

An *entablature* refers to the superstructure of moldings and bands which lie horizontally above columns, resting on their capitals.



Maine Masonic College Holds Fourth Annual Convocation

Richard L. Rhoda
Grand Historian

The Fourth Annual Convocation of the Maine Masonic College in Bangor in early October was a landmark occasion. The College held its first graduation ceremony and had 6 people, including one woman, receive their certificates for having completed the core courses of studies and two Brothers received their Diploma.

Receiving their Certificate of Masonic studies were M.W. Walter Macdougall, Judy Macdougall, and R.W.'s George Macdougall, Donald McDougal, Richard Bowden and Eric Kuntz.

R.W. Donald McDougal is the first Maine Masonic College student to receive his Diploma having completed a Journey in Leadership.

M.W. Walter Macdougall was also presented an Honorary Diploma in all Journeys for having been the inspiration and moving force behind the College since its inception and for his service as the first Dean of Academic Affairs, an office he held for many years.

The Convocation was commenced with remarks from Maine Masonic College Chairman Steve Nichols and M.W. David Walker, Grand Master of Masons in Maine. The topic of the day was 'Civility' which has also been chosen as a pri-

ority by the Grand Master. Speakers at the all-day Convocation included M.W. Bro. Walter Macdougall and R.W. Bro's. Eric Kuntz, Charles Plummer, George Macdougall and Mark Rustin.

The convocation concluded with a panel discussion by Maine Masons following a video presentation on "Civility" by the Grand Master of California, M.W. Ron Chivonia. This distinctive panel was made up of Bro. Perry Clarke; R.W. Bros. Larry Vennell and Randy Elliot; and M.W. Wayne Adams. There were numerous Past Grand Masters of Maine in the attendance as well as Past Grand Master Wayne Hitchcock from New Brunswick.

The College Briefly...

Our name inspires us to a 'higher educational calling.' We are not a bricks and mortar school but a "Temple of Knowledge," offering a growing variety of learning opportunities in various modalities

We believe that Freemasonry is relevant in society today, helping to create a continuum of knowledge for those who are interested in personal enrichment.

Masonic ritual exhorts us to broaden our knowledge of the seven liberal arts and sciences. Thus, our programs include topics of interest to anyone with an inquisitive mind: ethics, astronomy, logic, public speaking and more. We have molded the Maine Masonic College on the best features of not only traditional and modern Masonic-oriented education but also "senior college" and lifelong learning endeavors.

In addition, we are developing audio and video material along with reading lists and more. At the Maine Masonic College, we encourage your input, your recommendations and - most of all - your....

INVOLVEMENT!

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Maine's Masonic College *...an idea from long ago*

In 1848, M.W. Alexander H. Putney, in his Grand Master's Address, commented on "(t)he subject of education, the moral engine above all other human institutions calculated to raise man to his proper sphere, (which) has ever engaged the attention of our fraternity...." He then commented on the establishment of Masonic Colleges in Missouri and Kentucky.

Being favorably disposed to

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#15 The Minutes of “Old Builders Lodge #1000”

Brother George M.A. Macdougall

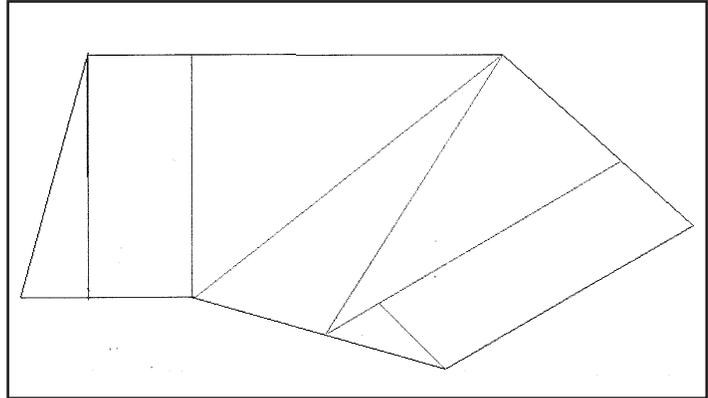
This is one article in a series on the people who created, discovered or redefined how modern architecture, engineering and science came about.

As we learned last time, our continuing subject probably wasn't a mason, but may have been the model for the calling out of 'Eureka' that is credited to Pythagoras in the ritual.

In the first installment we learned about Archimedes and his Principal involving water displacement. How he could use that principle to measure the volume of very complicated objects. Last time we explored some of the other discoveries he made in his lifetime such as screw pumps, leverage and pulley systems. In the last installment, we learned that Archimedes' calculations were so important to him, he asked a soldier to not attack him until he finished them. This time we will take a more in-depth look at those calculations that Archimedes worked on.

In an earlier 'Minutes' we found out that Sir Isaak Newton was the father of Calculus. Newton actually put together modern calculus but the roots of calculus go way back to Archimedes. Remember Newton felt that he built on what others had done before? We see this in his quote "If I have seen further it is by standing on the shoulders of Giants". One of those giants was Archimedes.

According to some, the greatest invention of Archimedes is 'integral calculus'. Using this, he measured the areas of irregular shapes. He broke the irregular shapes into a number of rectangles and triangles and then added the areas of those rectangles and triangles together. This principle is known as 'integration'. But the rectangles and triangles did not always fit perfectly so this method is really an approximation of the real area. Integral Calculus is a mathematical way to make infinitely small rectangles and triangles to cover all the area and get a very accurate measure of the irregular shaped area.



In this figure, you can see one way of calculating the approximate area of an irregular figure by breaking it down into right triangles and rectangles. What calculus does is make an infinite number of these areas to improve the accuracy of the calculated area obtained. (See the second installment on Newton for a more in-depth discussion on Calculus.)

Archimedes was a big believer that everything could be measured or counted. To prove this, he set out on the task of counting the number of sand grains the universe could contain. He was told this was impossible but he said that even though the number of grains would be very great, it was still finite and therefore could be counted.

In order to accomplish this, he first had to develop a system of very large numbers as up to that point, no one had one! The number system of the time only went up to a myriad which was 10,000. He then took his system to a myriad myriads (10,000 X 10,000) or 100,000,000.

Everything up to this number was considered 'first' numbers and this number itself was the base unit for the 'second' numbers. The second numbers went up to 100,000,000 X 100,000,000 or 10,000,000,000,000,000. He kept going in this fashion until he topped out at 1 followed by eighty quadrillion zeros (remember, he was going to count the number of sand grains in the universe!). In order to facilitate this huge system of zeros, he also developed the exponent system where numbers are signified by powers of ten (i.e. $10^8 = 1,000,000,000$).