

The Monk

Gregor Mendel (1822 - 1884)

Dark, high, shadowed columns filled the screen
when, to his ears, came sombre organ tones,
dissolving in monastic, ghostly sheen
to mingle with the monks' lamenting groans.
Janacek, in playing music mighty,
measured rhythmically these people's needs;
sanctified a gentle abbot's piety
on organ pipes and resonating reeds.

(Within the coffin Edwin tried to peer:
so dark! Things moved at his unpractised hand
too fast; he turned the dial back year by year;
the abbot shot up, raced back through the land,
then stopped: he was a simple farmer's son.
More slowly, Edwin traced where he'd begun.)

Old feudal laws held Anton Mendel bound
to work his liege -lord's lands three days in six;
his only heir and son, with genius crowned,
still had to tend the flocks and mend hayricks.
This quiet, modest, stubborn farmer's boy,
named Gregor Mendel, would dutifully employ
himself to rear his father's breeding stocks.
His intellectual gifts bred rudest shocks;
they had no money to support his need
of learning - but this potent, restless seed
had taken root within his pale, smooth brow
and - germinating there - he'd not eschew
his desperate, burning ache to learn yet more.
His father, following the feudal law,
was injured, felling in his landlord's trees.
Gregor, refusing simple filial duties,
kept to his dream; nor would cant dignify
but sacrificed the farm to satisfy
his own desire to wrest with truth by storm,
and forewent other pleasures, taking monk's black form:
for through monastic habit he could learn,
while basic bread and clothing he would earn.

The Agricultural Society
had been transformed in Brno by Andre,
who stated, "To ensure prosperity,
agriculture must - like Newton's gravity -
discover Nature's laws, and benefit
from this fresh light which physics has now lit.
We must in duty lay down true foundations,
benefiting unborn generations,
though nothing knowing of what may be found:
except mankind may reach some higher ground."

Here many minds to strange ideas were bent;

Pasteur had yet to show how wines ferment,
 and many thought the sun bred crocodiles
 from the mud of river banks; or piles
 of soiled, stained linen fathered baby mice,
 And flies grew fresh from meat that was not 'nice'.
 Theories of spontaneous creation
 fitted God's divinest intervention:
 who else would maggots place in rosy apples,
 but He who confined men in stone -walled chapels?
 But Mendel, gentle son of earth, said "No!
 Like comes from like," and held this to be so:
 showing in his monastery garden,
 for generation after generation,
 peas from parent stock bred true: short or tall
 gave tall or short - not blended between all.
 And though one special characteristic
 might be recessive, smothered by some trick,
 it soon reverted given half a chance -
 hidden, but not lost from Mendel's glance.

Thus peas become the model for the man,
 each character now carried by a gene;
 for this was shown from Mendel's simple plan -
 and nothing else was found hid in between.
 There was no vital life force. Chemistry
 accounted for the *pisum's* sweet offspring
 (which you and I know as the humble pea);
 now chemists for one century took wing:
 somewhere within each cell there is a code
 that links what's gone with what is yet to be.
 Just where and how life perpetrates its ode,
 determination drove Edwin to see.

(c) John Marr

References and Sources

Mendel

Bronowski, J. (1973) The Ascent of Man

(p.387) Janacek played the organ in the abbey at Mendel's funeral.

Fisher, Richard B (1977) Joseph Lister 1827-1912

(p.132) Von Leibig - influential teacher of chemistry - taught that life arises spontaneously from the chemicals in ferments, rather than the reverse. Immensely influential - probably the theories Lister was taught in his chemistry lectures at UCH. (the arguments between Pasteur and followers of von Leibig approx 1860)

Orel, Vitezslav (1984) Mendel (Past Masters)

(p.19) Gregor Mendel - (b. 22 June 1866, d. 1884 aged 61). Mother = Rosine Mendel. Father = Anton Mendel (1789-1857). A peasant, bound by feudal law to work 3 days per week for his landlord.

(p.21) Anton was injured in 1838 while working in his landlord's forests, and had to give up farm work. Mendel (p.23) refused to return home to work the farm. He "felt compelled to enter a station in life which would free him from the bitter struggle of existence."

(p.9) Christian Carl Andre (1763-1831) Agricultural Society of Brno. "encouraged members to carry out theoretical work in Natural Science, though the results of such work may not be apparent until many years later; only then perhaps would they win the admiration and gratitude of the civilisation

they had benefited. - Even now, we may be laying the necessary foundation...without suspecting what success may be in store.” (?1798 when Andre came to Brno)

(p.12) Success in breeding sheep, fruit trees and vines lead to the possibility of exploiting artificial fertilisation in plants for new, higher yielding crops of cereals. Hemple (writing in Andre's journal) predicted the sort of man needed to discover the law of plant hybridisation: “... someone with profound knowledge of botany, acute powers of observation, and limitless patience.”

(p.45) Mendel's experiments with *Pisum* spanned the period 1854-1863, and must have included some 28,000 plants. He was a pioneer in applying statistics to biological research.

(p.59) “...no other naturalist in Brno had such a (large) garden and greenhouse at his disposal, or the free time to perform experiments on so large a scale.” (Mendel's Brno lectures, 1865).

Darwin's book “On the Origin of Species” was known to Mendel; it gave naturalists a far broader picture of the development of nature; they now saw nature as a whole, and concentrated on exploring the evolution of living forms from the lowest organisms to the highest, up to man himself.

Revolutionary year of 1848 when the long era of feudalism under Habsburg Monarchy was ended, with convolved parliament.

Mechanistic view- living and inorganic matter are governed by the same laws.

- The role of chance was a further unknown.