by Mountains®. Digital Surf in collaboration with JEOL (France). Sample courtesy of Emmanuel Guilmeau (CRISMAT) and Jean-Claude Ménard (JEOL France)

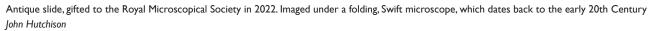




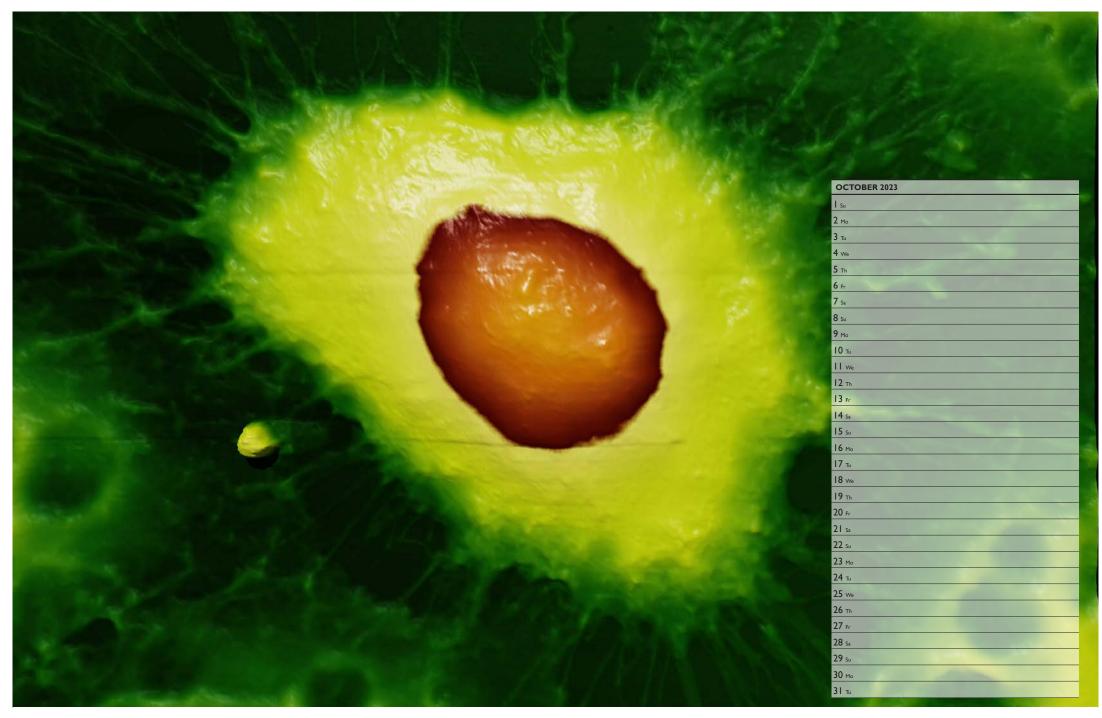












Avocado dream

A metastasis cancer cell topography in 3D. Studying the morphology and mechanical properties of the cells can help find effective ways of targeting for precise drug delivery. The height of the surface was colour-coded in shades of green, with the topmost part being cut off by brown. All colours were sampled from a picture of a yummy avocado. Equipment Used: LiteScope AFM-in-SEM Radek Dao, NenoVision. Image Credit: Marco Cassani, St. Ann's University Hospital Brno, Czech Republic



