# **DAILY BREAD** "Grain of Hope : Slice of Heaven"

## **SPRINGING**



### Springing

Germination is officially over once the new seedling begins to produce chlorophyll, the green pigment which enables it to make its own food out of thin air (aka carbon dioxide) and water.

This is equivalent to severing an umbilical cord, or weaning a kitten, heralding the beginning of life without parental support. Liminal, shape-shifting tissues carry the new plant across this boundary. The coleoptile is the protective sheath around the emerging shoot, and the first point of green to be seen above the soil. The cotyledon, or 'seed leaf', is wrapped protectively round the embryo below ground, but turns green above ground and begins

Left. Apical meristem (undifferentiated growing cells). Magnification x 60

producing sugars. Location plays a key role in how these plant parts behave.

At the tip of the root and shoot, the cells of the meristem are rapidly dividing, growing the plant. Meristem is the equivalent of animal stem cells, undifferentiated, with huge potential to become all the tissues and organs of the plant under the guidance of hormones – gibberellins, auxins, cytokinins – which are themselves dependent on both genes and environmental conditions. In the root, the meristem is protected by a transparent root cap which produces mucigel to lubricate its path through the soil, much as an earthworm does.

#### Springing: 27 March 2020

Traffic lights blink pointlessly in a street That seems twice as wide, its crowds replaced By silence. In a courtyard suddenly cleared Of market stalls *is a planter full of earth.* 

Shuttered doors, loud ambulance, the surreal Shop dummy posing in its costly dress: Now we measure wealth in toilet rolls. Beneath the earth's blank face, a seed has burst.

Only one masked commuter blocks the light-squares Of that passing bus; a hopeful **Sale** sign Freezes time in a store now locked and bankrupt. *A pale probe emerges from the seed.* 

This is not simple emptiness, but a city Peopled with absences. The grand facades Of Piccadilly turn to idle stage sets. Unseen, the probes root down, thrust up to light.

Twelve days ago, we stood together, scattered



Tip of the almost transparent mucigel secreting root-cap which protects the meristem



Some seeds on stony ground, laughed at the swoop Of pigeons, hailed as our own 'birds of the air'. It seems an age ago, but that patch of earth

Keeps its own time, in tune with water, light; Today a tiny shoot pricks through the soil; Threatened, dispersed, shut in our separate homes, We let that seed spring green within our hearts.

Diane Pacitti,2020

#### New shoot surging away, leaving its coleoptile sheath behind

Microscopy Photographs by Deborah Colvin taken on an iPhone 6 at x60 and x120 magnification.



St James's Church 197 Piccadilly London W1J 9LL

