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The Tracing Board of a Master Mason - The Square and Compasses
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The dust shall return to the earth as it was and the spirit shall return unto God who gave it. Ecclesiastes 12:7

The Modern Format

In 1811 Brother Josiah Bowring, a well known portrait painter of London who had been initiated in the Chichester Lodge in 1795, prepared a set of tracing boards for his lodge. His tracing board of a Master Mason included a large scroll draped over most of the lower half of the coffin. In the centre of the scroll was an interior view of King Solomon's temple, looking towards the Holy of Holies in the west, which occupied nearly all of the area resting on top of the coffin. A eulogy, comprising five lines of Hebrew characters, was inscribed on the portion of the scroll overhanging on the right side of the coffin. Various symbols were depicted on the portion of the scroll overhanging on the left side. An epitaph, also in Hebrew characters, was inscribed at the bottom of the scroll, part of it on the right side of the overhanging portions and part of it on the left. Brother Bowring's tracing boards are among the earliest known in the modern format. They are of special significance, because Hebrew characters were used for all inscriptions on the tracing board of a Master Mason. Some 20 years after Brother Bowring had prepared his boards Brother John Harris, an architectural draughtsman and miniature-painter, also prepared a set of tracing boards that he published in about 1821. His designs were similar to Brother Bowring's, except that Brother Harris omitted the scroll that is a central feature of the tracing board of a Master Mason prepared by Brother Bowring. Brother Harris also converted the Hebrew characters on the coffin to equivalent cryptic characters or Roman numerals. Most of the tracing boards used in modern speculative lodges have been derived directly or indirectly from the set prepared by Brother Harris.

As the general appearance of Brother Harris's set of three tracing boards appealed to the Emulation Lodge of Improvement, it decided to adopt them. Even so, in about 1846, the Emulation Lodge of Improvement commissioned Brother Harris to modify his design of the Master Mason's tracing board, to include a scroll inscribed in Hebrew similar to that adopted by Brother Bowring in his design. Brother Harris completed his new design about three years later. He included Hebrew inscriptions on the scroll and also three Hebrew characters, He, arranged on the coffin in the form of a triangle. However, he did not use Hebrew characters for the other inscriptions on the coffin, but continued to use the cryptic characters and Roman numerals as on his earlier board. This tracing board is called the "Improved Harris". In lodges that do not follow the Emulation working, the scroll on the tracing board of a Master Mason is usually omitted and the three Hebrew characters, He, are represented by the Roman numerals 5. The "Improved Harris", or Emulation tracing board, provides the background that is essential for a proper understanding of the tracing boards of a Master Mason. It is an advantage to know the derivation and meaning of the words that the Hebrew characters represent. It also is important to remember that Hebrew is written from right to left, as also are the cryptic characters used to replace Hebrew characters. All of the words represented by the Hebrew characters and the substituted cryptic characters are explained in the Geneva Bible published by Thomas Bodley from 1560 onwards and also in the later editions published by Christopher Barker from 1580 onwards, which is usually called the Barker Bible.

The Geneva Bible has comprehensive marginal notes. William Shakespeare (1564-1616) and many eminent scholars and philosophers of that era used it extensively. The Barker Bible includes those marginal notes and also tabulations of Hebrew names and associated words, with explanations of their meanings. Both Bibles continued in popular use by educated people long after the Authorised Version of King James was issued in 1611 and it would have been very familiar to the early speculative ritualists. Most Biblical names and other significant words in masonic usage were derived from the unpointed Hebrew texts from which the Geneva Bible and Barker Bible had been translated. As those texts were written using only the twenty-two consonants without vowels, their interpretation was often a matter of opinion. Moreover, unless Hebrew characters are written with great care, some can easily be mistaken for others, with consequential changes in pronunciation and meaning. For example if the left leg of He (the equivalent of H in English and meaning a Window) inadvertently joins the top of the character, it becomes Heth (the equivalent of a guttural Ch in English and meaning a Fence). If Tau (the equivalent of T in English and meaning a Cross) is written carelessly, it could easily be mistaken for either He or Heth. As in the English language, many Hebrew words also have various different meanings according to the context in which they are used. Factors such as these would have contributed to many of the variations found in the pronunciation and interpretation of Hebrew words that are of significance in freemasonry.

The Emulation Tracing Board

A detailed examination of the Emulation tracing board of a Master Mason will develop our understanding of the tracing boards in common use and will put them in a better perspective. Most of what follows is not included in lectures on the tracing board, nor is any explanation of the symbols on the board and their meanings usually given. Many tracing boards of a Master Mason differ from the Emulation board in their details, but five basic elements are common to nearly all boards. These five elements will now be described with reference to the Emulation board. The first element is an enclosing rectangle with sides that are in the proportions of the phi ratio, which is approximately 1.618 and is called the Golden Section. These proportions are mathematically and aesthetically elegant and produce the rectangle that is most pleasing to the human eye. The derivation and symbolism of the phi ratio are explained in the chapter discussing tracing boards in general. The board is in portrait form with a thick black border, oriented so that east is at the foot of the board and west is at the head of the board. This black border represents a grave, reminding us of our ultimate destiny on earth. The second element is a coffin enclosed within the grave, with its head to the west. The emblems of mortality and the implements with which the master craftsman was slain are resting on the coffin. A memorial tablet near the head of the coffin is inscribed with details of the master craftsman and a record of his death, similar to an inscription placed on the headstone of a grave. Three Hets also are depicted on the coffin in the form of an open triangle, with its apex to the east near the foot of the coffin. They allude to the untimely death of

the master craftsman and are intended to remind us of human frailty.

The third element comprises a Master Mason's working tools. The compasses are placed between the pencil and skirret, with its legs extended to enclose a circle having a point at its centre. When thus placed, the working tools remind us that during our mortal lives we must keep our passions and prejudices within due bounds, while using our mental and manual skills in the Lord's service. The fourth element is a large parchment scroll placed within the triangle of Hes and draped over most of the lower half of the coffin, with the ends hanging down on each side. A depiction of the interior of the first temple at Jerusalem is at the centre of the scroll, viewed looking westwards towards the Holy of Holies, which can be seen through the partly drawn curtains at the western end of the Holy Place. On the overhanging right hand side of the scroll is a brief eulogy to the master craftsman, inscribed in Hebrew. The overhanging left hand side of the scroll depicts an equilateral triangle near its upper edge and near its lower edge a circle circumscribing a pentagram or open pentacle with a Yod in the centre. Along the bottom of the scroll an epitaph is inscribed in Hebrew, partly on the right side and partly on the left. The scroll and its inscriptions remind us that, at the close of this mortal existence, all those who have faithfully served the Lord may hope to enter that house not made with hands, the Eternal Temple in the heavens. The fifth element is an acacia bush at the head of the grave, reminding us that an immortal soul dwells in every mortal frame.

Important Biblical Names

Before considering the various elements of the board in detail, it would be helpful to review the parts played by several Biblical people who were significant, directly or indirectly, during the building of the first temple at Jerusalem. It is important to know the Hebrew characters and the cryptic transliterations representing these Biblical names, as well as to understand the meanings of their names. All of this is relevant to the inscriptions relating to the untimely death of the master craftsman. The spellings of the names and words that follow are from the unpointed Hebrew characters. For convenience they are written as in English, from left to right, but it must be remembered that in Hebrew they were written from right to left. Of those responsible for the construction of the first temple at Jerusalem, the three best known are Solomon King of Israel (Shin Lamedh Mem He, which probably means peaceful), Hiram King of Tyre (He Waw Resh Mem, which signifies altitude or exalted) and Hiram Abif, the skilful and experienced master craftsman whose first name is the same as that of the King of Tyre and whose second name, Aleph Beth Yod Waw, could signify his father. However Abif probably was a surname, which is the sense ascribed to it by Luther and the Swedish translators. Heinrich Gesenius (1786-1842), an eminent German biblical scholar and Hebrew lexicographer, says in his book *Hebräisches Elementarbuch* that Abif variously signifies a master, teacher, or chief operator. This interpretation is supported by the modern New English Bible translations, firstly in I Kings 7:14 which describes Hiram Abif as "a man of great skill and ingenuity, versed in every kind of craftsmanship in bronze" and again in II Chronicles 2:13 where he is called "a skilful and experienced craftsman, master Hiram".

In addition to those three important persons, there are another three Biblical characters that are of special significance to a Master Mason. Those three are Tubal Cain, Machbanai and Adoniram. Because Tubal Cain (Tau Beth Lamedh and Qoph Yod Nun, usually translated as Tubal the Smith) is one of the four founders of the crafts named in the Bible, he is referred to in the earliest known copy of the Old Charges of the operative freemasons, the Regius MS of about 1390. The New English Bible version of Genesis 4:22 refers to Tubal Cain as "the master of all coppersmiths and blacksmiths". He is the first artificer in metals mentioned in the scriptures. In this context there can be no doubt that Hiram Abif, the chief worker in bronze at the construction of King Solomon's temple, who was responsible for casting the two great pillars and all the lavers and other ceremonial vessels, was indeed a master craftsman and a worthy successor of Tubal Cain who therefore deserved the appellation of Master.

Machbanai (Mem Heth Beth Yod Nun Aleph Yod), was an important person who is referred to in I Chronicles 12:13. He was the eleventh of the band of Gadite warriors who joined King David in the wilderness at Ziklag, in about 1002 BCE, when they formed a mighty host and made David king over all Israel. They routed the Philistines and recovered the Ark of the Covenant, which they conveyed to Jerusalem. King David was then able to begin preparations for the building of the temple at Jerusalem. Machbenai appears in I Chronicles 2:49 as Machbenah (Mem Heth Beth Nun He) and there are several other variations or derivatives of the name in the Bible. They include Machir (Mem Kaph Resh or Mem Waw Heth Yod Resh) in Genesis 1:23 and also Machi (Mem Heth Yod) in Numbers 13:15. There are several other variations in spelling to be found in the Revised Version and also in the Revised Standard Version of the Bible, which illustrate the difficulties in achieving exact translations of the old unpointed Hebrew texts. Machbanai and its variants have several meanings, which include the smiter that is relevant to his role as a member of the mighty host. It can also mean the builder is smitten and the builder (or master) is slain, which are relevant to later events during the building of the temple. A number of closely associated and similar sounding words that are of special significance are discussed in the section on significant Hebrew words.

Adoniram (Aleph Daleth Nun Yod Resh Mem, meaning my lord is exalted) was another very important character involved in the construction of the first temple at Jerusalem, even though he is often overlooked. King Solomon appointed Adoniram as the superintendent over the levy of thirty thousand workmen from among the Israelites, who were sent in courses of ten thousand a month to work on Mount Lebanon. The first mention of Adoniram is in II Samuel 20:24, when as Adoram he was an officer in charge of the tribute levied by King David. Later, in I Kings 12:18, he is called Adoram when he was one of the officers in charge of the levy under Rehoboam, a son of King Solomon. Rehoboam was the last king of the united monarchy and also the first king of the southern kingdom of Judah. Adoniram is referred to for the last time in II Chronicles 10:18, when he was called Hadoram, the chief officer of Rehoboam's tribute. The Bible records that when Adoniram was sent by King Rehoboam to collect the usual taxes, the rebellious people of the northern tribes stoned him to death, which precipitated Jeroboam's revolt against the king in about 922 BCE. Both Adoram and Hadoram are shortened and familiar forms of Adoniram.

Significant Hebrew Words

We will now examine the various derivations of Machbanai and some other closely related words with respect to their interpretations and their relevance to the untimely death of the master craftsman, Hiram Abif. The initial letters of the words that comprise Machbanai and other names, as well as of other relevant words, appear on the tracing board of a Master Mason either as Hebrew characters or as their cryptic transliterations. As in all languages, an interesting aspect of a study of Hebrew names and their associated words is the uncertainty, in any particular instance, whether the associated words came into the language as derivatives of the name, or whether the name is composed of words reflecting characteristics of the person. As with many English names, either possibility might be the appropriate alternative, but no attempt will be made in this review to allocate a probability in respect of a particular usage. This examination is not exhaustive, nor does it set out to assign all of the available meanings of a name.

Several of the more important root words and their meanings will be examined, from which are derived the various expressions in common usage. The root words may be examined in relation to a commonality of meaning, or to a similarity in sound, or to a possible mistake in the reading of a Hebrew character for one or another of the reasons already mentioned. Sometimes these categories overlap, even though the overlapping elements may not be immediately evident. Some relevant words relating to building, arranged in the alphabetical order of the Hebrew characters, are: *bona* meaning to build, spelled Beth Nun Aleph; *banah* meaning to build up, spelled Beth Nun He; *bonai* or *b'nai* both meaning a builder, spelled Beth Yod Nun Aleph Yod; and *b'nain* meaning a building, spelled Beth Nun Yod Nun. Words relating to striking and death include the following: *mooch*, which means to kill and is spelled Mem Waw Heth. It is also written as *mooth* and is spelled Mem Waw Tau. Another is *machi* meaning a smiter, spelled Mem Heth Yod. Yet another word of similar import is *machah*, meaning to destroy or to blot out, which is spelled Mem Heth He. Finally in this context is the similarly sounding *makkah*, meaning a blow or smiting, which is spelled Mem Kaph He. There also are several other relevant words that have similar sounds, but have quite different meanings. They are: *maq* meaning putrid or rotteness, spelled Mem Qoph; the interrogative *mah*, spelled Mem He; and the definite article *h'* or *ha*, spelled He. All of these words are of importance when endeavouring to make an objective interpretation of the Hebrew inscriptions on the scroll and the other characters that appear on the Emulation tracing board.

The Physical Components

Although the several physical components depicted on the board are individually related to one or another of four of the five elements of the tracing board, their symbolisms are so closely interwoven that their meanings can be understood better if they are first considered together. Nevertheless, it is important also to consider the more esoteric components separately. When appropriate, some of the significant variations that appear on modern tracing boards will also be mentioned. The physical components are the grave, the coffin, the elements of mortality, the acacia bush, the working tools of a Master Mason and the implements with which the master craftsman was slain. The coffin is placed in the grave with the foot towards the east, which has been the traditional and symbolic orientation for burials in all beliefs and in all ages, so that the interred body is directed towards the rising sun, which is an ancient emblematic reference to a belief in resurrection. The emblems of mortality are placed over the pectoral region of the body to symbolise the departure of the spirit from the body, which is eloquently expressed in one of the Scottish rituals:

*"Look on this ruin, it is a skull
Once of ethereal vision full.
This narrow cell was life's retreat,
This space was thought's ambitious seat.
What beauteous vision filled this spot,
What dreams of pleasure long forgot.
Nor love, nor hope, nor joy nor fear
Has left one trace or record here,
Yet this was once ambition's airy hall,
The dome of thought, the palace of a soul."*

The acacia, or shittim wood, is an evergreen and one of the few trees that can survive the rigours of the harsh wilderness and deserts of the Holy Land, for which reason it has been regarded as an emblem of immortality since ancient times. Joel prophesied that in the Day of the Lord the Valley of Shittim would receive the life-giving water. Shittim was esteemed as a sacred wood among the Israelites. It was used to construct the Ark of the Covenant, the frames of the tabernacle, the table for the shewbread and for all other sacred furniture. In the Greek language *akakos* and *akakon*, which respectively mean guileless and harmless, are derived from *akakia*, which means acacia and in Greek is also used as an alternative word for *inosens*, which means innocence. The acacia bush at the head of the master craftsman's grave reminds us that his virtuous conduct, integrity of life and fidelity to the trust placed in him should be emulated by every Master Mason. An ancient custom, still in use, is to carry or wear a sprig of evergreen such as acacia, rosemary or myrtle at funerals and commemorative services. Acacia is also regarded as a symbol of initiation. A special plant became associated with a particular rite in the ancient initiations and religious mysteries, ultimately being adopted as a symbol of that rite. Such symbolic plants include the lettuce in the mysteries of Adonis, the lotus among the Brahmins, the lotus and the Erica or heath among the Egyptians, the mistletoe among the Druids and the myrtle in the mysteries of Greece. In freemasonry acacia is a symbol of initiation, not as an apprentice, but into the life hereafter as it is emblematically portrayed in the third degree. The acacia bush reminds us that innocence must lie in the grave until the voice of the Most High calls it to a blissful eternity.

The working tools are placed at the head of the coffin, because the brain is the seat of learning. The pencil, skirret and compasses invoke the mental faculties rather than manual skills in their use. The pencil is used by the skilful architect to define precisely the

requirements for the structure, which symbolically warns us to carry out all of our responsibilities to God and man, as our words and actions are recorded by the Almighty Architect, to whom we must give an account of our conduct through life. The skirret is used to mark out the ground with accuracy for the foundation of the intended structure, symbolically pointing out that a straight and undeviating line of conduct is laid down in the scriptures to govern us in our pursuits. The compasses are used to delineate exactly the limits and proportions of the several parts of the building, to ensure that beauty and stability adorn the completed work. The compasses symbolise the unerring justice and impartiality of the Most High, reminding us to keep our passions and prejudices within due bounds because we will be rewarded or punished accordingly as we have obeyed or disregarded His divine commands.

The implements with which the master craftsman was slain are the plumb rule, the level (or the square in the Irish working) and the heavy setting maul. They are placed at the foot of the coffin to signify that all earthly pursuits have been trampled underfoot by death. The plumb rule and level (or square) reflect the utmost integrity of the Master craftsman, even in the face of the gravest danger that resulted in his death, which is signified by the heavy setting maul. From time immemorial the heavy setting maul has been an emblem of death by violence. The heavy setting maul is the implement used by operative masons to set ashlar and paving stones level and to bed them down on their foundations, from which is derived the expression "setting to a dead level". On many tracing boards a try square, the Master's emblem of office in speculative craft freemasonry, is shown near the foot of the coffin to signify that Hiram Abif died in office while serving the Lord. On some boards three gallows squares, the emblem of office of a Master in operative freemasonry, are depicted on the vertical face at the foot of the coffin. Because three is regarded as the most perfect and most sacred number, the three squares at the foot of the coffin show that the Master craftsman had lived a blameless life, on the square with all mankind, as he was when he departed this life. When associated with the acacia bush at the head of the coffin, the three squares also signify that a state of perfection can be achieved only when the immortal spirit is raised in the life hereafter.

The Characters That Form a Triangle

The triangle formed with the three Hebrew characters He or the three 5s has several interpretations, of which the first is mystical. From ancient times the equilateral triangle has been an emblem of God and a symbol of perfection. Because the apex is pointing downwards, we are reminded that perfection can only be achieved by passing through the Valley of the Shadow of Death. The sum of the three Hs forming the triangle is the mysterious and omnific 15, a sacred number that is symbolic of the name of God. The number 15 is sacred because it is the numerical equivalent of the Hebrew characters Yod He, which signify Jah. This is the "two lettered" name of God that is used in Psalm 68:4 and is usually translated as Lord in the Bible. Most biblical scholars consider that this "two lettered" name is a name of God in its own right, equivalent to the Tetragrammaton. The Tetragrammaton is spelled Yod He Waw He and is also called the Ineffable Name, which is transcribed in English as YHWH or JHVH and is usually rendered as Yahweh and Jehovah. However, some say that the "two lettered" name of God is only a contraction of the tetragrammaton. Because the Hebrew characters do not include separate numerals, other characters are used as substitutes for numerical values, the Yod representing 10 and the He representing 5. However, as a mark of respect and in veneration of the sacred name, Yod and He are not usually used together to represent 15, but Teth and Waw are substituted respectively representing 9 and 6.

The temporal interpretation of the three Hs or 5s, commencing with the lowest and moving clockwise, relates to the individual in his natural environment and to his civic obligations. The first character concerns our physical surroundings and represents the five natural forms of matter envisaged by the ancients, which are earth, air, water, ether and fire. The second character concerns our mental capabilities and represents the five human senses by which we perceive our environment, these being feeling, hearing, seeing, tasting and smelling. The third character concerns our moral responsibilities that are represented by the five points of fellowship, which are to meet a brother on the square and sustain him when in difficulty or danger, to support him in his virtuous and laudable undertakings, to pray for him and assist him in his times of need, to keep inviolate his private affairs and lawful secrets and to vindicate his reputation with as much sincerity in his absence as in his presence.

There also is a collective interpretation of the three characters that is of particular interest to speculative freemasons. The three Hs are the initial letters of the three Hiram who assisted King Solomon in the design, supply of materials and erection of the temple. They were Hiram King of Tyre, Hiram Abif and Adoniram, who are included in the important biblical names already discussed. The characters also refer to the fifteen trusted craftsmen who, in masonic legend, were chosen by King Solomon to make a diligent search for Hiram Abif when he had disappeared from his place of work at the temple. The craftsmen were formed into three lodges of five and went forth in different directions, acquitting themselves in their various duties with the utmost fidelity. When the body of the Master craftsman was found it was recovered and conveyed to Jerusalem, where it was interred as near to the Holy of Holies as Israelitish law would permit.

Finally, the three characters represent the five perfect points of entrance in each of the three speculative degrees of freemasonry, which are preparation, obligation, sign, token and word. Test questions on the perfect points of entrance can be traced back to the catechisms used by the operative freemasons, with whom they comprised an essential part of the instruction received. The perfect points of entrance are included in the earliest known speculative ritual, the Edinburgh Register House MS of 1696, which contains a description of the Scottish ceremony for the initiation of an Apprentice. They also appear in the Dumfries No 4 MS of about 1710 and in the Trinity College, Dublin MS of 1711. The test questions are used more extensively in the Scottish and Irish workings than they are in the English workings.

The Inscriptions on the Coffin

Immediately above the emblems of mortality is a memorial inscription, similar to those that appear on the headstones of graves. The

Roman numerals on the plaque are the clue to deciphering the cryptic characters. It is immediately evident that the numerals are intended to be read from right to left, as the Hebrew characters would have been written, but it may not be so evident that in fact they are seen as a mirror image. If all of the cryptic characters are visualised as being read from within the coffin, then they are readily decipherable as standard characters that were used in most of the old treatises on masonic scripts. From time to time writers have said that they have found errors in the script, which they have blamed on Brother John Harris's transcription, but those claims seem to have been based on a false premise, especially as some of the cryptic characters are the same whether read from within the coffin or from outside. In the following comments all characters that are written from left to right must be visualised as they appear in the inscriptions, which is from right to left.

The three characters above the date are the equivalent of He Aleph Beth and refer to Hiram Abif. The date is shown as AL 3000, which is a reference to the Latin Anno Lucis meaning "in the Year of Light", calculated by adding 4,000 to the years BCE (Before Common Era). In 1650 Archbishop Ussher dated the creation of the world and the appearance of Adam at 4004 BCE, which was rounded off when determining the Year of Light. On the basis of the then available knowledge for dating Biblical events, King Solomon's temple was nearing completion in about 1000 BCE, or AL 3000, when the master craftsman was slain. Modern research indicates that the date probably would have been about 950 BCE, or AL 3050, but the difference is of no consequence in relation to the legend. On most modern boards cryptic characters equivalent to Tau and Qoph are placed to the right and left of the plaque respectively, but preferably they should be at the head of the coffin, each side of the working tools as on the Emulation board. The Tau and Qoph are the initials of Tubal Cain, who was sent to King Solomon as the Master Smith, although his duties became much wider in scope. There is no Hebrew character for C, but the sound derived from the initial Qoph of Cain has been transliterated as a C in the cryptic characters.

Immediately below the emblems of mortality, reading from right to left, there are cryptic characters equivalent to Mem Beth, which appear twice on the Emulation board, but only once on some modern boards. On the Emulation board and in English lodges that derive from the Antients, as well as in all Scottish lodges, these characters allude to the first words spoken when the indecently interred body of Hiram Abif was discovered. The first pair of characters allude to an exclamation of shock that was spoken in Hebrew when the body was discovered: "*Mahhah b'nai?*" spelled "Mem He, He, Beth Yod Nun Aleph Yod", the equivalent in English being: "What! Is this the builder?" In the Irish and also in some Scottish workings this is expressed as "Alas, the builder!" whilst in some Scottish workings "The death of the builder!" is used less correctly. The second pair of characters allude to an expression of distress: "*Machi b'nai!*" which is spelled "Mem Heth Yod, Beth Yod Nun Aleph Yod", equivalent in English to "The builder is smitten!" The Jacobite masons in Scotland must have noticed that the Hebrew pronunciation of this comment is almost identical to the Gaelic "Mac benach", from Mac which means son and bennaich which means to bless, hence signifying "the blessed son", an enigmatic title that the Stuart freemasons applied to their idol, the Young Pretender. The close relationship between Scotland and France under the Auld Alliance is illustrated by an equivalent expression in the French Rite, said to mean "He lives in the son!" which cannot be derived from the Hebrew.

In their book entitled *The Hiram Key*, Christopher Knight and Robert Lomas propose another interesting derivation for the exclamations, which they relate to the murder of Seqenenre Tao II, a Theban king of Egypt, in about 1600 BCE. They suggest that the words come from the Egyptian "Ma'at-neb-men-aa" and "Ma'at-ba-aa", meaning "Great is the established Master of Freemasonry" and "Great is the spirit of Freemasonry" respectively. In this context they say that Ma'at has been translated as Freemasonry because there is no other modern single word that conveys the multiplicity of ideas of the Egyptian word, which they sum up as being "truth, justice, fairness, harmony and moral rectitude as symbolised by the regular purity of the perfectly upright and square foundation of the temple". Ma'at is used in this context in the pyramid texts. It might be tempting to assume that the circumstances are too remote for such an origin to be feasible, were it not for the fact that so much of our modern English language has been derived progressively through a series of different languages over several millennia, especially words and expressions relating to the liberal arts and sciences and to religious and esoteric subjects generally.

English rituals derived from the Moderns, as well as some American rituals of similar origin, use a different Hebrew pronunciation for the first exclamations made by the Fellows of the Craft who discovered the body of Hiram Abif, based on two Hebrew verbs of similar pronunciation. Those words are *mookh* spelled Mem Waw Heth and *makkah* spelled Mem Kaph He, which respectively mean to kill and to smite, whence are derived the exclamations "The master is slain!" and "The builder is smitten!" These versions appear to have been introduced by the Moderns in about 1730, to distinguish them from the Antients who retained the original words and whose rituals and customs differed little from those of their Irish and Scottish brethren. Another version of the exclamation used in some English and American workings comes from a similar sounding Hebrew noun, *maq* spelled Mem Qoph and meaning rotteness, whence the expression "He is rotten!" and the more fanciful "rotten to the bone", which clearly is a play on words incorrectly combining Hebrew and English.

There is ample evidence that, prior to the union of the Antients and Moderns early in the 1800s, the Moderns were only using one word, even though the Antients were using the two words that had always been used by their Irish and Scottish brethren. The original word used by the Moderns was based on the Hebrew *makkah*, spelled Mem Kaph He, meaning a blow or smiting, but it appeared later with many different spellings and pronunciations. The earliest known version appears in the Sloane MS of about 1700, when it seems that only two degrees were being practised in England. Four versions of the word were in use by the end of 1725 and at least eight by 1763, but in all there have been at least sixteen versions of the word. There is little doubt that almost all of them were either fanciful corruptions or mispronunciations of the various Hebrew words we have examined. The union of the Antients and Moderns more or less stabilised the usages, whilst permitting the distinctions already mentioned.

The Scroll and the Temple

An important feature of the Emulation tracing board is a scroll draped over the lower half of the coffin, in the middle of which is depicted an interior view of the temple. This view is usually shown in miniature near the middle of the coffin on other boards. The views vary in detail, but contrary to I Kings 6:14-35 they all show a series of columns around the interior walls. These columns probably were included as symbols, possibly representing the five noble orders of architecture and hence the work for which the master craftsman was responsible, but no explanation is given in the old catechisms or in modern rituals. On the Emulation board the ceiling of the Holy Place is flat as described in the Bible, but on other boards it usually is arched. The Emulation board shows a continuous series of small arched windows along the walls of the Holy Place, near the ceiling, which would have provided the only light as it is recorded in the scriptures. Most other boards show a series of arches supported on columns along the full length of the Holy Place, but without windows, although the Holy of Holies at the western end appears to have a flat ceiling, as in the Biblical description.

On all tracing boards the curtains at the western end of the Holy Place are partially open, which reveals the Holy of Holies and permits a glimpse of the Ark of the Covenant and the Cherubim guarding it. Some boards depict a priest standing in front of the entrance to the Holy of Holies. The floor of the temple is not shown overlaid with gold as described in I Kings 6:30, but is depicted symbolically as a mosaic pavement of black and white tiles. On most modern boards the first arch is inscribed with characters that usually are indecipherable, although they are supposed to replicate the eulogy and epitaph on the scroll of the Emulation board. The representation of the temple on the board is explained beautifully in another Scottish ritual:

"The great lesson conveyed to us symbolically by this board, by the coffin enclosing all within its cold embrace, is that at that very moment, even from death itself springs life immortal. Here in the bosom of death we see the mosaic pavement typical of life; not life traversed by toil and difficulty, as formerly represented by the winding stair, but of life eternal, triumphant over death, leading directly through the porch to the Holy of Holies. Observe the dormer window, emblematically admitting the revelation of divine truth; but it is one of the most beautiful and at the same time one of the most mysterious doctrines of masonic symbolism that the Freemason, whilst always in search of truth, is destined never to find it in its entirety. That teaches him the humiliating but necessary lesson that the knowledge of the nature of God and of man's relation to Him, which knowledge constitutes divine truth, can never be acquired in this life. Such consummation only comes to him when he has passed through the gateway of death and stands in the court of light, with the full light of revelation upon him."

Inscriptions on the Emulation Scroll

A eulogy, written in basic unpointed Hebrew characters, is on the overhanging right hand side of the scroll. It relates to the inscriptions on the coffin. An epitaph, written in basic unpointed Hebrew characters, is at the bottom of the scroll and also relates to the inscriptions on the coffin. As the original texts of the inscriptions are not available, an interpretation of the Hebrew characters on the tracing board must suffice. This presents some difficulties because, even on the largest tracing boards, some of the Hebrew characters lack clarity and definition, so that they cannot be read with certainty. It might be supposed that it was not intended that the inscriptions should be read, but this would not be in keeping with the meticulous care taken in other details and the interrelationship of all components of the tracing board. As the script is composed only of root words without vowels, prefixes or suffixes, its interpretation is limited to character recognition for word definition and for grammar. The interpretation of modern Hebrew writing is assisted by vowels, prefixes and suffixes.

Because the script on the tracing board is comprised of root words as in the original Biblical writings, a different interpretation of a character may allow an alternative composition of the root word. Unless they are carefully written, it is possible to confuse several pairs of Hebrew characters, of which the following are of particular relevance to the inscriptions on the scroll. Yod, Waw, Zayin and also Nun, in the forms that are used at the end of a word, could easily be confused if poorly written. Several pairs of characters, Beth and Kaph, Daleth and Resh, Gimel and Nun, as well as Mem and Samech, are similar in shape. Three other characters that are of the same general shape are He, Heth and Tau, which could easily be misread if poorly written, because the left leg of He does not quite join the top as in Heth, while the left leg of Tau has a slight curve at the lower end. We do not know if Brother John Harris correctly transcribed all of the characters from the original scroll on Brother Josiah Bowring's tracing board, or if the original itself included any errors.

A study of the script shows that a few small differences in the interpretation of characters could produce interesting changes in the translations of the eulogy and epitaph that are worth mentioning, though none alters their underlying meanings. A Hebrew sentence with an active or finite verb usually commences with the verb, followed by the subject and then the object. Passive verbs are usually omitted when a word links the subject to the predicate that then follows. Several interpretations have been considered, but some clearly are not relevant to the circumstances. The root words and their relevant meanings for the adopted interpretations are set out below in the sequence in which they appear on the scroll. The interpretations give the exact meanings of their Hebrew counterparts, although equivalent modern English words could have been substituted, for which there are other Hebrew words. For example extremity is used with its ancient connotation of death, as intended in extreme unction. The alternative expressions are familiar and may have been avoided deliberately.

The Eulogy

The first line of the eulogy appears to be Heth Yod meaning by the life of and Kaph Lamedh, meaning wholly, completely, to be finished. The second line appears to be Resh Heth Shin meaning to give up or to throw up followed by Lamedh Beth meaning life or the heart or the vital principle. The third line appears to be Shin Resh meaning violence, destruction and Aleph Lamedh meaning unto,

into or causation. The fourth line looks like Sadhe Yod Resh meaning to go or to prepare for a journey. The fifth line is like Aleph Beth meaning father and Yod meaning to. If this is the correct interpretation of the characters, then the eulogy may be expressed in the words: "Having given up his life as a result of violence, he has passed on to the Father." There is no doubt that the first character in the first line of the eulogy is Heth, but if it should have been He then the first line actually becomes a significant noun and the structure of the sentence is altered. The alternative translation of the first line then becomes He Yod Kaph Lamedh, which means the temple and in Hebrew usage specifically the temple of the Lord at Jerusalem. However, the structure of the sentence and its interpretation would only make sense if the inscriptions in cipher at the head of the coffin were included. As the ciphers originally were in Hebrew characters their inclusion might have been intended and the eulogy would read: "Hiram Abif, the Master Smith at the temple of the Lord at Jerusalem, gave up his life as a result of violence and has passed on to the Father." In all of the circumstances this is the preferred interpretation.

The Epitaph

The part of the epitaph on the right of the scroll seems to begin with Beth Heth meaning to rest, followed by He Waw meaning alas!, then by Qoph Sadhe Resh meaning extremity and finally Beth meaning in. The part of the epitaph on the left side of the scroll appears to be Yod Kaph Shin Resh meaning right, proper, or to be acceptable, followed by Heth Yod meaning to live, then by Nun Aleph which is an exhortation when following a verb, then by Sadhe Beth meaning glory, splendour or beauty and finally Yod meaning in. When read together, these two parts of the epitaph testify to a belief in the resurrection, saying: "Alas! He is at rest! In his extremity may he be acceptable to live in glory!"

Although the portion of the epitaph on the right of the scroll clearly ends with Beth, the two or possibly three characters preceding it are not very clear. Their interpretation can affect the sentence structure and also the interpretation of the preceding characters. The first two characters clearly read Beth Heth, which means to rest, but the next two characters He Waw, which usually signify a lamentation such as Alas! could signify a possessive pronoun such as his in a different context. If only two characters precede the final Beth, the last root word on the right of the scroll might then be interpreted as Qoph Sadhe Beth, which means to cut off, to cut down, extremity or end. The intermediate character or characters are the most obscure and might be interpreted as Qoph Teth Beth, with similar meanings to Qoph Sadhe Beth, but also meaning destruction. If on the other hand the obscure writing represents three characters, which seems likely, other interpretations are possible for what would then be the root word preceding the final Beth on the right of the scroll. One is Qoph Beth Resh, the usual noun for a grave, a burial place or a sepulchre as well as the verb to bury; another is Qoph Sadhe He meaning to cut off or to destroy; and lastly there is Qoph Beth Lamedh meaning to kill or to slay. It is interesting that all of the alternative nouns and verbs would be appropriate to the general tenor of the epitaph, but grammatically the noun is to be preferred. The preceding He Waw then becomes a possessive adjective and the final Beth becomes an idiomatic preposition, so that the epitaph would then read: "At rest in his grave, may he in his destruction be acceptable to live in glory."

The Symbols on the Scroll

On the left hand side of the scroll, immediately above the epitaph, a pentacle circumscribed by a circle has a Yod in the centre, signifying the omnificence of God. The pentacle represents man and the single point directed heavenwards represents his integrity and goodness. Operative freemasons considered the pentacle or pentagram to be a symbol of deep wisdom and it is found among the architectural ornaments of most religious structures of the Middle Ages. Among speculative freemasons the pentacle is an emblem of the five points of fellowship, which typifies the bond of brotherly love that should unite the whole fraternity. The pentacle, circle and Yod combine to herald a victory in death and a resurrection in the hereafter by the grace of God. At the top of the scroll, above the pentacle, an equilateral triangle with its point uppermost signifies perfection. From time immemorial the equilateral triangle has been used almost universally as a symbol of the Deity. The pentacle and the Yod within a circumscribing circle, when coupled with the equilateral triangle, indicate that as the master craftsman, Hiram Abif, had completed his earthly labours in the service of the Lord, he would return to his Maker and receive his reward in life eternal. Thus the symbols on the left hand side of the scroll aptly sum up the message that is conveyed by the inscriptions on the coffin, in conjunction with the eulogy on the right hand side of the scroll and the epitaph at the bottom of the scroll.

Interpreting the Hebrew Inscriptions

Those who wish to examine the foregoing interpretations in greater depth may need more information on sentence structure, verb forms and nouns, for which purpose the Introductory Hebrew Grammar by R. Laird Harris is a useful reference. The Analytical Hebrew and Chaldee Lexicon by Benjamin Davidson is an invaluable source of information for a detailed study of Hebrew words used in the Bible. It is arranged alphabetically and includes every word and inflection used in the Old Testament, as well as identifying where each word is used. Other useful references for the derivation of significant Hebrew words and for Biblical history relevant to this discussion are The New Bible Dictionary published by the Inter-Varsity Press, Unger's Bible Dictionary by Merrill F. Unger and a book edited by John Bowker entitled The Oxford Dictionary of World Religions. A book by Roy A. Wells, entitled Some Royal Arch Terms Examined, also is very informative concerning the derivation and meaning of many Hebrew words relevant in freemasonry. He also comments on the Gaelic interpretation of one of the words, but in doing so he misses one vital point. The word itself certainly was not one that had been coined by the Jacobite freemasons in Scotland, but the very close similarity of its pronunciation in Hebrew and Gaelic no doubt gave rise to its special connotation when used in Scotland and France.