

The Pageant of Life and other Facets

Dr Charles J BOFFA

The story of human life dates back from written history through oral tradition to the records of geological, palaeontological and archaeological discoveries.

About 22 thousand years ago or earlier, Europe was held in thrall by probing masses of thick ice from the North of Europe to cover most of Great Britain, Northern Germany, Poland, Scandinavia, Switzerland and Russia, etc. Smaller ice-caps crept southwards covering Austria, Northern France and Northern Italy. Stone Age hunters struggled to survive hunting herds of reindeer, mammoth and other animals.

Great floods are mentioned in the Bible. Perhaps about 15,000 years ago, or so, the ice sheets began to retreat. Within about 10,000 years ago or so, these had withdrawn roughly from most of Europe.

I think that the less vigorous climate could have attracted a lot of migration south to the Mediterranean. I believe that the Mediterranean region owed its flowering and civilization, at least partially to its mild sunny climate.

Various valleys in Malta and Gozo, such as Wied iz-Zurrieq, Wied Babu, Wied Incita, Wied il-Kbir, Xlendi etc. are suggestive of large volumes of water passing through for long periods in ancient times.

Life is not a station. The nature and timing of the Pleistocene periods is not clear. The movements of early people in Southern Europe and in the central Mediterranean Islands were affected by various factors such as the availability of food, the ups and downs of temperatures, floods and changes in sea levels. A few silos previously on land at Pretty Bay, Birzebbuga are now underwater- a clear proof of the changes in sea level. It is likely that Malta was at least slightly larger in ancient times. The timescales are not easy to define.

We came into the picture as a Neolithic people, but we cannot exclude the possibility that there were some earlier settlers as suggested by Drs. Anton and Simon Mifsud in their very good book- Dossier Malta, Evidence for the Magdalenian (1997).

The old general division of the early inhabitants of Europe into Mediterranean, Alpine and Nordics only remain fairly useful to some extent, because over a very long period of centuries there have been extensive migrations from country to country, which have resulted in a wide population mix.

By and large, the Mediterranean race if it can be called so, was long headed with generally oval faced or almost so,

and not tall. This type was fairly common around the Middle Sea. This description applies also to many of the Neolithic folk at Palestine, Annau and Lebanon.

It is surmised that the Neolithic civilization had started in central Asia, although as yet this has not been fully defined. Although one cannot be sure, it is sometimes said that the old long headed Caspian folk could have developed into the so-called Tardenoisean and learning something or more of the new civilization became gradually Neolithicised. These could have in due course formed part of the Neolithic stock of western civilization. Possibly (?) it is better to refer to a certain race group (Neanthropic Man) who would have arrived in Europe in late Palaeolithic times and over millennia underwent slight modifications in stature and complexion. If this be so, the people of Annau and of the western Mediterranean, would be so to speak cousins and physically not very dissimilar. However, it seems to me that there is an element of conjecture regarding this theory.

The Maltese islands occupy a central position in the Mediterranean. This location made our Islands an important place for the various civilizations throughout the ages and this fact found expression in our people. In the blood of our people there is a mixture of Semitic, Sicilian, Italian, Greek, Arab, Spanish, French and to a limited extent also British and Nordic genes. There are also a few families of Indian origin.

Analysis of the ascent and settlement of the early settlers was and is still to some extent hampered by chronological uncertainty. Timescales are not easy to define and notwithstanding the advances made it is not easy to be precise.

Now Europe has a diversity of peoples. To some extent this applies also to Malta. In late September 2008, an interesting exhibition of 50 very good large portraits by Norbert Attard was mounted at Freedom Square in Valletta. This exhibition attracted a lot of attention and in my view raised awareness of the different facial physiognomies – characteristics of the present Maltese population and the diversity which is quite revealing. The genetic set-up must have been influenced considerably during the Greek, Roman and Arab occupations. There is a risk of suggesting too much completeness in the state of our knowledge of the past and there are gaps in our knowledge. There is no doubt that the

Phoenicians influenced the genetic mix in our Islands a lot.

A brief mention of the Etruscans is also opportune. These enterprising people dominated the central Mediterranean area from the 8th to the 14th centuries B.C. and had formed a league of the 14 city states in what is now Tuscany, Italy. The Etruscan fortunes were based partly on trade and piracy and started to decline after 500 B.C. when the Romans too who had lived under Etruscan rule for a century began to absorb their former masters into their own expanding empire.

A few Etruscan ships occasionally visited central Mediterranean islands which included the Maltese Islands and Pantelleria to shelter from storms and to collect water and food. A few old surnames in Tuscany also exist in Malta. Inheritance is not all about genetics, but genetics is linked with inheritance. Genetics includes a set of inherited features which are passed on from generation to the next.

There are various studies which purport to show that generally, behaviour is under genetic control. Most of inherited characteristics are more complicated than a single change in the DNA involves and environment and to some extent nutrition also play their part. Genetics includes a set of inherited instructions passed on from one generation to the next. Human attributes are coded on to the unique inheritance which everyone receives from ancestors. So heredity may be defined as the inborn capacity of the constitution of the cell or cells that form the starting point of the individual. Certain genetic traits are bound to present ambiguities. To give an example why is it that in Cyprus quite a number of children, above the average number of other Mediterranean islands, suffer from a certain type of inherited anaemia (W.H.O)

The human brain has been the subject of study even during the times of Aristotle. Yet even with the latest developments in laser technology and the wonder of microchips, the brain remains an enigmatic study, some of its functions still a mystery.

Gradually over the ages, the mind developed into a confident, growing alive entity with an expanding potential. One of the most crucial steps was that Man could organise and solve problems. Brain building went on and still gradually goes on.

Words are the means by which Man expresses his thoughts. With precision of language or languages, thoughts gained clarity as well as ease of expression. Brain power slowly but surely improves. In my opinion in broad terms, this is still going on in mankind.

The expansion of consciousness is indeed of great significance and has played a vital part in human greatness. This development is in my view one of the attributes, Almighty God gave to Man in his wisdom. It is a great gift that has made Man unique. Who would challenge the heightening of mental faculties. New inventions in different

spheres show the stimulus in capabilities and mental potential which are part of the hallmark of Man's mind.

In countries bordering the Mediterranean littoral, there have been over the millennia, many migrations, trade contacts and repeated harrowing epidemics. As a result people in this area had experienced a lot of selection for resistance to certain diseases, imported from other countries and continents and causing a very large number of deaths before burning themselves out. The build-up of resistance to various diseases in European descendents was not just a result of elimination of those lacking resistance, but it was also supported by the genetic variety provided by extensive inter-population gene flow. Furthermore when these same diseases were brought, on occasions, to smaller more isolated and inbred populations, these same diseases hit once such as plague and found hosts that were minimally resistant.

There is evidence that for a period which could have lasted a few hundreds of years, perhaps around 2500 B.C., or so, judging from signs at the Hal Tarxien temples our islands could have been the victim of invaders, some epidemic or pestilence and lost all or most of their inhabitants and afterwards a Bronze Age people arrived. The change is a significant one; however the chronology is not fully clear.

Man is a unique creature. He has sensitivity, he has understanding, and he has imagination. He can do what no other creature has done before him; control his environment to some extent and adapt himself to it.

A nerve network evolves into a nerve system, with its hub a ganglion that is to some extent comparable to a telephone exchange or a computer. Eye, hand and brain have given Man unlimited power, capabilities and ingenuity. How all these started or developed is not easy to imagine – I believe that all these faculties came about through the intervention of a Supreme Being – God the Almighty.

It is time to refer briefly to the Mind and Molecules. Man is very adaptable. During a human lifetime, every molecule of our body is replaced many times over. Cells die and are replaced, the connections between them are made and broken thousands of times, perhaps despite the ceaseless ebb and flow of their molecular components.

Careful examination of skeletal remains and teeth can provide direct evidence about peoples, their anatomical characteristics, age at their death, physical features and injuries, certain characteristics and diet.

The development and eruption of human teeth have long been known to give an indication of age. At birth all the deciduous teeth are present on their crypts and the mandible describes almost a straight line from the condyle to the symphysis. Between the seventh and tenth month

after birth the incisors push their way through their crypts and begin to erupt, the growth of their roots forcing them occlusally. By the end of the first year all the incisors have usually erupted and the molars and cuspids (deciduous) are undergoing rapid development. By this time the mandible has lost its straight line appearance and the angle has become more apparent.

The times of eruption of permanent teeth follow a pattern but can vary somewhat slightly in some people. This applies also within limits to the sizes of teeth.

Human beings enter adolescence at about twelve. Physiological adulthood occurs at about eighteen with the completion of fusion of most parts of the skeleton.

The emergence of the first permanent molar at 6 years marks the end of infancy, the emergence of the second permanent molar marks the beginning of adolescence, while that of the third molar or wisdom tooth the beginning (or a little later) the beginning of adulthood. The partial or full eruption of the wisdom teeth can besides other factors serve as good landmark during age assessing.

The nature of archaeological evidence provides much light on the ancient past. For topographical and chronological research, these finds are vital.

Dr. Joseph Baldacchino (Curator of Museums 1947-55) had noted that an ancient cave at Burmeghez near Mqabba had yielded many bones from about 70 skeletons and about 2250 teeth, but according to this erudite scholar only a small proportion of the teeth showed carious lesions and many showed attrition, irregularities, including fused roots. Teeth recovered from several Zebbug and other tombs also showed little dental caries but levels of attrition.

In the mid 1959's while foundations were being constructed for buildings at Ghajn Dwieli, Paola between Triq Isqof Buhagiar and St. Anthony Church a few ancient tombs were encountered. The find included some human bones and Copper age pottery. Dr H. Micallef and I were asked to measure two skulls, both of which were almost dolichocephalic.

In the early eighties while rubble and stony soil was being removed not far from ta' l-Erwieh, Tarxien (playground area) some small scattered fragmented pieces of human and animal bones, teeth and crushed pottery came to light. Bulldozers had been used during the trenching works while development of the playground was going on. It is a pity that a process of squeezing some information out of the fragmented bits and pieces was to the best of my knowledge never attempted, perhaps because this could not be done.

In May 1958, Prof. R. Butler who at that time taught anatomy at the University of Khartoum, Sudan, visited Malta and gave two lectures at St. Luke's Hospital. He

had also been shown some skeletons and bones unearthed in Malta and asked for his opinion.

Among other things, he expressed the view that the ones he had been shown showed that most probably they were not from tall persons or from those of large stature. Most of the teeth showed signs of attrition and were rather worn down.

The life rhythm of the majority of ancient inhabitants in the Sudan and in Malta was consistent with hard work and they probably subsisted on frugal meals without a satisfactory level of nutrition.

A microscopic examination of patterns left by different diets throws light on the nutrition of ancient and later time Man. A largely vegetarian diet requires more mastication and leaves a different pattern of wear than one rich in meat. It is likely that the diet of Neolithic Man in Malta and Gozo seems to correspond to neither a wholly vegetarian nor a meat dependent regime, but tending more to a vegetarian one, perhaps including also a hard element such as seeds, pods, etc.

Obviously, a coarse diet brings about more attrition. Another factor which may be suggested is that the grit which forms in limestone and pottery querns where grain used to be mixed, probably affected the enamel while chewing. Neolithic folk and later communities utilised hollowed stones for milling. The friction generated with a pestle in a mortar resulted in the formation of some grit; that is gradually, particles of stone became incorporated with the milled mixture.

Instruments for grinding grain were found among various other items at the Tarxien Temples. (A. Bonanno and T. Gouder).

According to Dr. T. Gouder, over 50 ancient bodies, many of them disarticulated had been found almost 100 years ago in two chambers at Zebbug. Many teeth showed various levels of attrition.

Normal (average) biting forces: Experiments conducted on adults have shown that the biting force decreases from the molar region to the incisors. Studies have revealed that by and large, biting forces on the first and second molars vary considerably.

It is possible to tell whether human bones belong to young or old males or females.

By the time we stop growing, the ends of the long bones in our arms and legs have fused together. Scientists look for signs of fusion to determine if bones are from a child or an adult.

More information can be obtained from bones. Long periods of malnutrition suffered by children can be detected in their bones and teeth. Wear on bone can indicate that people did particular types of work, such as carrying heavy loads on the back.

Soils affect preservation. Acid soils quickly destroy bone and wood. Luckily not all soils are destructive; bones keep well in chalky soils, oxygen free (anaerobic) conditions.

Dry and oxygen-free (anaerobic) conditions tend to preserve bones. We are now living in a world of expanding medical and scientific knowledge. In Malta and Gozo, as in other countries average life expectancy has improved appreciably over the last century, thanks to a much better lifestyle, better nutrition and better medical and health care. A higher proportion of people die old, perhaps as old as physiology and biology allow. Life expectancy has gradually risen from about the late fifties to around seventy years since 1990. In our times the common causes of death are heart diseases.

On the 23rd July 2008, through the help and courtesy of the Rev. Canon Joe Abela, B.A. (Hons) a Lic. D., I entered the old secret passages within the wide walls near the dome of the Church of St. Gregory at Zejtun, with a view to see the numerous remains of disarticulated bones and skulls of about 50 persons which had been placed there, many many years ago. The reason why they were deposited there is subject to conjecture.

The dome of this historic church had been rebuilt or repaired around 1492. Existing records show that Turks or corsairs landed at Marsaxlokk or nearby in the following years and pillaged the area besides killing and carrying away many inhabitants.

Some old pieces of broken pottery of the 16th – 17th centuries were found.

On entering the unpleasant eerie passages and looking at the numerous disarticulated bones and skulls, I felt the atmosphere of gloom and doom and wondered how they came to be there.

My impression of those I saw included the following:

- (a) The skulls and bones are not of prehistoric provenance and could probably have been about 450 years old. They had not been in soil previously. With the exception of three, the skulls are dolichocephalous.

- (b) Most of them were covered with a layer of dust and a few of the skulls showed cracks. Some showed wear and tear and some teeth showed attrition and caries. Various skulls were of middle-aged persons and one bone showed signs of osteoporosis. A few had almost full sets of teeth. Perhaps they were of younger people.

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Dr Charles J. BOFFA BChD, BPharm, FICD, PhD

*Formerly Consultant Dental Surgeon and Lecturer
Department of Health*