

THE SEVEN LIBERAL ARTS AND SCIENCES

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By

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Brethren, T.H.Huxley is reputed to have said that every man should learn “something about everything and everything about something”. This agrees with (may even have been the source of) what my father told me as a young man. He used to say that the most desirable education was one of wide and eclectic interest, but to enjoy the status of a learned man, one needed to be an ‘in-depth’ expert in a chosen discipline as well.

In to-day’s world there is continuing public angst among educators and politicians that literacy and numeracy standards are not adequate. Standards of spelling, composition, syntax and expression are observably defective when new university students have to be coached to sensibly and intelligibly present their work for assessment. Young people working in retail can’t add up a bill or make change without a calculator or electronic till to do the sums. Is it any wonder that authorities are worried? Does this state give much hope for attainment of expanded educational excellence? The answer is ‘yes and no’. If these basic defects cannot be redressed, then the answer is ‘no’. But happily, they can be fixed; indeed, more often than not. So the way forward opens up.

Modern society is complex. I’m not speaking of education here; I’m referring to those things, institutions, and factual matters one needs to know about and understand simply to function at a day to day level. Permit me to mention just some aspects of modern life which we all need to know something about:

- Parliaments and democratic processes
- The law – criminal, contracts, torts, privacy & tax
- The various types of authority
 - government instrumentalities
 - police
 - security personnel and their powers
 - the military
 - various inspectors – buildings, fishing, railways, utilities, etc
- Eftpos, ATMs, electronic banking, e-pay
- Transport – the Go-card, road rules, tolls and tags, airports
- Computers and soft-ware programmes
- Superannuation
- Debt, debt management, credit laws, personal financial management
- Dispute resolution
- Rules of and relating to sporting interests and participation
- Intellectual property – copyright, plagiarism, patents and licences
- Medical services and insurances

These are all matters on which one needs knowledge, and current knowledge at that, as most change constantly.

But, there is a much greater richness available in life – the intellectual life of the educated man. One B.F. Skinner, writing in *New Scientist* in 1964, said “Education is what survives when what has been learnt has been forgotten”. What he meant, of course, is that a trained mind is the result of education, and the possession of a trained mind is, perhaps, the acme of appreciation of life and what human society offers.

The well-spring of education is curiosity, for it is the enquiring, questioning, assessing mind which gives subtle and sophisticated appreciation to whatever takes our interest. We live in an age when everyone seems pre-occupied with, and is being pushed into, finer and finer specialisation. This is the modern norm. It is no longer the case that a doctor is just a doctor; he is a surgeon, dermatologist, oto-laryngologist, or anaesthetist, etc. It gets worse, as, for example, anaesthetists now specialise within the speciality, as do all medicos. It’s the same with physicists, painters, plumbers, lawyers and any other profession or occupation one likes to name. It is in fact, the ‘non-generalist age’.

However, by far the greatest satisfaction derives from being a generalist, following the Huxley advice to “learn something about everything’. Dr Samuel Johnson is quoted by Boswell as having said:

“There is nothing so minute or inconsiderable that I would not rather know it than not”

With the greatest respect, and some humility, I agree whole-heartedly. Let us pursue the life of the intellectual generalist. Let our interest take us everywhere. Let us not, in our general intellectuality, be constrained within the bounds of finer and finer specialisation. For the constraints thus imposed are roadblocks on the path to a polished and cultured mind.

In Classical times, the great thinkers were versed in The Seven Liberal Arts and Sciences. These have come down to us after 800 odd years (the so called Dark Ages), by having been adopted in the 13th and 14th centuries into the curricula of the then fledgling western universities. As a whole, they were said to have been taken into Gresham College – more of which later. I have not been able to find any other English university where they were purportedly adopted *in toto*.

Today, we admonish all Freemasons to seek such knowledge of these ancient disciplines as may be within the compass of their attainments. In my self-appointed role as an educator within Freemasonry, I thought it would be a good idea to include something in the syllabus for Fellow Crafts on the Seven Liberal Arts and Sciences. You may imagine my surprise, when looking for appropriate material, that all I could find was a raft of 10 second grabs and single page notes. I thought this state to be wholly inadequate, so I set out to write the Camp Hill book...something with a bit of grist to it. This is a series of seven seminars which are intended to introduce Fellow Crafts to each of these ancient disciplines. They are not text-books. Their function is to act as a sort of burglar’s jemmy to open minds to these seven spheres of study.

This is the information age. Never before in human history has so much information on so many subjects been available. Yet the status of “learned” is as rare as it has ever been. Perhaps this is due to the ubiquitous modern tendency to confuse information with understanding. The fact is that one needs mental discipline and a background matrix of thinking ability (the trained mind) so as to use rationally and well the information which can so readily be found. It is only when information on any given topic is, as it were, filtered by a trained mind, that it can become truly enlightening. Reflection upon, and disciplined assessment of, information is the only way to put it to work on the job of polishing and adorning one’s mind. And this is the only path which leads to cultured and refined education, the hallmark of the learned man.

I now proceed to a light over-view of the Seven Liberal Arts and Sciences.

As all will know from our ritual they are:

- Grammar
- Rhetoric
- Logic
- Arithmetic
- Geometry
- Music, and
- Astronomy

They fall into two broad categories: the Trivium and the Quadrivium. These labels are instructive. Taken from Latin , trivium means 3 ways and quadrivium means 4 ways. Ways, you may ask, to where?

The trivium consists of Grammar Rhetoric, and Logic, while the remaining four comprise the quadrivium. They were in ancient times the core ways to achieve a refined and critical mind. The trivium were concerned with proper use of language and its structure, the path to right thinking, and lastly the beautiful and eloquent use of the language in both spoken and written form. Of course, the first two, grammar and logic, informed and shaped the latter. The quadrivium concerned those sciences which gave rise to civilisation – our understanding of the cosmos and our place within it.

It is interesting to examine the reception of these ancient disciplines into western European culture during the Renaissance. In 1519, one Thomas Gresham (later knighted) was born. In due course, he attended Caius College, Cambridge, and eventually he was reputed to have become the richest commoner in England. His wealth was generated from his extraordinary genius with matters of finance and currency. He established The Royal Exchange in London. All his life he revered learning, and in his Will, he provided for the establishment of Gresham College. He set up trusts for seven Chairs (professorships) which he envisaged would last in perpetuity. They still exist today, as does Gresham College. The College was established in 1597, the year of Sir Thomas’ death, during the reign of Elizabeth I, who died 6 years later. It has a rich heritage and some truly great men have held the three year appointment as professors in the various disciplines. Examples are Sir Christopher Wren, and Robert Hooke.

There seems little doubt that The Royal Society was established by habitués of Gresham College, together with members of the Philosophical Society of Oxford, at the instigation of Sir Robert Moray in 1660. These groups had been meeting informally for regular ‘philosophical’ discussion from as early as about 1645.

Gresham College provided free public lectures, 6 per discipline, annually. Each lecture was presented by the incumbent professor. This regime also still exists today.

The specific terms of Sir Thomas Gresham’s Will were that the professorships should be in “The Seven Liberal Arts and Sciences”. They were named in the Will as:

- Divinity
- Astronomy
- Music
- Geometry
- Law
- Physic (Medicine), and
- Rhetoric

It is interesting to note the different arts and sciences mentioned in Gresham’s list. Divinity, Law, and Physic were not in the original syllabus from classical times. Moving ahead by a little over 100 years, we come to 1717, the year the first Grand Lodge was founded. Some time later, perhaps as late as 1813 when the United Grand Lodge of England was established, we find the ritual which has devolved upon us naming the seven classical disciplines. I found this curiosity intriguing, When our ritual was being written to include the *classical* list of disciplines, there existed in England, and there had for over 100 years, a learned institution which named the disciplines as Gresham had in his Will. I term the Gresham list as the *modern* list. I have been unable to run this mystery down, but I trust that Wor Bro Don Barry, who just loves paradoxes of this sort, will, at some future time, find an explanation.

I conclude with a short appreciation of each discipline.

Grammar



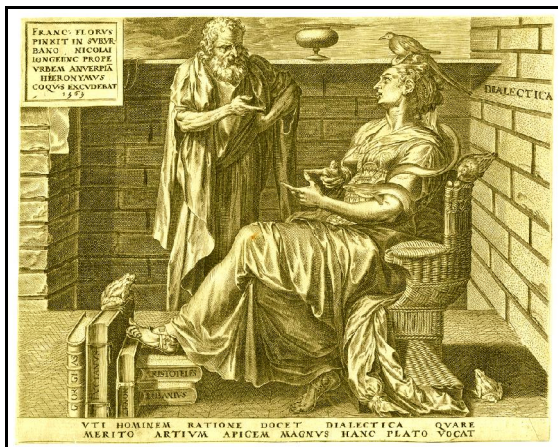
All languages depend upon grammatical usage for fluency, beauty and precision. The original which has come down to us, referred specifically to Latin grammar, and in mediaeval curricula, it still referred to Latin. While Latin grammar is complex enough, it had nothing on English! It is crucial to English expression for grammatical rules to be used correctly. This is as important today as it has ever been in the past. Right use of grammatical rules is necessary for cultured speech and writing.

Rhetoric



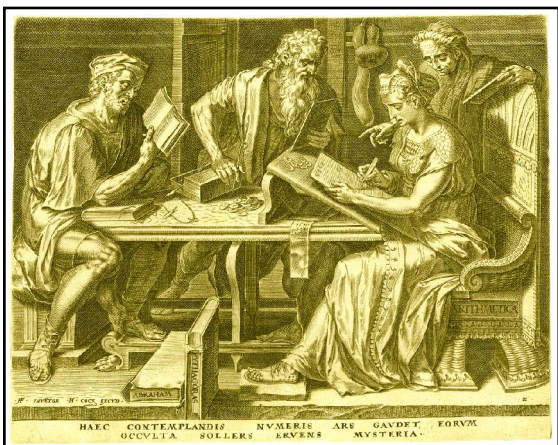
The study of this discipline arose from the original desire to make speakers both eloquent and persuasive. It expanded to include writing very early, and since Roman times has included both speech making and writing. The modern study of rhetoric is however more about developing oratorical skill so as to move, persuade, rouse or amuse, as the occasion demands. The beauty of rhetorically trained delivery will always exemplify the cultured and learned man.

Logic



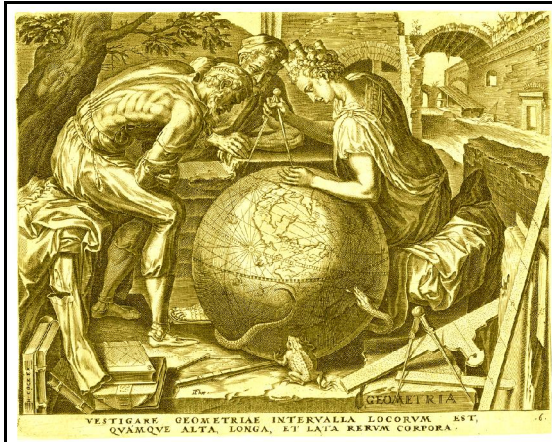
Known in early times as dialectic, logic aims to reach valid conclusions from true premises. Its aim is rationality, achieved by technically valid deductive processes free from reasoning errors. Formal logic trains the student in how to reason and how to recognise error in reasoning processes.

Arithmetic



The basic (and not so basic) science of numbers and computation. It leads into all other areas of mathematics, and requires knowledge and usage of algebra and algebraic artifices. Without algebra, all higher mathematics becomes impossible.

Geometry



This began as the science of land measurement. However, it quickly developed into a full-blown science in its own right for the examination of plane and solid shapes and sizes. It becomes very complex when cones and orbs are studied. It was codified by the great seminal geometrician Euclid in his 11 or 13 books. It contributes greatly to its derivative relatives, trigonometry and calculus.

Music



To some people, music is the source of eternal joy in life. Pythagoras was the first to examine pitch as a physics function of length and tension of strings. The physics of sound is no simple matter, although it is not necessary to understand that branch of science to be spiritually and emotionally uplifted by the genius of music.

Astronomy



This science cannot fail to absorb the curious mind. The discipline seeks to examine all aspects of the universe, and to answer questions relating to solar, stellar, and galactic dynamics, history and origins. The 'heavens' have fascinated mankind forever. We are, however, very limited as to what we can discover (owing to the stupendous size of the cosmos) and understand (owing to insufficient information, and, perhaps, limitations in our own intelligence).