

JOHN DEE'S 1583
NEW WORLD
CHURCH OF THE
HOLY SEPULCHER

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JOHN DEE'S 1583 NEW WORLD CHURCH OF THE HOLY SEPULCHER

BY
JAMES ALAN EGAN



"CITIZEN OF THE WORLD"
(COSMOPOLITE IS A WORD COINED
BY JOHN DEE, FROM THE GREEK
WORDS COSMOS MEANING "WORLD"
AND POLITÉS MEANING "CITIZEN")

COSMOPOLITE PRESS
NEWPORT, RHODE ISLAND

ATTENTION:
THIS BOOK IS BASED ON ALL THE
BACKGROUND INFORMATION PROVIDED IN
JAMES A. EGAN'S EARLIER BOOK:
**ELIZABETHAN AMERICA,
THE JOHN DEE TOWER OF 1583.**

*This book is dedicated to John Dee,
the master riddler and mastermind
of his three equivalent masterpieces:
his Book, his Symbol and his Tower*

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THE ILLUMINATING LIGHT IN THE TOWER

A brief review of my “Fiery Water in the Fireplace” discovery



The Tower and its view
looking west over the bay

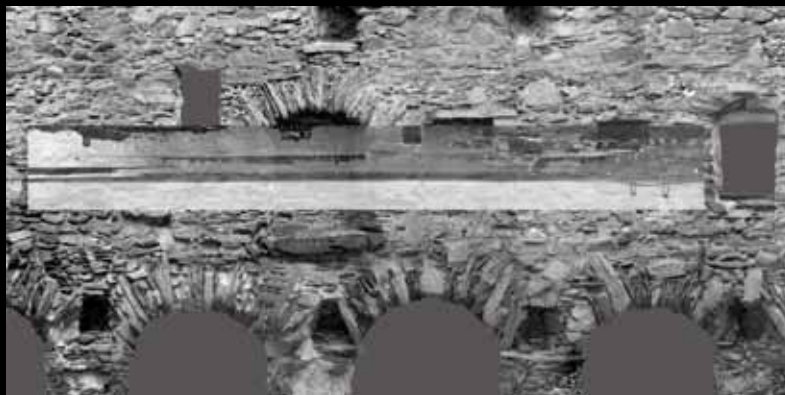
Before the houses were built at the west end of Touro Park, the Tower had a panoramic view of the bay. A small section of this vista can be seen by looking west down Pelham Street.

By studying the groundbreaking work of astronomer William Penhallow, (Professor Emeritus of Astronomy and Physics from the University Rhode Island) and observing the light patterns in the Tower, I had previously discovered how the architect, John Dee, had designed a “celebration of the equinox” into the stone-and-mortar Tower.



Photo taken from near the Tower
looking west down Pelham Street
showing sun's reflection off the bay

If all the windows of the first-floor room were blocked, except for a half-inch diameter hole in the center of the West window, the camera obscura image the “port” on the Dee River (Newport Harbor) would be projected onto the curved eastern wall of the room. (Note that the horizon line passes through the middle of the height of the fireplace, yet under the two niches to the right of the fireplace)



Digital simulation of part of the camera obscura image
(Panoramic photo of western horizon superimposed
upon the eastern interior wall of the first-floor room.)



To get an idea of what the camera obscura image in the Tower originally looked like, I found a nearby building that had a view of the bay similar to the one the Tower once had.

Note that about a half-hour before sunset, the reflection of the sun off the water is so bright, you can't look at it—not even with sunglasses.

My photo assistant, John Tavares, and I set up a 9-foot roll of seamless white paper, then darkened the room, except for one small hole.

As the image is projected upside-down, the earth appears above the water. At the bottom of the image is the solar disc, the image of the sun.

In the center of the image is another bright spot. It's the sun's reflection off the water of the bay. Just as you can safely look at the image of the sun in a camera obscura, you can also observe this bright reflection. It consists of millions of tiny reflections of the sun bouncing off the choppy surface of the water, giving the appearance of fire. This is what I call "Fiery Water."

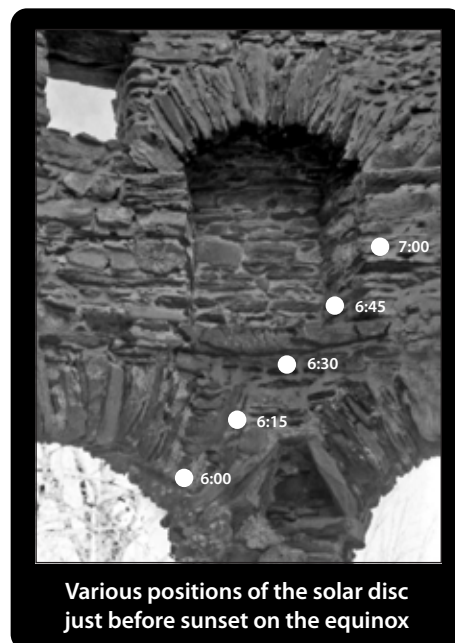
Around 1660, the scientist Rober Boyle was likewise fascinated by this phenomenon. He writes, "It looked like millions of shiny fish scales, which sparkled as the Sun, Wind, and River changed."

To sharpen the image, I used an even smaller hole. The solar disc and the Fiery water display become even more well-defined.



On the equinox, just before the moment of sunset (7:00), the solar disc (the image of the sun) would be projected onto the eastern interior wall, just to right of the fireplace.

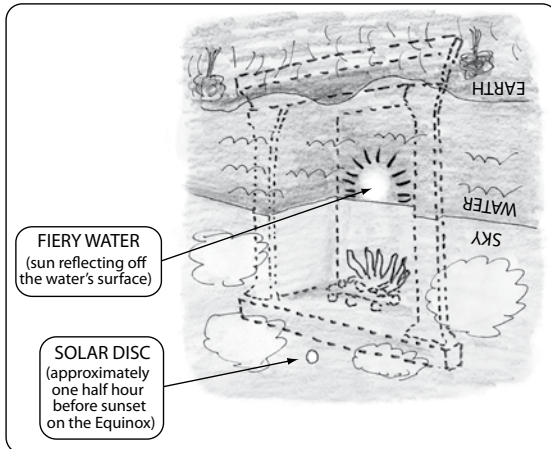
To get to that position, it had moved upwards and to the right.



About a half-hour before sunset (6:30), the solar disc would be right under the fireplace. At this time, the brilliant reflection of the sun, shimmering off the waves in the bay, would be projected into the middle of the firebox.



Sun and Fiery Water image superimposed on fireplace



And quite appropriately, this Fiery Water display is projected in *the fireplace* on the equinox, the first day of Aries. And zodiacally speaking, Aries is a Fire Sign!

I envisioned the people in the Tower lighting a blazing fire at this special moment, celebrating the day of the equinox, when the sun sets directly in the west.

The ancients began their of the year on the “first of Aries.” Moreover, they felt all of Creation started on the first of Aries.

John Dee not only included the Aries symbol in his Monas symbol (the two half-circles at the bottom of the symbol), he included a depiction of Aries the Ram in his Title page illustration.

In Theorem 11, he writes that the “first of Aries” symbolizes the day when there are 12 hours of light and 12 hours of darkness, totaling exactly 24 hours.

Theologically, Dee believed that Jesus was born on the Winter solstice (December 21) and had been conceived 9 months earlier, on the Spring equinox (March 21).



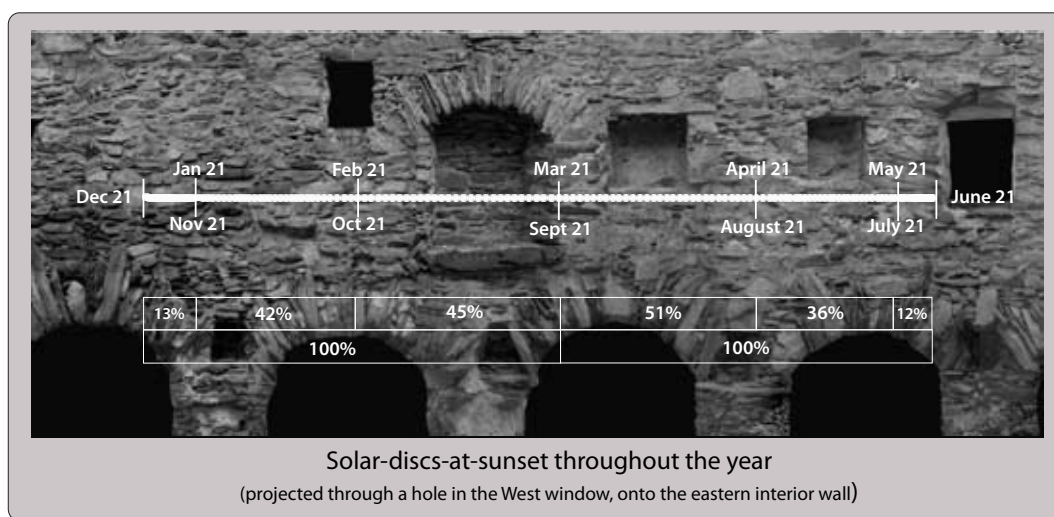
Besides this spectacular Fiery Water display, it's also quite remarkable that, on the equinox, the solar-disc-at-the-moment-of-sunset is on the right edge of the firebox.

On the equinox, the sun is directly above the equator. Because the Earth's axis is tilted, after the equinox the sun is above parts of the northern hemisphere.

Looking westward towards the horizon over the bay, on the equinox, the sun sets exactly due west. The next day, the sun-at-sunset is slightly further to the right (northward). (If both solar discs could be observed at the same time, they would appear to be approximately tangent to each other.)

Over the next month or so, each day the golden ball of the sun-at-sunset moves further to the north. But the day-to-day change is not a regular pace. After a few weeks, comparing two neighboring-day sunsets, the suns would appear to overlap a little. After a few more weeks, they overlap quite a bit. Eventually, near the solstice, the sun rises in approximately the same place for a period of about 20 days. In Latin, *solstice* literally means "sun, stationary."

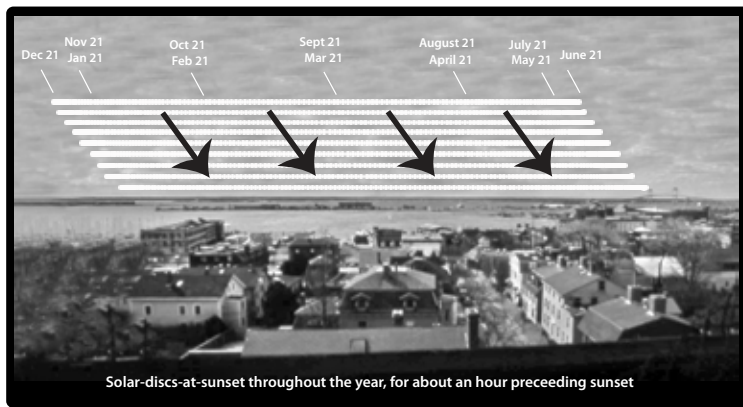
Over the course of a year, the setting suns visually array themselves in what might be called a "pendulum" fashion. That is, a pendulum swings fastest when it is vertical, then slows down as it swings upward, then moves even slower until it eventually grinds to a halt. It pauses, then reverses direction. As it swing backs down to near vertical again, it is moving at its fastest. The same pattern repeats itself on the opposite side of the swing.



The digital simulation above shows the approximate positions of the solar disc-at-the-moment-of-sunset, throughout the year. Starting in the center (at March 21), the solar disc-before-sunset moves to the right, during April, and May, until the Summer solstice on June 21.

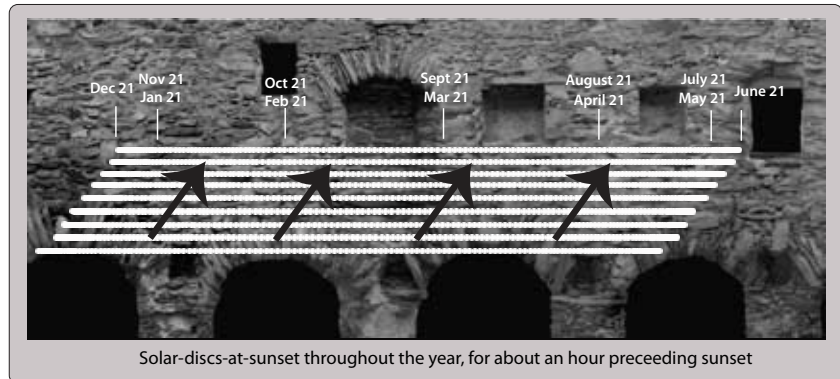
Then the solar-discs retrace their positions through July, August, to the Fall equinox (September 21). Then they continue northward to the Winter solstice. They backtrack through January and February, back to the right edge of the fireplace on March 21.

The day-to-day "pendulum-like" changes can be seen by studying the percentages at the bottom of the chart. The discs near the equinoxes are really change positions significantly from day to day. But near the solstices, the discs change position only slightly from day to day.



Looking west, the setting suns do not drop vertically straight down to the horizon. They angle downwards and to the right.

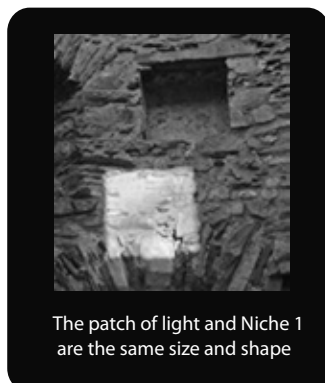
Thus, inside the camera obscura Tower, the solar-discs move upwards and to the right each day. This digital simulation shows their approximate paths, for about the hour before sunset.



Something about Niche 1 caught my eye

Nowadays, the Tower has no floor, ceiling or a roof, so it can't be darkened to see a camera obscura image inside. But much can be learned by studying the 2-by-2-foot-square patch of light that comes through the 2-by-2-foot-square West window.

If the West window was all blocked up, except for one small hole (directly in its center), the solar disc would be a bright "two-and one-eighth inch" diameter circle, right in the middle of the 2-by-2-foot-square patch of light. I could easily judge where that centerpoint was.



As the patch of light slowly rose, something else caught my eye.

It was quite similar, both in its size and its square shape, to Niche 1, the 2-by-2-foot recess just to the right of the fireplace.

In his classic 1942 book, *Newport Tower*, Philip Ainsworth Means refers to this as “Niche 1,” explaining: “It has an opening a trifle more than two feet square with a monolithic lintel of a dark reddish brown stone. That these niches were built around a box mold is made clear by the traces of the wood still to be seen in the plaster of Niche 2.” [Niche 2 the smaller niche to the right of niche 1]

Philip Ainsworth Means, *Newport Tower*, (NY, Henry Holt, 1942) p. 11

And while it’s true that niche one was once smaller, (as it had a wooden inner frame), the West window probably had a similar frame on which its shutter or “window-door” was hinged.

But I was perplexed. As the camera obscura image’s projected “horizon line” is just below that niche, the 2-by-2-foot-square patch of light would never make it high enough up to fill the the 2-by-2-foot-square Niche 1.

About a month after the Spring equinox (around mid-April) the “Fiery Water” reflection would indeed project into Niche 1. But Niche 1 does not have a flue, so it wouldn’t be as symbolically meaningful as when the Fiery Water displays above the “real, blazing wood fire” in the fireplace on the equinox.

The second thing that struck me was how reddish-orange the patch of light got moments before sunset. A tree in the park or a house blocked part of the patch, but I could tell the solar disc would be projected just under the Niche 1. This meant an orange glow reflecting off the water of the bay would bathe the niche with a warm, shimmering light.

Could Niche 1 have been a small shrine? Perhaps it once held a statuette of some person important enough to be bathed in a golden light.

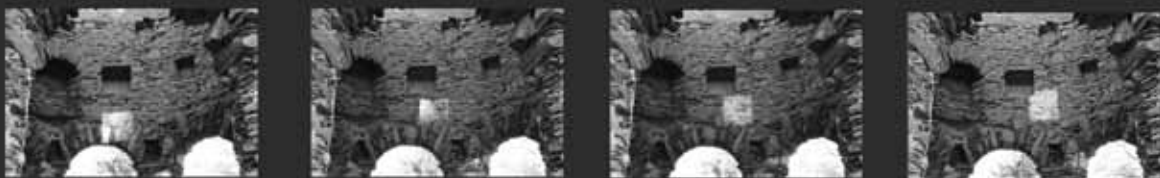
And if so, what about the smaller niche to its right? Did it hold a smaller statue?



Orange sunset glow in Niche 1,
at sunset on April 6

11 days later ...

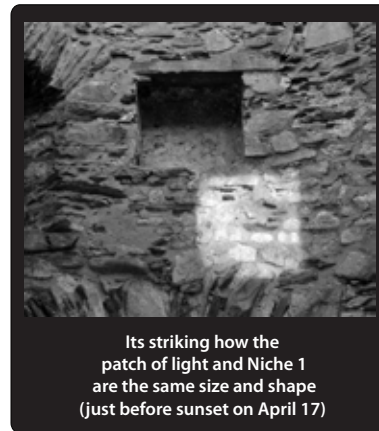
To witness the sun’s progress, I took another series of photos on April 17 (11 days later). The path of the patch of light had moved noticeably to the right.



Patch of light coming through the West window, just before sunset, on April 17

Again I was taken by the similarity, in both size and shape, of the patch and the niche.

This visual echo of light and stone certainly seemed intentional. What was the architect trying to say?



Its striking how the patch of light and Niche 1 are the same size and shape (just before sunset on April 17)

What about Niche 4 on the western interior wall?

I was also curious about the purpose of Niche 4, the approximately 18 -by-18-inch-square square niche on the *western* interior wall, just to the right of the West window. So I set the alarm for 5:00 AM (yawn), went to the Tower, and took a series of photos of the dawn light streaming in through the Northeast window. The sun was blocked by houses for the first 10 minutes or so. Then suddenly a warm yellowish patch appeared. As the sun rose, the patch moved downwards and to the right.



Patch of light from the Northeast window, projected onto the western interior wall, for about an hour after sunrise, on April 13. (Note how similar it is, in both size and shape, to nearby Niche 4.)



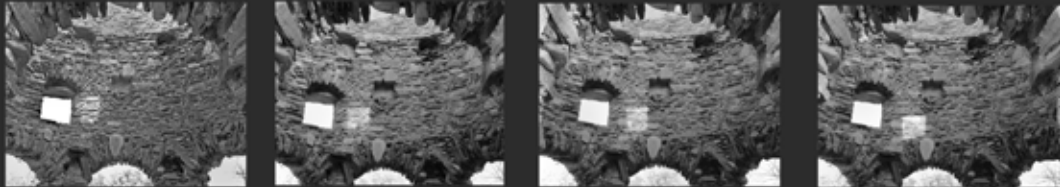
The patch of light coming through the Northeast window, is similar in size and shape to Niche 4 on the western interior wall (just after dawn on April 13)

Even though the Northeast window is taller than it is wide, the top and bottom of the deep window opening seemed to block some of the light, and thus the projected patch was square.

Not only that, the square was about the same size as Niche 4. Another visual echo.

13 days later...

On April 26 (13 days later), the path of the patch of light had shifted about a foot to the left. Taller houses prevented the sun from shining through the Northeast window for about the first twenty minutes after sunrise. Then the patch appeared and marched slowly downward and to the right. (I realized that I should have been photographing around April first to see the light patch illuminate inside the niche.)



The patch of sunlight shining through the Northeast window, just after sunrise on April 26, is similar (in both size and shape) to Niche 4

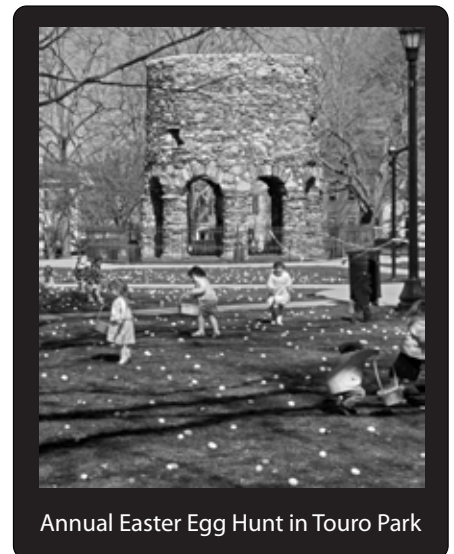
All this same-size-ness was too coincidental. And having solved many other Dee riddles, I knew he was expressing something important. (Do you have any idea what it might be?)

April in Newport

Newport is an inspiring month in Newport. After a long, foggy, grey winter, yellow daffodils and purple crocuses magically materialize in unexpected places. On the first Saturday in April, the City of Newport holds its annual Easter Egg Hunt in Touro Park.

The fresh green grass is festooned with thousands of plastic eggs—all the colors of the rainbow. As the nearby churchbells toll 10 o'clock, dozens of children (ages 2-7) excitedly rush around gathering eggs in their Easter baskets. Twelve eggs wins you a bag of toy prizes.

Curious about the origin of this colorful rite, I googled “Easter egg.” It goes way back. Before 325 AD, the early Christians of Mesopotamia were dyeing Easter Eggs red to represent the blood which Christ shed on the Cross. The hard shell represented the tomb Jesus was buried in. And cracking the egg, opening the tomb, represented Christ’s resurrection from the dead.



Annual Easter Egg Hunt in Touro Park

Suddenly it dawned on me, Dee was trying to express the idea of Easter. But Easter always falls on a Sunday, and not always the same Sunday each year. How could Dee make an alignment with a specific day when that day shifts around every year? Maybe Dee was being more general and expressing “the Season of Easter” with these niche alignments.

To find more clues, I studied the history of Easter—in Biblical times, Medieval times, Elizabethan times—up to the plastic eggs in Touro Park.

EASTER IS A BIG DEAL

Easter is the most important Christian holiday. It's even more important than Christmas. It commemorates the Resurrection of Jesus. The Easter "Triduum," meaning "a period of 3 days," Good Friday, Holy Saturday and Easter Sunday. But, to be more precise, the 72-hour period actually starts on the evening of Maundy Thursday and ends on the evening of Easter Sunday.



In his comprehensive book, *Astronomies and Cultures in Early Medieval Europe*, in a chapter entitled "Computing the central time—the date of Easter," noted historian Stephen C. McCluskey writes:

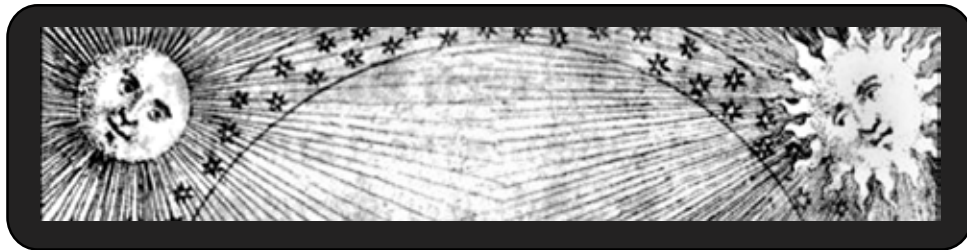
"Easter is the central event of the Christian drama of salvation, in which humankind is restored to something like the primordial state at the moment of Creation. Christians have always seen the redemptive act of the Resurrection, like the equinox of spring, as a triumph of light over darkness.

According to one tradition, the Passion occurred on the vernal equinox, which was the same day on which Christ was conceived, the same day on which the luminaries were created."

McCluskey continues:

“The supernatural mystery of the Resurrection of Christ and the natural mystery of the rebirth of nature combined to place the Easter season at the center of sacred time. Springtime is the season of rebirth, in which the cycle of time returns to the moment of Creation—a return through which nature is re-created once more. In Genesis, on the first day God “divided light from darkness and called the light day in the darkness night” (1: 4-5); on the fourth day “He created the two great luminaries... to rule the day... and the night)” (1:16).

By tradition the division was equal, with day and night of equal length, and the Moon was created illuminating the whole night. Thus Creation began at the equinox, and the Moon was created full. The Easter ritual must return the worshiper to that central time. The long debate over the date of Easter pivots around those times of salvation and Creation.”



McCluskey discusses the importance of “uniformity...the harmony of Christendom, and the spiritual imperative that all Christians be united in prayer.”

McCluskey, Stephen C., *Astronomies and Cultures in Early Medieval Europe* (Cambridge, Cambridge University Press, 1998, p. 77-78)

Here is a quick overview of the Three Days of Easter:

Maundy Thursday



Mount Zion, the site of the Last Supper

On Maundy Thursday, Jesus shared his final meal, his Last Supper” with his disciples. Saint John writes that Jesus washed the feet of his Apostles before the Last Supper.

Tradition holds that this final meal occurred in the Cenacle, or “upper room” of what was originally a synagogue, just south of the walled city of Jerusalem, atop a small hillock called Mount Zion. It was at the Last Supper that Jesus gave bread and wine to his apostles, saying it was his body and blood.

The term “Maundy” is similar to “mandate,” or the “commandment” Jesus made to his apostles about the significance of his washing the Apostles’ feet: “Love one another as I have loved you.” This “washing of the feet” rite has been practiced from early Christian times, through the Medieval period, the Renaissance, and even still today by numerous Christian denominations.

Good Friday

Friday was not a very good day for Jesus and his Apostles. But it's called "Good Friday," because the word "Good" can also mean "holy," "pious," or "devoutly religious."

According to the Bible, the Temple guards (with the help of the betraying Apostle, Judas) arrested Jesus and brought him to trial before the Roman Governor, Pontius Pilate. (Pontius means relating to the sea, like the Pontic Greeks from the Pontus region of the Black Sea).



part of the hillock
of Golgotha

The Governor felt Jesus was innocent of the charges brought against him, but the chief priests and an unruly crowd made Pilate acquiesce. Jesus was whipped, crowned with sharp thorns, nailed to a cross. Six hours later, he was dead. To test if he was dead, a soldier pierced his body with a spear. The two wrist nailholes, two feet nailholes and the stabbing totals to what are called the "5 Holy Wounds."

The site of the crucifixion was a small hill outside the walls of the ancient "Old City of Jerusalem" (just to the west of the Western wall). This rocky hillock, which is now inside the Church of the Holy Sepulcher, is called *Golgotha* (Greek) or *Calvary* (Latin), both meaning "The Place of the Skull." Nowadays, it is adorned with a grand altar, illuminated by hundreds of candles, lit by devoted pilgrims.

Joseph of Arimathea took Jesus' body and placed it in his own, personal cut tomb that had only recently been carved out of solid rock in a small tomb complex, about 75 yards west of the Golgotha hillock. They wrapped the body in linen, along with seventy-five pounds of fragrant myrrh and aloes. Then they rolled a large rock in front of the tomb's entrance.



Steps going up to Golgotha



Part of the tomb complex
where Jesus was buried

Holy Saturday

Holy Saturday commemorates the day during which Jesus' body lay in the tomb. (Nowadays, in the Roman Catholic tradition, no Masses are held, and the space around the altar is stripped bare of all its furnishings and ornaments.)

Easter Sunday

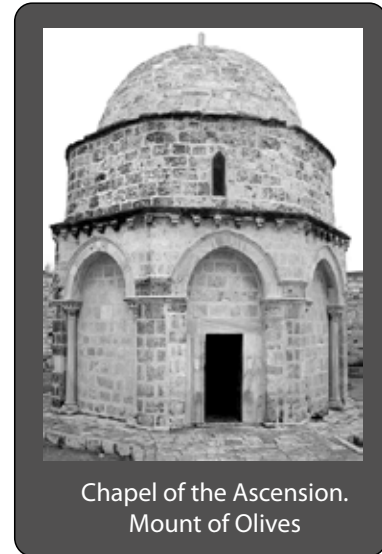
At sunrise on Sunday, Mary Magdalene went to Jesus' tomb only to find the large rock had been moved. The tomb was empty. She ran to tell the other disciples. On close inspection, all they found was the linen, lying in "a different place." So they returned to their homes. But Mary remained. Soon a man appeared. At first she thought at first was the gardener. It turned out to be the resurrected Jesus. Later, Jesus appeared before the other disciples.

The Ascension (40 days later)

Forty days after his reappearance, Jesus led the disciples to the Mount of Olives, a tall hill that overlooks Jerusalem to the west. There, Jesus vanished up in heaven.

Atop the Mount of Olives is (what is claimed to be) the footprint of Jesus, indented in the stone ledge. To celebrate and protect the footprint, around 1150, the Crusaders built the octagonal “Chapel of the Ascension.” (The dome was added later by Muslim leader Saladin who converted it into a mosque.)

The Apostles relate the story of the Passion, Death, Burial, and Resurrection of Jesus in their various books of the Bible. And Christians have celebrated the “Holy Triduum,” followed by the Ascension, for two millennia.



The date of Easter

About a century after Jesus died, a great controversy arose. Should Easter be celebrated on the first Sunday following the Jewish Passover? Or should it be celebrated the first Sunday after the vernal equinox?

In the Jewish Calendar, Passover was the 14th day of their month called “Nisan.” Because this calendar method is based on the moon, in some years the Jewish Passover occurred *before* the vernal equinox. This was not acceptable to the Christians, who insisted Easter be celebrated *after* the vernal equinox, when the “light had conquered the darkness” (the day is longer than the night).

At the Council of Nicaea, in 325 AD, it was agreed that the Easter should be celebrated on the first Sunday following the first “Paschal full moon” following the vernal equinox. The “Paschal full moon” is not always the same as the “astronomical full moon” that we can see with our eyes. “Paschal full moons” are determined by dividing the 19-year Metonic Cycle of the moon into even parts. As a result, a “Paschal full moon” can vary from the “astronomical full moon” by a day or two.

In short, Easter is associated with both the moon and the sun.

(England and Ireland were so far from Rome they adopted their own Easter dating system, but finally converted to the Roman system at the Synod of Whitby around 700 AD.)

1582 Calendar Reform

In 1582, when the Gregorian calendar reform was instituted, it was necessary to adopt a slightly different method for calculating the “Paschal full moon,” and thus Easter Sunday. (Incidentally, most Eastern Orthodox Churches continued to use the Julian calendar, so their Easter does not always coincide with the Easter of the Catholic and Protestant churches of the West.)

Protestant England did not adopt the 1582 Gregorian Calendar reform, but continued to use the Julian calendar until 1752 (170 years later). In 1582, Queen Elizabeth asked the advice of her wisest philosopher, John Dee, about this great calendar change the Pope was instituting.



John Dee's 60-page Elizabethan Calendar Reform proposal

John Dee wrote a 60-page treatise which (with a few minor differences) concurred with the Pope's astronomers that the Julian Calendar was out of sync with the sun and should indeed be reformed. Dee recommended Elizabeth become the first ruler to change the calendar and thus become "The Reformer of the Year for the Christian Epic." She would become forever famous as the Queen who "made "Civil year, with heaven agree."

(John Dee, *Calendar Reform Proposal*, Dee's poem on the last page, and his "Circle of Time," p. 7)

John Dee recommended that the date of Easter be tied to the Sun and the Moon, but in a much simpler, purely astronomical way. He proposed that Easter would always be the **first Sunday, following the first full moon, after the vernal equinox.**

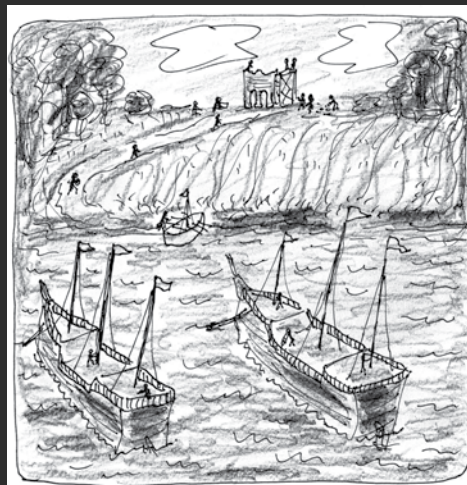
Dee based his calendar on the actual length of the year as calculated by the Greeks (Meton, Eudemon, Hipparchus, and Ptolemy) and the Arabs (Albategnuis and Al-Kindi), medieval English scholars (Simon Bredon and Roger Bacon) as well as Dee's contemporary, Copernicus.

The Queen and the Privy Council approved Dee's Calendar Reform, but the head of the English church, the Archbishop of Canterbury, Edmund Grindal vetoed the idea because it seemed too much like the Pope's decree. Dee was exasperated. Why couldn't his countrymen see the vital importance of re-aligning their civil calendar with the cosmos?



Also in 1582, as Dee was writing his proposal, I assert Anthony Brigham and a crew of 80 stonemasons and carpenters were already constructing the Tower which John Dee had designed, overlooking the Dee River (now called Narragansett Bay).

This was to be first English "city center" building in the New World—a mathematically harmonious structure that was designed to keep the "New World" on the "New Time." As Dee had incorporated many astronomical alignments into his building, it is not unreasonable to think Dee might have also incorporated the idea of "Easter" into the fabric of the building.



My onjectured illustration of Anthony Brigham's "two Ships and a pinnacle" building Dee's Tower at "Rode" on the Dee River during 1582

I was curious as to what the actual date of Easter was in 1582. I didn't have to look far to find out. In his personal diary for the year 1582, Dee wrote "Easter" next to the date "15 Apr." Easter was obviously on his mind.

Fenton, Edward, *Dee's Diary*, 1582 Calendar, p.40, (Oxfordshire, DayBooks, 1998)

Poole, Robert, *Time's Alteration*, (London, UCL Press, 1998) p. 58 and the chapter entitled, *John Dee and the English Calendar*, pp. 57-69

[Incidentally, April 15 in the Julian Calendar is April 5 in the Gregorian Calendar.]

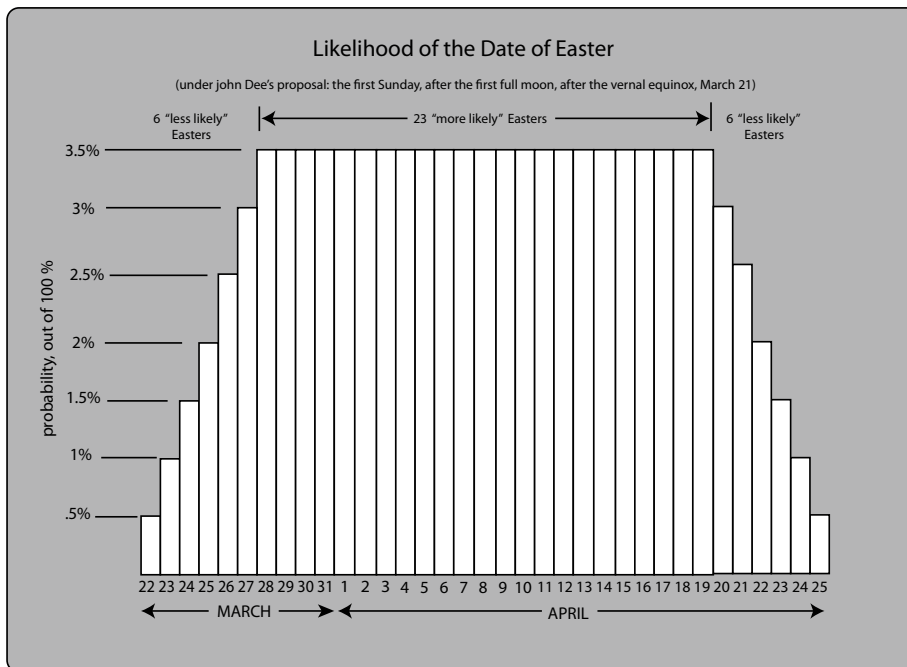
POSSIBLE DATES FOR EASTER

A lunar month is about 29.5 days long. It's actually called a “synodic lunar month,” the time “from one new moon to the next new moon.” This is the basically same length as “from one full moon to the next full moon.”

The *computus* (Latin for “computations”) for calculating the date of Easter are quite complex. (You can google the word *computus* and see the intricate mathematics involved). But Dee proposed method was quite simple:

“The first Sunday, after the first full moon, after the Spring equinox.”

As a full moon has to fall on a specific day, there are only 35 days each year, which could be “possible Easter Sundays” (according to Dee’s scheme). These days start with March 22 (the day after the Spring equinox, as Easter can’t fall on the equinox). And they end with April 25.



But the “probability of being Easter Sunday” varies a bit among these 35 days.

Here’s why: If the Spring equinox is on March 21, the next day, March 22, would be the “first possible date of Easter.” But it’s not very likely.

The odds are pretty low that the full Moon occurs on the equinox *and also* that the following day happens to be a Sunday. (It’s about a one half of 1% chance.)

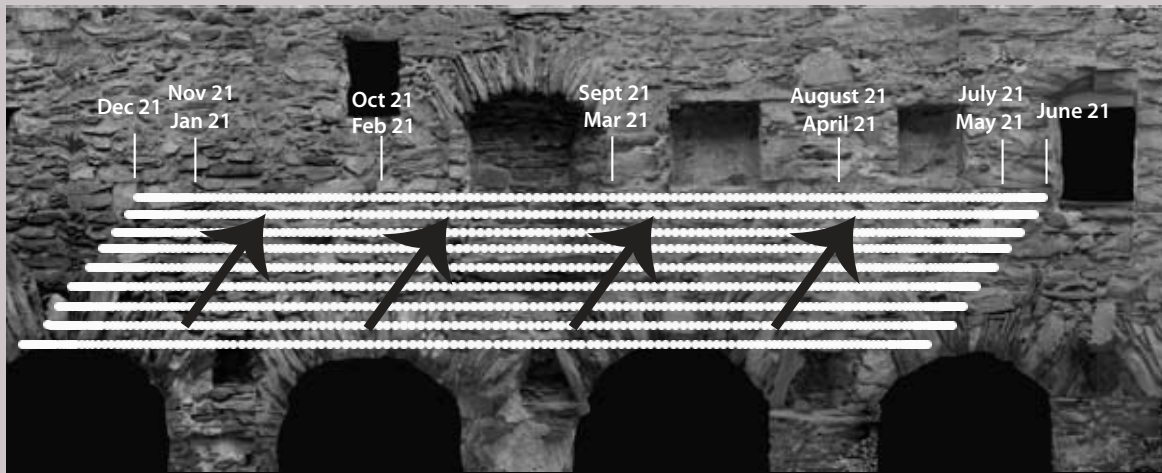
Over the next 5 days, the odds slowly improve incrementally, but it isn’t until the seventh day that the odds maximize. Then the “likelihoods” level off for the next 23 days.

On April 20, and for the next 6 days, the odds decline. The “likelihood” on the last day is quite low (again about one half of 1%). An “April 25 Easter Sunday” would mean that the first full moon after the equinox occurred 28 days after the equinox *and also* that full Moon happened to fall on Monday. Again, not very likely.

So the “frequency distribution graph” of the possible dates of Easter looks like a plateau, with “steps of less likelihood” on each side. The 23 “more likely” days (on the flat top of the plateau) each have a 3.5% chance of being Easter Sunday.

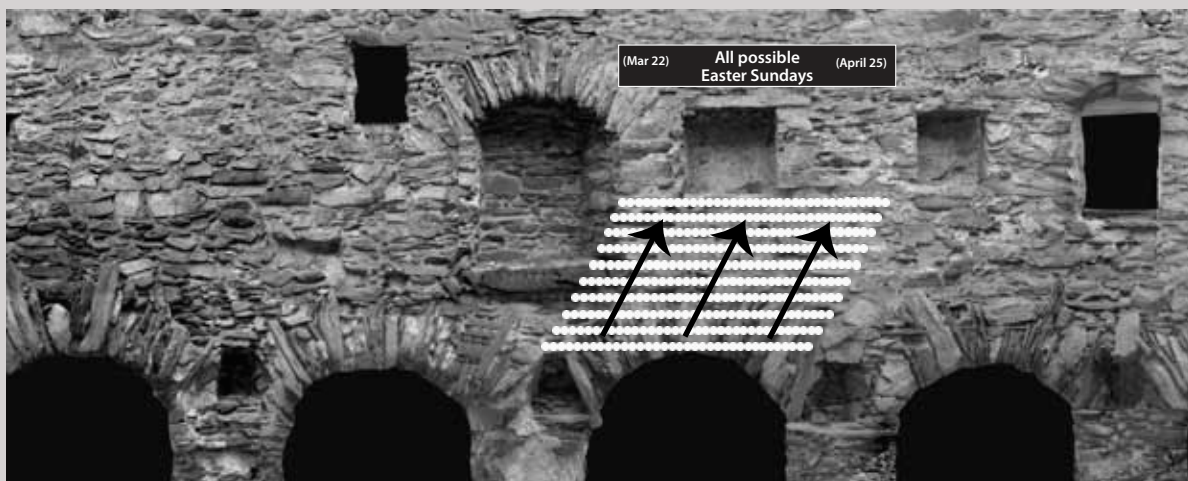
SOLAR DISCS-AT-SUNSET UNDER NICHE 1

In this computerized simulation, the solar-discs-at-sunset would approximately appear like these 182 circles (182+182 equals 364, a full cycle, about a full year). Each day the sun moves upwards and to the right.



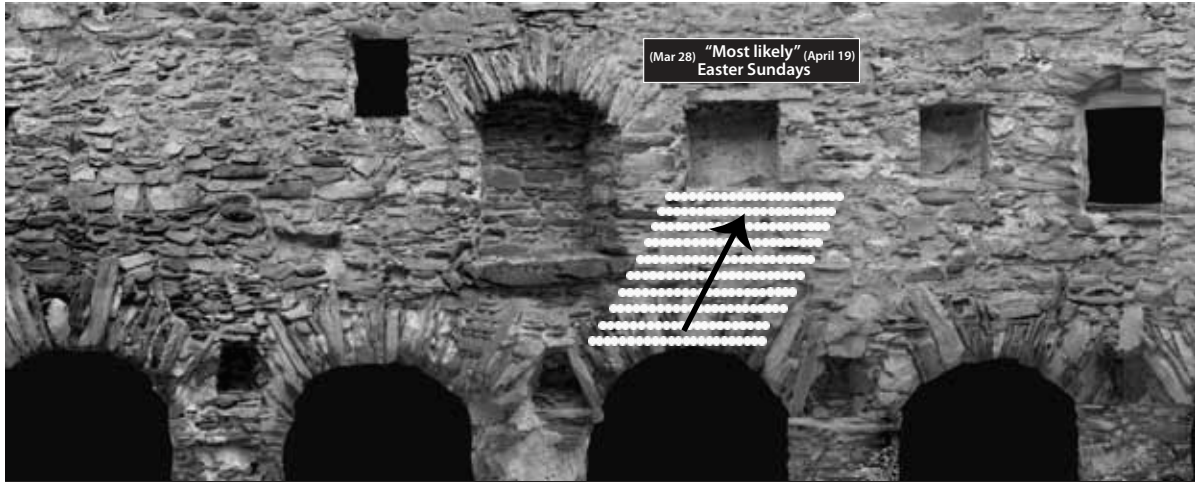
Solar-discs-at-sunset throughout the year, for about an hour preceeding sunset

Out of these 182 solar-disc at-sunsets, only 35 of them (about 20%) are “possible dates for Easter Sunday”(from “March 22 through April 25). They make a line stretching from the firebox to about 5½ feet to the right. Curiously, this line is more than twice the width of Niche 1.



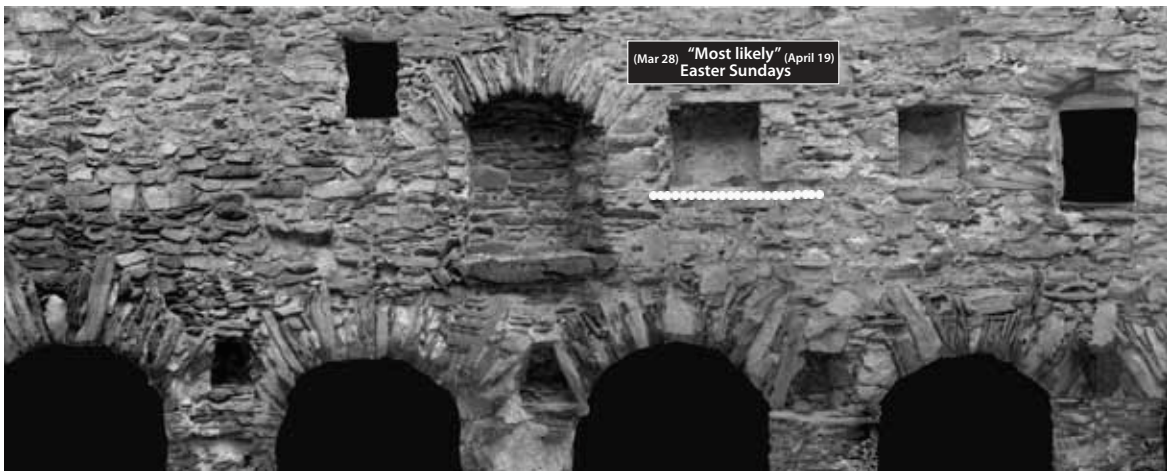
Path of all the “possible Easter Sunday” solar-discs, for about an hour preceeding sunset

Next let's apply the more clarifying distribution curve of the "Most Likely Easters." Niche 1 seems more visually related this shorter line of 23 solar discs-at sunsets.



Path of all the "most likely" Easter Sunday solar-discs, for about an hour preceeding sunset

But, perplexingly, the line is not exactly centered below Niche 1. And it is also wider than Niche 1.



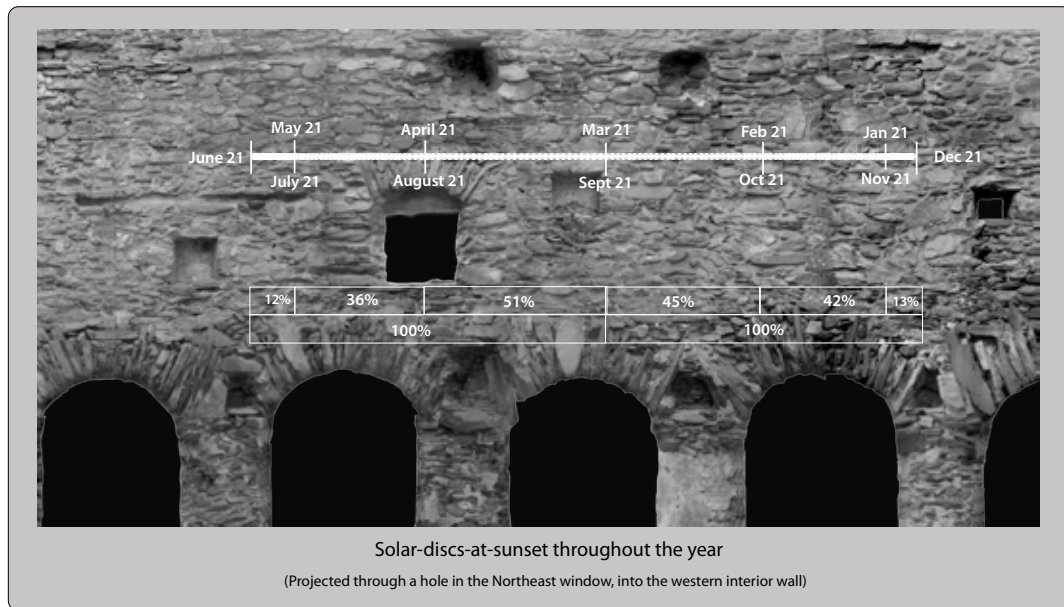
The "most likely" Easter Sunday solar discs-at-sunset under Niche1

Maybe there is a clue on the *other side* of the interior of the Tower. Let's see how the solar-discs at-sunrise, projecting through the Northeast window, align with Niche 4, which is on the western interior wall.

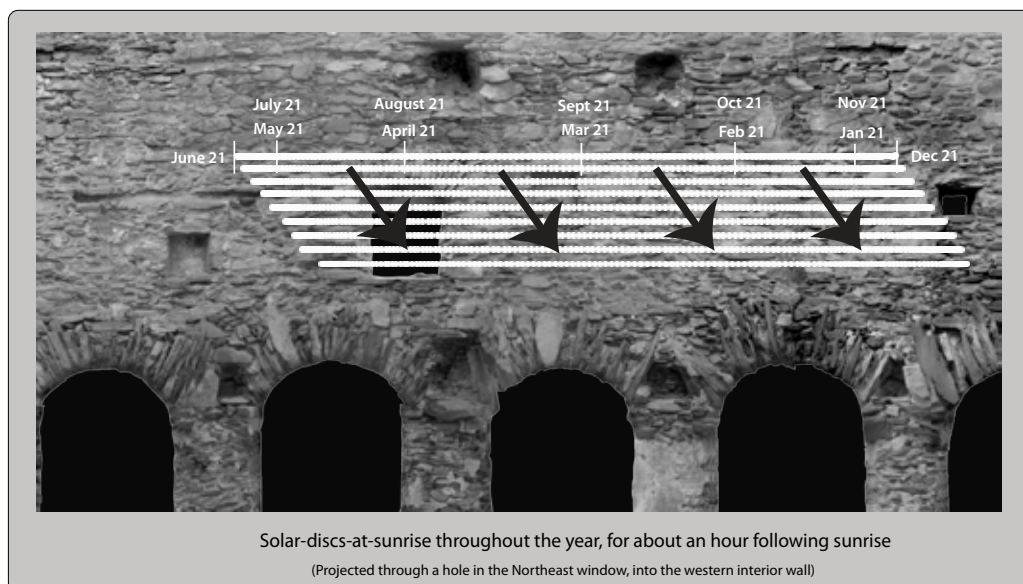
SOLAR DISCS-AT-SUNRISE ABOVE NICHE 4

Here are the solar-discs-at sunrise coming through the Northeast window, projected onto the western interior wall, again arrayed in their “pendulum-like” fashion.

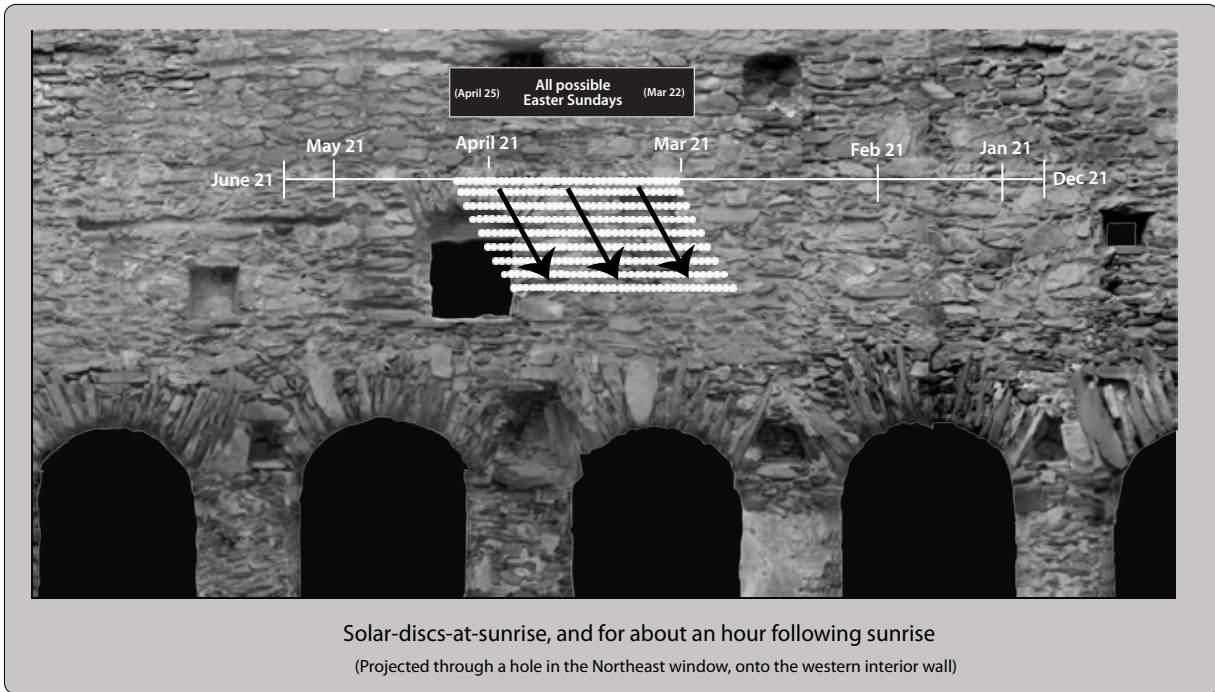
Notice that on the equinoxes, the solar-disc-at sunrise approximately aligns with the right edge of Niche 4. And on the Summer solstice, it is about one third of the way down the long, horizontal recess to the left of the West window.



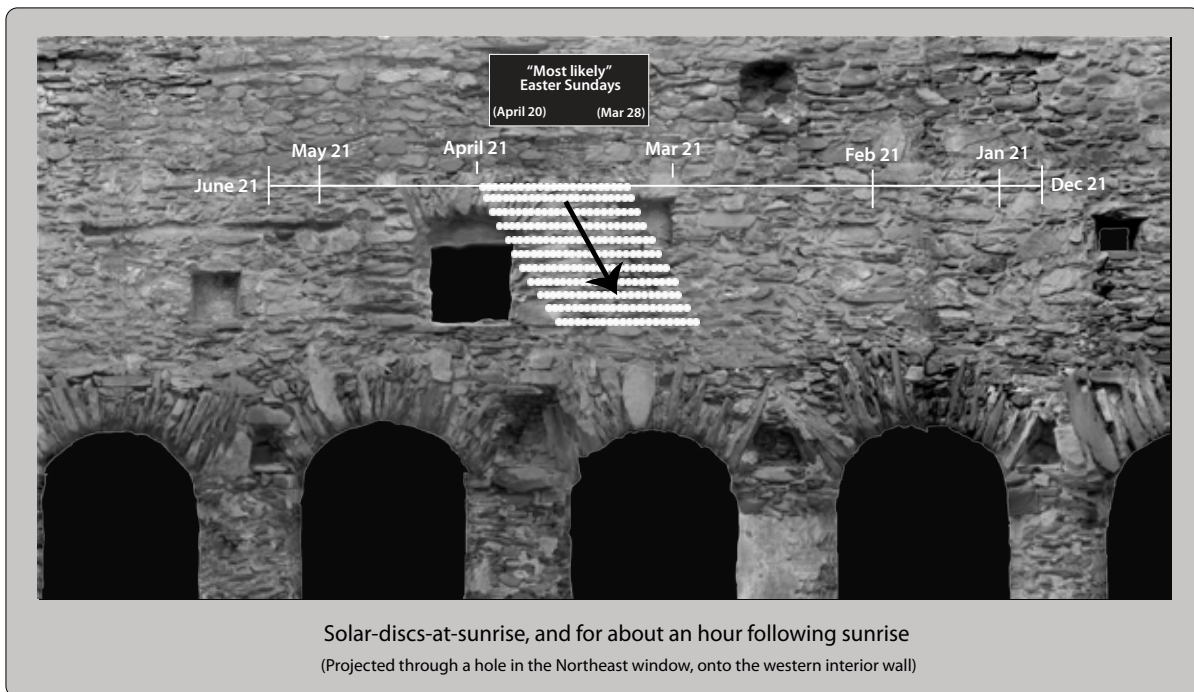
The paths of these 182 solar discs-at-sunrise are indicated by the arrows.



Some of the paths of the 35 “Possible dates for Easter” pass right through Niche 4.

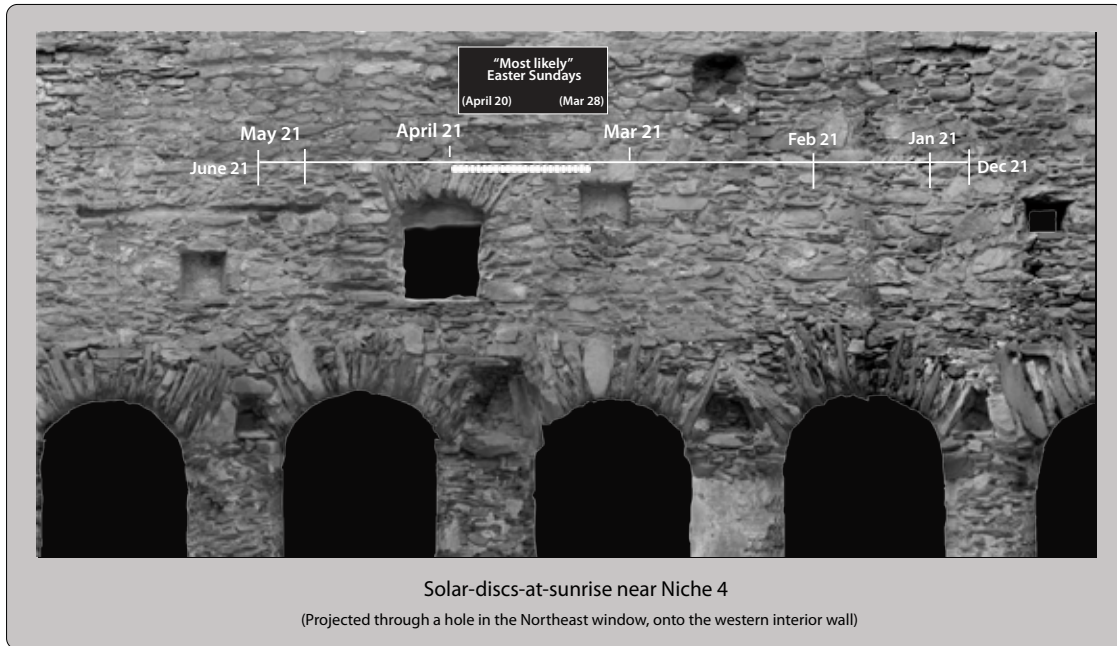


Restricting it to just the 23 “most likely” dates for Easter, about third of them pass through Niche 4.



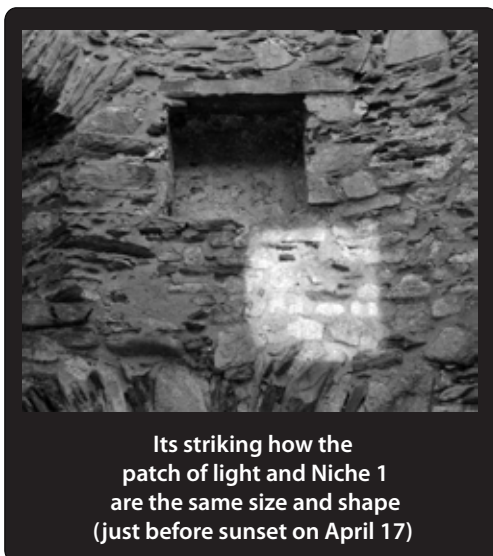
The solar-discs-at-the-moment-of-sunrise on these 23 “most likely” days form a short line extending from above Niche 4 to above the West window.

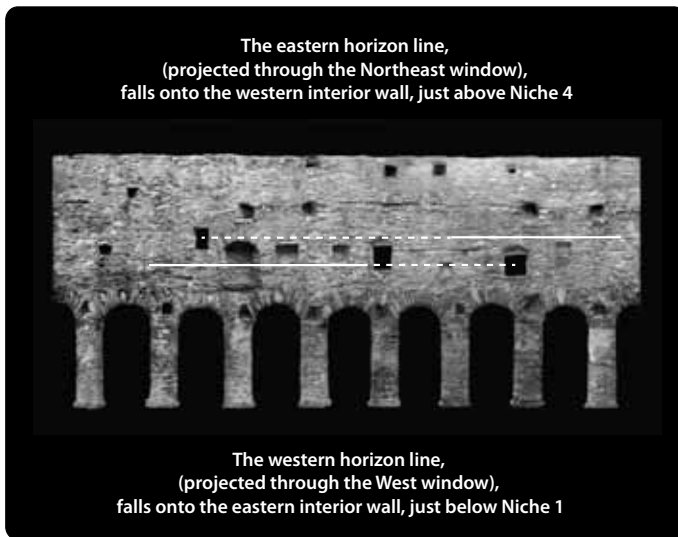
(The line is not centered on the West window, but it's pretty close, as these 23 days represent only about 13% of the full line of 182 discs.)



Why are there two Easter alignments?

It was a little disconcerting that the solar-discs-at-sunset weren't perfectly centralized under Niche 1. Nor were the solar discs-at-sunrise centered above Niche 4. But to me, this discrepancy was overshadowed by the uncanny size and shape similarity between the patches of light and their respective niches.





This “flattened out” view of the whole interior shows how the North-east and West windows differ in height. Thus, the respective horizon lines projected through them will also vary by the same amount.

But another question arises. Why would Dee have **two separate illuminating alignments** celebrating the same day, Easter Sunday?

The “sunset event” on Maundy Thursday (or early on Good Friday)

The patch of light coming through the West window shining near Niche 1 is a “sunset event.” This suggests the “sunset” on Maundy Thursday, when Jesus and his disciples had their Passover meal, the Last Supper.

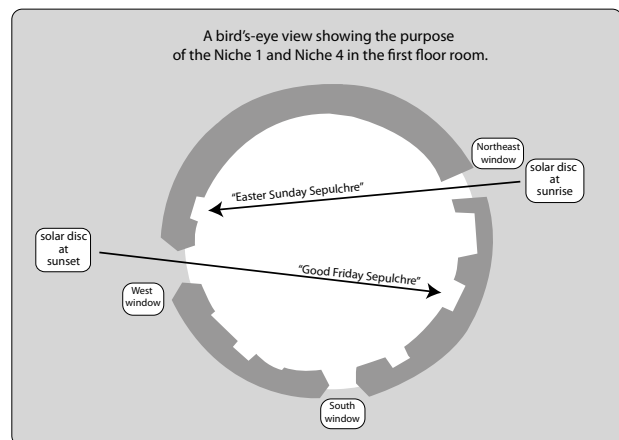
Nowadays we reckon days as the time between midnight and the next midnight. But the Jews reckoned days from one sunset to the next sunset. Thus, the Last Supper, which started at sunset actually took place on Good Friday, the same day Jesus was crucified. That’s why its called the Easter “triduum” (3 days) and not the Easter “quadrium” (4 days).

The “sunrise event” on Easter Sunday

The patch of light coming through the Northeast window illuminates in or near Niche 4 at on Easter Sunday is “sunrise event.” It was at sunrise when Mary Magdalene arrived at Jesus’ empty tomb. Niche 4 seemed to be celebrating “Easter Sunday.”

In short, the Tower has two crossfire alignments. Sunset zings towards the Good Friday Sepulchre. Sunrise zings towards the Easter Sunday Sepulchre.

This clever theatrical display, which intertwines optics, timekeeping, astronomy and theology, has John Dee written all over it.



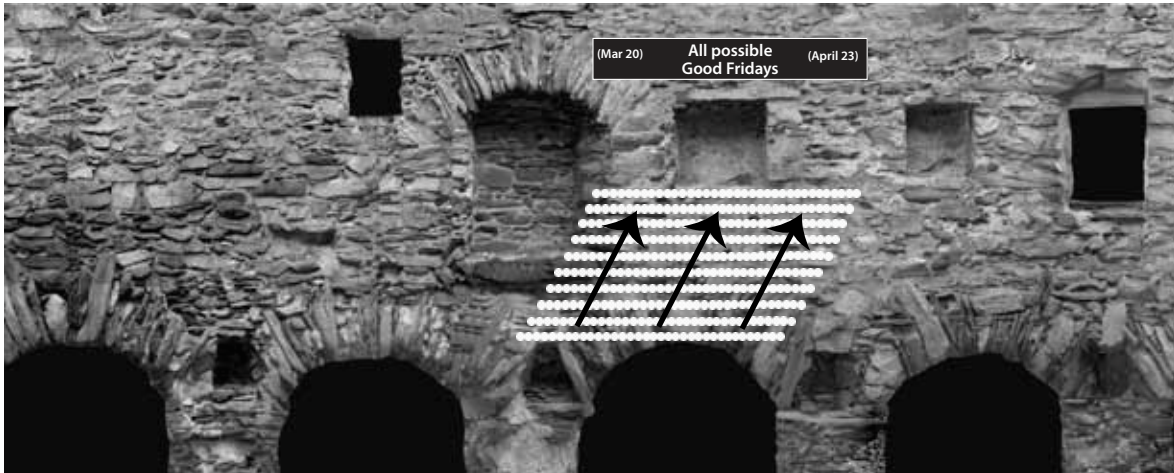
Also, this “east and west” arrangement echoes the general arrangement of many English churches, (as well as most Carolinian, Ottoman, and Romanesque churches in Europe). The altar is generally at the east end and the main entry, called the “westwork” is at the west end. The westwork of many churches is a monumental arrangement of multiple stories between two towers.

Though Dee’s small, circular Tower is much simpler than a large, rectangular cathedral, there is still that “east-west connection.” The West window is not a grand entranceway, but it is embellished with a distinctive arch on its interior and a smaller relieving arch above its lintel on the exterior. And on the eastern interior wall, the fireplace next to Niche 1 has a similar arch above it.

Revising the chart for Good Friday

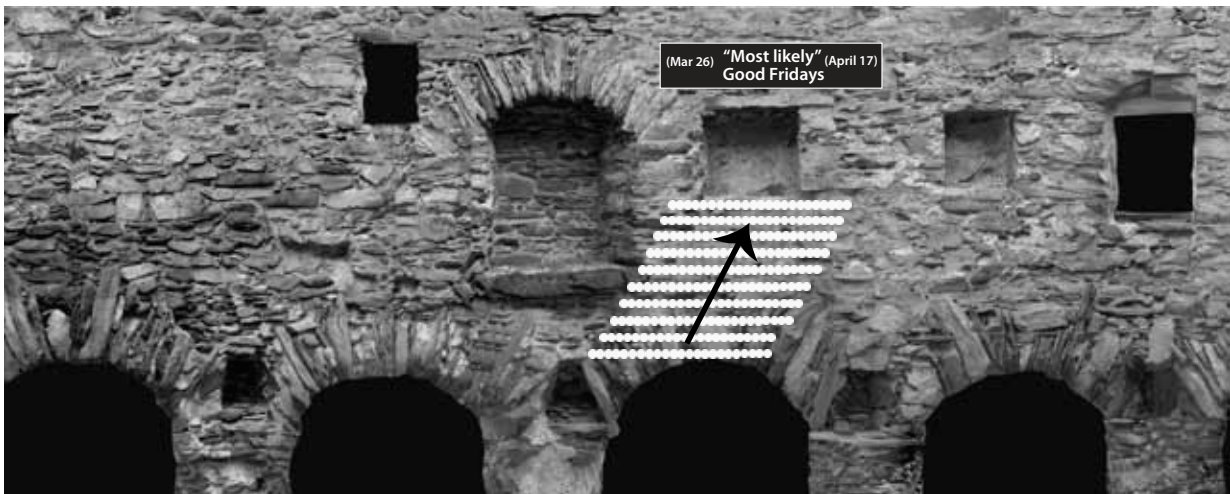
So, if Niche 1 celebrates Good Friday instead of Easter Sunday, the chart of solar discs can be shifted *to the left* by 2 days, or 2 solar discs. (You can see by the discs in the fireplace, it's possible to have Good Friday before the equinox. That's all right, as long as Easter Sunday is after the equinox.)

Now, the 35 paths of the “Most Likely” Good Fridays seem to relate to Niche 1 much better.



Path of all the “possible Good Friday” solar-discs, for about an hour preceeding sunset

To see just the “Most Likely” Good Fridays, let's delete five days from each side of the array.



Path of all the “most likely” Good Friday solar-discs, for about an hour preceeding sunset

Now, the line of “solar discs-at-the-moment-of-sunset” is much more centralized under Niche 1. Wow! Could Niche 1 really be the same thing as the kids’ colorful Easter eggs? Is Niche 1 a representation of the tomb of Jesus?

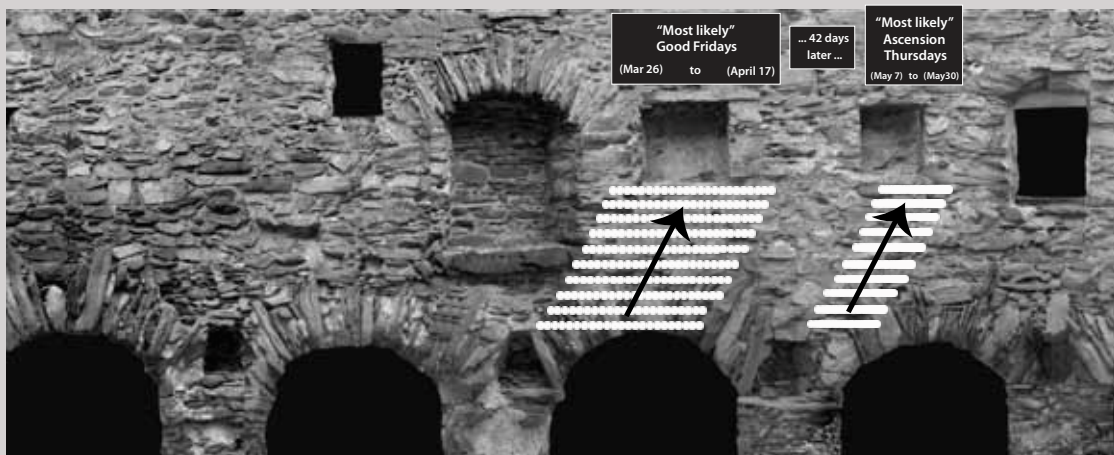


Solar-discs-at sunset on the days “most likely” to be Good Friday.

What could be the purpose of Niche 2?

Forty days after the Easter Sunday, on Ascension Thursday, the Paschal candle is extinguished, bringing an end to Eastertide. Could Niche 2 be a celebration of that event?

On the “Most Likely” Ascension Thursdays, some of the “solar discs-at-the-moment-of-sunset” extinguish themselves right under Niche 2. This short line of discs is not exactly centralized under Niche 2, but it’s pretty close.



Path of all the “most likely” Good Friday and the “most likely” Thursday Ascension solar-discs, for about an hour preceeding sunset.

There are most 23 “Most Likely” days for Ascension Thursday, but as you can see, the solar discs are much tighter together than during the 23 days of the “Most Likely” Good Fridays.

This is because Ascension Thursday is much closer to the summer solstice than it is to the Spring equinox. Thus, the day-to-day discs “overlap” more. Another reason is that, from the perspective of the West window, the interior wall is more curved in that area. The sun’s discs are no longer projecting onto a flat surface, but one that is slightly angled or oblique to the line of sight through the West window.

Though houses now block the view, there’s a good chance the warm reflection of the setting sun off the bay would make an orange glow in this niche on the “Most Likely” Ascension Thursdays, which run from May 7 to May 30.

The whole first floor room of the Tower seemed to be an “Easter calendar.”

I decided to dig a little deeper into the history of Easter celebrations.

But first, could John Dee really have devised all this?

John Dee never sailed on an expedition, but his navigational advice and maps guided dozens of Elizabethan voyagers far and wide. John Dee never came to the Dee River, or anywhere in North America. But in 1580, he had drawn the most accurate map of the East Coast any Englishman had ever drawn.

John Dee was not here when the Tower was being built. But rest assured he provided super-detailed plans and probably a scale model. (Dee was the first person in England to use the word “model” in a written work. He anglicized the the French word *modelle* and the Italian word *modello*.)

You can get a sense of Dee’s penchant for perfection by his admonition to the printer of his *Monas Hieroglyphica*. Dee asks Gulielmo Silvia to:

“...carefully copy (as best you can) the Various Letters, Points, Lines, Diagrams, Shapes, Numbers, and other things.

Thus, the Same Body to which I have given birth, perfect in every part, (BY GOD’S WILL) will not be Mutilated or Deformed due to Printer’s Negligence, as it is brought forth into the Light.

In this way it will not be unworthy of a King, nor truly unworthy of the studies and labors of the Philosophers who will frequently be examining it deep into its innermost parts.

I believe I have taken sufficient caution against that misfortune by selecting you as the Typographical Parent of this new Born child. I am certain you will take great Care to send it forth, in all ways, shining clearly and with all of its Members Well Composed.”

(John Dee, *Monas Hieroglyphica*, p.11)

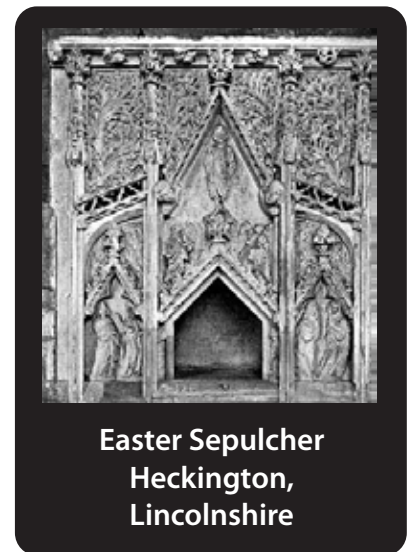
Like his cherished *Monas Hieroglyphica*, Dee would have seen his Tower as “a new Born child.”

THE EASTER SEPULCHER TRADITION IN ENGLAND GOES BACK CENTURIES

While researching Easter, I came across an article by the Ecclesiological Society of entitled “The Easter Sepulchre in England.” It showed a picture of an “Easter Sepulchre” in the Heckington Parish Church, Lincolnshire (about 150 miles north of London).

In Latin, *sepulchrum* means a “burial place,” so a *sepulcher* is a small room cut out of rock in which a dead person is either placed temporarily or buried. (The British spell it “Sepulchre,” and Americans spell it “Sepulcher,” but the pronunciation is the same: “sep-ul-ker.”)

The Easter Sepulcher at Heckington is not large enough to hold a body; it’s more of a small alcove or niche. But this small recess in the wall in northern England “symbolizes” Jesus’ full-size Sepulcher (tomb) in Jerusalem. In fact there are hundreds of niches like this in churches scattered all over England and the Continent. And they all “symbolize” or are “recreations” of Jesus’ Sepulcher in Jerusalem.

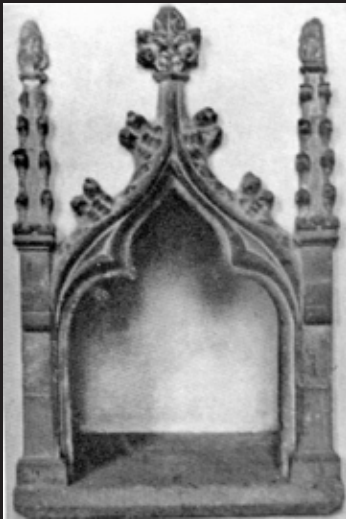


From the 1200’s to the beginning of the 1500’s, virtually every church in England had an Easter sepulcher of some kind. As J. Charles Fox writes in *English Church Fittings, Furniture, & Accessories*, “The rites connected with this Eastertide ceremony seem to have been observed in every English parish church, both in town and in the country.”

In the 1980’s, Pamela Sheingorn (and her husband, who drove) traveled all around England cataloging existing Easter Sepulchres and references to them in old Parish records. She has compiled a detailed compendium of them in her book, *The Easter Sepulchre in England*. She writes that the Easter Sepulcher is “funerary, as it represents the empty tomb” and it is a “year-long reminder of the Resurrection.”

Various types of Sepulchers

Most Easter Sepulchers were only temporary structures like wooden or stone carved boxes. They were stored for most of the year, but were kept near the altar for the Easter season. Of the permanent structures, there are 7 main types:



Easter Sepulchre
Swindon, Oxfordshire

1 *Simple recess in the wall.*

This the oldest type of Easter Sepulchre, dating back to even before 1200. Some have arches above them or ornamentation around them. Those that had hinged doors on them were called “aumbries.”

This Easter Sepulchre in Swindon might seem a lot fancier than Niche 1 in the Tower, but it is really just a square niche with external ornamentation. Remember, the Niche 1 (in fact the whole Tower) was originally covered with plaster like this niche and wall in the Swindon church.



Easter Sepulchre in St. Marys Church,
Grendon, Northamptonshire
(photo by R Neil Marshman)

2 *Large arched recess*

Some of these permanent structures are empty and some have life-size effigies resting on the horizontal stone.



Easter Sepulchre
Navenby, Lincolnshire

3 *Elaborately sculpted stone structure*

Most of these have ornate bas-relief sculptures embellishing the central small recess.

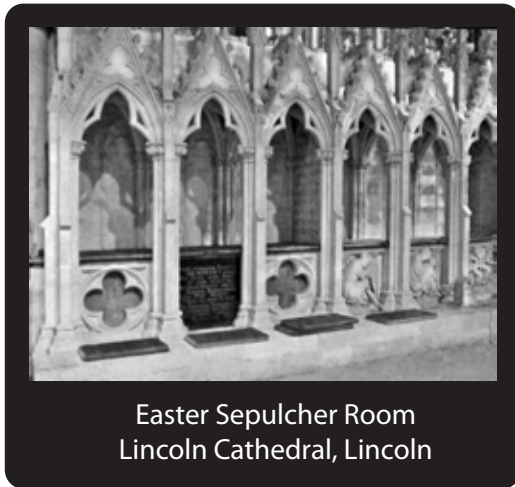


Easter Sepulchre
Arnold,
Nottinghamshire

- 4 *A Large wooden table or chest,*
Sometimes with an attached canopy over it.



Easter Sepulcher Chest
Coity, Glamorgan, Wales



Easter Sepulcher Room
Lincoln Cathedral, Lincoln

- 5 *A large stone chest*

- 6 *Separate chapel*

These ornate rooms were specifically dedicated to the Easter ceremony, like this one in Lincoln Cathedral

- 7 *Above-ground tomb*

Or a crypt underneath the chancel.

The niches and the chests were usually located on the north side of the chancel, towards the northeast corner of the chancel.

(Pamela Sheingorn, *Easter Sepulchre in England*, pp 35-45, Form of Sepulchre, Kalamazoo, Medieval Institute, 1987)

(Henry John Feasey, *Ancient English Holy Week Ceremonial*, p. 137, London, Baker, 1897)

(J. Charles Fox *English Church Fittings, Furniture, & Accessories*, p. 267, London, Batsford, 1938)

Regardless of the size or shape, the ceremonies involving these various kinds of sepulchers were all similar.

Let's take it a one day at a time:

The Easter Celebration in England during Catholic reign

The rites and ceremonies involving the Easter Sepulcher were similar throughout Catholic England.

On **Maundy Thursday**, the host (or wafer) was consecrated (blessed) and placed in the pyx (a small box).

On **Good Friday**, a special ceremony called "The Creeping to the Cross" took place. Parishioners would creep on their knees up to the cross and kiss it.



pyx that held the
consecrated host

Then, the barefoot priest and his barefoot assistants (symbolizing the “Washing of the Feet”) would wrap the crucifix in fine fabrics. The shrouded cross and the pyx containing the consecrated host were placed in the sepulcher. The door or curtain of the sepulcher was then shut (symbolizing the large rock covering the entry to Jesus’ tomb.)

The sepulcher was then surrounded by numerous candles. If the sepulcher was a wooden chest, it would be draped with the finest of cloth. For example, in the Church at Long Melford, Suffolk, (about 60 miles northeast of London) they used purple velvet, gold cloth, and patterned blue damask.

From Good Friday, and through **Holy Saturday**, until dawn on Easter Sunday, a clergyman, sexton, or perhaps a parishioner would sit vigil watching over the sepulcher. On a practical level, they acted like “firemen,” ensuring the church didn’t catch on fire. But on a deeper level, they were “watching over the dead.” This was a medieval funeral custom, especially if the deceased was a high-ranking citizen.

At dawn on **Easter Sunday** the pyx was removed with great ceremony (commemorating when Mary Magdalene arrived at Jesus’ tomb). The Eucharistic Wafer was placed on the high altar, symbolizing the Resurrection.

The cross was unwrapped and marched around the church for all to see. Then, high mass was held. The Lenten fast was over. Everyone could feast on lamb, veal, chicken, cheese, milk and the ever-popular Easter eggs (symbol of the Holy Sepulcher).

The Original Holy Sepulcher in Jerusalem



Entrance to the
Church of the Holy Sepulcher
in Jerusalem

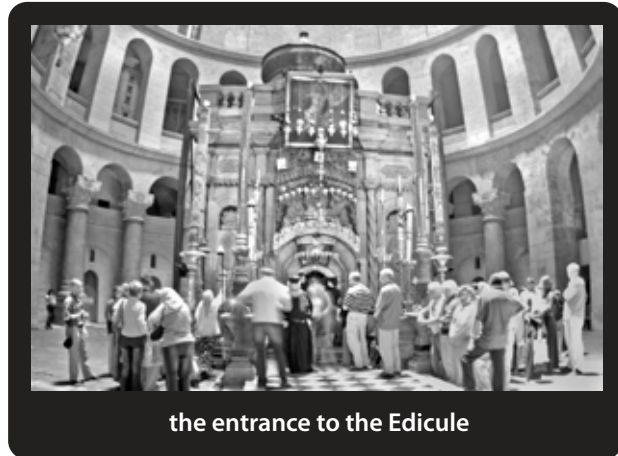
Whether it’s a wooden chest or a niche in the wall, these Easter sepulchers all derive from the sepulcher or temporary tomb where by Joseph Arimathea placed Jesus was after the Crucifixion on the hillock of Golgotha.

Both of these historic sites are now under the roof of the same large church, named after its most famous tomb: the Church of the Holy Sepulcher.

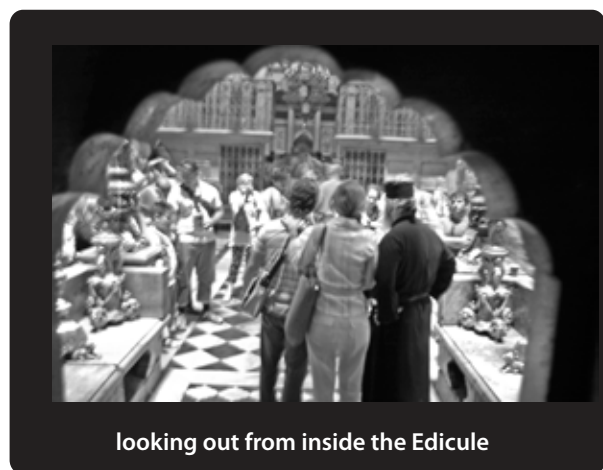
Over the centuries, Byzantine Greeks, Turks, Crusaders, Franciscan Friars, and others have built the various rooms of what is now a huge, rambling structure.



Around 325 AD, Emperor Constantine ordered the rock face around Jesus' tomb to be carefully cut out. His stonemasons isolated the tomb and, purportedly, all the rock faces were sheathed in marble, making the Edicule (Latin for "small building.")



This small rectangular room sits in the middle of a large rotunda. The dome over the rotunda has an oculus that makes the light from the heavens appear to illuminate the Edicule below.



Several people at a time can enter the small fore-chamber, then the small rear-chamber and see the stone upon which Jesus' body once rested. The interior is aglow with the warm light of the many offertory candles.

Round Churches of Europe

In his book *Newport Tower*, Philip Ainsworth Means reviews 26 round churches that the returning Crusaders built across Europe in the 1100's and 1200's. Their inspiration was the Church of the Holy Sepulchre in the heart of Jerusalem. They are not exact replicas, but spiritual clones.

Means even visited many of the round churches that still exist in Denmark, Sweden, Netherlands, Spain, Portugal, France, Germany, and Italy. He cites Sir William St. John Hope's 1918 account of 14 known round churches in England. Of these fourteen, only four are still fully intact today and have active congregations.

1. London – The New Temple Church (South of the Strand)



Amid a cluster of courtyards that form the Inner and Middle Temples where law students have been trained for centuries is the circular New Temple Church. The name "Temple" comes from the Knights of the Temple of Solomon or Knights Templar, who built this church in 1185. A statue of two knights on horseback sits atop a column in the courtyard.

On the floor of the church are marble effigies of famous knights. But the nave is almost twice as wide as the Newport Tower and only has 6 pillars, not 8.



2. Little Maplestead, Essex, The Church at Little Maplestead

About 40 miles northeast of London in the rolling countryside of Essex is this quaint historic church. The circular nave has six pillars and is smaller in diameter than the Newport Tower.

3. Northampton – The Church of the Holy Sepulchre

The large octagonal nave of this church has eight columns. The distance between opposite columns is 32 feet as opposed to 18½ feet in the Newport Tower. Above the columns and their connecting arches, the walls are octagonal, not round as in the Newport Tower.



4. *Cambridge – Church of the Holy Sepulchre*
(located on Bridge Street just opposite St. John's College.)



In 1921, Dr. F. J. Allen wrote a small book entitled *The Ruined Mill, or Round Church of the Norsemen, at Newport, Rhode Island, USA compared with the Round Church at Cambridge in Europe*.

Allen, who lived in Cambridge, England most of his life, visited Newport in 1880 and was fascinated by the “old mill.” He was struck by its similarity “in form and dimension” with the Round Church of the Holy Sepulchre. He was impressed at the skill with which the builders, using only unhewn stones, had managed to imitate the contour of the Norman column, its shaft, base, and capitol. (Allen, p. 93)

Means, following Allen, writes:

“The Newport Tower is unique in the Western Hemisphere and only one old building in the world today resembles it closely.”

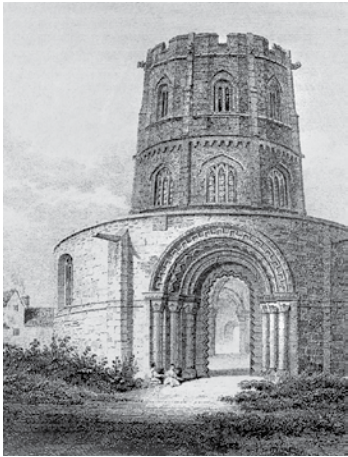
(Philip Ainsworth Means, *Riddle of the Newport Tower*, pp.4 and 123)



Allen is referring to the Church of the Holy Sepulchre in Cambridge, often simply called the Round Church of Cambridge.

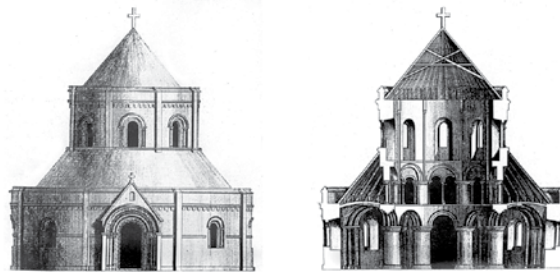
The eight pillars form a ring 19 ½ feet in diameter. This is close to the Newport Tower's 18 ½ foot diameter. But the columns are ashlar (made from smoothly finished stones) whereas in the Newport Tower they are rough stonework.

Over the pillars are round arches (as in Newport). Above the columns are another set of short columns in the “triforium,” and further up are eight arched windows in the “clerestory.” The Newport Tower doesn’t have either of these features.

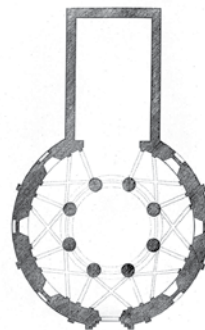


John Britton's engraving of the church in its a Gothic phase from the 1600's to the 1800's

Over the years the exterior of the church has undergone major face-lifts outside. In the 1600's it was given a Gothic treatment. And in the 1800's it was altered to its present condition.



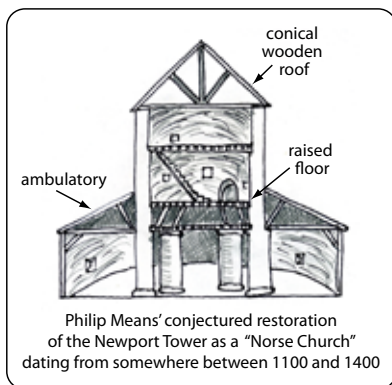
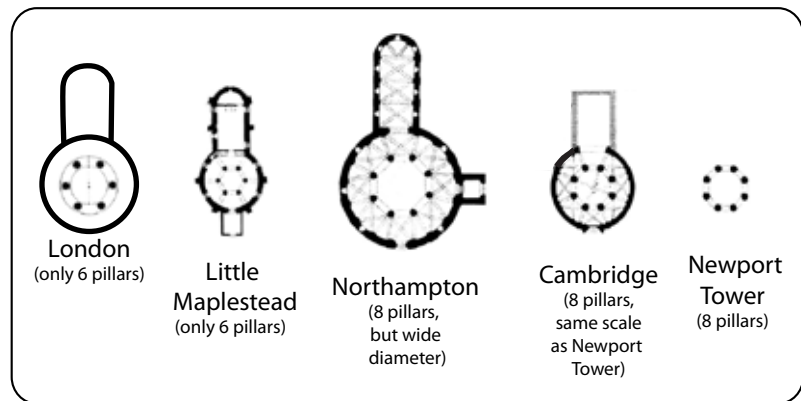
John Britton's 1837 depiction of what the Church of the Holy Sepulchre, Cambridge might have originally looked like



John Britton's 1837 engravings of front doorway (showing columns inside) and the groundplan,

Some similarities between the Round Church in Cambridge and the Tower in Newport are obvious, like the ring of pillars and the circular floor plan

However, none of the round churches of England appear to have had floors above the columns or the unusual window treatment seen in the Newport Tower. The four existing churches all have ambulatories around the outside of the columns. These ambulatories have rock walls and are roofed.



Means conjectures about what Newport Tower might have looked like, "as a Norse round church of the 12th to 14th centuries, complete with an ambulatory and an awkwardly raised floor."

(Means, *Newport Tower*, pp.141 and 297)

However, the Newport Tower never had ambulatory. Both Godfrey's 1949 excavation and the recent ground scans have failed to find any remnants of one.

In his 300-page book, Means painstakingly explored these three main theories:

- 1) Viking baptistery
- 2) Benedict Arnold's Windmill
- 3) Crusader Round Church

But in the end, Means was still baffled.

As a final conclusion, he writes:

"The circular arcaded tower at Newport continues to be the most enigmatic and puzzling single building in the United States, a building which may hold the buried key to the early Christian history of the Western Hemisphere."

(Means, *Newport Tower*, p. 303)

John Dee knew all about the Church of the Holy Sepulcher Tradition

Was John Dee familiar with the Church of the Holy Sepulchre in Cambridge, which Dr. F. J. Allen considered a “particularly close prototype” to the Newport Tower?

You bet he was.

It’s on Bridge Street, just across from Saint John’s College, where John Dee studied from 1540 to 1545. During that time, the College chapel was undergoing major repairs and the faculty and students used the Church of the Holy Sepulchre instead.



After graduating, Dee taught Greek for two years at Trinity College, just down the street. Despite his self-imposed 18-hour study schedule, Dee undoubtedly took time for prayer and contemplation in the Church, like the gentlemen in this 1837 engraving by John Briton.

Jerusalem and Newport? Really?

Is it that unusual to think the Newport Tower, standing here in America, is a version of the Church of the Holy Sepulcher in Jerusalem? Not really. Many other scholars studying the Newport Tower have seen the same connection.

Other researchers besides Philip Ainsworth Means, like James Whitall, Dr. Manuel da Silva, Sue Carlson, Scott Wolter, David Brody, Steven Sora, Tim Wallace-Murphy, Marilyn Hopkins, and others have all remarked on how the Tower relates to the tradition of the many buildings across Europe inspired by the Church of the Holy Sepulcher in Jerusalem.

THE MIRACLE OF THE HOLY FIRE

One the most fascinating ceremonies held at the Church of the Holy Sepulcher in Jerusalem is “The Miracle of the Holy Fire.” It’s not that well known in the West because it’s a ritual performed by the Orthodox Catholic Church (which has 300 million adherents from Greece to Bulgaria to Russia). But it is considered to be the “longest-attested miracle” in the Christian world.”

On Holy Saturday, the day before the Orthodox Easter Sunday, the Greek Orthodox patriarch of Jerusalem leads a procession into the Church of the Holy Sepulcher. Singing hymns, they march around the Edicule, the tomb of Jesus, three times.

Then the patriarch recites a prayer, and prepares to enter the tomb alone. In each of his hands are 33 tall, unlit candles. He takes off his long robe, and is inspected from head to toe by local Jewish Israeli authorities. They make sure he has no matches or lighters, or any means of igniting a fire on his person. He then enters the dark chamber while the expectant crowd repeatedly chants, “*Kyrie eleison*” (“Lord Have Mercy”).



The Catholic Orthodox patriarch leaving the Edicule with 66 lit candles

After a short time, a glow is seen coming from inside the Edicule. The patriarch’s candles have ignited spontaneously!

The patriarch then exits the tomb, recites more prayers, then lights other people’s candles, who light other people’s... and within minutes, the entire church is a starry night of lit candles.

Devout programs claim that, for the first 33 minutes, they can hold the candle flames up to their hands and face and it will not harm them.

Outside, the flame is passed to the over 10,000 pilgrims who have gathered in the narrow streets of the Old City of Jerusalem. (You can see videos of this amazing ceremony on the web.)



The Miracle of the Holy Fire in the Church of the Holy Sepulcher

One candle is taken from the Church, driven to the airport, and transported to Athens on a special flight. Within hours, the flame is transferred, through a network of more planes, to numerous Orthodox churches in Greece and beyond (Russia, Bulgaria, Lebanon, etc.).

On the next day, Easter Sunday, the Holy Light from the Edicule will be seen by millions of devout Eastern Orthodox Catholics. The Miracle of the Holy Fire spreads like wildfire.



The History of the Miracle of Holy Fire

In 1579, the Armenian patriarch, Hovhannes of Constantinople, entered the Edicule, but his candles would not ignite. He sat in the dark tomb all day and into the night. Outside, it started to rain. Suddenly, a bolt of lightning struck a column near the doorway. (A large crack in the column can still be seen today.) The lightning bolt lit the candles held by Sophronius IV, the Orthodox patriarch of Jerusalem, who was standing at the entryway.

In the year 1106, a Russian travel writer named Daniil (Daniel) witnessed a blue incandescence entering the oculus of the huge dome and descending down to the edicule. At that moment the patriarch's candles miraculously ignited.



In 870 AD, Bernard the Monk was the first Westerner to witness and write about the Holy Fire phenomenon.

Skeptics claim that the patriarch's 66 candles have previously been dipped in a solution of white phosphorus, which ignites spontaneously after being exposed to air for about twenty minutes.

Whether it's a clever fraud or an amazing miracle, the ceremony celebrates a Christian belief that goes way back to Biblical times.

In his book, *Holy Fire*, Haris Skarlakidis reviews 45 historical accounts of "The Miracle of the Holy Saturday at the Tomb of Christ."

On Easter Sunday, Mary Magdalene, finding Christ's tomb empty, ran to get Apostles Peter and John. In the tomb all they could see was the linen in which Jesus had been wrapped. How could they see in the dark?

Skarlakidis says Gregory, the Bishop of Nyassa (335–395) provides the answer. In *On the Resurrection of Jesus Christ*, Gregory writes "for those who were with Peter saw and believed... because the tomb was filled with light, so that even though it was night they saw inside the Tomb in two ways, both with their senses and spiritually." Skarlakidis also cites John of Damascus (ca. 650-ca. 749), a polymath who they say lived for a century (and was later made a saint).

What John of Damascus wrote about the light in the tomb

John of Damascus writes, “And running, Peter reached the tomb and seeing the light inside the tomb, he was in awe.” (John of Damascus, *Eulogy: The Great Prayer*, Athens, 1992, p. 349)

He also wrote a work entitled *Oration on Holy Saturday*, in which he says that the light from the tomb of Christ was the same light (“The Uncreated Light of the Creator”) that shone upon Jesus on Ascension Thursday, forty days after Easter Sunday.

John of Damascus writes, “And this bright and light-bearing day of Holy Sunday, during which the Uncreated Light visibly emerges from the Tomb, as a bridegroom through the beauty of the Resurrection.” (John of Damascus, *Oration on Holy Saturday*, ed. by JP Migne, PG 96, p. 628)

Orthodox Catholics believe this supernatural spark or “Uncreated Light” ignites the candles in the hands of the patriarch, and thus the light becomes “Created.” And because it is so recently been “Uncreated Light,” it does not burn flesh.

To summarize, the Miracle of the Holy Fire ceremony, which celebrates this “Jesus is the Light” theme, goes way back to the Apostles.

What does all this have to do with the John Dee Tower of 1583? (“Holy Fire” is like “Fiery Water”)

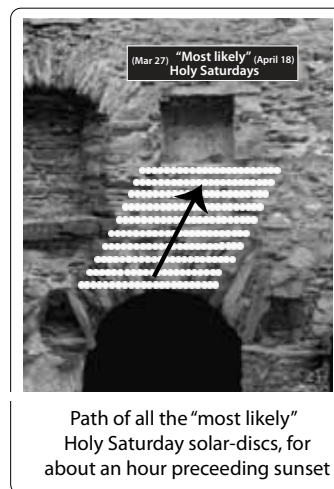
This spontaneous “Holy Fire” has an uncanny similarity to what I call the “Fiery Water” display that happens in the Tower’s fireplace on the Spring equinox, the “starting point” for the 35 “Possible dates of Easter.” And remember, Dee also believed that Christ was born on the Winter solstice (December 21), and thus he was conceived on the Spring equinox (March 21), the day the fiery water displays in the fireplace.

The Fiery Water appearance in the middle the fireplace on the Equinox makes that day quite special. But as the West window had a panoramic view of the Dee River (Narragansett Bay), the Fiery Water display could be seen on any sunny day throughout the year, just not in the fireplace, but also to the left and right of the fireplace.

Thus the Fiery Water could have appeared in Niche 1, as most of the 23 “most likely” Holy Saturdays are clustered under Niche 1. (As Good Friday and Holy Saturday are only a day apart, I still refer to Niche 1 as “the Good Friday Niche,” as the day of the Crucifixion is more momentous.)

John Dee was born Catholic and was a Catholic priest during the reign of Mary I. He would have known of this “light in the tomb” tradition because he **owned** a copy of *Damasceni Opera Graecolae* (*Complete Works of John of Damascus, in Greek*). Dee lists this book with his other really important books at the beginning of his 1583 Library Catalog. It is entry number 118 of the over 2500 books and manuscripts he lists. It was even among the books Dee took with him on his European journey from 1583 to 1589.

(Roberts and Watson, *The Library Catalogue of John Dee*, book number 118)



Orthodox Christians believe the Holy Fire tradition derives from Matthew 28:3. At Jesus' Tomb, an "Angel of the Lord" became visible, "His appearance was like lightning and his clothing white as snow."

In Theorem 20 of the *Monas Hieroglyphica*, John Dee dramatically appeals to the King of the Holy Roman Empire: "O Maximilian... whom God will make the Greatest in times to come (while I am Sleeping in Christ)."

In the sentence preceding this one, Dee Latin writes "Sic, ad CLARITATES NIVEAE & ALBARVM VESTIVM Ornamenta perueniemus." This translates, "Thus we shall reach a CLARITY [as white as] SNOW and the distinguished WHITE GARMENTS." The "lightning and snow whiteness of the brilliant garments" is like the "miraculous glow from the Edicule" that spontaneously lights the patriarch's candles. (John Dee, *Monas Hieroglyphica*, p.19 verso)

The Prayer of John Dee

Besides being an astute mathematician, astronomer, scientist, and historian, Dee was also pious. Having been Catholic, Protestant, Catholic, Protestant, Dee didn't see why the two religions had to be such arch rivals.

Why couldn't everyone simply get along and be joyful about the wonders of Nature common to everyone. To get a sense of Dee's piety, here's is a prayer he wrote and, no doubt, could recite from memory.



"O Almighty, Eternal, the True and the Living God: O King of Glory: O Lord of Hosts: O Thou, the Creator of Heaven, and Earth, and of all things visible and invisible: Now, (even now, at length)

Among others thy manifold mercies used, toward me, thy simple servant John D, I most humbly beseech thee, in this my present petition to have mercy upon me, to have pity upon me, to have Compassion upon me:

Who, faithfully and sincerely a long time have sought among men, in Earth: and also by prayer, (full often and pitifully) have made suit unto thy Divine Majesty for the obtaining of some convenient portion of True Knowledge and understanding of thy laws and Ordinances, established in the Natures and properties of thy Creatures:

By which Knowledge, Thy Divine Wisdom, Power and Goodness, (on thy Creatures bestowed, and to them imparted) being to me made manifest, might abundantly instruct, furnish, and allure me, (for the same) incessantly to pronounce thy praises, to rend unto thee, most hearty thanks, to advance thy true honor, and to Win unto thy Name, some of thy due Majestical Glory, among all people, and forever."

[Prayer of John Dee ; Sloan Manuscript 3191, Folio 45; British Museum: spelling modernized]

Dee's prayer rambles a bit, but basically he is thanking God for revealing "a convenient portion of True Knowledge and understanding of thy laws and Ordinances." And he promises to sing God's praises "among all people, and forever." Dee considered himself wiser and more worldly than most Elizabethans. That's not necessarily bragging, because he truly was.

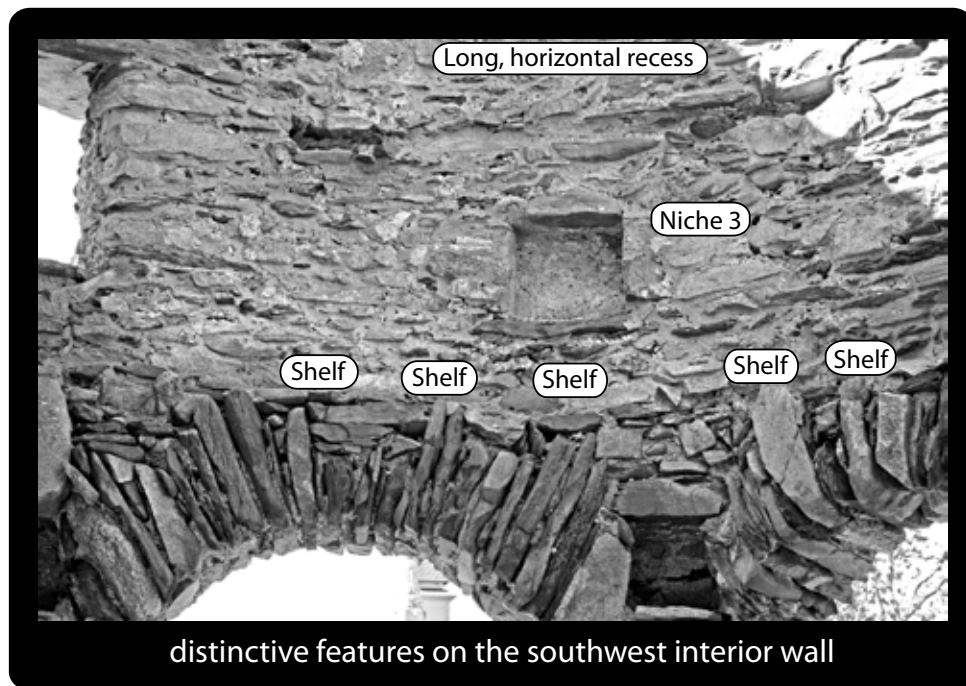
Dee encapsulated the wisdom of the Laws of Nature (astronomy, optics, geometry, number, music...) in his architectural sculpture, the John Dee Tower of 1583, which was so solidly constructed it just may yet enlighten "all people, and forever."

WHAT ABOUT NICHE 3?

The sun illuminates near Niche 1 on Good Friday, Niche 4 on Easter Sunday, and Niche 2 on Ascension Thursday. So what is Niche 3 all about?

Niche 3 is low on the south-southeast wall (about 3 feet off the floor in a 10 foot tall room.) It is square, about 18 inches by 18 inches (remarkably similar, in size and shape, to Niche 4).

And associated with Niche 2 are two very revealing architectural clues. About a foot above Niche 3 is a long, horizontal recess about 7 feet long. It is mid-wall, about 5 feet above the first floor level and 5 feet below the second floor level. Being deeper at both ends, it appears that it once held a straight, approximately 5-inch-by-5-inch-square beam, which was about 7 feet long.



Below these two recesses, about 16 inches above the first floor level is a stone and mortar shelf which sticks out about 7-8 inches. It runs about 10 feet along the lower wall, except for a section above the southwest pillar.

What's interesting about these three architectural features is that they are symmetrically aligned. The 10 foot shelf, the 18' wide niche, and the 7 foot beam all have the same vertical centerline.

Can you guess their purpose?



My deduction:

If the other three Niches (Niches 1, 2, and 4) celebrate important Christian events, then the Tower functioned as a church (or perhaps, because of its small size, a “chapel.”)

And what is the most important feature of any Catholic Church?

The altar.

The altar is actually more important than the church itself.

Churches are monumental and spacious. Altars are essentially tables, easily perceived as “church furniture.” But this is not the case. The altar is the key, essential element. The grand church was built to house it.

Why was the altar so important? Because there is an ancient tradition of placing relics of saints, martyrs or venerated people beneath the altar. A relic is a small part of the body, like a bone, hair, skull, or a small piece of sacred cloth).

Altar history

In 787, the Second Council of Nicea, mandated that every altar must contain a relic. Canon law decrees that the relic must be placed under the altar, not on top of it. This is because the earliest stone altars were tombs of martyrs and Mass was offered on the stone slab covering the tomb. Later structures were built above and around it. Most often, the church was named after the saint whose relic was in the altar.

Relics were generally wrapped in cloth, clearly labeled, and placed in a reliquary, a small container elaborately decorated and sometimes gilded with copper or gold.

Niche 3 would be a perfect place to store the sacred reliquary. It might have had a wooden frame, with a small hinged wooden door. Perhaps the door was even all plastered over. But altar cavities are generally carved into a block of stone and sealed with another stone which was custom made to fit the opening.



However it was covered, Niche 3, made of stone, under the altar, is perfectly placed to be an “altar cavity” for relics. (Unlike Niches 1, 2, and 4, the direct sunlight from the windows never gets close to Niche 3. But that’s okay. It’s meant to be an altar cavity with a relic safely entombed in the very fabric of the building itself.)

What would the altar have looked like?

At first I thought the long, horizontal niche was an embedded wall support for an altar. Perhaps the altar top was hinged to the beam so it could be “swung down” to fold flat against the wall. (The front legs might have been hinged to fold up as well.) And the “relics in Niche 3” still would be “beneath the altar,” whether the altar was “opened up” to a table or was “flattened” against the wall.

Several things changed my mind.

The first was the fact that such an altar would be 5 feet high. Most tables and altars are around 3 feet high. It might angled downwards, but then the altar vessels would slide off.

Second, though its a creative solution, altars are never hinged. They are all solid tables with fixed legs.

Third, I found out that altars are generally put on a *predilla* or platform with several steps. As the stone shelf is 16 inches above the floor, it might have provided the wall area support for a short platform with 2 steps, each about 8 inches in height. Design-wise, a curved platform wouldn’t jut into the room as much as a rectangular one.

Fourth, why would Dee put have the altar on the southern wall, when in most Catholic churches its on the *eastern* wall? One practical reason is that there was simply no other good place to fit the altar. The stairway rising from the first floor to the second floor took up most of the northern interior wall, starting from in front of the fireplace, spiraling all the way around to above Niche 3, the Easter Sunday Niche. (Plus, putting an altar under a stairway doesn’t seem appropriate.) And the eastern and western interior walls had all the astronomical alignments projected on them. The only place left is on the southwest wall.

(Interestingly, prior to about 450 AD, most Christian altars were actually on the *western* wall of the church. These early Christian altars mimicked the Jerusalem Temple, whose sanctuary was at its western end.)

Fifth, during my research I had a “rude” awakening, which helped solve another grand riddle planted by the interminably clever and thorough John Dee.

ROOD AWAKENING

Question: What is the name of the wooden structure Jesus was nailed to and died on?

Most people would answer: “cross” or “crucifix.”

The words “cross” and “crucifix” came to England in the early 1200’s from the old Norse words “cros” and “cruc.”

But for centuries before that, the only term used to describe that wooden structure Jesus died on was:

“ROOD”

To be frank, I had never heard this word before. Perhaps you haven’t either—and there’s a good reason why. Queen Elizabeth had them all broken, bured and destroyed. As Dudley Fenner writes, the Queen declared that “all Roodes, all Images of Saints...should...be defaced.”

Since 1450, **Holyrood Palace** in Edinburgh has been the principal residence of the Kings and Queens of Scotland. In *Richard III*, Shakespeare writes, “But by the **Holyrood** I do not like these severall Councils.” And in Act 3, Scene 4 of *Hamlet*, Shakespeare writes “No, by the **rood**, not so.” (meaning, “No, I swear on the cross it’s not true.”) (OED, p.774, rood)



Rood on rood beam
Church of Saint John the Baptist,
Timberhill, Norfolk
(photo by Simon Knott)

The “rood” or “rood cross” is not a small cross you could put in a handbag or even a medium-size cross found on altars. A “rood” is large, crucifix, complete with the Christ figure nailed on (sometimes the statue of Jesus was life-size).

The first “roods” rested on “rood beams,” special sturdy wooden beams that spanned the church between the chancel (where the altar is) and the nave (where the pews are).

Jesus was usually flanked by two smaller statues: his mother, Virgin Mary, (on the left) and Saint John the Baptist (on the right).

As the *Catholic Encyclopedia* explains, “By the thirteenth or fourteenth century, the great rood or crucifix had become a common feature in almost every church of Western Christendom and the addition of the figures of Saints Mary and John, (an allusion to John:19:25) came in about the fifteenth.”



Rood on rood beam
in Crunwre Church, Llanteg, Wales
(photo by Welshbabe)

Rood and rood loft on rood beam above rood screen



Rood, on the rood arch, above the rood screen
Mullion Church in St. Mellanus, Cornwall
(photo by Mattanus)

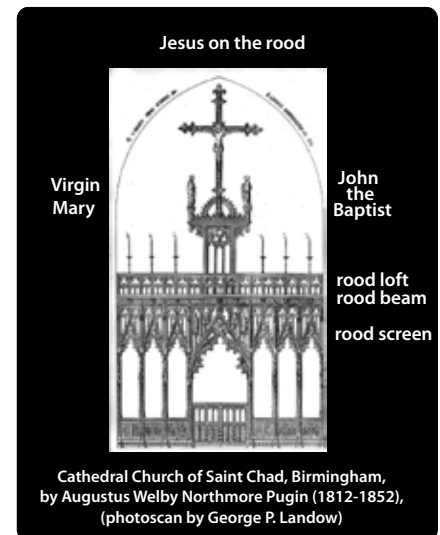
Besides supporting and prominently displaying these three statues, the “rood beam” also helped support the “rood screen.” This wooden latticework effectively separated the chancel from the nave, but it had plenty of openings so the congregation to see what was going on at the high altar.

Another common feature was a “rood loft,” a long, thin gallery resting on the rood beam. Though its main purpose was to hold candles to illuminate the “Great Rood,” sometimes it held a small choir group or a member of the clergy reading the Gospel. The rood loft would be accessed by “rood loft stairs” at one end, or sometimes both ends, of the rood loft.

This whole assembly (rood, rood beam, rood screen, rood loft, and rood loft stairs) was found in many English Medieval churches. However much of this ornate work was torn down under Edward VI’s Protestant reign. Some were rebuilt in Mary I’s Catholic reign.

Then more were destroyed under Elizabeth’s reign. And even more during the Puritan reign in the 1600’s. No roods (statues of the crucifixion) dating from the Medieval era survive in England today. However, in recent years, many churches have reconstructed their roods, rood beams, rood screens, and rood lofts. One might wonder why Dee would design a Tower with a rood beam in 1583 when Elizabeth had commanded all roods be destroyed in 1561. Well, the blueprint for the Tower is the Monas symbol, which he wrote extensively about in his 1564 *Monas Hieroglyphica*.

But he tells the reader that his “mind was pregnant” with the book for 7 years. Indeed the Monas symbol appears on the Title page of his 1558 *Propaedeumata Aphoristica*. Thus Dee’s Tower design at least back to his days as a Catholic priest under Mary I, who reigned from 1553 to 1558. As a priest, Dee would have been intimately familiar with both church layout and Catholic liturgy



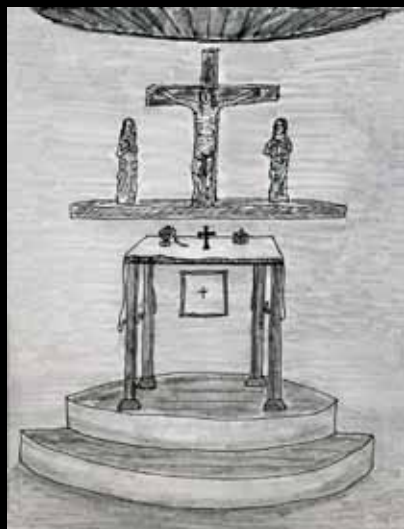
Does the rood beam remind you of something?

Let’s examine this rood beam little closer. It’s a sturdy horizontal beam that’s supported at both ends by the stonework of the church.

Hey! That’s a lot like the sturdy wooden beam that appears to have been embedded into the southwestern interior wall of the John Dee Tower! It’s about 7 feet long and about 5 feet from the above the floor. The first floor room was 10 feet tall, so the “rood cross,” with Jesus affixed to it, might have been 4 to 5 feet tall.

In a big rectangular church, the rood beam spans the nave where it meets the chancel. Dee’s round “Tower chapel” presents an different interior design problem. A spanning beam would take up too much space in the small room.

In the Tower, the fact that the ends of the beam are more deeply embedded than the midsection suggests the same “spanning” as in a regular, rectangular church.



My conjectured illustration of the southwest interior wall, stairs, altar with relics, and rood on rood beam

As the interior of the Tower is curved, and the 7-foot beam is straight, its ends *have to be* recessed into the wall.

As a “rood” it would have provided a shelf which supported the statues of the Virgin Mary, Jesus on the Cross, and Saint John. (They were probably secured to the wall as well.)

In this conjectured illustration, the 3-foot-tall altar stands on a platform with two steps. Under it is the recess for the relics, blocked up with a tight-fitting square stone, which was generally marked with a cross (or often 5 small crosses representing the 5 Holy Wounds).

Overlooking the altar (and filling the room with its presence) is the rood crucifix with Jesus flanked by Mary and Saint John.

If such an altar and rood existed in this “chapel,” which celebrates Easter in so many illumining ways, there is another item that would be in this first-floor room: the Paschal candle or the Eastertide candle, which is lit for the Easter season.

WHERE WOULD THE PASCHAL CANDLE BE PLACED?



Ascension of Christ, by Garofalo, ca. 1515

According to the *Catholic Encyclopedia*, on Holy Saturday the Paschal candle is blessed, then lit. It remains in its candlestick on the Gospel side of the altar (meaning to the left, as seen from the pews) until Ascension Day, which is 40 days after Easter Sunday.

After the reading of the Gospel on Ascension Thursday, the candle is extinguished with great ceremony. Centuries ago, the remaining wax was used to make tapers (slender candles for the funerals of the poor).

The Paschal candlestick is then put into storage for the rest of the church year. (Nowadays, because of fire codes, it is lit every Sunday at the beginning of High Mass, and extinguished afterwards, until the next Mass.)

The association of the candle (*lucerna* or *cereus* in Latin) with the Resurrection of Jesus goes back to the Fourth Council of Toledo (Spain).

In 633, Saint Cyril of Jerusalem wrote that the Paschal candle represented Jesus, “*the true light which enlightened every man that cometh into this world.*” And in 701, the Venerable Bede explained that Roman Christians wrote the number of the year on the candle (or on parchment attached to the candle).



almost half-melted Paschal candle with year marked on it (photo by Chris Nyborg)

Often, five long grains of incense were set crosswise in the candle recalling the 5 Holy Wounds on Jesus' body. The burning of incense also made the ceremony "multisensory." (Because your olfactory sense affects the part of the brain associated with memory, smell can instantaneously bring you back to a previous experience and the emotional impact it had on you.)

Medieval churches glorified the symbolic Paschal candle by making it bigger and bigger. In 1517, the Sarum Rite mandated the Paschal candle in Salisbury Cathedral be 36 feet tall.



Paschal candle on the Gospel side of a modern-day altar

In 1558, when Queen Mary was still on the throne (and Dee was one of her Catholic priests) the Paschal candle in Westminster Abbey used 300 pounds of wax.

Today a Paschal candle is usually about two inches in diameter and about a yard tall. It is placed in a decorative floor stand which is 4 to 6 feet tall.

At first, I envisioned that Dee's small "chapel" might have had a tall Paschal candle in a floor stand, just to left of the altar. But several things made me reconsider this idea.

First, that would place it in front of the sunniest window, the South window. Breezes from windows and candle flames don't get along very well.

Second, the floor stand is too cumbersome to fit on top of the small platform alongside the altar. Not to mention it would have to be stored somewhere else in the small Tower for the rest of the year.

Third, there was a better place to put the candle. And it would still be "on the Gospel side" of the altar: in Niche 2, the Ascension Niche!

What better place to celebrate the "extinguishing of the Paschal candle on Ascension Thursday!" Perhaps this was done in the late afternoon as the orange sun and its reflection off the bay were illuminating the candle (which represents Christ, the light).

Fourth, a niche is a safe place to put a candle. Besides being less likely to set fire to a passerby's clothing, it also reflects more light into the room. And in the darkness, the niche would nicely "frame" the candle.



reproduction of a Tudor candlestick with drip pan

As Niche 2 is only about 22 inches tall by 20 inches wide, a short candlestick was probably used. It might have been made of ceramic, but more likely was made of pewter, or even silver, (in keeping with the dignity of this first chapel in the New World).

Whatever it was made from, it undoubtedly had a drip pan built into its midsection. It wasn't until 1730, when chandlers (candle makers) discovered a better form of tallow (fat from sheep and beef) that drip pans were removed from candlesticks. Before that, candle wax was softer and dripped runny wax, like tears down a cheek.



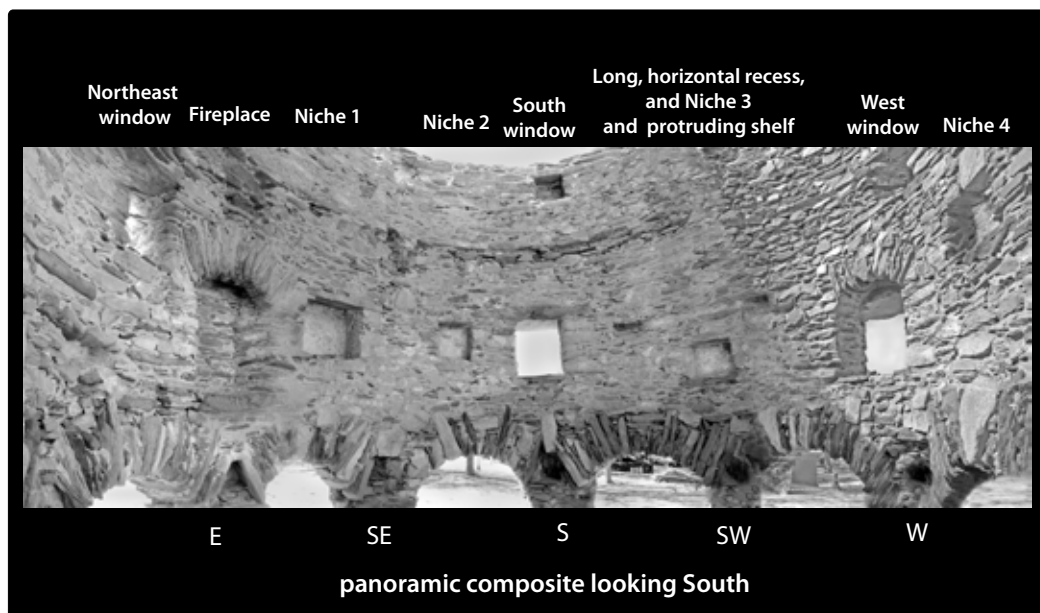
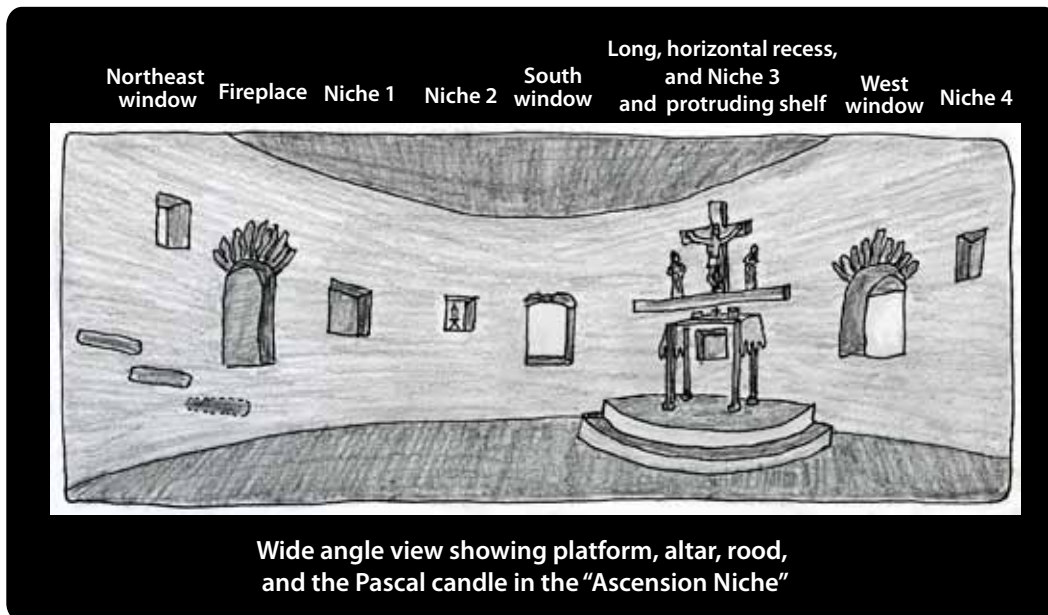
ceramic Tudor candlestick with drip pan

(*Catholic Encyclopedia*, Paschal Candle, Feast of the Ascension; and *Wikipedia*, Paschal candle)



If such a fast-burning candle had melted down to nothingness before Ascension Thursday, perhaps its flame was used to ignite a new candle, which would then be placed in the holder. The candle might be different, but the flame is the same.

Now, let's step back and get a wide-angle view of main features of the room (standing at the north wall looking south).

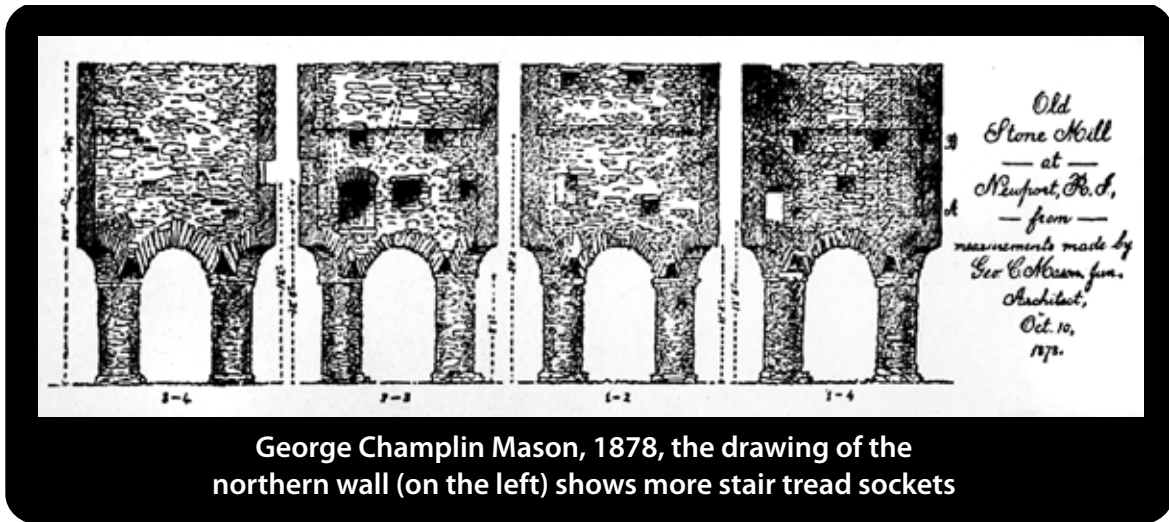


LADDER TO PARADISE

On the lower left of the previous drawing I have drawn three sockets that once held wooden stair treads. Only two sockets are visible today. The lowest existing socket is about 18 inches above floor level. And a stair step is typically 9 inches high. So under the fireplace I have added a socket where the lowest stair tread would have been, 9 inches off the floor.

George Champlin Mason, in his 1878 illustration, shows there was evidence of more stair sockets, but these “higher up sockets” were filled in during the subsequent remortaring of the northern interior wall.

Such a grand stairway swooping up the northern interior wall is an obvious visual metaphor for “Ascension,” especially because it eventually leads to the Dome Room, a strong visual metaphor for the dome of heaven. (Even Robert Plant of Led Zeppelin sings about a “Stairway to Heaven.”)



And yet another “Ascension metaphor” might be deduced. To get from the ground up into the Tower (12 feet), I suggest there was a 14-foot ladder that went through a trap door in the center of the a tic-tac-toe pattern of the first floor beams. I also think there were similar trap doors in the second floor and the Dome room floor, so the ladder could be pulleyed up and stored in the Dome room. In essence, there was a central shaft going from ground to domed roof. A ladder to dome of heaven.

In some churches, the Ascension was metaphorically expressed by elevating the figure of Christ above the altar through an opening in the roof of the church. (*Wikipedia*, Feast of Ascension, Customs)

It’s not too strange to think such a “raising” took place in the ladder shaft of the Tower. Around 1545, while at Saint John’s College, Dee was the stage manager for Aristophanes’ *Peace*, in which an actor on a giant scarab beetle was dramatically raised from the stage up into the rafters by the use of pulleys. In 1558, Dee wrote two books on *Inventive uses of Trochilla*, or Trocheliike, the art of using pulleys and wheels.



The ladder to Heaven (or stairway to Heaven) metaphor derives ultimately from Genesis 28:12, in which Jacob, "... dreamed, and beheld a ladder set up on the earth, and the top of it reached to heaven; and beheld the angels of God were ascending and descending on it."

Around 650 AD, a monk from a monastery on Mount Sinai named Saint John Climacus wrote a book describing how to best ascend to Heaven by taking 30 virtuous steps.

The title of his book in Greek is *Klimas*, meaning "ladder" or "stairway," from which we get the word "climax (and from which Climacus got his last name)". In Latin translations, it was called *Scala Celestis Paradisio* (meaning "Ladder to Celestial Paradise"). English versions call it the "Ladder of Divine Ascent."

This Medieval illustration, done around 1150 AD, shows a ladder with 30 rungs leading to Heaven. Jesus and a group of angels are "up above." And "down below," people watch aghast as flying devils fire arrows at the climbers and yank them off the ladder with ropes.

Here's the connection: John Dee had a copy of Saint John Climacus' *Scala Celestis Paradisio* in his library.

(Roberts and Johnson, *John Dee's Library Catalogue*, number 1130)

And in 1558, (the same year Dee wrote his two books on pulleys) he also wrote, *Peri Anabibasmos Theologikon*, which loosely translated means "The Theology of Ascendancy."

(John Dee, *Discourse Apologetical*, p.4)

Besides using a small equilateral triangle (a Greek Delta) to sign his name on 50 of the manuscripts in his library, he used a "ladder mark" to indicate his ownership. These small marginal marks are about 3/8" tall and have three rungs. Dee liked ladders.

(Roberts and Watson, *John Dee's Library Catalogue*, p.24, and illustration VIb.)

In short, I think the first floor room almost as a "theatrical stage," where this most holy of Christian plays was performed, with special props, and with special lighting effects provided by the sun. After all, architecture isn't created for the sake of the walls, floors, and ceiling; it's done for people, as a space in which they can act out their human dramas.



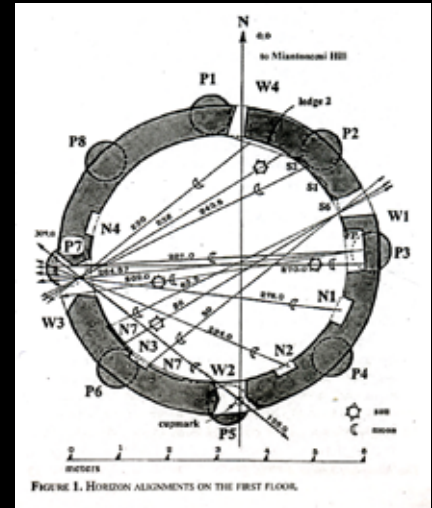
A MIDSUMMER NIGHT'S DREAM COMES TRUE

Reviewing William Penhallow's article, "Astronomical Alignments in the Newport Tower," I noticed that he had marked a solar alignment involving that long 7-foot recess, not in its center, but about one third of the way from the right end. This is where the statue of Saint John would have stood.

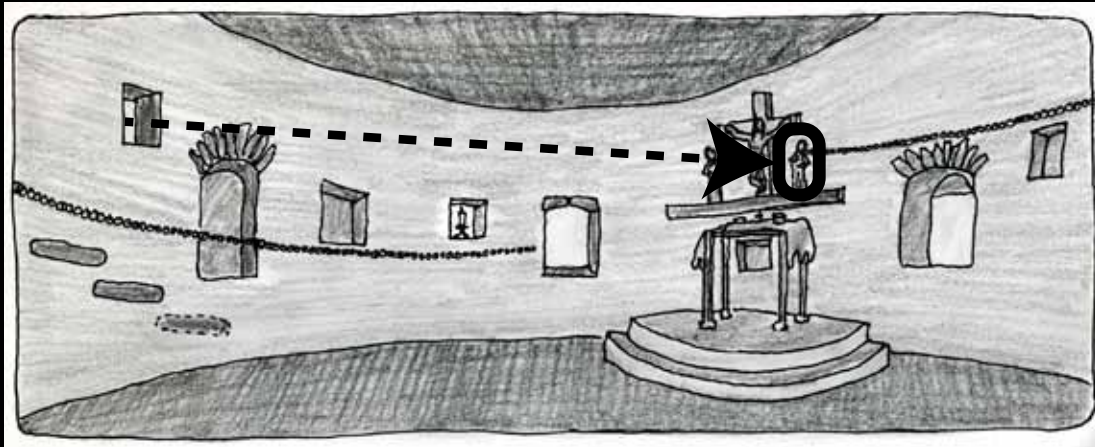
Penhallow notes of that a line from the Northeast window to this part of the long recess forms a 58° angle from true North. This is the angle of the Summer solstice sunrise at this latitude. And among Christians, guess what the day of the Summer solstice has been called for centuries: **Saint John's Day**.

In other words, on Saint John's Day (Midsummer's Day, the longest day of the year, usually June 21) the sun rises above the horizon at 58° east of North. It will shine through the Northeast window and make a patch of light illuminating Saint John!

He gets illuminated on his own day! How cool is that!



William Penhallow's chart of "Horizon Alignments on the First Floor" showing the sunrise through the Northeast window to the long, horizontal recess



On Saint John's Day, (the summer solstice), the solar disc-at-the-moment-of-sunrise illuminates the statue of Saint John



And on the exterior of the Tower, behind Saint John, there is a prominent white quartz rock which seems to mark the midsummer alignment that happens in the interior. (Remember, they would have built the interior face and exterior face at the same time. It's all the same wall. And its over 2 feet thick, or at least "2 rocks" thick.)

This "back-to-back" clue-hiding trick is the same technique Dee used for the Winter solstice alignment, when the sun spotlights the egg-shaped rock in the interior of the west-northwest arch, which is back-to-back with the round, red "Sunstone" and the "Rock with Shoulders."

And on the Winter solstice, the shortest day of the year, the sun shines through the South window, then passes through the West window and is visible from the northwest corner of the park.

This means the beam of light passes right by the altar and the rood beam supporting the Great Rood of Jesus. (And remember, Dee believed Jesus was born on the *Winter solstice*.)

And of course, on Equinox, the setting sun comes through the West window and projects a "Fiery Water" display in the fireplace. (Dee believed Jesus was conceived on the *Spring equinox*.)

It makes sense that Dee would have also made an alignment celebrating the *Summer solstice*, the Nativity Day of Saint John the Baptist.

WAS THE ROOD BEAM PUT UP FIRST?

Once the 8 pillars, the first floor beams, and the floor boards of the first floor were finished, what section of the upper wall did the masons build first? Several clues close suggest they constructed the southwest part of the cylinder (between the West and South windows) first.

1 The South window and the West window are involved in the Winter solstice sunrise alignment. They are the only 2 windows (out of the 3 windows) that are "splayed." This was done to help maintain a visual sight line through a Tower, whose walls are about 2-3 feet thick at this level.

2 Researcher James Ostiguy has observed that there seems to be a line of long, flat stones that connect the lintels of the West and South Windows on the exterior of the Tower.

If the builders had first erected wooden window frames to help position the windows, this section of wall would help sturdy up each of the two windows. (Of the three windows, these two are the closest in proximity to each other.)



3 But perhaps a more important reason is that they could have put up the “rood beam and rood crucifix” first (as that’s what’s on the inside of this southwest part of the wall). That would instantly transform a foundation, a bunch of pillars, and a floor into a “sacred church.”

“Rode on the Dee River” was to have been primarily a colony of English Catholics (although Governed by an Anglican leaders). Persecuted back in England, Catholics yearned for a way to practice their religion again. Those willing to cross the ocean to settle in an unexplored, potentially dangerous land were undoubtedly quite devout. (And remember, Catholic money was financing the construction of the Tower.)

What could be more inspirational to motivate a team of workmen in a new strange land than than having a Cross, or an image of Jesus on the Cross, at their worksite. What a great Catholic morale builder. Their savior and fellow carpenter.

(As this was a construction site, at first they might not have used the final “Great Rood” for fear of damaging it. They might have used a smaller cross or an image of Jesus displayed on this freshly cut rood beam.)

ELIZABETHAN PRONUNCIATION OF THE WORD “ROOD”

I threw you a little curve by naming an earlier chapter, “A Rood Awakening.” In Modern American English, “rood” and “rude” are pronounced the same. But in Medieval and Renaissance times, the word “rood” was pronounced differently

To start with, the “R” should be trilled, with a rapid vibration of the tongue off the roof of the mouth. (Think Scottish. Say aloud dramatically, “Rrrroyalry drrrrives in Rrrrrolls-Rrrroyces.” Then tone down the “trilled R” effect a little.)

The “o” should sound like an extended version of the “o” in the word “boat” (Like “boat”)

Now, pronounce “rood” like a Scotsman, along with the “boat” sound: **“RRROOAD”**

Does this remind you of something?

(Drumroll please.)

The name of this fine state where the Tower is located: RHODE ISLAND

And RODE was Dee’s secret-code-name for the Elizabethan colony of 1583!

“RRROOAD”

Another facet John Dee's gem of a riddle about "RODE"

Dee's "RODE" riddles are explained in depth in my earlier book, *Elizabethan America*, but here is a brief summary:

Dee's inspiration for his RODE riddles was Giovanni da Verrazzano's 1525 statement that the nearby triangular island (now Block Island) was "about the size of the Isle of RODES" (the Greek one in the Aegean Sea).

The Tower at RODE was to have been the symbolic "greet-er" to future Elizabethans, much like the Colossus of RODES was for Rhodians, and the statue it inspired, the Statue of Liberty is for Americans.

Dee hid this name, RODE, in many ways, in the Title page "rebus-illustration" of his 1570 *General and Rare Memorials*.

The River of Dee is perfect place for a large fleet to stay safe from tempests "at rode," which meant (and still means) "at anchor." The five ships in Dee's illustration are "at rode," literally and figuratively.

The word RODE in Greek means ROSE, the symbol of the Tudor reign (Two roses can be seen at the top of his illustration) .

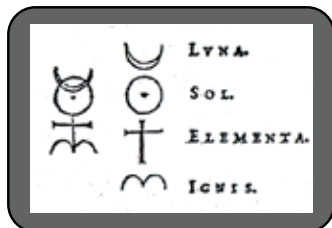
He hid RODE in his name for Narragansett Bay: the River Of Dee, whose initials spell R.O.D., which is pronounced "RODE."

He hid the name in the arrangement of the stones in the "keystones" of the Tower (written in Greek, $\text{HPO}\Delta\text{H}=\text{RODE}$).

Thus it would be just like the clever Dee to hide the homonym of RODE in the overall "concept" of the Tower – as a "New World Church of the Holy Sepulcher" – a monument that uses astronomy, optics and timekeeping to honor the most pivotal moment in the Christianity: The Crucifixion, which is symbolized by the Crucifix or ROOD ("Rrrooad").

[In a certain sense, this moment is "pivotal" for most of the Western world, as it separates BC from AD, or the more "neutral" BCE from CE.]

ROOD in Dee's Monas symbol



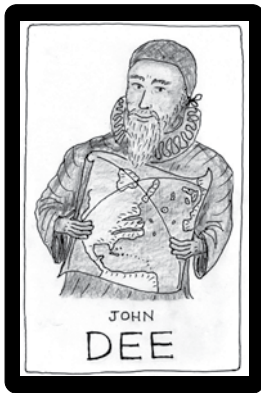
Dee's Monas symbol is the overall design plan for the Tower. If the symbol is seen as a stick figure, the "body and arms" section is a Cross.

As Dee made his Cross slightly offset, it certainly looks like a Christian cross. (That is, the horizontal axis crosses above the centerpoint of the vertical axis.)

And, of course, the most famous cross in the Western civilization is the one Jesus was nailed to at the Crucifixion: the ROOD ("Rrrooad")



Laughing in the face of danger



Building this Tower, Dee was embroiling himself in some of the most serious issues of the day:

The Catholic/Protestant rivalry in England.

The threat of war with Spain if England planted a colony in the New World.

Changing the Julian Calendar to realign England with the cosmos.

Making a clock to keep the New World on the New Time.

Converting the native population of the new world to Christianity.

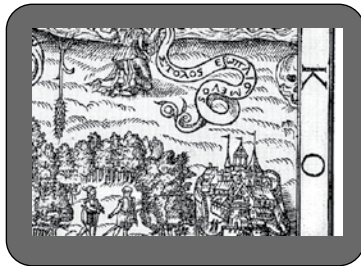
Even replicating the Church of the Holy Sepulcher in Jerusalem.

And, in the midst of it all, Dee has the good-natured sense of humor to make it all a grand riddle. As the Brits would put it, “Well done, John Dee.”

Dee's visual riddle involving the homophonic pun:

RODE = ROOD

Knowing that Dee associated the word ROOD (crucifix) with the word RODE (his secret code word), another visual clue becomes apparent. The Title page illustration of his 1570 *General and Rare Memorials* is a “rebus” hiding numerous references to the word RODE. Dee even drew a “shibboleth” (the stalk of wheat in the middle of the picture), which is a Biblical reference to a “secret code word.”



Along the lower right-hand side is a skull, cropped in half by the edge of the frame.

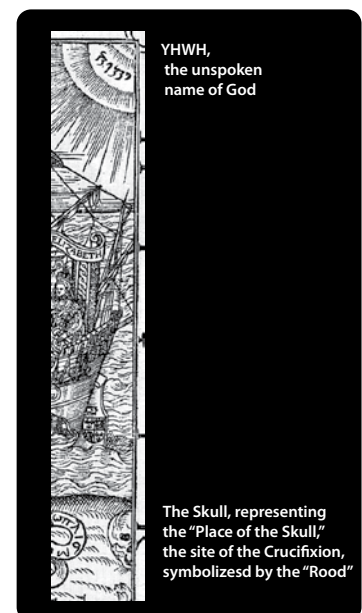
Elizabethan Christians would recognize this is a representation of Golgotha, which is Greek for “The Place of the Skull,” the site of Jesus’ crucifixion. And the symbolic depiction of Jesus’ crucifixion is, of course, “ROOD.”

Sure, the skull can mean many things, but in this context, with so many other rebus clues about “Rode,” it’s pretty obvious to me that this was Dee’s intentional visual pun. Not only was the colony named “Rode,” the city-center Tower was a replica of the Church of the Holy Sepulcher in Jerusalem, the site of Golgotha.

And the first floor room celebrated Easter, the time of the Crucifixion. And inside the first-floor room you can still see the imprint of the “rood beam,” upon which stood the “Great Rood,” a statue of Jesus nailed to a large cross.

Dee left some confirming clues. Cleverly positioned right next to the skull is the letter K (in IEROGLYPHIKON) which is the beginning sound of the words “cross,” “crucifixion” and “Christ.”

Up above, also bisected by the right edge of the frame is the quarter-circle containing the word YHWH, the sacred Hebrew name of God, which is to remain unspoken. Just like the skull is on the right edge of the illustration, Jesus “sits on the right hand” of God.



In his 1570 *Preface To Euclid*, in a section on the Art of Architecture, John Dee paraphrases Book 1, Chapter 1 of the great Roman architect Vitruvius:

“An Architect (sayeth he) must be familiar with various Languages, skillful in Painting, well instructed in Geometry, not ignorant of Perspective, equipped with knowledge of Arithmetic, familiar with History, a diligent student of Philosophy, have Skill in Music, not be ignorant of medicine, understand rules of Law, and have a firm grasp on Astronomy and the courses of Celestial objects.”

Then Dee adds:

“Likewise, by Perspective, the Lights of heaven are well-led in the buildings, from certain quarters of the world.”

Well, the “Lights of heaven” are certainly “well-led” in Dee’s Tower!

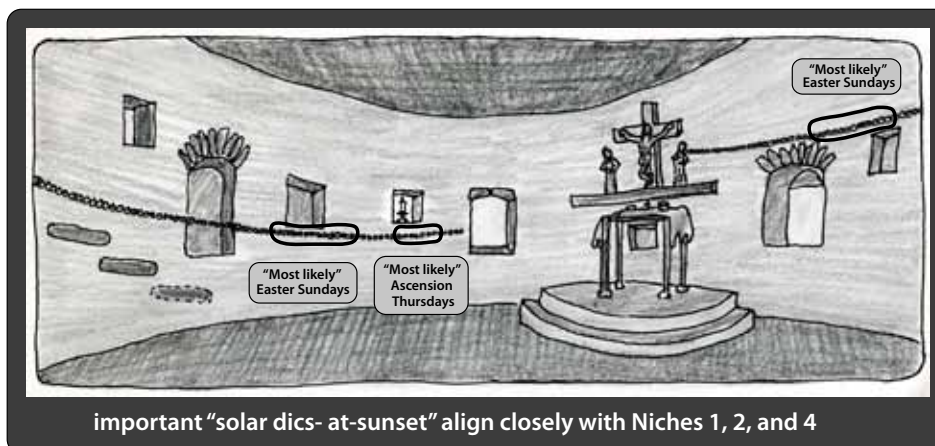
Dee continues:

“As for Astronomy, the Architect must know East, West, and North, and the design of the heavens, the Equinox, the Solstices, in the course of the stars. Anyone who lacks knowledge of these matters will be unable to understand the Art of Horology.”

John Dee, *Preface to Euclid*, d.iiij. verso, or page 118 in James A. Egan, *The Works of John Dee: Modernizations of his Main Mathematical Masterpieces*

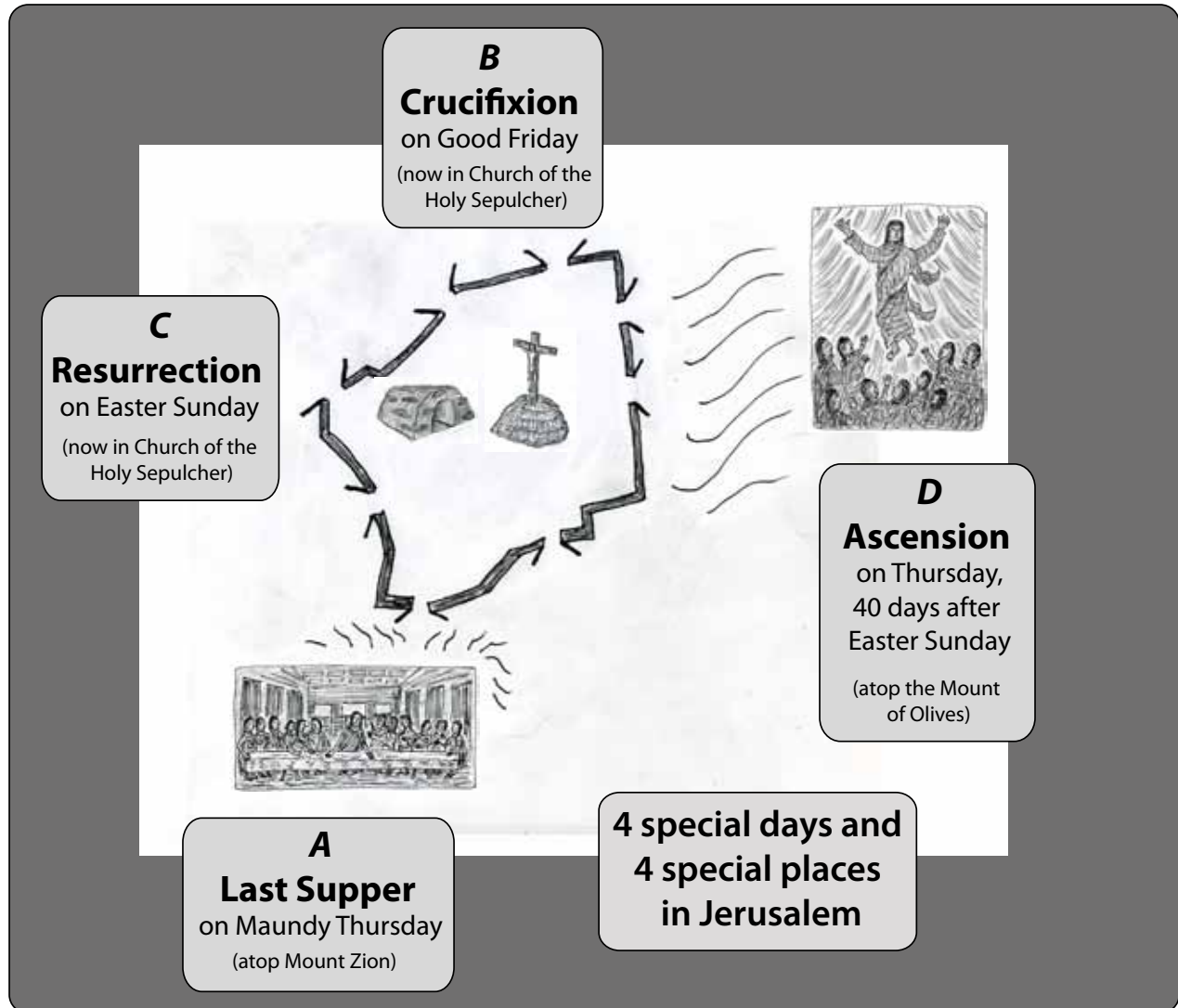
Dee is emphasizing that the equinoxes and the solstices are tied to “Horology” or timekeeping, which is the key to determining the proper date for the most important celebration of the year, Easter.

The main reason Pope Gregory revised the Julian calendar was to insure Easter would not be celebrated on the wrong day. In England, this was Dee’s primary concern as well. Dee was writing his 60-page treatise on the Elizabethan Calendar Reform in 1582, the same year the Tower, with all its Eastertide alignments, was being built.



Here is a brief visual summary of my conclusions about the purpose of the various architectural clues in the first-floor room.

HERE IS A MORE GENERAL VISUAL SUMMARY COMPARING
JERUSALEM,
AN EARLY TUDOR CHURCH,
AND THE JOHN DEE TOWER OF 1583.



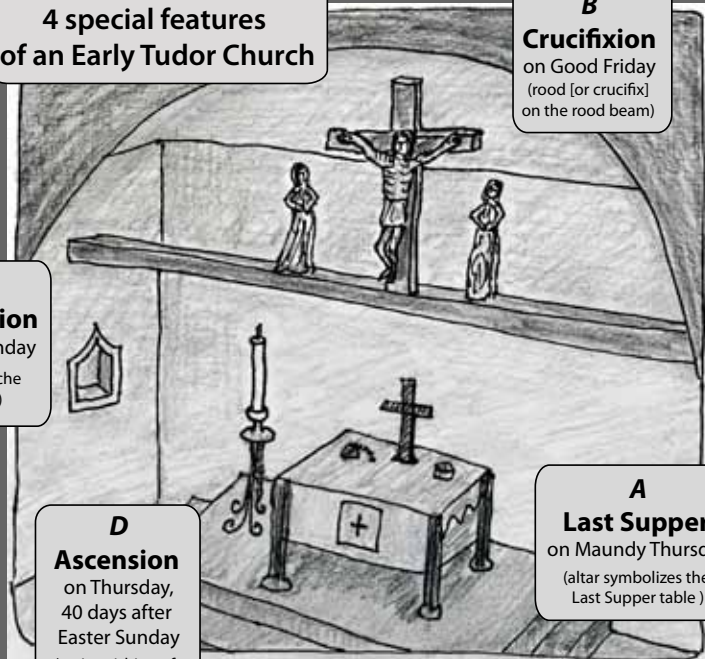
**4 special days and
4 special features
of an Early Tudor Church**

C
Resurrection
on Easter Sunday
(Sepulchre niche
in the wall)

D
Ascension
on Thursday,
40 days after
Easter Sunday
(extinguishing of
the Paschal candle)

B
Crucifixion
on Good Friday
(rood [or crucifix]
on the rood beam)

A
Last Supper
on Maundy Thursday
(altar symbolizes the
Last Supper table)



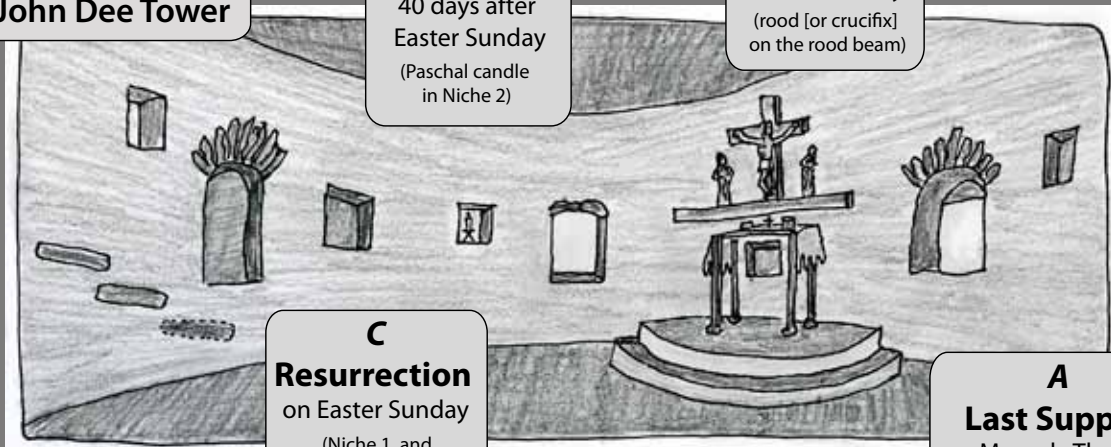
**4 special days and
4 special features
of the John Dee Tower**

D
Ascension
on Thursday,
40 days after
Easter Sunday
(Paschal candle
in Niche 2)

B
Crucifixion
on Good Friday
(rood [or crucifix]
on the rood beam)

C
Resurrection
on Easter Sunday
(Niche 1, and
also Niche 4)

A
Last Supper
on Maundy Thursday
(Altar symbolizes the
Last Supper table)



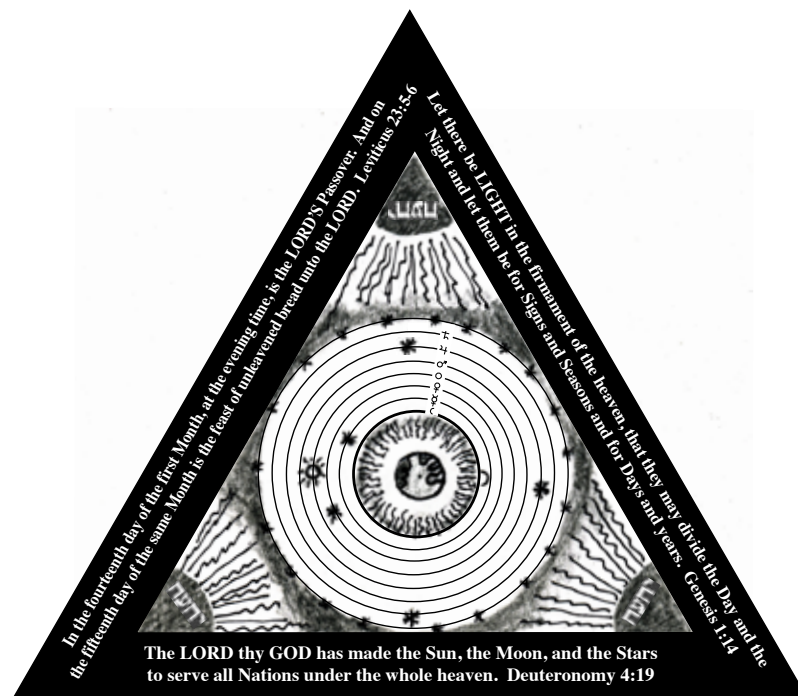
DEE'S "SIGNATURE" ILLUSTRATION AT THE END OF HIS 1582 CALENDAR TREATISE

At the very end of the Calendar Treatise, which is dedicated to Cecil, Lord Burghley, Lord Treasurer of England, Dee draws a triangular illustration. (This is my redrawing of it, along with my translation from the original Latin)

On one level it is Dee's signature, the equilateral triangle. Dee was fond of saying he was the "fourth letter in Latin," D, (Dee), and the "fourth letter in Greek," Delta, (Δ).

On another level it is the Holy Trinity, as Dee writes YHWH, the unspoken Hebrew name for God in each of the 3 corners. Christians believe God is "three persons in one," the Father, the Son, and the Holy Spirit. Each of them is emitting rays towards the concentric circles in the middle.

The outer circle is the Fixed Stars, the inner seven circles are the seven planets (Saturn, Jupiter, Mars, Sun, Venus, Mercury, and Moon). The seven planets are emitting rays towards the Earth (a view centered over the Atlantic).



On the perimeter are 3 quotes from the Bible.

At the bottom it reads: *The LORD thy GOD has made the Sun, the Moon, and the Stars to serve all Nations under the whole heaven. Deuteronomy 4:19*

On the right it reads: *Let there be LIGHT in the firmament of the heaven, that they may divide the Day and the Night and let them be for Signs and Seasons and for the Days and years. Genesis 1:14*

On the left it reads: *In the fourteenth day of the first Month at the evening time, is the LORD'S Passover. And on the fifteenth day of the same Month is the feast of the unleavened bread onto the Lord. Leviticus 23: 5-6*

All three quotes relate to aspects of the John Dee Tower.

The Deuteronomy quote at the bottom mentions the, “*the Sun, the Moon, and the Stars*” The John Dee Tower has window alignments to the Sun, the Moon, and the Stars. And the part which reads “*to serve all Nations under the whole heaven*” certainly includes North America.

The Genesis quote starts “*Let there be LIGHT.*” The window and niche alignments in the Tower are all about LIGHT. And so is the camera-obscura solar-disc calendar-room, which perfectly displays “*the signs [zodiacal signs] the seasons, the days, and the years*” more accurately than the finest clocks or calendars. We derive all our ideas about time from the movement of the sun (with respect to earth).

The first line of the Leviticus quote refers to Nisan 14, “the evening” of “the LORD'S Pass-over,” which is the Last Supper, or Maundy Thursday. The second line refers to the fifteenth day, which is Good Friday. In terms of the Tower architecture, the Last Supper is represented by the altar, (under which is Niche 3) and Good Friday represented by Niche 1, the Good Friday niche.

Dee drew this illustration in 1582, at the same time the John Dee Tower was being constructed across the Atlantic. It's clear that all these ideas about light, time, and Easter were on his mind.

THE ANCHOR OF HOPE ROOD

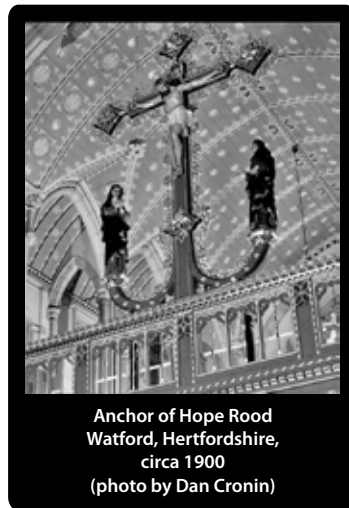


Anchor of Hope Rood, circa 1900
Watford, Hertfordshire, (photo by Evan of York)

While researching roods and rood beams, I came across another, more modern church, which is also named “Holyrood.” This exquisite Victorian church in Watford, Hertfordshire, (just 15 miles north of London) was designed around 1900, by the architect John Francis Bentley.

When I first saw this picture of the rood in this church named Holyrood, something clicked.

An Aha moment!

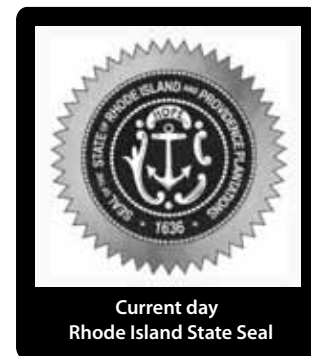
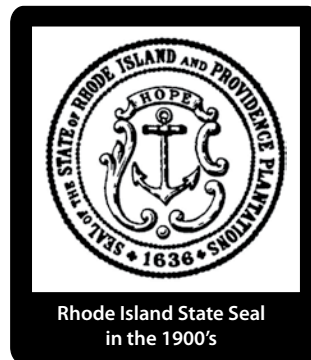
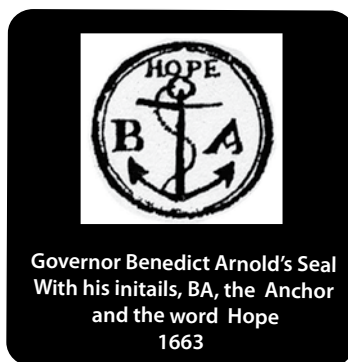


Looking closely I saw it wasn't Jesus on a cross, it was Jesus on an anchor! And with Mary and Saint John standing on platforms on the two flukes.

It was an "Anchor of Hope" and a "Rood" combined. An "Anchor of Hope Rood" It makes perfect sense.

The Rood is the Crucifixion of Jesus.
And Jesus is the Anchor of Hope.

(The Anchor of Hope metaphor comes from Hebrews, chapter 6, verses 18-20, in the Bible.)

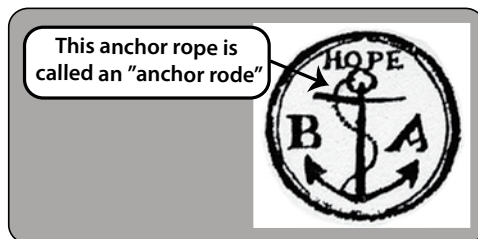


But more amazingly, the current day state symbol for *Rhode* Island is the *Anchor of Hope*. It was first Governor Benedict Arnold who insisted (over Roger Williams' objection) that Aquidneck Island be named "Rode Island." And first Governor Benedict Arnold had the Anchor of Hope on his official Governor's seal of the Colony, along with his initials B.A., and even the word HOPE.

But more significantly, Benedict Arnold owned the Tower!

Why didn't Benedict put Christ on his Anchor symbol?

First, the use of such iconic imagery (close likenesses) was frowned upon in Puritan New England.

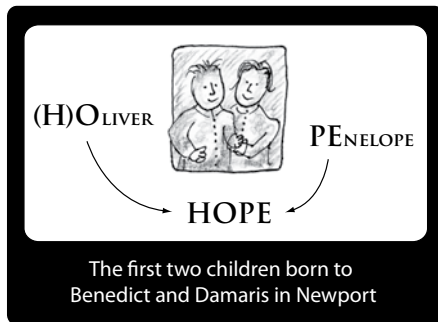


Second, Benedict actually *did* put "Christ on the Anchor" on his Governor's seal. Both with the word HOPE and with the attached rope. Another word for an "anchor rope" is an "anchor rode," which is pronounced like "rood," which is the Crucifix with Jesus on it. (Further, this anchor rode is "fouled" or entangled, suggesting a tough situation, much like Jesus endured on the Cross.)

The subtle symbolism of the "anchor rode" has been lost in modern day versions of the state symbol, as the "rode" rope has been deleted.

The word HOPE remains, but most moderns don't grasp its poignant religious symbolism. Many see HOPE as "dreams," "aspirations," or "desires" in general. But in the olden days, HOPE meant hoping for salvation, eternal life, and to making it to heaven to join Christ.

In short, Benedict was trying to be cryptically clever like Dee. He was extending Dee's "RODE riddle" in a new, graphic way. The visual clue is right in front of everyone's eyes, but only those "in the know" would see that the short piece of rope (the anchor rode) expresses ROOD, the depiction of Jesus on the Crucifix, as well as the name Benedict insisted be given to Aquidneck Island (Rode). Nice multiple clue, Benny.

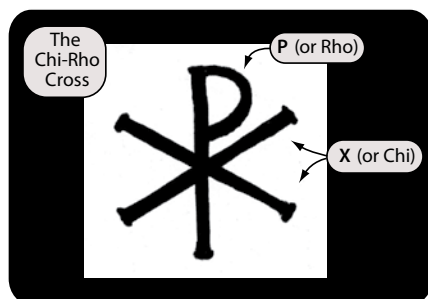
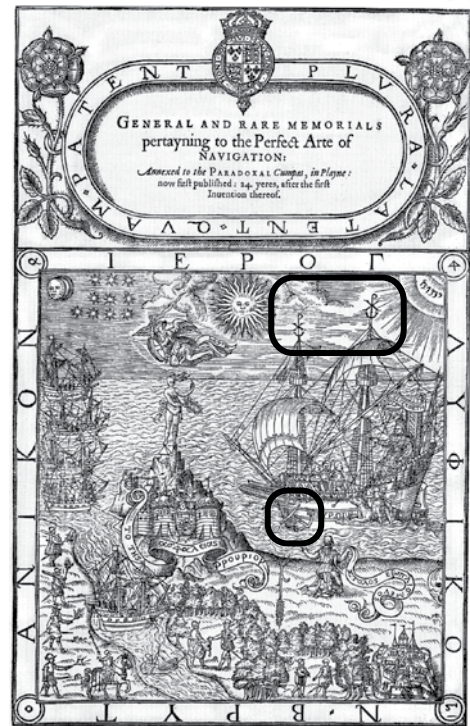
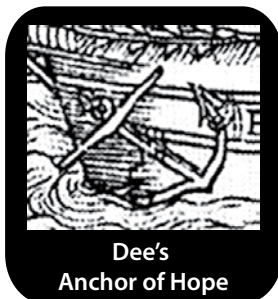


Benedict was so moved by the word HOPE, that when he moved to Newport in 1651, he and his wife Damaris named their next two children Oliver and Penelope.

When Oliver is spelled as it might have been pronounced back then, as "Holiver," the first two letters of these these two babies names spells HOPE.

And Benedict had adopted both of these terms "Anchor of Hope" and "Rode" from the 1583 Elizabethan colonization attempt to settle "Rode on the River of Dee," an effort masterminded by John Dee.

On the Title page of *General and Rare Memorials* Dee drew a huge anchor on the Queen's "Ship of State" and two "Chi Rho Crosses" or "Anchor of Hope Crosses" atop the two tall masts.



Chi and Rho are the first two letters of ΧΡΙΣΤΟΣ or CHRISTOS. When Chi and Rho are combined with the Anchor symbol it expresses: "Christ is the Anchor of Hope."



neighbors, their vnallured Friendship, being Considered) : vv
 or we HOPE, that, RES-PVBL. BRITTANICA, on
 very Humbly, and earnestly Soliciting the most Excellent Roy
 of our ELIZABETH, (Sitting at the HELM of this Imper
 ny: or, rather, at the Helm of the IMPERIALL SHIP,

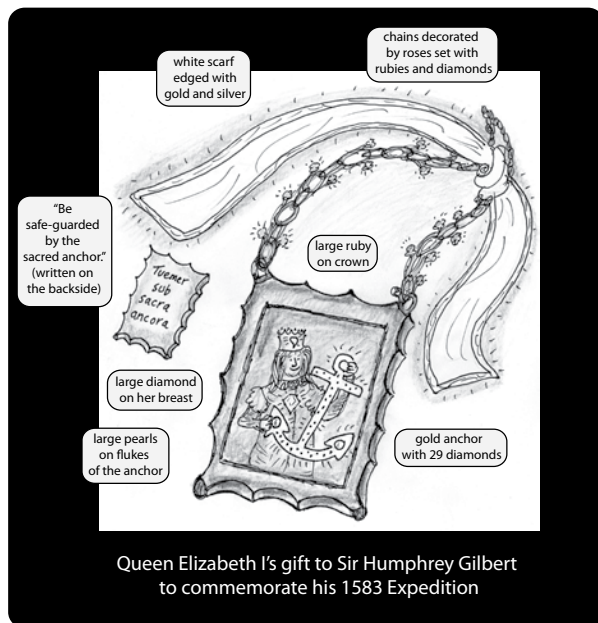
Dee's reference to the word HOPE on the final page of General and Rare Memorials

In *General and Rare Mermorials* Dee makes a reference to "HOPE" on the final page, which contains numerous other references to his Title page illustration.

Front and center on the Title page are the letters "IEROG" (part of the word IEROGLYPHIKON). With a little creativity, its easy to see the letters H-O-P-E and also E-L-P-O, the Greek word for HOPE.



One of Dee's cryptic references to the word HOPE and also ELPO, the Greek word for Hope



Queen Elizabeth I's gift to Sir Humphrey Gilbert to commemorate his 1583 Expedition

When Sir Humphrey Gilbert was about to depart on his 5-ship expedition to Rode, the Queen sent him (via his brother, Sir Walter Raleigh) a brooch decorated with rare gems.

On the front was a Queen holding a large anchor, which was studded with 29 diamonds and had pearls on its two flukes. The engraving on the back read, *Tuemer Sub Sacra Ancora*, meaning "Be Safeguarded by the Sacred Anchor."

The "Anchor of Hope" was the symbol Dee devised for whole expedition, whose mission was to build the first New World outpost of the British Empire. (Most likely Dee designed the brooch as well.)

My deduction based on all these the riddles and clues

With this plethora of evidence, here is my conclusion: Atop the 7-foot rood beam embedded in the southwest wall of the Tower, Jesus was simply not simply affixed to a Cross.

He was affixed to Anchor!

Searching around, I found yet another more modern-day "Anchor of Hope rood," in the church of "Saint Stephen On-the-Cliff," in Blackpool, Lancashire. The rood is hanging *in front* of the rood beam (as opposed to resting on top of it).



Anchor of Hope rood, St. Stephen On-the Cliff built in 1919 Blackpool, Lancashire, (in northwest England)



Anchor of Hope rood,
St. Stephen On-the Cliff
built in 1919
Blackpool, Lancashire,
(in northwest England)

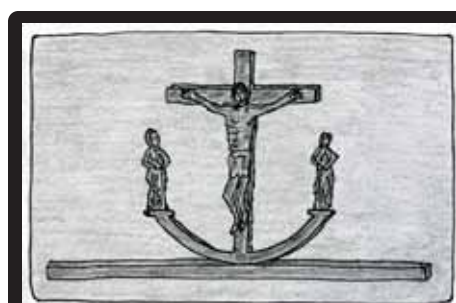
Mary and Saint John are standing on the curved arms of the anchor.

This is slightly different from the Anchor of Hope Rood in Holyrood, Watford, where Mary and Saint John are standing on the tips of the flukes.

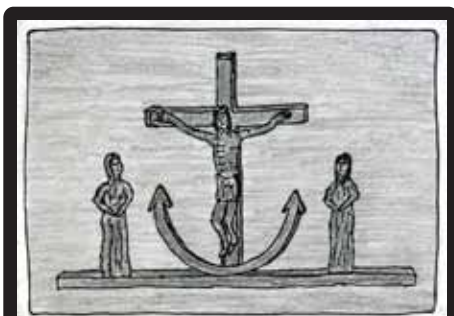


Anchor of Hope Rood, circa 1900
Watford, Hertfordshire,
(photo by Dan Cronin)

It's not unreasonable to think that Dee came up with the same idea. The of the "anchor" and the "rood" symbolize the same things in the 1900's that they did in the 1500's.

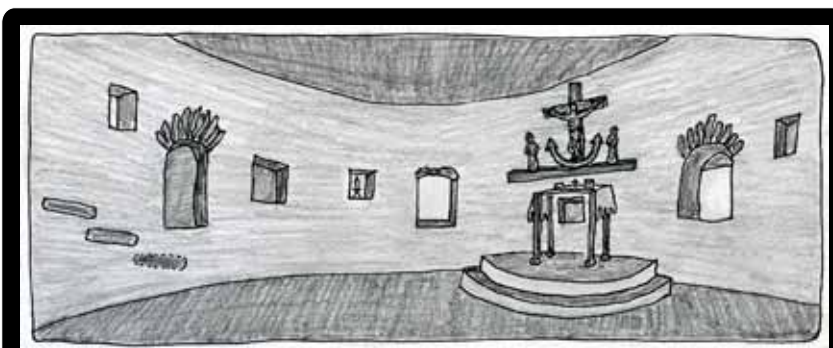


Anchor of Hope rood with Mary and Saint John on the flukes of the anchor



Anchor of Hope rood with Jesus on the anchor flanked by Mary and Saint John

Stylistically, the Anchor of Hope Roods from Blackpool and Watford seem to me a bit "Victorian," or even "twentieth-century." Back in the 1500's, I feel Dee might have portrayed only Jesus on the anchor/cross, with Mary and Saint John off to the side.



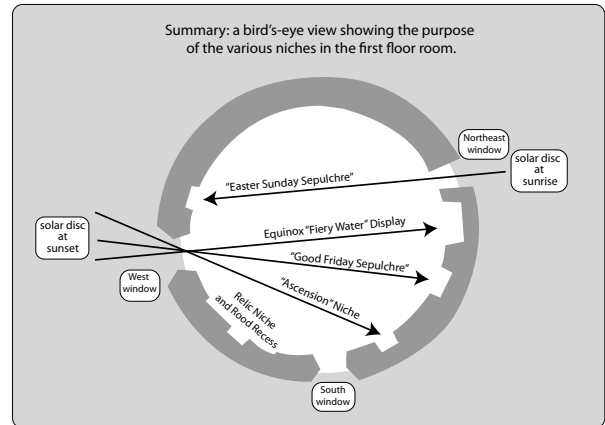
Anchor of Hope rood in the New World Church of the Holy Sepulcher at the colony of Rode, on the River of Dee, in 1583

Regardless, knowing Dee's penchant for visual riddles, it's pretty obvious to me that there was an "Anchor of Hope rood" in the first floor chapel-room, which celebrates Eastertide in so many illuminating ways.

As is John Dee style, (elsewhere in the Tower and in his riddle-writings and rebus-illustrations), Dee is considerate enough to leave plenty of clues.

But Dee is cautious about having *too much* going on. In the lower interior of the Tower, each one of his 5 Windows performs a special function and each one of his 5 Niches performs a special function.

And by understanding some of the most important aspects of Catholicism (the importance of Good Friday, Easter Sunday, and Ascension Thursday, and “relics in the altar”) the various niches can be read like story in a book.



And that book happens to be the Bible.

And to Christians, perhaps the most important story in the Bible is the Crucifixion. And the Crucifixion took place in(what later became) the original Church of the Holy Seplucher in Jerusalem.

That makes the Dee's Tower of 1583 a **New World Church of the Holy Seplucher**.

As such, it is part of a long tradition of hundreds of Churches of the Holy Sepulcher all over Europe, which are each representations of the original Church of the Holy Sepulcher in Jerusalem. What makes John Dee's version unique is that it is also a *horologium*, a grand timekeeping device.

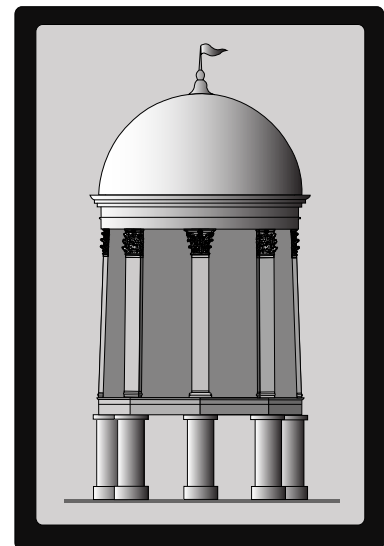
What's more special is that it is both a Solar Calendar and Liturgical Calendar. As a Solar Calendar, its camera-obscura solar-disc calendar-rooms keep track of the seasons, the days of the year, and the hours of the day. As a Liturgical Calendar, its various architectural features celebrate the important days of Eastertide.

The Tower is also Lunar Calendar, as the alignment through the Northeast window and the West window celebrates Lunar Minor (the southernmost of the moon's most northerly risings).

To Dee, the Solar Calendar, Lunar Calendar, and the Liturgical Calendar should not be seen as separate, but all intermingled as one.

Dee felt Jesus was conceived on the Spring equinox and born on the Winter solstice. And in his 1582 Calendar Reform Proposal to the Queen, Dee wrote that Easter should be celebrated on “the first Sunday, after the first Full Moon, after the Spring Equinox.

Dee has designed a unique “Christian Calendar Church.” Around 1800, the German philosopher Johann Goethe wrote, “I see architecture as frozen music.” Dee's conceptual architectural wonder takes it a step further, by making his Tower frozen astronomy, frozen optics, and frozen Christian ritual. In these three aspects, the Tower works the same today as it did in 1583. And it will continue to work, perfectly and unerringly, for centuries to come.



BONUS CHAPTER 1:

JESUS IN THE TOWER

Based on the clues provided in this book, can you find (what I call) the “Jesus in the Tower”?

No, the answer is not the 7-foot-long recess which held the rood beam, upon which the statue of Jesus on the cross (or anchor) rested.

No, the answer is not Niche 1 or Niche 4, which held the symbols of Jesus: the cross wrapped in linen and the consecrated host in the pyx.

No, it's not Niche 2 which held the Paschal candle representing the Ascension of Jesus.

No, it's not Niche 3, which held the “relic beneath the altar.”

No, it's not the altar itself, even though it represents the Last Supper.

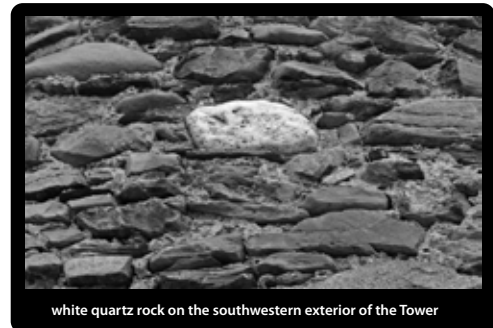
And no, it's not the alignment through the West and South windows on the Winter solstice (Jesus' birthday, according to Dee).

Nor is it the Fiery Water display in the fireplace on the Spring equinox (the day of Jesus' conception, according to Dee).

These answers don't count because the actual rood beam, rood, pyx, candle, relic, and altar are not in the Tower anymore. They are long gone. But there is one symbol of Jesus that is still physically there. You can see it today. And I showed a picture of it previously in this book.

The answer is the prominent white quartz rock on the southwestern exterior of the Tower.

Directly behind that white quartz rock would have been the statue of Saint John the Baptist, which gets illuminated by a patch of light at sunrise on the Summer solstice, Saint John's Day. What could a white quartz rock have to do with Saint John the Baptist?



white quartz rock on the southwestern exterior of the Tower



John the Baptist
baptising Jesus
in the River Jordan
by Guido Reni, ca.1622

Saint John the Baptist

To understand what this clue means, let's explore what Saint John is *most remembered for*.

John the Baptist, an itinerant preacher who lived from 6 BC to ca. 33 AD, is considered a prophet in Christianity (as well as in Islam). Among the many followers who John baptized in the River Jordan was Jesus. (Jesus' Mother, Mary, and John's mother, Elizabeth, were cousins, so Jesus and John were second cousins.)

John was a famous preacher, but he was called “The Precursor,” as he was more famous for prophesying that someone was coming who was far, far greater than he was.

According to in the Bible, John the Baptist was preaching one day, saw Jesus coming towards the crowd, and proclaimed aloud:

“Ecce Agnus Dei, ecce qui tollit peccata mundi.”

Which is Latin for,

“Behold, the Lamb of God, who taketh away the sins of the world!”

(as reported by another John, John the Apostle, in John 1:29 of the Bible)

This “Lamb of God” passage is the one quote Saint John the Baptist is most famous for.

Meanwhile, back at the Tower

As the pious work crew was constructing the southwestern wall, they knew the exact position the rood beam and the statue of Saint John. I’m convinced they put the white quartz rock on the outside of the Tower *to symbolize Christ, the Lamb*. The relatively smooth white quartz rock even looks “softer” than all the surrounding, darker, rough-textured rocks.

I realize this all sounds quite imaginative, but it’s really quite plausible once you understand the 2000-year-long artistic tradition of Saint John being depicted along with a white lamb. Furthermore, Saint John is usually pointing his finger, a clear reference to his pointing to Jesus as he declared, “*Ecce Agnus Dei*” (“Behold, the Lamb of God”).



After Jesus died, the Lamb metaphor caught on fast and has been used ever since. In the Roman catacombs, dozens of Christian tombs depict Jesus carrying a lamb on his shoulders.

Around 310, Constantine the Great presented three precious metal statues to the Lateran baptistery in Rome: a silver statue of Jesus, a golden statue of a lamb, and the silver statue of Saint John the Baptist holding the scroll reading, “*Ecce Agnus Dei, ecce qui tollit peccata mundi.*”

The imagery of John accompanied by a lamb was popular throughout the Middle Ages and the Medieval Era. In this hand-painted woodcut print from the *Book of Hours*, both John and the lamb have halos.



Saint John holding the Bible
with a small lamb on it.
Byward Room in the
Tower of London, ca. 1395

Entering the Tower of London, visitors pass through a huge gate, then over a wide moat and through the Byward Tower (where you were once asked the byword.) Up a spiral stairway, at the top of the Byward Tower, is a small room. It's off-limits to the Tower of London's 2 million annual visitors because of the fragile nature of the artwork, which was painted right on the wall itself, around the year 1395.

The painting of Jesus is no longer extant, but it's clear from the images of Mary, Saint John the Baptist, Archangel Michael, and Saint John the Apostle, that the room depicts the story of the Crucifixion.

Saint John the Baptist is holding a Bible with a miniature lamb on top of it. He holds a ribbon that reads: "*Ecce Agnes Dei*" ("Behold, the Lamb of God").

in the works of many Northern Renaissance painters of the 1400's, Saint John the Baptist is pointing to the "Lamb of God."



Saint John points to the lamb
part of the Donne triptych,
by Hans Memling, ca. 1478



Saint John holding a small lamb
by Dirk Bouts, Netherlands,
ca. 1470



Saint John pointing
to the lamb,
by Hans Memling
Netherlands, 1491



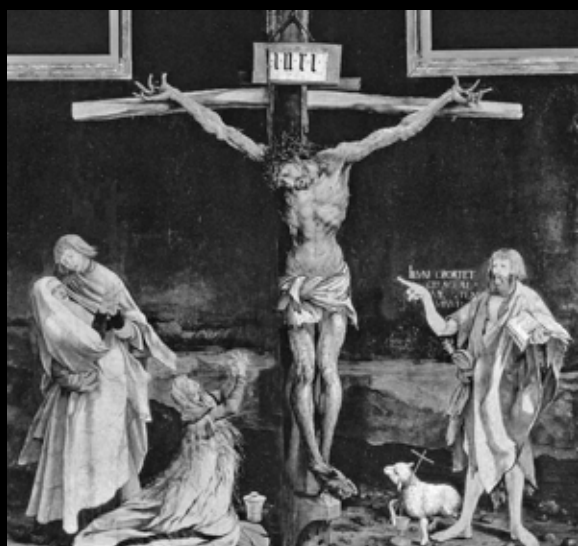
Saint John pointing,
with lamb at his feet,
by Titian, 1540



Saint John with lamb at his feet,
banner reads, "Ecce Agnus Dei..."
by Bartolomeo Veneto
Venice, ca. 1520



Saint John pointing
to a lamb at his feet,
by Joan de Joanes,
Valencia Spain,
ca. 1560



Saint John (with a lamb at his feet) pointing to Jesus,
Isenheim Altarpiece, in Colmar, Alsace, France
by Matthias Grünewald, ca. 1510

In the 1500's, famous artists in Italy, Spain, France, and Germany portrayed Saint John the same way: pointing his finger and with a lamb at his feet. Bartolomeo Veneto even included the "*Ecce Agnes Dei*" banner (in the middle, above).

Matthias Grünewald's *Isenheim Altarpiece* has the same arrangement as the "rood beam's three statues" so popular in England: the Virgin Mary (in white, with St. John the Apostle and Mary Magdeline) on the left, Jesus on the rood in the center, and Saint John on the right.

Note that Grünewald depicts Saint John the Baptist pointing, and with a lamb at his feet. The artist has combined two stories that actually took place at quite different times: Saint John "introducing Jesus to the crowd" and "Jesus' Crucifixion."



**Saint John with lamb,
banner reads, "...DEI..."
by Caravaggio, ca. 1600**



**Saint John with a sheep at his feet
banner reads:
"EccI Agnus Dei, ecce qui..."
by Bartholomew Gonzalez, 1621**



**Saint John pointing,
with lamb at his feet
high relief sculpture,
by Pietro Bernini,
ca.1613**

In the 1600's, Saint John was painted with much more realism and dramatic lighting, but the motif still included the lamb. The lamb appears in sculptures of Saint John as well. Since Biblical days, the lamb has been an "attribute" of John the Baptist. But it is not his pet sheep. It is a representation of Jesus, the Lamb of God.

In this same tradition, the white quartz rock about 2 feet through the wall back-to-back with the "statue of Saint John on the rood beam" is a representation of Jesus, the Lamb of God.

And the statue of Saint John the Baptist gets illuminated on the Summer solstice, on Saint John's birthday.

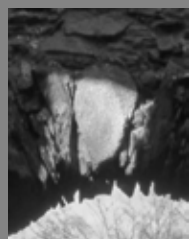


**On the interior:
statue of Saint
John the Baptist
on the rood beam,
illuminated on the
Summer solstice,
(St. John's birthday)**

back-
to-
back



**On the exterior:
white quartz rock
(Jesus, the
Lamb of God)**



**On the interior:
the "Egg-
shaped Rock,"
illuminated on
the Winter solstice,
(Jesus' birthday)**

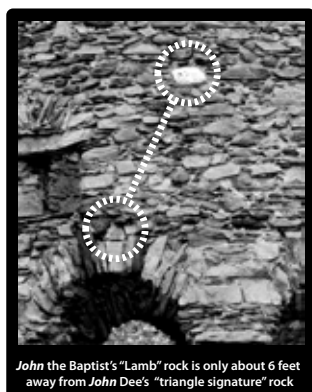
back-
to-
back



**On the exterior:
"Sunstone"
above the "Rock
with Shoulders,"
the Monas symbol,
(the design plan
of the Tower)**

If you still think the white quartz rock is just a random rock, remember that Dee had other symbolic rocks nearby on the exterior of the Tower.

In the exterior of the west-northwest arch is the "Sunstone" and the "Rock with Shoulders," which together represent the Monas symbol, the overall design plan for the Tower. And back-to-back with the Sunstone is the "egg-shaped rock," which gets illuminated shortly after the Winter solstice sunrise, on Jesus' birthday.



And in the west-southwest arch is Dee's "triangular signature" rock, which "points" to the entrance of the Dee River. (Indeed, all these rocks were originally covered with white plaster, but I think they were clearly marked with sgraffito on the outer surface.)

Not only is John the Baptist's "Lamb" rock only about 6 feet away from Dee's "triangular signature" rock, both these guys have the same first name. It's even likely that Roland Dee named his son John Dee after John the Baptist. Devotionally speaking, among Catholics and Protestants alike, Saint John was second only to Jesus in Elizabethan England. His birthday on Mid-summer was celebrated by everyone with feasting, festivities, and bonfires. (John was among the most common of Elizabethan names for men.)

Believe it or Not

Atheists or a Muslims or a Buddhists might argue that since they don't believe in Jesus, the white quartz rock it is only a white quartz rock. And they would be right. We are each entitled to our own beliefs.

But what's important here is not what the white quartz rock means to you or me. It's what it meant to the architect, financiers, and the builders of the Tower back in 1583.

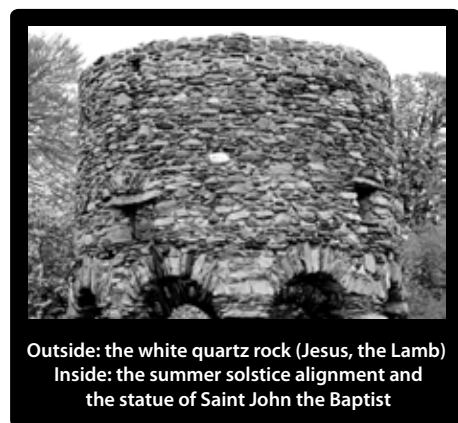
Jesus, Saint John, Mary, and all the figures in the Bible were of extreme importance in the daily lives of these Elizabethans. They were passionate about the Passion of Christ, which is exactly what the Tower celebrates. To them, the white quartz rock was "Jesus in the Tower."

(Seen creatively, if the "white quartz rock" is Jesus, the Lamb, then surrounding grey rocks are "fellow members of his flock." And the triangular "Dee rock" is a member of the flock too.)

I apologize if anyone is offended by my light-hearted "Jesus in the Tower" moniker. It's my way of being dramatic and pithy. There is nothing light-hearted about it. Dee and his associates were devout Christians, and indeed, they intended the whole Tower to say "Jesus."

This New World Church of the Holy Sepulcher honored Jesus. Just like the Church of the Holy Sepulchre in Cambridge, England (and similar structures all across Europe) honored Jesus. And just like the Greek and Roman Vitruvian circular Temples honored their local gods. The Tower is an effort to physically "plant" Christianity in the New World (which is something that eventually did happen).

Besides functioning as a giant horologium, keeping track of the hours and days, the Tower is a concretization of the central drama of Christianity. And on top of that, the patches of light illuminating the sacred architectural features blends Time and Christianity together as one.



I did not set out to find "Jesus in the Tower." As you can see from the flow of this book, I followed a trail of clues (the niches, the lighting effects, learning about Eastertide rituals in Jerusalem, continental Europe, and England). The "Jesus in the Tower" became the obvious conclusion.

For the past several years, as curator of the Newport Tower Museum, giving hundred of tours of the Tower, numerous visitors have asked me, "What does that prominent white rock mean? Now I can tell them. But they'll never believe me unless they have read this book, like you have.

BONUS CHAPTER 2:

ARCHITECTURAL “REPLICAS” OF JERUSALEM’S CHURCH OF THE HOLY SEPULCHER THROUGHOUT EUROPE

One of the most enlightening summaries of the huge tradition of building “replicas” of the Church of the Holy Sepulcher throughout Europe is Justin E.A. Kroesen’s *The Sepulchrum Domini Through the Ages*. (Kroesen teaches at the Institute for Liturgical Research at Groningen University in central Netherlands.)

Sepulchrum Domini

The term *Sepulchrum Domini* is not exactly an everyday phrase for most Americans, so let’s explore its etymology.

In Latin, *sepulchrum* means a “burial place, grave, or tomb.” It comes from the verb *sepelire*, meaning “to bury.” It’s not known how the “ch” sound good into Sepulchum, but some suggest Medieval monks combined the word *sepulchrum* (tomb) with the word *pulcher* (beautiful, excellent, glorious) to emphasize the “beauty” of “Jesus’ burial place.”

The Latin word *domini* derives from the Greek word *damnemi*, which originally meant “to tame an animal,” like bringing an ox under the yoke and breaking him in. Later it came to mean “to subdue, overcome, or conquer.” The conquering Romans morphed the verb *damnemi* into a noun, *domini*, which came to mean “master, ruler, commander, chief, or lord.” Christians consider Jesus to be their “Master,” “Lord,” or “*Domini*.”

It is sometimes incorrectly concluded that since BC stands for “Before Christ,” that AD means “After Death.” But AD actually means Anno Domini, “In the Year of the Lord” (referring to the birth of Jesus).

Familiar English words that derive from the word *domini* include, “domineering,” “dominant,” “dominion,” and even “condominium”: *con* (together) *domin* (to own) *ium* (place).

Other words that come from *domini* include:

Dominic (boy’s name)
Don (like a Mafia boss)
Dame (like Dame Agatha Christie)
Madonna, Madame, and Mademoiselle

Now, the term *Sepulchrum Domini* (the “burial place” of “the Lord”) or (the “tomb” of “Jesus”) sounds a bit more familiar. And remember, it’s pronounced “sep-ul-ker,” not “sep-lu-ker.”

The long tradition of building “replicas” of the Church of the Holy Sepulcher throughout Europe

Because it existed and could be visited in Jerusalem, the *Sepulchrum Domini* or site of the tomb of Christ has long been a “main focal point” of Christianity. In various cultures and times, Christian communities have commemorated Jesus’ tomb in their own lands by building “replicas of the original. In certain eras, there have been grand shifts in the way people architecturally expressed their feelings about Jesus’ tomb.

Justin Kroesen divides the “history of the commemoration of Jesus’ tomb” into three general periods:

325 AD to 1200 AD

Before 325 AD, Christians were so focused on the “Second Coming,” they weren’t concerned much with Jesus’ burial place. In 325, Emperor Constantine built the first Church of the Holy Sepulcher over the tomb. During the next 900 years, Europeans constructed entire churches modeled after the Church of the Holy Sepulcher in their home towns and cities.

1200 AD to 1550 AD

Shortly after the end of the Third Crusade of 1187, the Holy Sepulcher started to be represented *inside* the hometown churches. First, people made scaled-down copies of the Jerusalem church. Then they made more permanent tombs as monuments representing Christ’s tomb.

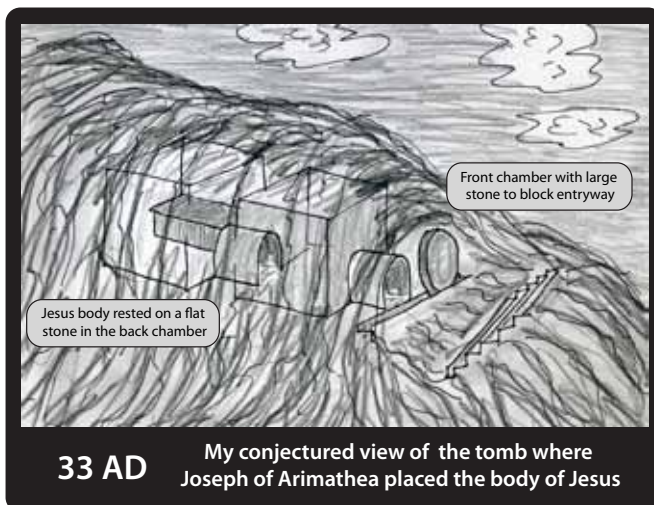
1550 to Today

During the Protestant Reformation and the Catholic Counter-Reformation, the Holy Sepulcher “imitations” were removed from many churches.

In the Baroque era (1600 to 1750), Jesuits and others represented the Holy Sepulcher more “theatrically” (like with Passion Plays) than “architecturally.” In recent years, there has been a growing interest in restoring the rituals and the architecture modeled after the Holy Sepulcher.

Jesus’ original tomb

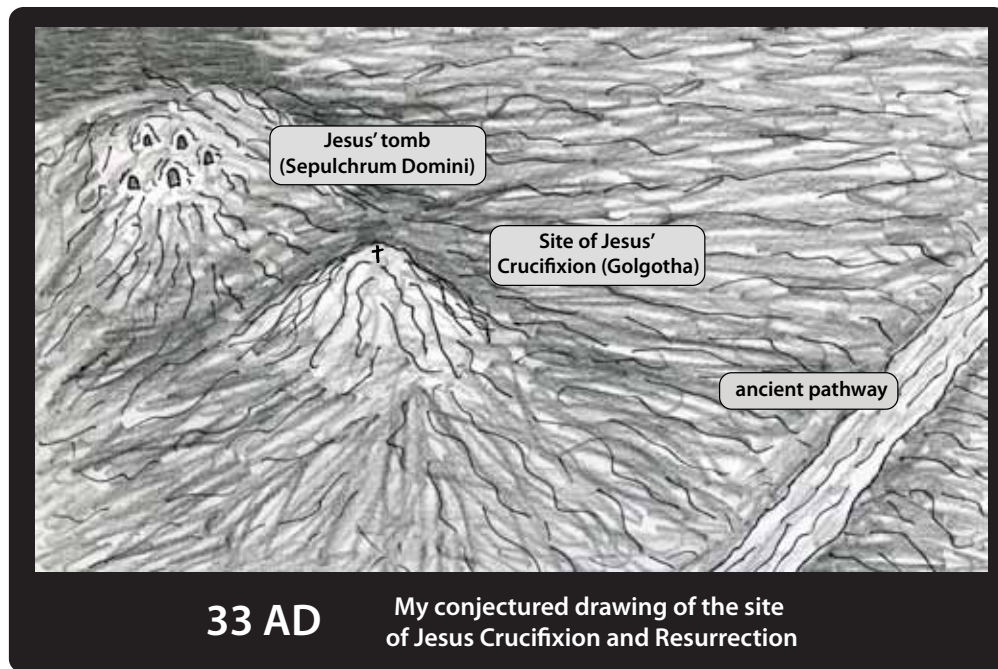
All we know about Jesus tomb derives from the Biblical accounts. It was a small cave-like tomb cut out of solid rock and its entranceway was blocked with a large stone (presumably a circular one so it could be rolled into place).



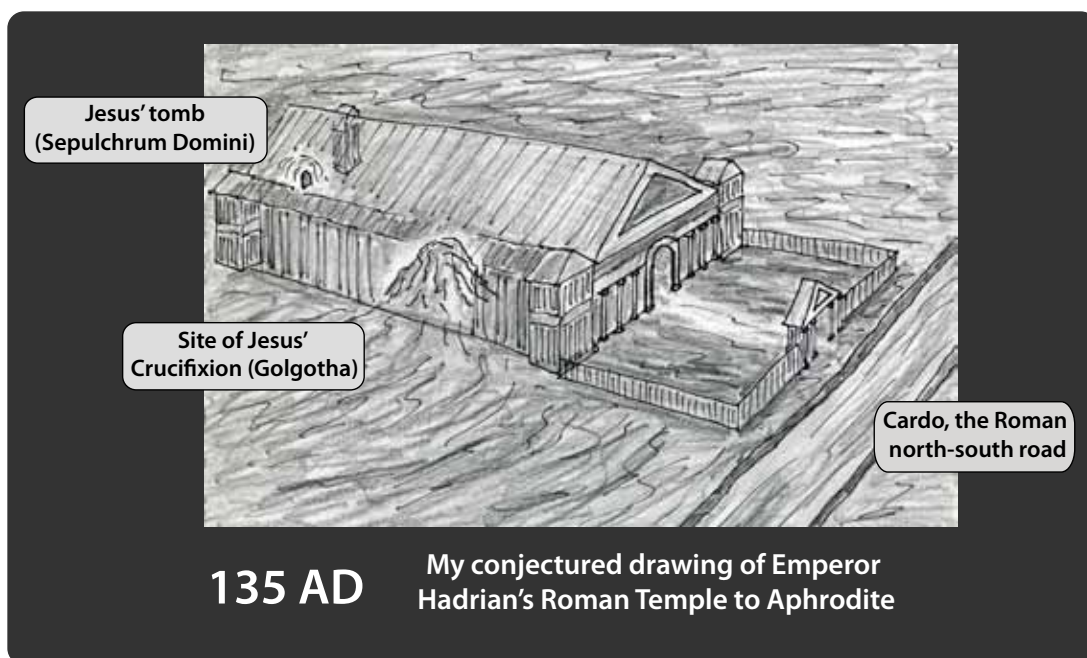
Having studied other early Jewish tombs, scholars have a good idea what Jesus’ tomb would have originally looked like. Most early tombs had two chambers. The front, entry chamber was the larger of the two rooms. The back chamber had a stone slab upon which the body rested.

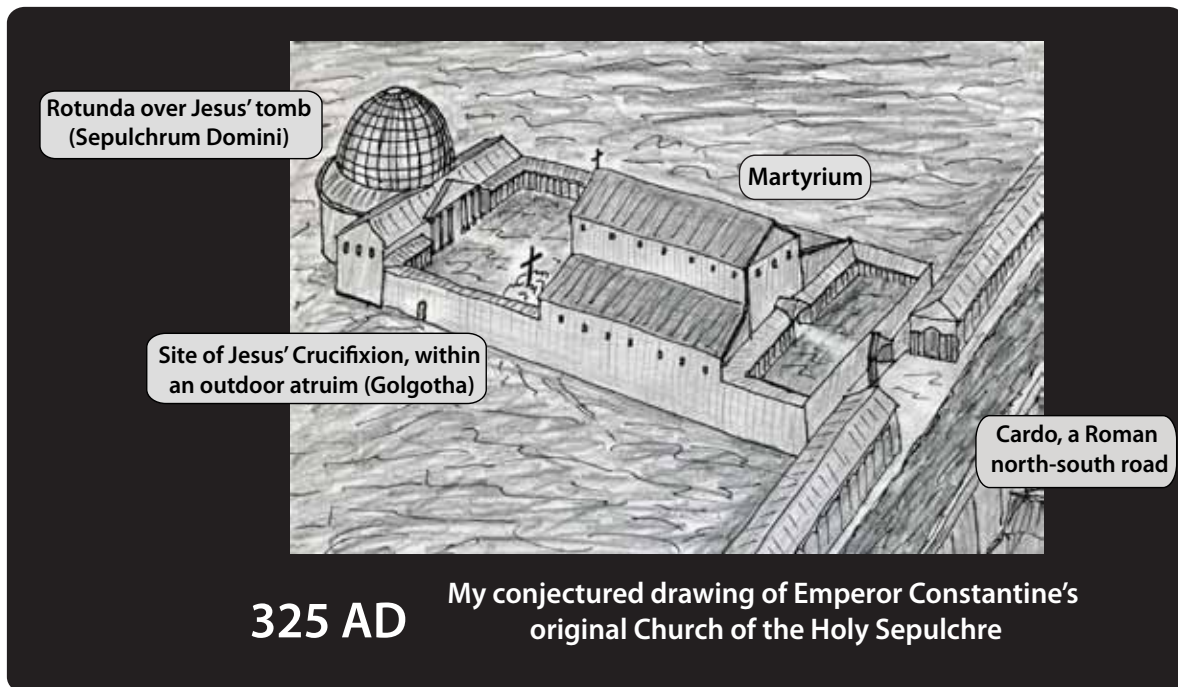
The corpse stayed in the back chamber (first anointed with oils and spices, then wrapped in linen) for about a year. After all of the flesh and muscle had decayed, the bones and skull were placed in an *ossuary*, a small box. These boxes were stored neatly in an *ossuarium* (in Latin, *os* means “bone”).

The tomb was about 75 yards west of the rocky hillock of Golgotha, where Jesus was crucified.
(The viewpoint of these illustrations is from the southeast looking towards the northwest.)



It's thought that Jesus' original tomb was demolished around 120 AD, when Hadrian "Romanized" the Christian and the Jewish sanctuaries across his Empire. On the site, around 132 AD, the Romans built a sanctuary to the Roman goddess Aphrodite (whom the Greeks called Venus) .





Around 338 AD, the historian Eusebius wrote in his *Life of Constantine* that the exact tomb in which Jesus had been buried was identified in 325. Constantine ordered his workmen to tear down the Temple to Aphrodite and replace it with a Christian shrine.

The new shrine had 3 main parts:

- 1 Over the site of Jesus' tomb they built a Rotunda 40 yards wide. The vertical drum of the building was capped by a dome with an oculus. (Eusebius says dome was modeled after the dome of the Pantheon in Rome.) In the middle of the church was a circular colonnade of pillars. Atop that was a second-tier of shorter columns. The lower pillars surrounded what was now an above-ground chamber, which was purportedly Jesus' tomb. Jesus' actual stone resting-place was along the northern interior wall. Constantine had his builders cut out the tomb and sheath it within the walls of the Edicule (Greek for "small building"), which was topped with a lantern.

This original Edicule is long gone, but it had been depicted on several *ampullae*, or "small vessels," which the pilgrims filled with oil from the Church's lamps and took home as keepsake souvenirs.

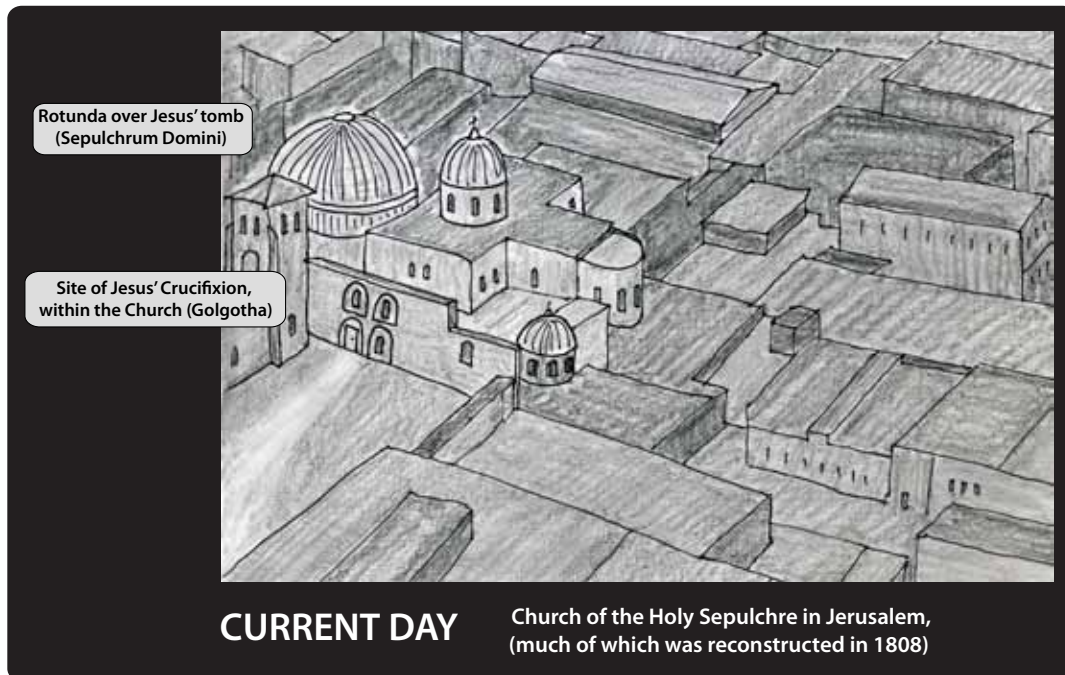
- 2 Just east of the Rotunda they built a basilica called the Martyrium (the "building" of the "Martyr").

- 3 Between the Rotunda and the Martyrium was an open courtyard with walls on its north and south sides. It's reportedly in the early 300's that Constantine's mother, Helena, found a part of the wooden cross on which Jesus had been crucified.

Built, destroyed, built, destroyed, built again

Around 620, the Persians destroyed Constantine's whole complex. It was soon rebuilt by the Jerusalem Patriarch named Modestos. In the 700's and 800's, earthquakes damaged the church. In 1009, Egyptian raiders leveled it again. Around 1100, it was partially rebuilt. In the late 1100's, when the Crusaders captured Jerusalem, it was constructed anew. Hundred of years and thousands of pilgrims later, in 1555, Franciscan friars rehabilitated the buildings.

When a fire broke out in 1808, the Rotunda collapsed, damaging the ornamentation of the Edicule. The replacement Rotunda only lasted 60 years. But another was built in 1870, which was restored in 1995.



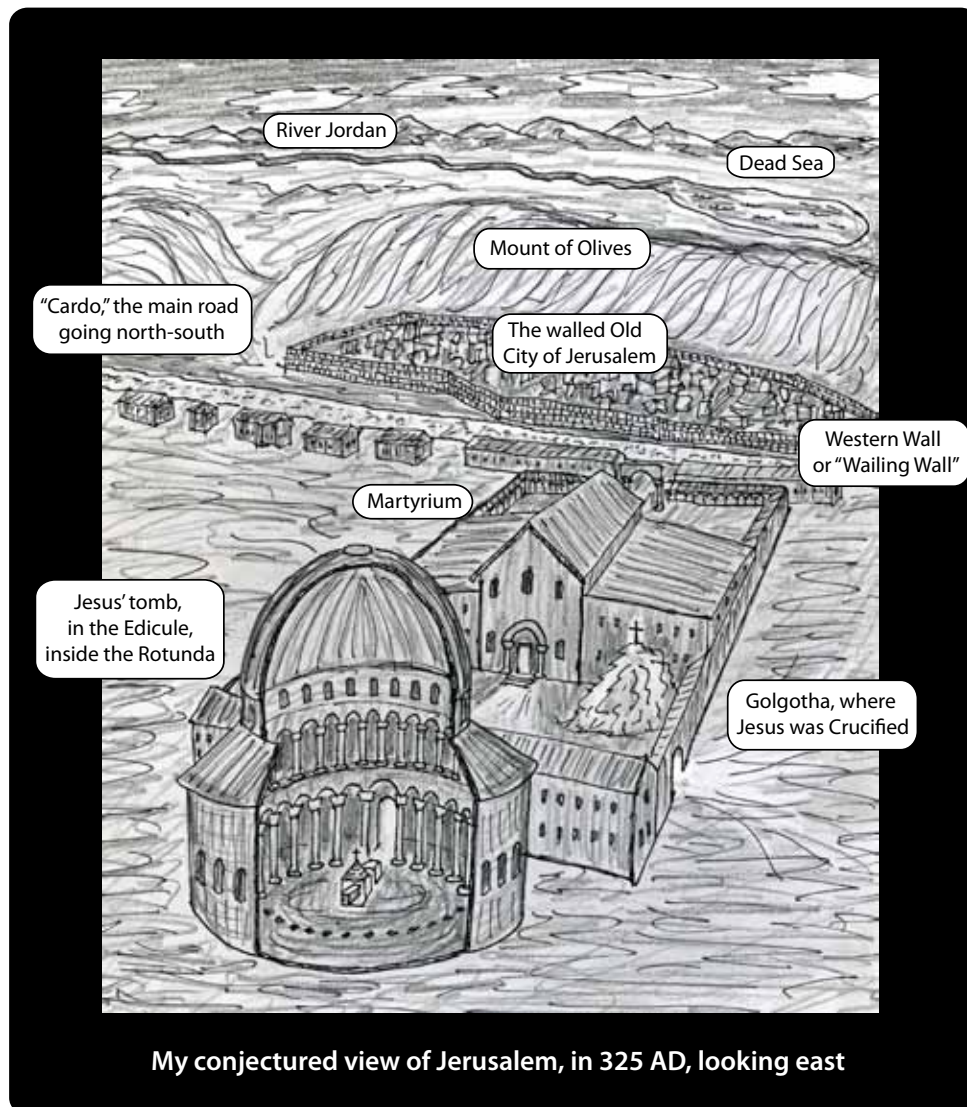
The influence of the Church of the Holy Sepulcher on European architecture from 325 AD to around 1200 AD

After Constantine had built the first Church of the Holy Sepulcher in 325 AD, Christians flocked to Jerusalem from all over the Western world. In these early days, Christians were more focused on Christ's Resurrection than his Crucifixion. Christ's Resurrection was the same "salvation" or "eternal life" that they themselves yearned for. The pilgrims were so moved by what they saw (and happy to have made it there and back safely) they built churches modeled on the Church of the Holy Sepulcher in their own cities, towns, and abbeys.

We'll review a few of these "replicas," but first let's look at 325 AD Jerusalem from another angle, from west looking east. In the foreground is Constantine's Rotunda, protecting the Edicule, which encased the tomb of Jesus. In the courtyard is Golgotha, where Jesus was crucified. Beyond the courtyard is the Martyrium (Church of the Martyr).

Beyond that was the *Cardo* or the main Roman road running north-south. (The main Roman road running east-west was called the *Decumanus*). And beyond that was the Western Wall of the original Old City of Jerusalem. This approximately 100-foot-tall wall is now referred to as the "Wailing Wall." For centuries, Jews have come to this wall to mourn and lament the destruction of the Solomon's Temple on the Temple Mount in the Old City.

Rising above the Old City is the the Mount of Olives, the site of Jesus' Ascension, which took place forty days after his Resurrection. Fifteen miles further east is the Jericho, on the River Jordan, which empties into the Dead Sea. This azure blue body of water has no outlet, so over the years its water has become eight times saltier than ocean water. Plant life cannot flourish in such salinity, thus its name: Dead Sea.



Because the Rotunda in Jerusalem had been destroyed and rebuilt several times, the “home-town replicas” vary, depending on the state of the church when the pilgrims saw it. Thus, the “imitations” were never “exact copies,” but they generally incorporated these basic features:

- 1 They all had a round floor plan (or sometimes 6, 8, 12, 16 or 20-sided).
- 2 Inside, they all had some semblance of the Tomb of Jesus.
- 3 Though not in all instances, they frequently had an ambulatory surrounding the central colonnade, an upper gallery, a clerestory (the upper section with windows) and a vault or dome.

Circa 440 AD



Round Church of San Stefano, Bologna, Italy

The first “replica” was Santo Stefano, in Bologna, Italy. The man who conceived of the idea, Bishop Petronius, even called the building complex “Gerusalemme.” Most of it was destroyed around 900, but it has since been reconstructed.



Modern day view of San Stefano, Bologna
(presumably the original church was similar)



The rotunda of Santo Stefano in Rome

Circa 475 AD

The “replica” built in Rome, also named Santo Stefano, has a wide ambulatory and is 70 yards in diameter.



Santo Stefano, Rome, from above



My conjectured view of Santo Stefano, Rome, with a tomb in the center of the colonnade



Interior of Santo Stefano, Rome

822 AD

Pilgrims yearning to bring the power of Jerusalem home to Germany built the Chapel of St. Michael in Fulda, in central Germany. It was built on holy ground, above an ossuary crypt for Benedictine monks. Eight pillars supported the central cylinder capped with a conical roof. Surrounding the pillars was in an ambulatory, and right in the middle was a round edicule about 10 feet in diameter.



Circular colonnade and ambulatory, Church of St. Michael, Fulda, Germany



My conjectured view of the Chapel of St. Michael in Fulda, Germany, with a tomb in the center of the colonnade

934 AD

Tradition holds that two pilgrims, Arcanus and Aegidius, returned from the Holy Land with a stone from the Church in Jerusalem. In their hometown of Borgo (25 miles east of Florence), they built a “replica,” on the site where a cathedral now stands. The town became known as Borgo San Sepolcro, which is now simply called Sepolcro. (It is also famous as the hometown of the mathematician Luca Pacioli and the painter Piero della Francesca.

960 AD

After his Jerusalem journey, Bishop Conrad returned home to Constance, Germany (near the Swiss border), and was inspired to build built a 60-foot diameter “replica.”

This structure never had a surrounding ambulatory, but most likely had a tomb in the center. Two centuries later the original chapel fell into ruins. But around 1250, it was replaced. The reconstructed building (which still stands today) is presumably the same shape and size as the original.



Chapel of St. Maurice, Constance, Germany

1036 AD

Around 1030, the Bishop of Paderborn (in northern Germany) sent an abbot to Jerusalem to make exact measurements of the Holy Sepulcher. A circular, domed replica was built in the center of four other churches (the five churches formed a cross). The replica no longer exists, but its charter reads that the central church was to be “in the likeness of the Holy Church in Jerusalem.

(Justin E. A. Kroesen, after Dalman, *Das Grab Christi*, p. 36)

1087 AD

In Selestat, Alsace, in the west of France, the Church of Saint Foy was built above a double tomb-chamber. The rotunda has been destroyed, but the underground crypt can still be visited today.

(Saint Foy means “Saint Faith” or “Holy Faith.” In Spanish, this name is “Santa Fe,” as in the capital of New Mexico.)

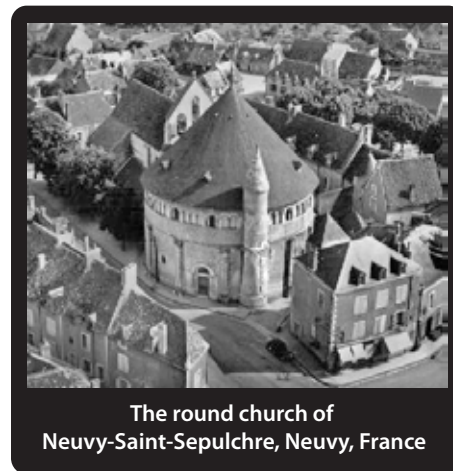
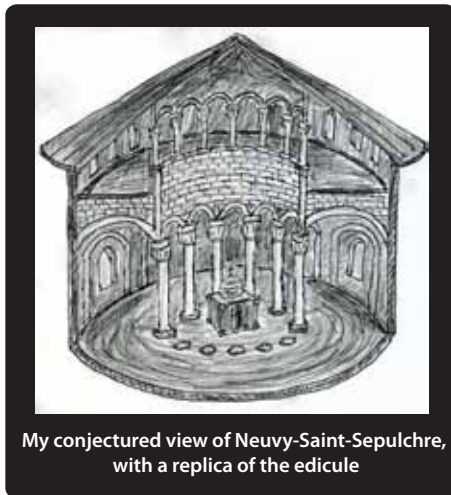
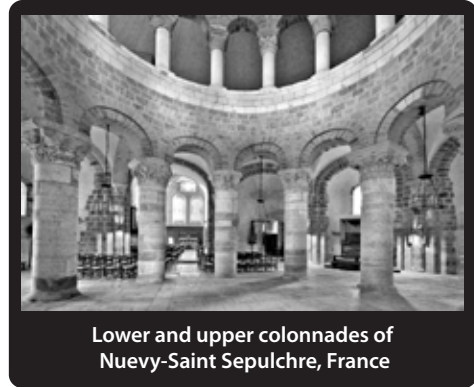


My conjectured view of the Chapel of Saint Foy, Selestat, France, showing the double tomb below

1049 AD

In Nuevy-Saint Sepulchre, in central France, Cardinal Chateauroux ordered the construction of a great basilica. Much like the Church in Jerusalem, it has a central colonnade surrounding a central tomb, a shorter upper-colonnade, and an ambulatory.

But the Cardinal insisted on something different. Most colonnades have an even number of columns (like 6, 8, 12, or 20), but this one only has 11. Supposedly, one is for each of the Apostles, except Judas, the betrayer of Jesus.



The list goes on and on, but other important “replicas” include:

- 1018 Saint Benigne Church, Dijon, (Southern France) (the rotunda is part of the basilica)
- 1038 Quimperle, Brittany (France)
- 1060 Beauvais (50 miles north of Paris.)
- 1100 Charroux Abbey, Benedictine Church, (western France)

The Crusaders spark more interest in building round churches

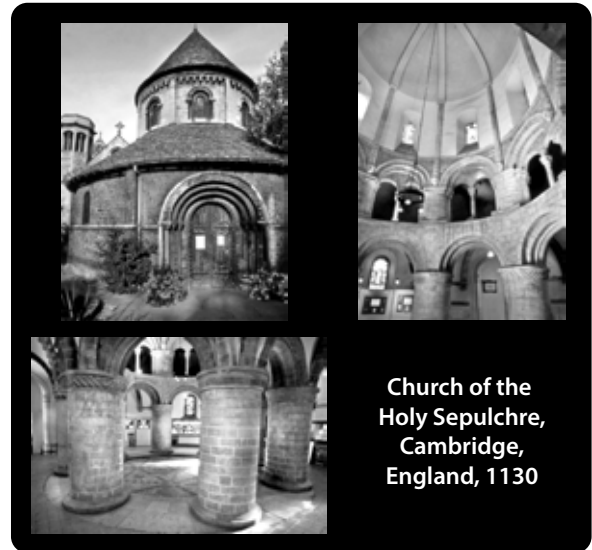
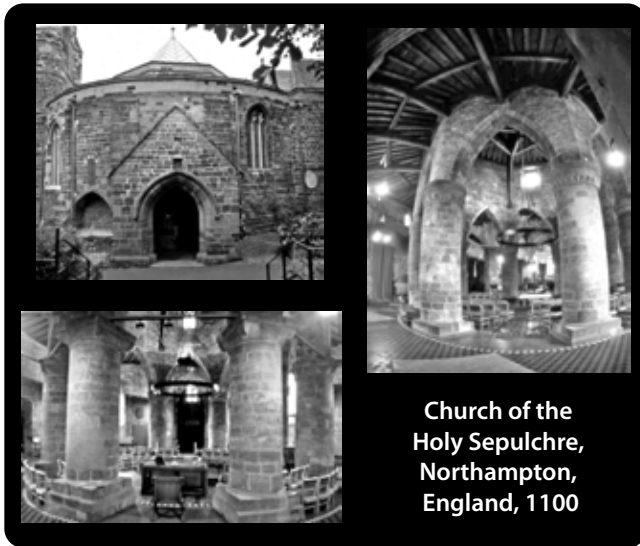
1100 AD

Around 1100, the Crusaders recaptured Jerusalem from the Moslems. This sparked a surge of interest in building “replica” round churches throughout Europe.

Their motivation was more than bringing back a “souvenir” of their journey. As Justin Kroesen puts it, *“They believed that the miraculous power of the original tomb was transferred to a consecrated Holy Sepulcher in Western Europe, so that in this way the Holy Places were also close at hand, in the West.”*

(Justin E.A. Kroesen, *The Sepulchrum Domini Through the Ages*, page 13, after G. Dalman, *Das Grab Christi in Deutschland*, 1922)

Two wonderfully preserved examples of Templar churches in England (reviewed earlier in this book) are the Church of the Holy Sepulchre in Northampton (1100) and the Church of the Holy Sepulchre in Cambridge (1130). Neither have a central tomb anymore, but it's thought they each originally would have had one.



Others round churches around Europe include:

- 1093 Chapel of the Holy Sepulcher, Extensteine, Germany
- 1094 Sancti Crucis and Sancti Sepulchri, Eichstatt, Bavaria
- 1124 Church at Montrevel, Dordogne, eastern France
- 1128 Chapel of the Holy Sepulcher in Augsburg
- 1100 Holy Cross Rotunda, Prague
- 1130 Chapel in Rieux-Minervois, southern France
- 1137 Chorges in the Alps, Eastern France
- 1137 Saint Michael-d-Entraigues, France
- ca. 1150 Chapel of St. John, Le Legit, central France
- ca. 1150 Templar chapel in Laon, Northern France
- ca. 1150 circular chapel in Lanleff, Brittany
- ca. 1175 Church of the Holy Sepulcher, Torres del Rio, Spain
- ca. 1175 Church of the True Cross, Segovia, Spain
- 1187 Charola Church, Tomar, Portugal





Saint Michael-d-Entraigues,
western France, 1137



Templar Round Church
in Laon, France, 1150



Chapel of Our Lady's Assumption,
Rieux-Minervois, France, ca. 1130



Holy Cross Rotunda,
Prague, 1100



Charola Church in Tomar,
Portugal, 1187



Church of the True Cross,
Segovia, Spain, ca. 1175

Round Baptisteries based on the Church of the Holy Sepulcher

Kroesen also suggests that the large baptisteries that can be found throughout Western Europe are also representations of the Church of the in Jerusalem.

He writes *“There was also a conscious link between the tomb of Christ and Christian baptism, which was interpreted as a symbolic death and resurrection with Christ. This idea led to the tradition of baptisteries modeled on the architecture of the Holy Sepulcher in Jerusalem.”*

(Justin E. A. Kroesen, *The Sepulchum Domini Through the Ages*, p. 193)

Examples of these baptisteries include:

- ca.1050 San Giovanni al Sepolchro, Brindisi, southern Italy
(on the heel of Italy, where pilgrims departed to Jerusalem)
- ca. 1075 San Giovanni Baptistry in Pistoia, Tuscany, Italy
(San Giovanni is Italian for Saint John [the Baptist])
- ca.1100 San Giovanni Baptistery, Florence, Italy
- 1108 San Giovanni Baptistery in Vigolo Marchese, northwest Italy
- ca. 1120 Rotonda di San Tomè Baptistery in Almenno San Bartolomeo, northern Italy
- 1153 San Sepolcro, Pisa, Italy
- 1167 Santa Maria Maggiore Baptistry in Cremona, northwest Italy
- 1185 Temple Church, London, England
- ca. 1200 Baptistery of San Giovanni, Pisa, Italy



**San Giovanni al Sepolchro,
Brindisi, Italy, 1050**



**San Giovanni Baptistery in
Pistoia, Tuscany, Italy, ca. 1075**



Baptistry of San Giovanni,
Florence, Italy, ca.1100



Baptistry in Vigolo-Marchese,
northern Italy, 1108



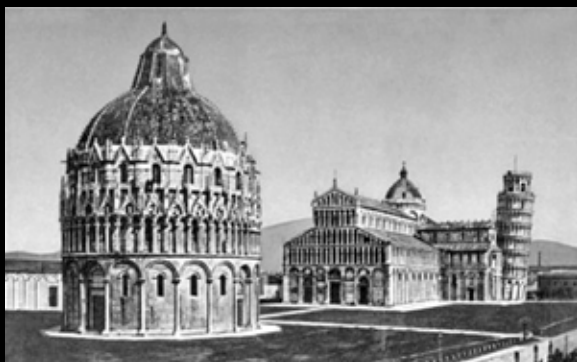
Rotonda di San Tomè,
Baptistry,
Almenno San Bartolomeo,
Italy, ca. 1120



Rotonda di San Tomè, Baptistry
in Almenno San Bartolomeo, Italy
ca. 1120



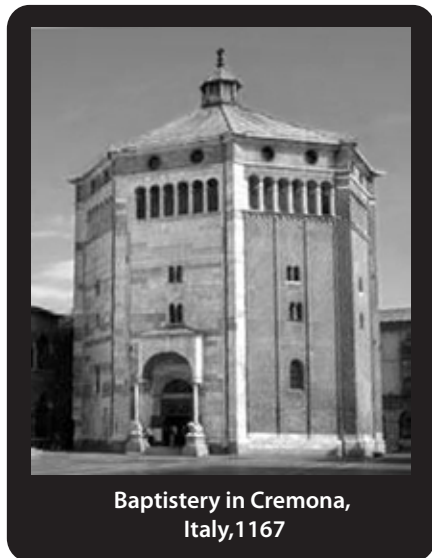
Rotonda di San Tomè, Baptistry
in Almenno San Bartolomeo, Italy
ca. 1120



Baptistry of San Giovanni, Pisa, ca.1100
(and Cathedral and Leaning Tower)



octagonal Church of San Sepolcro, Pisa, Italy



Baptistry in Cremona,
Italy, 1167



Temple Church, London,
England, 1185

Round Churches in Denmark based on the Church of the Holy Sepulcher

Even the Danes built replicas of the Jerusalem Church. Around 1100, the Danish king, Sigournd the Great, ordered four round churches to be built on the island of Bornholm, in the Baltic Sea:

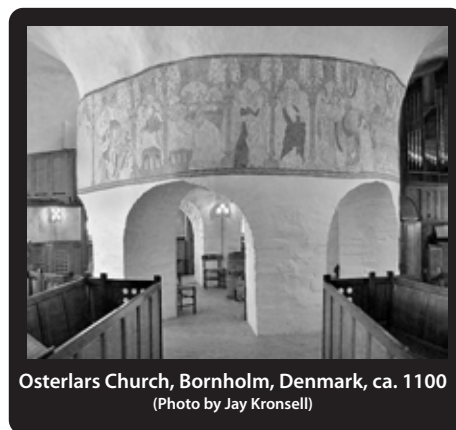
Ny, Nylars, Ols, and Osterlars.



Ny, Bornholm, Denmark, 1100



Osterlars Church, Bornholm, Denmark, ca. 1100
(Photo by Jay Kronsell)



Osterlars Church, Bornholm, Denmark, ca. 1100
(Photo by Jay Kronsell)

Karners (burial houses) based on the Church of the Holy Sepulcher

Besides Baptisteries, many “Karners” also derived their design from the Church of the Holy Sepulcher. Karner is short for *carnarium*, an underground crypt that held bones of the deceased (also called an *ossuarium* or a charnel house).

Over a hundred of these round or octagonal structures can still be seen today throughout Austria, Bavaria, and Bohemia. Inside was an altar for Requiem Mass (Mass for the dead), and steps which led down into the crypt below. The building made the faithful feel they were being buried “in the tomb of Christ.” (Kroesen, p.43)

As you can see from these 4 examples, the designs vary considerably, but they are all round or octagonal:

1171 Doberan Karner, Bad Doberan, Germany.

1182 Saint Othmar Karner, Mödling, Austria

1190 Deutsch-Altenburg Karner, Altenburg, Austria

1241 Tulln Karner, Tulln, Austria



Doberan Karner (charnel house),
Bad Doberan, Germany, 1171



St. Othmar Karner
Mödling, Austria, 1182



Deutsch- Altenburg Karner
Altenburg, Austria, 1190



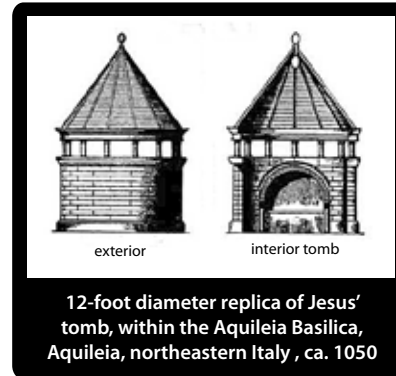
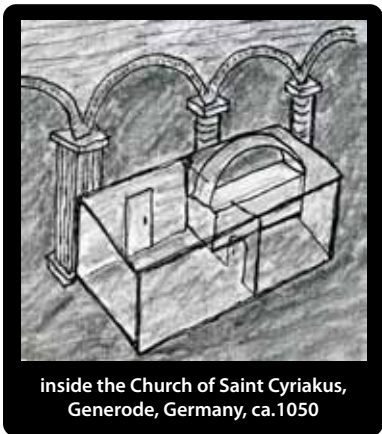
Tulln Karner,
Tulln, Austria, 1241

Around 1200: a shift from “outside” to “inside”

Around 1200, there was a huge shift in Holy Sepulcher “imitations.” Instead of whole buildings, the Holy Sepulcher “reproductions” were contained *inside* church buildings. This was partially due to new construction techniques that allowed taller buildings to be built.

Another reason was that the liturgy had changed to emphasize the Easter ritual. Every church had to have its own “symbolic grave,” its own “Easter Sepulcher” in which the host (and often the crucifix) was placed on Good Friday, only to be “resurrected” on Easter Sunday.

In the port town of Aquileia, in northeastern Italy, there is a replica of Jesus’ tomb, inside a 12-foot diameter circular edicule (small room), within the Aquileia Basilica. This replica was built around 1050.



In Generode, Germany is an imitation of the Holy Sepulcher Edicule in the church of Saint Cyriacus, from around 1050. A small front chamber leads through a low passageway to the rear chamber, which has an arch above the tomb. The tomb chamber is approximately an 8-foot cube and is elaborately decorated with bas relief sculptures of holy women and angels.

In 1180, a small chapel was built inside Winchester Cathedral, in England (no longer extant).

Inside the St. Maurice Chapel in Constance, Germany an octagonal Holy Sepulcher-edicule with ornate decoration was constructed around 1260.



Inside the huge in Magdeburg Cathedral, in the medieval town of Magdeburg, in north-central Germany, is a 16-sided “imitation.” It’s about 12 feet in diameter and 15 feet tall, and most likely, originally had a tomb inside.

(Kroesen, pp. 47-53)

A shift of emphasis from “Resurrection” to Crucifixion”

These small “edicules within large churches” were actually just a transitional phase. The liturgy, as reinterpreted by influential theologians like Bernard of Clairvaux and William of St. Thierry changed the emphasis on “Christ, the heavenly King who had triumphed over death” to “Christ, the sufferer on the cross.” (Kroesen, p. 53-4)

In the wake of the Black Death and other plagues that wiped out about a third of Medieval Europe, people related more with the “adversity” aspect of Christ death than his “resurrection.” Jesus’ tomb was envisioned more as a “funerary object.”



wooden chest used as an
Easter Sepulchre

European churches started to represent Christ’s tomb was wooden chests, or wooden coffins, often containing a recumbent statue of Christ, complete with bloody wounds and a crown of thorns.

Later, tombs were often just represented by small recesses in the northern interior walls, but decorated to look like a tabernacle, which means “tent-like,” or “with a peak.”



an Easter Sepulcher with
tabernacle ornamentation

In England, the small wall recesses of the 1200’s evolved into wall recesses with monumental framework, like the decorative bas-relief sculptures at the parish church in Heckington.



wall recess with
monumental framework,
Heckington, England

As Jesus’ resting place was on the north wall of the Holy Sepulcher edicule in Jerusalem, tombs were cut into the north walls of chancels. Sometimes rich church-goers would pay for the Easter Sepulcher on the stipulation they be buried there (putting them closer to the altar, and thus closer to Christ).



“replica” of Jesus’ tomb
on the north wall



Around 1500, in Germany, ornate freestanding shrines were built with elaborately carved walls, buttresses and pinnacles.

To summarize, from around 1200 to around 1550, the representations of the Holy Sepulcher took on a wide variety of forms, like niches, wooden chests, and monuments (as in the English tradition explored in an earlier chapter in this book). In the 1600's and 1700's, in Western Europe, small-scale models of the Holy Sites in Jerusalem were still being built. These replicas of Stations of the Cross were even built in Spanish missions in America. (Kroesen, p.184)

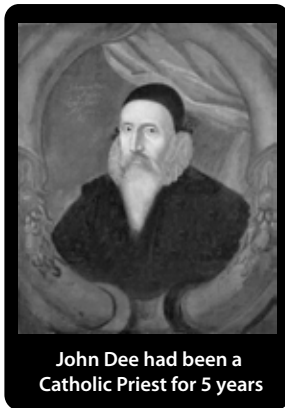
After the Protestant Reformation and the Catholic Counter-Reformation of the 1500's, the focus was more on the Easter drama: Passion plays, Easter liturgy and eventually Easter parades.

Kroesen summarizes:

"The architectural complex, built on the summit of Mount Golgotha at the behest of Constantine the Great had an enormous influence on the architecture of the entire Christian World in the succeeding centuries."

(Kroesen, p. 193)

Conclusion



John Dee had been a Catholic Priest for 5 years

John Dee, born Catholic, and for five years a Catholic priest, designed a mathematically harmonious Catholic Church for the first colony in the New World at Rode on the Dee River.

In light of the fact that so many people, in so many places across Europe, for centuries, have been moved to make "replicas" of the Jerusalem Church, it is not unusual at all to suggest that Dee was building a **New World Church of the Holy Sepulcher.**



My model of John Dee's "New World Church of the Holy Sepulchre," overlooking the Dee River, Rode (now Narragansett Bay, Rhode Island)







BONUS CHAPTER 3:

A HIDDEN REFERENCE TO EASTER IN A “DATE” CLUE







John Dee’s 1564 *Monas Hieroglyphica* is a cryptic admixture of geometry, mathematics, optics, and astronomy, and even alchemy, but it also has an undercurrent of Christian theology. For example, Theorem 22 is a long, cryptic reference Christian theology. Dee uses his Monas symbol as a visual device to explain the Holy Trinity, which defines God as three divine persons, the Father, the Father, the Son, and the Holy Spirit.

In Theorem 23, Dee writes, “*In the Name of JESUS CHRIST who was for us affixed to the CROSS (the pen only Whose Spirit, writing these things swiftly through me, I Desire and I Hope to Be)...*”

Later, in Theorem 23, Dee presents what I refer to as the “36 Boxes Chart.” It is riddled with word and letter clues, but basically each of the 12 “trios” has a beginning, a middle, and an end.

	Existens ante Elementa.	Adam Mortalis Mafculus & Formina.	Mortifi- cans	Adombe- nus.	Names in Seabulo.
	Elementaris arcsomonia.	Elementalis Genealogie Confirmatio.	Cruz.	Cruz.	Holocof- stium in Croce
	Existens post Elementa.	ADAM IMMOR- TALIS.	Vivificans.	Manifestif- icatus.	Rex Regum Vique.
	Concep- tus Singulan In- fluencia.	Potentia Semen.	Creacio Hylis.	Marino- nium Ter- restris.	Principium
	Paffus & Se- pelia.	Vir- tus Denaria.	Deporatio Elementalis.	Cruce Martyrii.	Medium.
	Refurgens, propria vir- tute.	Glorie Triumphus.	Transfor- matio.	Manimo- nium Dis- tinctum.	Finis.

Dee’s “36 Boxes Chart” from Theorem 22
of the *Monas Hieroglyphica*

	Existing before the Elements.	Mortal Adam Male and Female.	Mortifi- cation.	Wrapped in Shadow	Born in a Stable
	Ordering of the Elements.	Consum- mation of the Elemental Genealogy.	Cross.	Cross.	Sacrificed on the Cross
	Existing after the Elements.	ADAM IMMOR- TALIS.	Vivifi- cation	Manifest- ation	King of Kings Everywhere
	Conceived by his Own Influence	Potent Seed	The Creation of Matter.	Earthly Marriage.	Beginning.
	Suffering and Burial	YHWH Virtue of the Denary	Purification of the Elements.	Martyrdom on the Cross.	Middle.
	Rising again by his own Virtue	Glorious and Triumphant	Transfor- mationm.	Divine Marriage.	End.

My translation of Dee’s “36 Boxes” Chart
from Theorem 22 of the *Monas Hieroglyphica*

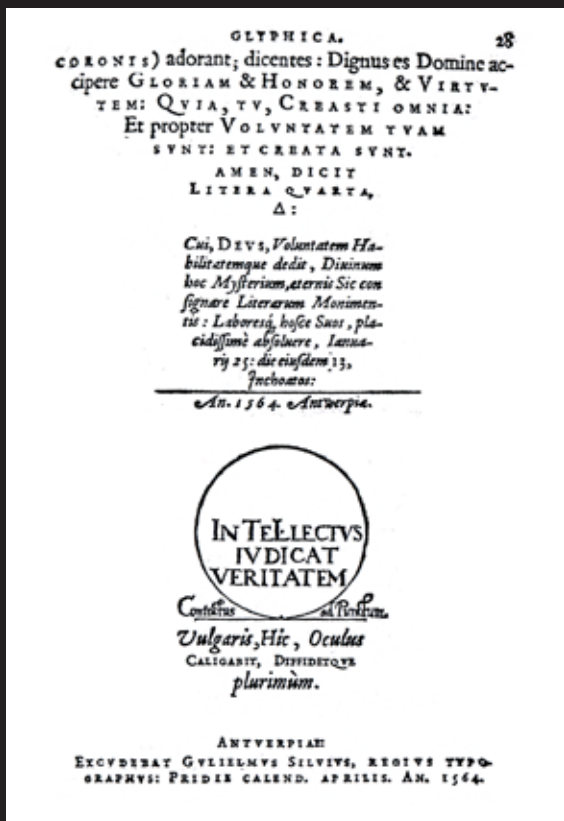
The trio “Mortification, Cross, Vivification” suggests Good Friday and Easter Sunday.

Another trio summarizes the life of Jesus: “Born in a Stable, Sacrificed on the Cross, King of Kings Everywhere.”

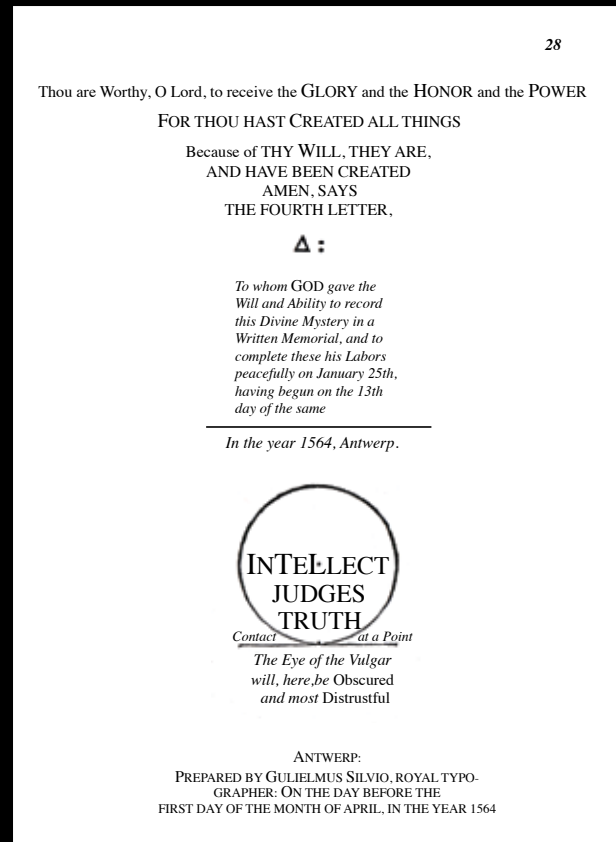
Another trio reviews his Conception, Crucifixion, and Resurrection: “Conceived by his Own Influence, Suffering and Burial, Rising again by his own Virtue.” The “Suffering and Burial” refers to the crucifixion on Golgotha on Good Friday. The “Rising again...” refers to his Resurrection, 2 days later, on Easter Sunday.

Another trio includes “Martyrdom on the Cross”

Dee never mentions the word “Easter,” but it’s implicit in these trios.



The last page of
Dee's *Monas Hieroglyphica*



My translation of the last page
of Dee's *Monas Hieroglyphica*

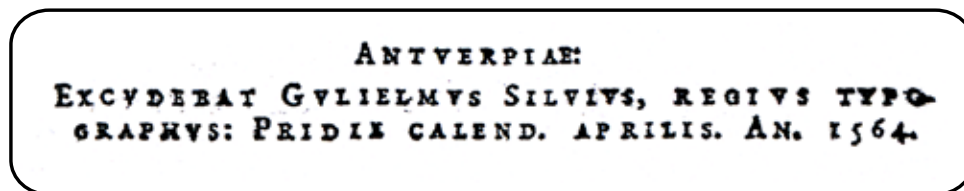
Let's now turn to the final page of the *Monas Hieroglyphica*. Dee concludes his final Theorem, Theorem 24 with his signature, Δ, the equilateral triangle, which he uses creatively in many riddles.

His "Intellect Judges the Truth" emblem (which I have explained in depth in an earlier book) contains riddles about mathematics (the significance of 9, 10, and 11) and vision (the eye as a camera obscura).

But the very last thing at the bottom of the page is a seemingly straightforward credit to Dee's printer in Antwerp, Gulielmo Silvio, and the date of publication "On the Day Before the 1st Day of the Month of April, in the year 1564."

Why doesn't Dee simply say March 31, 1564?

This had all the signs of being a very clever "Dee clue."



ANTWERP:
PREPARED BY GULIELMUS SILVIO, ROYAL TYPO-
GRAPHER: ON THE DAY BEFORE THE
FIRST DAY OF THE MONTH OF APRIL, IN THE YEAR 1564

Having found all the Easter references in the first-floor room of the Tower, and having determined that the Tower was part of a long tradition (over 16 centuries) of architectural celebrations of the Easter events, I wondered:

Was "March 31" the date of Easter in the year 1564?

It was obvious to me that March 31 is, indeed, one of the "35 possible dates of Easter."

So I Googled around, and found that Easter in the year 1564 was on April 12. So much for that idea.

However, I noticed a footnote that said the chart was using the Gregorian calendar. So I had to subtract 10 days to find the corresponding date on the Julian calendar (which Dee would have been using in 1564). That makes it April 2, 1564. Close, but not quite Dee's March 31 date.

However, if Easter Sunday is on April 2, then March 31 would have been Good Friday! Dee published his most cherished book on Good Friday, the same day Jesus was "Suffering" on Golgotha and was "Buried" in the Tomb.

DEE PUBLISHED HIS BOOK ON GOOD FRIDAY!

Dee's book contains the hidden blueprint for his "Holy Sepulcher Tower." And the book was printed on the day of Jesus' Crucifixion and Burial in the Holy Sepulcher. John Dee certainly weaves a tight web with his cleverness. And he was certainly a pious and devout Christian.

At the beginning of the *Monas Hieroglyphica*, in his "Letter to Maximilian," Dee writes:

"Thus, I most humbly Offer to Your Serene Majesty this my offspring, the HIEROGLYPHIC MONAD (Conceived in London, yet Born in Antwerp). I earnestly desire, with all my strength, that you do not disdain to become its second Father. Not only now, but later in life, when it will be older and even more Valuable because of your trust, may it always be at hand and of service to you. I wish that henceforth you will consider it your own, MOST Merciful KING. During the entire period of his birth, your pleasing face seemed to be present before my eyes. In this respect, you have made my labors fruitful and help me bring this work tonight.

My Mind has been pregnant with it continuously for the past 7 years, it because of the magnetic virtue you exert, even from such a great distance, it took me only 12 days to bring it forth, most peacefully, into the world.

May the Most Holy TRINITY grant that this be a happy and auspicious event in the life of your August Highness as well as to my most passionate searching for honest truth. This Most Holy Trinity, (founded before all time, in the Omnipotent Ineffable MONAD, which lives and reigns forever, and to whom alone all Praise, Honor, Power, and Glory always be given and sung by every Creature. Amen."

After which Dee writes, "Antwerp, In the year 1564, January 29"

Dee provides 5 dates about the progress of his book (and a cryptic sixth date as well):

January 13, 1564 Dee starts to write the text of his *Monas Hieroglyphica*

January 25, 1564 “12 days later” Dee finishes writing the text of his *Monas Hieroglyphica*

January 29, 1564 Dee writes his letter to *Letter to Maximillian*.

January 30, 1564 Dee writes his *Letter to the Gulielmo Silvio*

The day before April 1, 1564 (which is March 31, 1564) was the day the book was published.

The idea that Dee wrote the text of the *Monas Hieroglyphica* in 12 days is pretty amazing in itself. It's unclear if these dates “Jan. 13 through Jan. 25” are significant.

[They correspond to Jan. 23 through Feb. 4 in the Gregorian calendar. The number 12 was certainly very important to Dee. And one of these 12 days, Jan. 15 (Julian), was the date he had selected for Queen Elizabeth's Coronation in 1559.]

But perhaps these four “January dates” were given as a “red herring” to help conceal the importance of the “March 31, Good Friday date.” Dee wanted his “child” to be born on at the time of Jesus Crucifixion and (only 2 days later) Resurrection. That's theological motivation.

Have you guessed the hidden date yet?

Well, Dee tells us “*his mind was pregnant with the Hieroglyphic Monad for 7 years.*”

If we go back 7 years from Easter of 1564, that brings us approximately to Easter of 1557.

[Easter Sunday in 1564 was on April 2 (Julian) and the Easter Sunday of 1557 was on April 8 (Julian).

But 6 days difference out of 7 years is still pretty close.]

In 1557, Queen Mary I was on the throne, and Dee was a Catholic priest. Mary died in November of 1558. But in Easter of 1557, she was healthy and was expected to reign for a while, as she was only 41 years old.

To summarize, Dee's brainstorming about the Monas symbol and book ***started around Easter of 1577***, while he was a Catholic priest, and the book was ***published on Easter of 1564***.

To be exact, it was published on Good Friday, the day of Jesus' Crucifixion on Golgotha and Burial in the nearby tomb.

And above these sites in Jerusalem rose the various iterations of the Church of the Holy Sepulcher.

And that building spawned hundreds of “Church of the Holy Sepulcher replicas” all across Europe.

And that tradition overflowed to America, thanks to John Dee, whose architectural expression of the Jerusalem Church of the Holy Sepulcher can still be seen in Touro Park, Newport today.

Dee's cryptic Expression of “Easter” on the Title page of the Monas Hieroglyphica

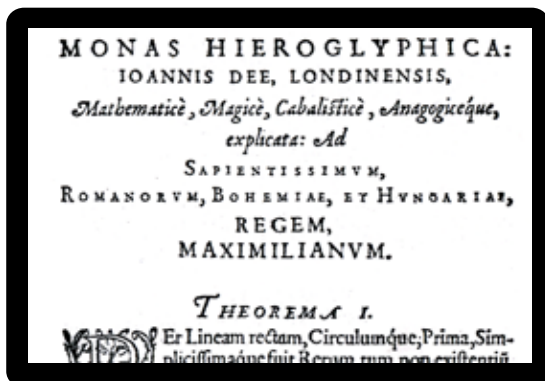
Dee's *Monas Hieroglyphica* is a summation of his cosmology, his view on the mechanics of the world. But expressing oneself fully in Dee's time often led to prison, beheading, or a burning at the stake. He has to be cautious.

To Dee, number ruled everything. Mathematics (geometry and arithmetic) ruled all the Arts and Sciences. But his cosmology also interweaves touchy topics like Christianity (which involved the Catholic-Protestant controversy), astronomy (which involved the Copernican sun-centered controversy) and optics (which had images of people walking upside down in dark rooms).

The easiest thing to do in these paranoid times was to remain silent. But, for the benefit of his fellow man and future kind, Dee felt compelled to express the marvelous interwoven cosmology of Nature he had discovered.

To express himself, yet still save his skin, Dee wrote and illustrated his ideas cryptically. On the surface there's not much religious iconography apparent in the illustrations of the *Monas*. The Title page is more about architecture, astronomy, and nature. But on a subtle level, it does express "Easter, the time of Christ's Crucifixion and Resurrection." Dee hid his clues "zodiacally."

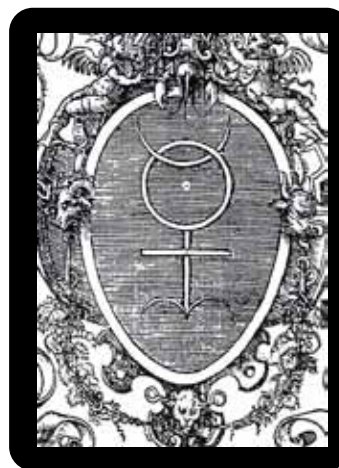
Can you figure out how?



Dee hints that he is involving theological ideas in his book. Dee writes at the very beginning of his 24 Theorems that he is "*Mathematically, Magically, Cabalistically, and Anagogically*" explaining his cosmology to King Maximilian. "*Anagogically*" means "spiritually" (from the Greek word *anagoge*, meaning "a spiritual lifting up.")

Around this central egg, which surrounds the Monas symbol are drawings of only four of the twelve zodiacal signs. At the top is Cancer the Crab, a reference to Dee himself, who was a Cancer (born July 13, 1529).

At the bottom is Leo the Lion, a reference to King Maximilian II, who was a Leo (born July 31, 1527). (It's interesting that they are different signs even though their birthdays are only 18 days apart.)



On the left and right side of the central egg are the signs for Aries and Taurus. Even though they are on opposing sides of the egg, the Ram and Bull seem connected, as they each hold in their mouth one end of a U-shaped cord on which a fruitful grapevine has grown.

All this seems to be illustrating Dee's quote from Genesis 27, just below in the foundation of the architecture: "*May God give you of the Dew of Heaven and of the Fatness of the Earth.*"

But in light of the fact that Dee published his book on Good Friday, these Aries and Taurus depictions can be interpreted another way.

Can you guess how?

As there are 365 days in a year, the chances that Dee's book just happened to be published on Good Friday is about 1-in-365. Not very good odds.

Dates were very important to Dee. As the year 1564 approached, Dee most likely had this Good Friday deadline on his mind. It spiritually motivated him to finally assemble his ideas, sail to Antwerp, and guide his book into reality. As he wrote his two "Letters" and the final text in January, he probably supervised the artwork and typography in February, did test proofs and corrections during March, and finally put ink on paper on Good Friday, March 31, 1564.

One can sense that the whole team—Dee, the printer Gulielmo Silvio, the engravers, and the typesetters—were all motivated by the Good Friday deadline. They sensed Dee's imperative, that the work be "born" at the right time: on Easter. (During this crunch time, Dee was living at Gulielmo Silvio's house in Antwerp.)

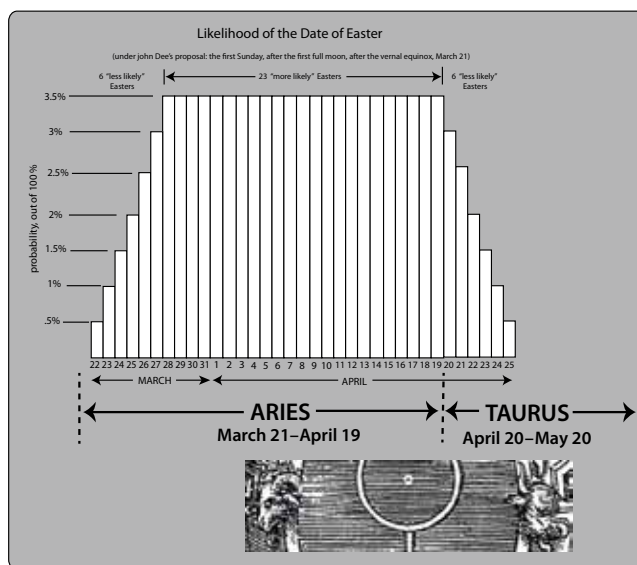
With this spiritual, Christian motivation, it seems as though Dee would be expressing the important "time of Easter" on the Title page, which visually summarizes all the interwoven themes of the book.

ANTWERP:
PREPARED BY GULIELMUS SILVIO, ROYAL TYPO-
GRAPHER: ON THE DAY BEFORE THE
FIRST DAY OF THE MONTH OF APRIL, IN THE YEAR 1564

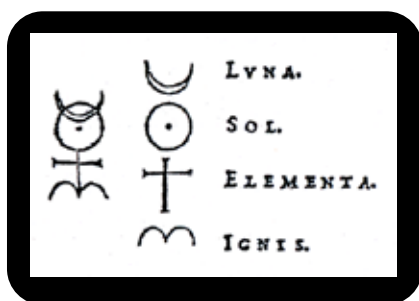
"Easter" on the Title page

But it's hard to visually illustrate the "date of Easter" because it's a movable holiday. It can be any of the 35 days from March 22 to April 25.

Of these 35 days,
29 are in the sign of Aries
and
6 are in the sign of Taurus.



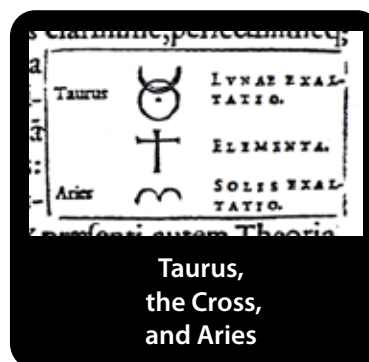
This appears to be why Dee pictured the Aries Ram and the Taurus Bull so prominently. Seen together, they express the "35 possible days of Easter."



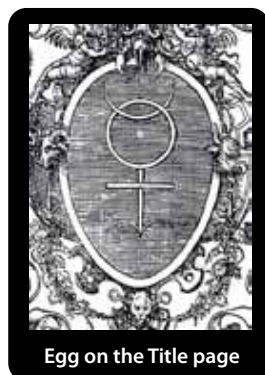
The sign of Aries is an important part of the Monas symbol. And appropriately, the Cross symbol “rises up” from the Aries symbol. (The “Crucifixion date” is dependent upon the “Spring equinox date.”)

But the sign of Taurus is not as readily apparent in the Monas symbol. So, in Theorem 15, Dee emphasizes how it can be seen. He depicts how the Sun symbol (as the head) and the Moon symbol (as the horns) can be combined to graphically resemble Taurus the Bull.

To be cryptic, Dee calls Aries the “Exaltation of the Sun” And Taurus “the Exaltation of the Moon.” But his illustration, which has “the Cross” between them, might easily be read as “the day Jesus was on the Cross” is either “in the sign of Aries” or “in the sign of Taurus.”



More clues about “Easter” on the Title page

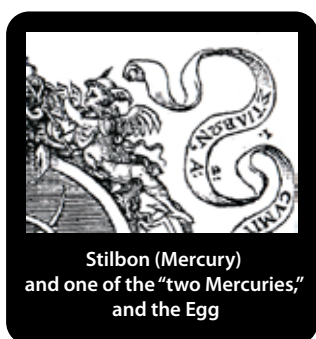


This clue about “the date of Easter always being in Aries or Taurus” suggests several other “Easter-related” clues on the Title page of the *Monas Hieroglyphica*.

The first clue is the Egg, which surrounds the Monas symbol. The Egg can also be seen on the Back cover, similarly encasing the Monas symbol.

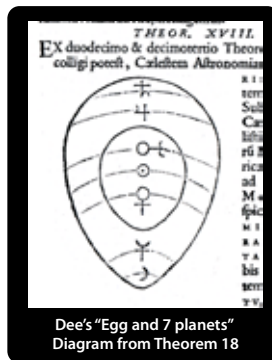
This Egg can be interpreted in several ways.

Alchemically, the egg refers to a “retort,” the vessel in which the of the Philosopher’s Stone is born. Alchemists compare this birth to “the hatching of a chick from its egg.”



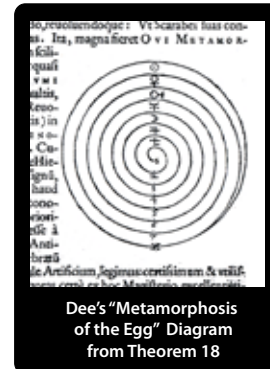
Astronomically, the egg might symbolize the elliptical orbit of Mercury, which Dee hints at on the Title page and writes extensively about in Theorem 18.

On the Title page, Dee actually writes ΣΤΙΑΒΟΝ, or Stilbon, which means, the Shining One, referring to the Greek god Hermes, who became the Roman god Mercury. Dee even illustrates two “fleet-footed and winged” Mercuries, each pointing his caduceus (wand) at a hole in the armor.



In Theorem 18, Dee illustrates an egg with the 7 planets whirling around it and asks the reader to figure out what he means by the the egg white, the egg yolk, and the shell.

He illustrates the “Metamorphosis of the Egg,” with 7 planets and 7 spirals. And he relates Aesop’s Fable about the Scarab Beetle and the Eagle, which involves the Eagle leaving her eggs in the lap of Jupiter for safekeeping.



Dee writes, “*rolling, and rolling some more, just as the Scarabs conglomerate their Balls.*” A scarab (or dung beetle) rolls its eggs in dung (like making a large snowball for a snowman). To the ancients, this round rolling sphere was reminiscent of the Sun making its way across the sky, then setting, and then renewing itself the next day. The young beetles emerging from the dung ball was like life emerging spontaneously from the earth. For centuries, the scarab beetle has represented “new life,” or “resurrection.”

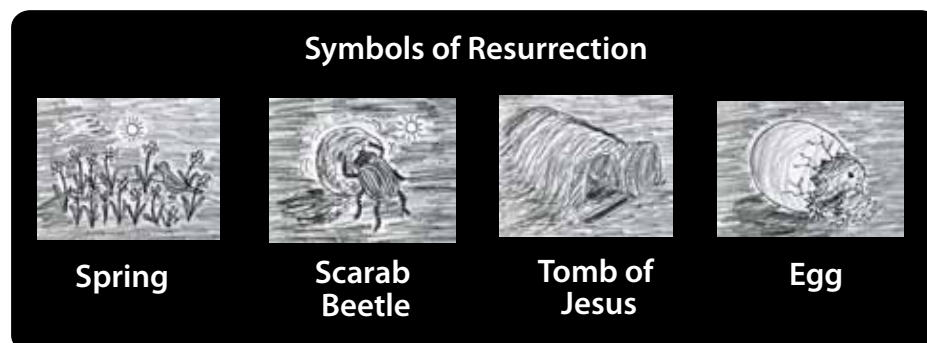
Similarly, a chick breaking out of its shell came to symbolize Christ’s resurrection Resurrection from the dead. The Egg is a symbol of Jesus’ Tomb and the fertile awakening of Nature that happens in the Spring, the time of Easter.

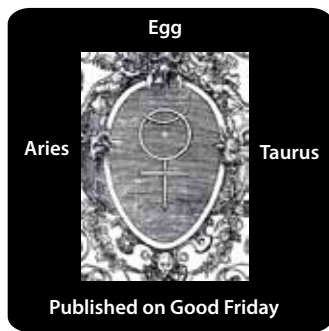
Symbols of Resurrection

Dee is intertwining all these symbols of Resurrection: The Spring equinox, when lightness overtakes darkness. The scarab beetle, rolling his eggs in a dungball-sun sphere. The Tomb, the Sepulchrum Domini, where Jesus rose from the dead. And the egg, from which the new-born chick emerges.

These symbols are all, in a sense, “Easter eggs.”

(Curiously hidden messages or features in a computer program or video game are also called Easter eggs, a term introduced by Warren Robinett of Atari in 1979.)

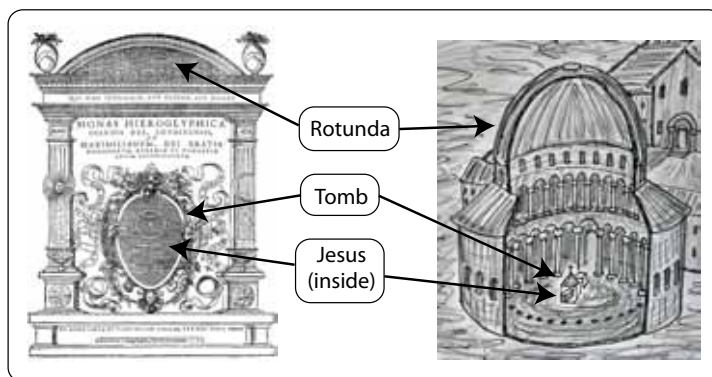




Dee's intertwining the "resurrection Scarab Beetle" with his "Egg illustrations" suggests he wants us to see the "Egg on the Title page" as the Tomb of Jesus.

this idea is supported by the "Aries the Ram and Taurus the Bull illustrations," as well as his "Good Friday" publication date.

So, looking through "Christian glasses," the Title page might be seen as: JESUS (the stick figure with crown of thorns and a cross), inside the TOMB (the egg with the Aries and Taurus dates of Easter), inside the ROTUNDA (the architecture with columns and a dome).



The whole Title page represents the Easter events in the Church of the Holy Sepulcher in Jerusalem.

The implied Resurrection (a "raising up") on the Title page

This interpretation adds a new level of meaning to the first clue that I solved when I first encountered Dee's book over a decade ago.

Being a graphic artist, I immediately noticed that the "central emblem" was made primarily from "curvy, flowing lines" and the "outer architecture" was made primarily all from "straight, perpendicular lines." (Sort of like the right brain vs. left brain dichotomy.)



Further, the "central emblem" was square, and the "empty theater" between the two columns was square. (This graphic contrast is more evident when the type is removed.)

It seemed as though the emblem had been intentionally lowered. It was even being "pinched" by the jutting bases of the two columns.

To me the emblem begged to be "raised up."



My "raised up" or "restored" version of Dee's Title page.

Now the emblem fits more comfortably in the "theater" between the columns

Indeed, when raised up (in Photoshop), the whole Title page felt more harmonious. The two "flowing ribbons" were now freed to float in the air, yet were still contained in the central "theater."

In this "restored" position, lines connecting "Fire and Water" and also "Air and Earth" propitiously cross exactly where the vertical and horizontal lines of the Cross of the Monas symbol intersect.

(Cross of the Elements meets Cross of the Elements.)



When the emblem is "raised up", lines connecting "Fire and Water" and "Earth and Air", cross at the intersection point of the vertical and horizontal lines of the Cross on Dee's Monas symbol

This "Cross alignment clue," the "Aries/Taurus/Easter date clue," and the "Egg (as tomb) clue" all suggest Dee wants the reader to "resurrect" or "raise up" the Egg emblem.

(In Latin, *resurgere*, means "to rise again")



"Egg (tomb of Jesus) in "lowered position" (*Depositio*)



Egg (tomb of Jesus) "raised up" or "Resurrected" (*Elevatio*)

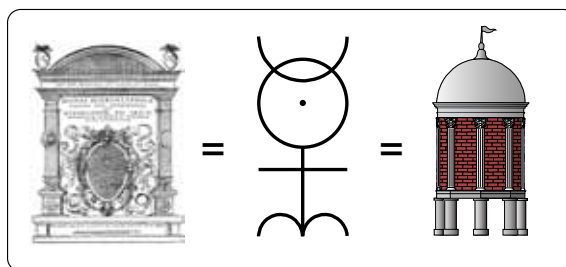
Depositio and Elevatio

In Medieval and Renaissance liturgy, the "lowering" of Jesus from the Cross into the tomb was called *Depositio* (Latin for a "laying down," a "lowering," or a "depositing." This *Depositio* happened on Good Friday (the same day of the year Dee published his book.)

The same liturgy refers to the "Resurrection" using the term *Elevatio*, (Latin for a "lifting up," a "raising," or an "elevating"). Dee has "lowered" the "Egg emblem," so that the readers can experience the "*Elevatio* of Jesus" when solving the visual riddle.

In short, Dee's Title page represents what happens on Easter.

And as we've seen, the first-floor room of Dee's "New World Church of the Holy Sepulcher" Tower also represents what happens on Easter.



And his Monas symbol (which is the overall design plan for the Tower) also represents Easter (with its Aries and Taurus and Cross symbols).

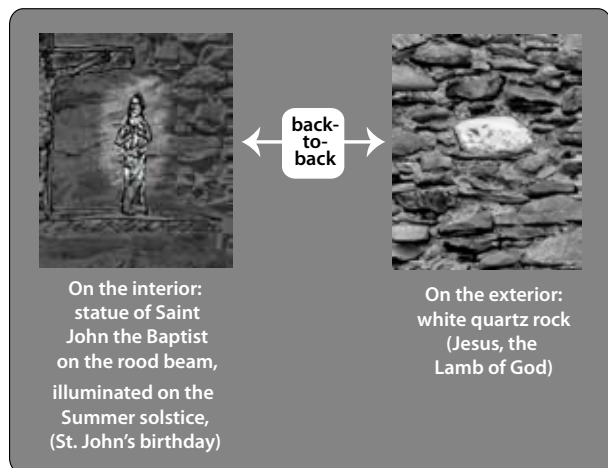
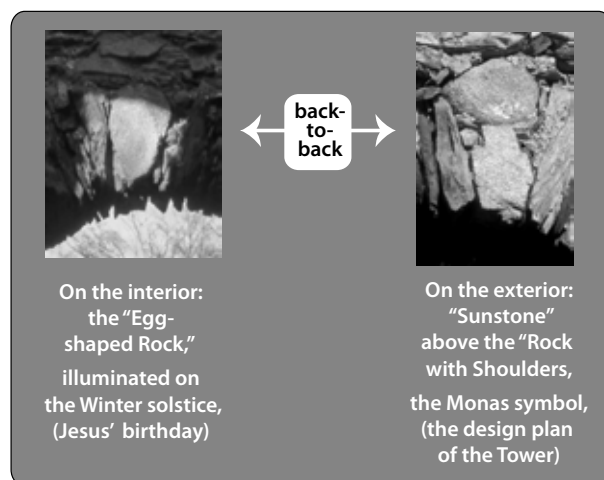
Thus Dee's Book, his Monas symbol, and his Tower all represent the same cosmology—the harmony of astronomy, mathematics, optics, timekeeping, and Christian theology. Remarkable. Dee weaves the parts together seamlessly (yet still cryptically).

The Easter Egg in the Tower

This idea of the "Title page Egg" representing "Easter" sheds light on another egg: the "Egg-shaped rock" in the west-northwest interior arch of the Tower.

This is the one that is back-to-back with the "Sun Stone" and the "Rock with Shoulders," which together represent the Monas symbol.

This "egg-shaped rock" gets illuminated on December 21, which is NOT "Easter" (the time of Christ's Crucifixion and Resurrection). However it IS "Christmas," the Winter solstice, (the time of Christ's birth).



Remember also that the "white quartz rock" on the southeast exterior is similarly back-to-back with the statue of Saint John the Baptist on the rood beam, which gets illuminated on the Summer solstice.

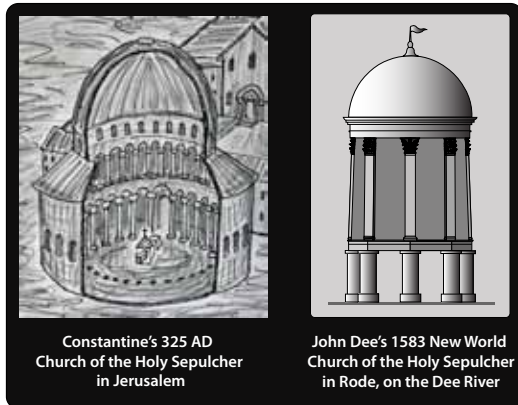
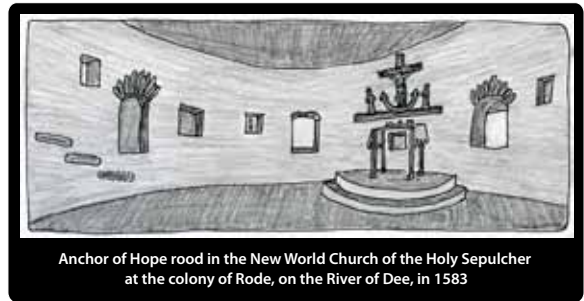
And the white quartz rock represents Jesus, the "Lamb of God."

Thus, the "Egg-shaped rock" and the "white quartz rock" are both representations of Jesus.

Even more representations of Jesus in the Tower

And the Good Friday Niche, the Easter Sunday Niche, and the Ascension Thursday Niche represent Jesus as well.

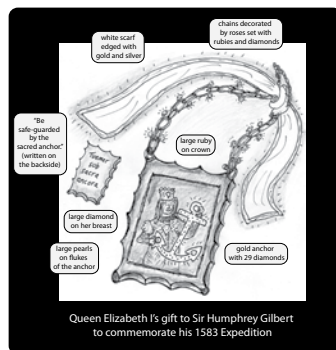
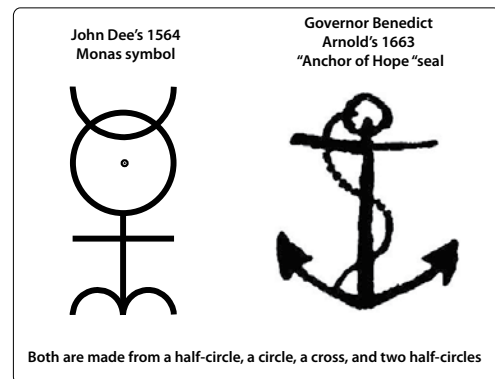
And the long horizontal recess which held the rood beam, on which stood the Rood or Crucifix, also represents Jesus.



In fact, the whole Tower, which is a replica of the Church of the Holy Sepulcher represents Jesus.

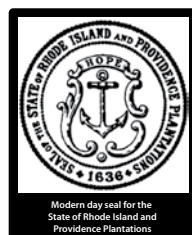
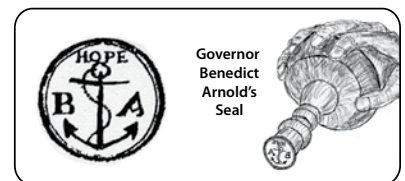
How "Christ is the Anchor of Hope" fits into the grand riddle

Let's take things one step further: The "Egg-shaped rock" is back-to-back with the "Monas symbol rocks." The four parts of the Monas symbol (the Moon half-circle, the Sun circle, the Cross, and the Aries symbol) might be rescaled and rearranged to make the Anchor symbol.



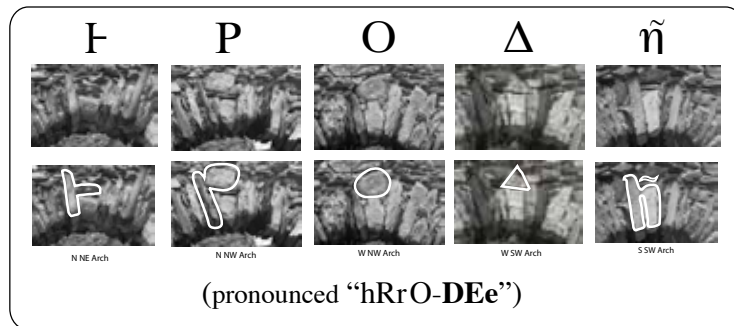
The "Anchor of Hope" was Dee's symbol for the first Elizabethan Colony in the New World.

And the symbol adopted by first Governor Benedict Arnold, who owned the Tower.



And it is still the state symbol today.

The “Rood” in the Tower at “Rode”

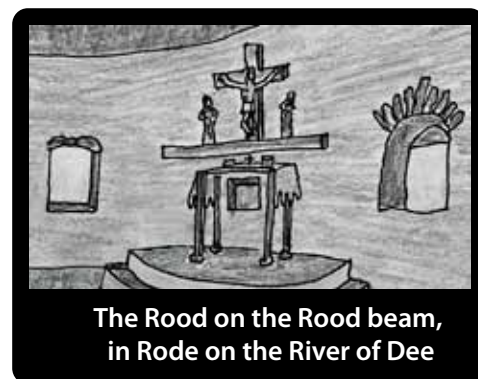


The “Sun Stone” of the the “Monas symbol rocks” in the Tower is the letter “O” in the Greek spelling of the word “RHODE,” which can still be seen, made of from various stones in the keystone areas of five neighboring arches in the Tower.

Dee’s secret code word for the 1583 colony was “Rode,” (as in Rhode Island).

And “Rode” is pronounced the same as “Rood”, which means Crucifix, the cross Jesus was nailed to on Easter Sunday, (which was the day Dee published the Monas).

You get the idea. Dee’s puzzle is profound, thorough, and even circular.



The kids missed a few eggs



The children who gathered all the colorful Easter eggs in the park missed one: the “Egg-shaped rock” in the west-northwest interior arch.

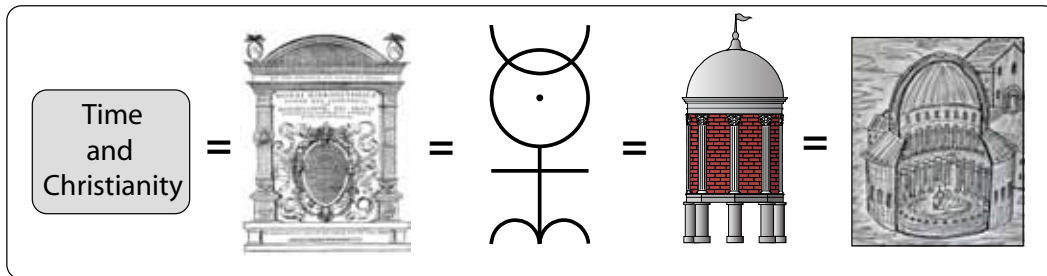
Indeed, they missed an even larger Easter egg: the Tower itself. I don’t mean just the “niches and windows” that celebrate Easter, but the whole building which is a replica of the Church of the Holy Sepulcher in Jerusalem, where the “original Easter egg,” Jesus’ *Sepulchrum Domini*, is located.

Conclusion: It's about and Time and Christianity

Dee loved putting (right in front of the reader's nose) clues which could only be understood after great reflection.

The *Monas Hieroglyphica* is about TIME. Solar Time, and Lunar Time, Christian Time—and how they are all interlinked—as with the dating of Easter: “The first Sunday, after the first full Moon, after the Spring equinox.” This is Dee’s recipe for the 1583 Reform of the Calendar, written to ensure Easter was celebrated on the correct day.

Dee’s cryptic *Monas Hieroglyphica* book, his “shorthand–graphic–logo” Monas symbol, and his “Architectural-camera obscura calendar-Easter Tower” all express his cosmology about Time. They are eternal calendars.



Dee wanted to introduce Christianity into the New World. But he never really succeeded—the colony failed—and his Tower was abandoned during his lifetime. Nonetheless, Christianity eventually found its way to these shores—in a big way. Nowadays, North America is 85% Christian and South America is 93% Christian.

John Dee, who coined the term the British Empire, designed a rock-solid structure built on a foundation of over 25 tons of rocks. He wanted this New World Church of the Holy Sepulcher to be a “replica” that would forever provide the inhabitants of the New World with a direct connection to Jerusalem.

In the 1500’s, the Ottoman Turks ruled Jerusalem, so pilgrimages to the Holy Land were out of the question. Like many other European cities realized, having a “hometown replica,” was the next best thing.

As a bonus, Dee’s “replica” incorporated new state of the art Renaissance ideas like camera-obscura calendar-rooms, clever lighting displays, hidden mathematical harmonies, and as well as the revival of Classical Vitruvian Circular Temple architecture.

Sure various features of the Tower celebrate Christian time, but the Tower also celebrates the time that even non-Christians use. As Buckminster Fuller puts it, we are all the “passengers on Spaceship Earth.” Dee’s Tower is a horologium that keeps track of the days, the seasons, and the years, which are the same for everyone.

Dee’s Tower celebrates the Earth’s dance with the Sun, Moon, Planets, and Stars. It is an architectural masterpiece that connects the Earthly Sphere with the Celestial Sphere.

And to paraphrase the Egyptian god Thoth, (who became the Greek god Hermes, who became the Roman god Mercury), “As above, so Below.”

