

**“Origins, functions and benefits of our Hedgerow Resource”
Minane Bridge, Tracton, County Cork**

Heritage Week 2013 (Sunday 25th August)

- *Guest Speaker **Diana Beresford-Kroeger**, Canadian based Irish Scientist very kindly accompanied our Themed Heritage Week Field Study at Minane Bridge. Diana accepted the invitation two days earlier. She and a film crew, based in the Maritime Hotel, Bantry had been filming at a number of locations in Ireland throughout latter August.*
- ***Ted Cook** introduced both the theme and Diana to participants who gathered in the village church car park. The entire 3 hours (2pm – 5pm) were filmed.*



Origins

Ted began by listing the main provisions of the Cromwellian “Cow Act” (1667) - enclosure of lands in both Ireland and Britain represented a new beginning in the 6,000 year history of agriculture in both islands.

Enclosure on scale began in Britain from 1700 – 1730. Having arrived “to quell Ireland” in 1649, Cromwell confiscated lands wholesale from those Gaelic Families associated with the 1641 rebellion. The “Downe Survey” published in 1656 incorporated much of the earlier 1640/1 Mapping Of Munster.

Clans' lands were held either singly or in multiples of townlands (we have 64,184 townlands in Ireland's 20 million acres). Water-courses and geological features as well as large earthen ditches delineated the townland – as many continue so today.

Enclosing the land with “hedgerows” was compulsory under the 1667 enactment for the newly planted colony of Cromwellian Grantees – many of them soldiers who were paid in Irish Land. Initially 2 million acres were declared “forfeit”. But great confusion ensued in 1660 on the “restoration” under Charles II of much of the granted acreage back to catholic families. A generation later saw the seizure of 80% of Ireland after the siege of Limerick and defining victory of protestant William in the Boyne Valley (Brú na Boinne/Valley of the dead kings). Enclosure of fields and road-building; erection of fortified houses; canalising of rivers and land drainage and the planting of woodlands were covenanted to the existing as well as the newly arriving Williamite Colony.

Lands were granted in townlands to tenants of English or Protestant Extraction with conditions – To plant a certain mileage of “field boundary” in each townland and to sublet only to the “colony”. Read the Treaty of Limerick for the lists of gaelic/catholic families colonist/catholic families that were permitted to retain their estates and holdings in fee (freehold ownership).

The Act specified hawthorn (Orse. Maytree or Whitethorn); Blackthorn (sloe bush); broom and furze and privet bush in addition to quantity of plants per chain (20 metres). Drains were to be dug initially and the excavated earth and stone formed linear mounds which were planted up and maintained.

In time the “plundered and outraged dispossessed” formed nuclei of “Whiteboys” who became known as “The Levellers”. Hardly the ditch was planted that the “Levellers” levelled under cover of night.



The “1667 Act outlawed “Booley” – the ancient (Neolithic) collective herding system described in Brehon Laws. Enclosure obstructed the herding families. Most parishes (119) in Co. Cork include at least one townland that incorporates the gaelic “Boola”. (Knockboola; Carrainboola; Mullaghbool; Pairce booley etc). Read Mitchell’s “History of Ireland from the treaty of Limerick” and Burleigh’s “Twilight Of The Lords”. The Irish Parliament (up to 1800) bemoaned that landlords in the rural west had settled large portions of their estates on the catholic small farmers – who in turn covenanted in the leases (normally 31 years) to subdivide and enclose the foothill countryside.

Under Penal Law (1693 – 1782) in both Ireland and Britain, on their father’s decease, each child of a catholic had right to an equal subdivision. Primogeniture by request was forbidden – only protestants were permitted to will land to a named heir. Enclosure accelerated to the point where field sizes were reduced to a quarter acreage all over west Munster and hence Ireland’s “Patchwork Landscape” reckoned to run for between 680,000 and 840,000 kilometres. Detailed research in Northern Ireland puts hedgerow length at 165,000 kilometres.



Functions and benefits

Enclosure delivered a fatal shock to the pre-existing Brehon Land System which measured land not in acreage but in “Gneeves” and “Ploughlands”. The latter was the measure of the volume of land ploughable from dawn to dusk by one man with a horse-drawn iron-shod ploughshare. The length of the day and season was a factor. One “Gneeve” was 20 “ploughlands”. Enclosure measured acreage – for royal tax purposes. For the farmer, thorn hedging (was our late S. Heaney calls “Thornstrip”) provided “stockproofness” which facilitated “selective breeding” of cattle, sheep and horses. On exposed uplands the hedgerow enabled “dairying” – shade during the then long parched summer months and shelter from the “wind chill factor”. A thriving export of hides; pelts; tallow; butter; cheese; beef and wool out of Cork; Youghal and Dungarvan has been well researched by Dickson (Old World Colony).

Enclosure permitted rotation of Oats; Rye; Breadwheat and Barley effectively and without “animal trespass” that could cause the tenant to quit for want of rent or payment-in-kind to his superior landlord. Potato-growing from c.1600 required very carefully maintained “enclosure”. Importantly, livestock (including horses and pigs) browsed the “woodland Edge” – ivy, holly, hazel, foliage; wild cherry and crab apple were gorged upon. Broad margins traditionally were left to their own evolution – livestock know their medicinal herbage and copper or zinc or selenium-rich grasses and wild flora along the hedges.

Benefits

Diana reminded us of the “air-scrubbing” benefits to all: - hedgerows filter out air-borne particulates at less than 2.5 microns. Valuable if roundup spraying be in progress upwind. She continued – hedgerows erect Chemical Atmospheric Barriers against bacteria, harmful fungi and the growing number of pathogens taking advantage of the increasing carbon concentration in our biosphere.

“The success of the Irish Farm is measured by its hedgerows”. Diana has emphasised for many years – notably in her “Global Forest” (Penguin 2010).

Sunday 25th August was a hot 23 degrees Celsius in Tracton – as we proceeded towards Cooragrennane through a verdant tunnel of over-arching canopy Elm and Ash with its dense botanically rich shrub layers and diverse field and ground storeys. Gathered under a mature multi-stemmed Willow Copse we learned how our native trees and hedgerows offer “preening sites” – which is the ability of a bird to change its’ pro-vitamin D into an Active Vitamin D, without which reproduction and egg-laying is poor. Our birds must “sunbathe” – and consequently when “preening” feathers, the birds absorb potent vitamin D traces by ingestion.

Diana also described the critical necessity of individual trees within the “fencerow” as “staging grounds” for hungry and exhausted trans-world migrations of butterflies, insects and birds. As an acknowledged “Ancient woodland Specialist”, Diana introduced the gathering to “germ plasm” found only in native natural forests. This “plasm” houses the “genetic Memory of Nature” – that has lasted 350 million years. Diana was categoric “if we are to have a future, we must have native trees – it will be necessary to plant native forests that can genetically mingle with the ancient woodland components”.

Because what we still possess of aboriginal forest (to be found along our hedgerows – self-sown invariably) contains a genetic memory of low level atmospheric O₂ and toxic levels of CO₂, the DNA within the “chloroplast” of every leaf of all native trees of Irish Woodlands, holds this vital memory code.

By 4.00pm the message was very clear – the life of Ireland's primordial forest is not gone. Rather the primitive fungi and earlier Slime Moulds; the Liverworts and Moss Species (in their scores and scores) the ferns ("retrograde" from Swamp Forest Trees); the vascular flowering plants; the deciduous and evergreen climbing shrubs of Ivy; Woody Nightshade; Honeysuckle and Dog Rose – the "Epiphytes" – and more Epiphytes, the 300 or so lichens associated with Hyper-Oceanic Atlantic Woodland (out of a near total of 870 Irish Lichens) that are associated with our low-lying Common Oak; Ash and Elmwoods or our upland Sessile Oak; Rowan; Holly and Hazelwoods (Hazel being common to both Wood Ecologies) continue to genetically exchange and disperse in and throughout these "corridors".

(Author: Ted Cook)

(Photographs provided courtesy of Carol Bereta)