M.V.G.S. GEO-VITICULTURAL RESEARCH PROJECT. PART 1. 2017

Geologists have always been interested in the impact of geology on viticulture in general and in the myth of 'Terroir' in particular. It was the late great geo-viticulturalist Professor Jake Hancock (GA President 1986-88) who described the concept of 'Terroir' as a blend of medieval mysticism and second-rate French science. And it was Professor Hancock who demonstrated the nonsense of 'Terroir'. Professor Hancock thought it odd that the quality of brandy decreases in concentric circles centred on the town of Cognac. Reportedly this is due to variation in the 'chalkiness of the soil'. This is demonstrably nonsense because the sedimentary rocks, chalky and other, strike diagonally through Cognac and across its hinterland. Jake Hancock traced the origin of this fable to a practical joke by Henri Coquand, President of the Geological Society of France, in 1857.

It was against this background that 'anti-terroiristes' of the M.V.G.S. decided to begin an ambitious project to survey the geology of England's vineyards from youngest rocks to oldest, with all the collateral conviviality that such demanding research necessarily entails. On a warm sunny Saturday in June 24 members commenced the project led by Dr Mark Eller, MVGS Vice-President: Field Trips, with a visit to Thorncroft vineyard, near Leatherhead. Thorncroft is famous both for its wine made from schonburger grapes, and for its popular elderflower cordial. The vineyard is planted on a Pleistocene Ice Age raised river terrace. River terraces produce the fine wines of Bordeaux and of the River Thames and its tributaries. Cores of the soil were taken with an augur and the pH of the soil measured and the results discussed learnedly **(Figure 1.)** The group then drove to Painshill Park, Cobham. Here the Head Gardener took the group to the vineyard on a south-facing slope of Palaeogene Bagshot Sands. This vineyard was originally planted in the 18th century by the Honourable George Hamilton. After lying fallow for many years the site was replanted in 1992 with grape varieties similar to those of its genesis. Further auguring and sampling was followed by a tutored tasting of the sparkling Painshill wines whetting the appetite for luncheon in the restaurant.

After a spell for retail therapy the group moved down section from the Tertiary to study a Cretaceous chalk vineyard. It was decided not to visit Denbies at Dorking. Most MVGS members were familiar with it and had seen the new film with a polychromatic geophantasmogram of the deposition, uplift and erosion of the Weald accompanied by the pontification of a notorious local geologist. Instead it was decided to study Albury Organic Vineyard. This is planted on a south-facing slope of chalk, the bed rock of Champagne. Vineyards such as Nyetimber and Denbies were planted on chalk in the last century and have established a reputation for producing quality sparkling white wines. These are 'Champagne' in all but name being made from the Holy Trinity of Pinot noir, Pinot meunier and Chardonnay. Albury is one of a new wave of chalk vineyards planted by both English and, now French vintners, across southern England. MVGS members were given a tour of the vineyard during which the vineyard manager explained the soil chemistry and the strict regulations that must be obeyed to maintain Albury's organic status. Apparently it is not true that to qualify for organic status the grapes must be picked by naked virgins of the parish in the light of a full moon. Afterwards the group enjoyed a practical workshop sampling Albury's four wines, at the end of which the group had metamorphosed into a party (**Figure 2**).

On 15th June the MVGS held its traditional Summer Soirée this provided an opportunity to compare wines from vineyards of different geological ages studied on the field trip and practical workshops to Thorncroft, Painshill Park and Albury vineyards two weeks previously. The tasting was accompanied by soil tests revealing the chemical differences of the two vineyards **(Figure 3**). All the wines sampled were sparkling whites and rosés for which England is now becoming famous. Wines grown on the Bagshot Sands of Palaeogene age at Painshill Park, Cobham, were compared with wines from the Cretaceous chalk of Albury organic vineyard. Differences which seemed obvious with the initial sips became first subtle and then indistinguishable as the soirée progressed. It was concluded that wine is best judged on a case by case basis.

This Quaternary to Upper Cretaceous traverse was the first of a series of projected geo-viticultural study tours. In 2018 the MVGS plans to research the geology of the Lower Cretaceous vineyards of the Weald, then year by year, to descend the rock sequence ending up studying Pre-Cambrian vineyards in Cornwall in about 2025 (**Figure 4)** Cheers.

REFERENCES

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Hancock, JH and Selley RC. 2003. Coquand's joke. Geoscientist. London. 13. 10. 17

Selley RC 2008. The Winelands of England: Past, present & prospective. 2nd Edn. Petravin Press, Dorking

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Figure captions

1. Dr Mark Eller explains to MVGS members the origin and viticultural significance of the Thorncroft river terrace.

2. MVGS members practical work shop tasting the sparkling wines of Albury organic Vineyard

3. At the MVGS Summer Soirée Dr Eller carried out scientific soil tests from the various vineyards while members attempted to correlate the wines with the soils.

4. Simplified stratigraphic sequence showing the distribution of English - and Euroland - vineyards. Those so far studied by the MVGS arrowed. From Selley RC. 2008 © Petravin Press.

Fig.1 Dr Eller Pontificating at Thorncroft

Fig.2 Practical Workshop at Albury

Fig.3 Sampling Soil and Wine

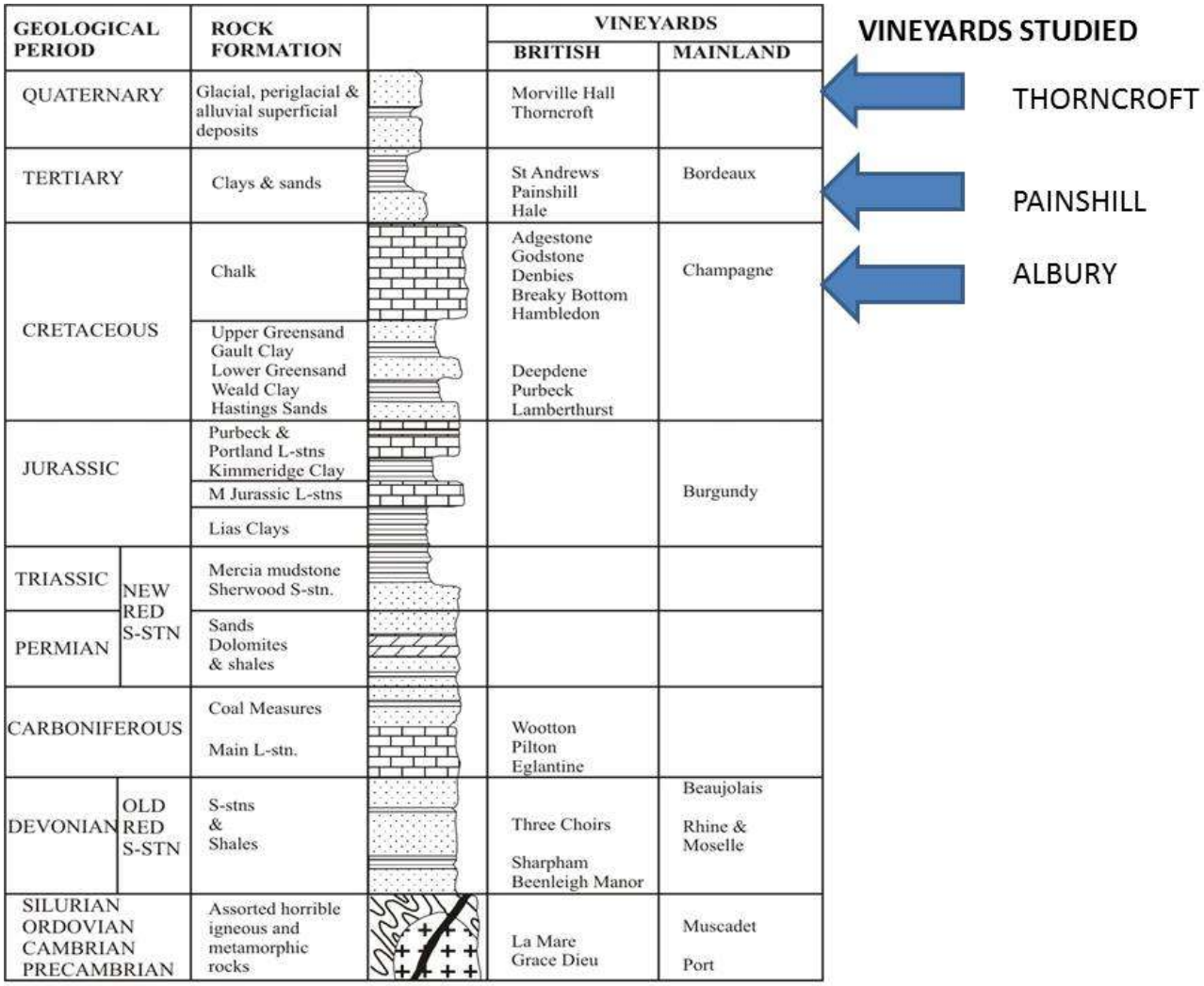

Fig.4 Vit Strat Chart