

" The PASSOVER of the EXODUS "

*One would regard it Unthinkable that most Jews could be Mistaken in their Most Identifying Tradition. Yet, in the Passover Observance, we find Major Controversy!
What is the True Time for Keeping this Essential Observance?*

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In the world of Judaeo-Christian Religion, many make note of the fact that Jesus Christ died on the cross at the same time that the Jews in the Temple would have begun slaying their Paschal Lambs. What more potent notice could there have been to flag the identity their Messiah? Yet, they rejected Him as Messiah! Add to that the extraordinary event which occurred at the same hour, that damaged the Temple, precluding the traditional Sacrifice from being slain that year, they had even less excuse to not take notice!

A subliminal concept carries with this detail, that of His death occurring at about the time traditional Jews would have begun slaying their lambs, that leads many to conclude that Christ **changed** the time for observing the Passover under the New Testament format, from late on the fourteenth day to early on it. We know that He and His disciples kept the Passover at a different time than did the traditional Jews of the era. Some say, it was of necessity. He observed it early as He was destined to die at the 'traditional' hour.

The major point of this study paper is to answer the question as to whether or not Christ changed the hour for observing the Passover, or if it was the Jews who, some time after their Babylonian exile, mis-interpreted certain key scriptures, which led to a practical change on their part.

It seems inconceivable to us that Jews could ever become persuaded of such a traditional shift, especially one so significant as involving their Passover. Yet, we should keep in mind that their fidelity to their religious practices were not always as exacting as we might imagine. There **were** serious lapses in their religious awareness at times. Even to the extreme degree that they became com-pletely unaware that there even **was** a Passover! Let alone keeping it, let alone keeping it correctly!

Understanding that the possibility exists that Jew-ish tradition could have morphed from one practice into another, that they indeed could have allowed themselves to adhere to **their** preferred traditions, even to the extent of violating commandments of God, as Jesus said (Mark 7:9), we need to look more carefully into the matter. Actually, there is much more in scripture on this subject than is typically related to us by our religious institutions.

As an aside, we should be reminded that there was another more ancient observance already in place on the night following the Passover, facilitating the transference from one night into another, without being all that noticeable. The anniversary of the Abrahamic Covenant, as Exodus 12:42 indicates, was known and observed, certainly from the Exodus onward, and likely was observed long before. For them to have known that the Exodus was on the 'selfsame day'

as that notable early occasion, at least some had to have been using and observing the same calendar as did Abraham!

But as to the question of whether or not Christ **changed** the time of Passover observance for the Church, when He changed its symbols, there is much to be found relevant to the subject in the pages of scripture. I challenge you to stay with me on this as we consider some of those. We can know with certainty. But first, we have to allow that Jewish Tradition is not the last word.

Perhaps the most defining event in the emergence of Israel as a nation was the careful observance of that first Passover in the land of Egypt. Second to it would be the Exodus from their abject bondage. These two are not unrelated events, nor were they concurrent. Though one belief system requires that both these events had to have occurred within the same twelve hour 'night-time', others insist that the Passover in Egypt was observed as the fourteenth day was just beginning, with the Exodus underway only as the **next** night had set-in.

The Original Promise

More than four centuries before these events took place, a specific prophecy was given, confirmed by a God-Sworn Oath to Abraham. The Covenant Promise, that Abraham's descendents would gain their release from bondage, by God's direct inter-vention, and would receive 'spoils' of their captors. It was this Promise that remained indelible in the people's consciousness. The spoils confirmed their hope! They didn't leave Egypt unaware of exactly where it was they were going. It was this same Promise. Not by co-incidence, it was on the very anniversary date of when God's Promise was confirmed to Abraham, that Israel started out of Egypt. One might wonder what relevance this matter could have to we who are under the New Covenant. Realizing that we who "***are Christ's are Abraham's seed, and heirs according to the promise***", as it plainly states in Galatians 3:29, and that the Passover was the occasion when Christ first introduced the New Covenant and proposed marriage to His Bride, its relevance should be obvious. If, in fact, our being a part of the Bride of Christ is related to our renewing our commitment to His New Covenant, at Passover, annually, this relevance amplifies even more!

But, it's a good question. One we need to settle in our minds, resolving any doubt. Is the Passover, which Christ promised to partake of again, with His true Saints, in the Kingdom, **relevant to** the Christian experience? If in fact the Passover ought to be observed under the New Covenant, and in 1st Corinthians 11 it gives instructions as to **how** to properly commemorate Christ's Paschal death, and in chapter 5:7 it plainly advocates that we **keep** the Passover, it would then be important to us to know just when this time-specific occasion should be observed! The following materials can provide that answer as well as resolving other technical issues that have furnished argument fodder for centuries.

Many scenarios have been posed as to how and when the greater family of Israel escaped the grip of the major world power of their day. As often as not, these scenarios are over-simplistic and very unrealistic, disregarding the real-world logistical dynamics. Many readily acknowledge that the hosts numbered well into the 2 to 3 millions, but then fail to consider how long it would've taken to assemble and move such a massive congregation.

Taking into account those biblical facts and details which address the logistical considerations, we can pose plausible answers, those which are rarely, if ever, presented in the typical 'Sunday school' class or from many platitudinous pulpits. Not that those answers don't exist, it's just that few have taken time to analyze the information that is in the scriptures and follow it through to a logical conclusion.

How Big Was Israel?

Wouldn't it be interesting to know just how big was the nation of Israel? If we had a reasonably good answer, we could determine other things, such as, how long did the Exodus actually take? How large was the procession? How long did it take for the column to move past a given point?

Incidental to these, having good answers, we could also pose better answers as to **just when was the Passover observed**, and when did the Exodus take place, and even rule-in or rule-out by which routes they might have traveled?

Anyone who has ever been in a situation involving large numbers of people, such as being in a packed sports stadium when the event lets out, or in an evacuation ahead of an impending weather disaster, knows that the number of people involved has considerable impact on how long it takes to move everyone out. Similarly, the numbers involved would have significantly affected how long it took for the Exodus to have taken place.

Knowing the facts and factoring the logistics of this momentous event will give us a far greater appreciation of what took place when Pharaoh relented and let Israel go.

Halley's Bible Handbook gives the number of Israelites at the time of the Exodus as being some 3 millions. Bible dictionaries state various figures, from two to two and a half millions to three mil-lions. But, from what did they derive these figures? Actually, the scriptures give us two means of estimating the number of Israelites who left Egypt.

The method best known is the reference in Exodus 12: which gives the number of men 20 years and older as being 600,000. This figure is substantiated by the incredibly specific number given in the book of Numbers chapter 1: From that count, an approx-imation can be made of the women and children, to come up with an estimated total population figure. I will call this Method Two.

But, another separate means is given, one indepen-dent of the other, which, when considered, can also provide a cross-check on any estimated population figure. That given method is the number of gener-ations from the time of Jacob's entry into Egypt until they left Egypt. That clue is provided to us in 1stChronicles 7:22-27. I call this one Method One.

If, in fact, these two independent methods of estimating the population corroborate each other, then we should be confident that the number is reliable. From a reliable population figure, it is then possible to project how long the Exodus would have taken.

The following exercises, working these numbers, may be a mathematical hoot, but it will provide us with a basis for logical answers to significant questions, that to date have not been definitively put forth. Let's take a good look at the details.

In establishing a reasonable size for the Exodus congregation, we need to also take into account, not only the number of people, but the stated fact that there were a significant number of non-Israelitish people (referred to as a 'mixed multitude'), and "very much cattle". (Ex. 12:38)

How big was the Exodus, and how long would it have taken to be away?

The First Method

The first method of determining the population of the children of Israel that we'll consider is based on the number of generations of one family, that's pre-sented in 1st Chronicles 7:22 – 27. This passage lists **ten generations**, from Ephraim, son of Joseph to Joshua, son of Nun, whom we know from other passages as being that Joshua who helped spy out the land of Canaan some months after the Exodus and who succeeded Moses in leading the children of Israel after Moses died. We should be careful to note that Joshua was a young man at this point in time, so that would allow for at least part of an eleventh generation. It could have been a full eleventh generation, depending on whether Joshua was born early or late in this tenth generation, born in the land of Egypt.

Knowing this, it is possible to make a projection of Israel's growth in population. A factor we need to consider is the exceptional Israelite birth rate, ex-ceeding that of the Egyptians. It was so much greater, that the Egyptians instituted a policy of population suppression, by killing their newborn males, beginning some eighty years before the Exodus. (Ex.1:7 – 16) Though it affected the ratio between men and women, it didn't impede Israel's growth rate all that much. First, they weren't remotely successful in finding every male child, and second, it's the women who determine the birth rate. What Egypt did successfully achieve was to reduce the potential military strength of their servant class. (This will tend to increase the number of Israelites when we work into Method Two, in that the normal ratio between men and women would have been artificially altered!)

We know that there were **ten plus generations** from Jacob's entrance into the land of Egypt, at least from Joseph's lineage, which started LATER than the families of Joseph's other sons, being that Joseph was second youngest, and considering his thirteen years in prison before release, his being politically elevated and given an Egyptian wife. And then, Ephraim was Joseph's younger son.

Now, can we make a reasonable projection using this method as to the size of Israel's population at the time of the Exodus? How many Israelites could there have been after at least ten plus gener-ations? Some things we need to take into account are: How many families were there in the first generation? How much intermarriage occurred with the populations among whom they lived? And, how many children on average did each family have? One thing we know, is that the more Egypt oppressed them, the MORE children Israel had! (Ex.1:12) Egypt's plan backfired!

The *first* question is answered in Exodus 1:5, which establishes that there were SEVENTY men who came into Egypt with Jacob. Genesis 46:27 shows that this number is inclusive of

Joseph and his two sons. Presuming that Jacob and his twelve sons were at this point beyond having any more children (not necessarily the case, but in every instance where an assumption is made, I want to come in on the conservative side, which would tend to result in a smaller population projection.) That would leave fifty-seven grandsons to make that first generation in Egypt. But, wouldn't there have been a corresponding number of daughters born to the twelve sons of Jacob? Though they aren't enumerated specifically, Jacob and his sons did have daughters! (Gn.46:7) Including daughters, that could make as many as 114 grandchildren in that first generation, plus additional families of the daughters of Jacob, which are not enumerated, and are not included in this count. We have then some 114 young people in their first generation in Egypt.

Next question: Where did these 114 get their wives or husbands? If we presume from within the group we have a problem. The problem being that all of these are siblings or first cousins of one another! In order to find mates, they would have to have married outside the family of Israel. So that would mean there would have been 114 couples, 114 families, each grandson and granddaughter marrying from the society around them, (and not necessarily an Egyptian, as Egypt had many foreigners living within their society, some of whom being of Hebrew ancestry.) (We should remember that Egyptians were averse to dining with a Hebrew before Jacob and the seventy came into Egypt. (Gen.43:32) So, having this prohibition, indicates that there were many 'Hebrews' in Egypt already, before Jacob and family came there.) Also, we need to remember that Israel was a favored guest in the early years, while Joseph reigned as vizier to the Pharaohs. Joseph lived to be 110 years old, some 70 years beyond the time his family came into Egypt, back when he was about forty.

This indirectly addresses the *second* question, as to the probability of intermarriage with the peoples among whom they lived. That first generation HAD to find mates outside of their immediate clan, otherwise they'd have been marrying their sisters or brothers or first cousins! We know that Joseph married an Egyptian and Moses married a woman of Midian. It is likely that outside of the family marriages factored into Israel's population growth, though the model given below is based on a low percentage of outside marriages after the second generation.

The *third* question posed above: How many children on average did each family have? One thing we do know, is that the twelve sons of Israel came into Egypt having 57 sons themselves. That would make an average of 4.75 sons per family. ($57 \div 12$) Allowing an equal number of daughters, the average family would have had some **nine+** children. The projection below is based on there being only five children per family.

Israel's Population by Method One

Presuming only five children per family on average and an outside the clan intermarriage rate of only ten percent beyond the first generation, Israel's population would have grown as follows:

1st generation: 114 families = 228 individuals
2nd : 114 families x 5 children each = 570 + 10%
3rd : 313 families x 5 children ea. = 1565 + 10%

4th : 861 families x 5 children ea. = 4305 + 10%

5th : 2368 families x 5 children = 11,835 + 10%

6th : 6509 families x 5 children = 32,545 + 10%

7th : 17900 " x 5 " = 89,500 + 10%

(Some time during this generation, the male infanticide policy began. For that reason, a smaller family size is carried, with a higher percentage of intermarriage.)

8th : 49,225 " x 4 " = 196,900 + 20%

9th : 118,140 " x 4 " = 472,560 + 20%

10th: 283,536 " x 4 " = 1,134,144 + 20%

11th: 680,486 " x 2 " = 1,360,973 + 0%

(The eleventh generation was less than a full-generation in Egypt, thus the x 2 children, and that generation would have married only among those who left Egypt.)

Allowing that these people lived an average of 60 years, which the 40 years in the wilderness would attest, in that all the adults over 20 had died in the 40 years wandering, then we can approximate their average lifespan being something under 60 years.

Generation 11 would be that age group from infancy to 10 years old. Generation 10 would be from 10 to 30. Generation 9 is from 30 to 50, And generation 8, those 50 and older.

The total population of Israel, then, would include all of generation 11 and 10, 90% of generation 9, and perhaps only 30% of generation 8. That would make a total aggregate population of :

1,360,973 from generation 11 plus

1,134,144 from generation 10 plus

425,304 from generation 9 plus

59,070 from generation 8 still living

These together would total 2,979,491 individuals,

or approximately **2.98 million**. (Not including the 'mixed multitude' of Exodus 12:38.)

Breaking this down into the grouping that is going to be helpful to us in Method Two, there would've been some **1.92** million under 20 years of age, and **1.06** million 20 years of age and older. This provides a ratio of those under 20 to those over 20 of about 1.8 to 1.0. This will be an important ratio in the next method we are to consider.

So, we can see from Method One that Israel's population could reasonably have approached the **three million** mark numerically.

Israel's Population by Method Two

In Exodus 12:37, we find that the children of Israel included 600,000 MEN over the age of 20 years. That is re-confirmed a year later in Numbers 1:46. However, both these counts exclude the Tribe of Levi, which represents another 22,000, (Num.3:39) but this figure included all from infancy upward. Using the ratio realized from method One, it would allow 7,860 being over 20 years, which is nicely confirmed in Numbers 3:22, which counted 7,500

Levite males. (In the case of Levi, the under 20 to over 20 ratio was slightly closer to two to one.)

(This confirmed comparison ($7,860 \div 7,500$) illustrates that these two projections are within 5% of each other!)

This provides a second independent method of projecting how many there were in the Exodus. The first century historian, Josephus adds to this the fact that these were men twenty years and older who were *'fit for war'*, (Antiquities Book 2:15:1) so we have a number that didn't necessarily include all the men, as some might've been infirm or elderly! But if we say it did and use this figure, and add-in the Tribe of Levi, we have a total of 607,500 males over 20 years old.

Now, with this established, the next consideration would be: How many women and children would there have been?

Does this 607,500 man 'warrior' count include the very elderly? In order to not be seen as inflating the total, let's stay on the conservative side, and say it does. That'll keep the number lower. So, 607,500 represents 100% of the men. How many women of that same age group would there have been? How many children? Remembering that for the last several generations the Egyptians killed a percentage of their newborn males, beginning some eighty years before the Exodus, it's unavoidable that an imbalance between the number of women and men in the same generation would have been created. How great would that imbalance have been?

Had the Egyptians taken only 1 in 3 on average, it would have created an imbalance in the men / women ratio of 2 men to every 3 women. If they managed to kill half of the newborn males, it would've created an imbalance of 1 man to every 2 women. Let's stay conservative and use the higher ratio.(2 to 3) That would mean that the number of women would be 150% of the number of men. So, if there were 607,500 men, there would have been 911,250 (150%) women over 20.

This now brings us up to a total of 1,518,750 being 20 years old and older. But, how many children would there have been? Remember, from the ratio determined above, of 1.8 children to every 1 adult, the number of children under 20 years of age would be 1.8 times the 1,518,750. That would mean 2,733,750 under 20 individuals. Adding these two figures, it would make the Israelite pop-ulation totaling 4,252,500. (Disregarding a men / women imbalance, it'd still come out above 3.4 million!) A point of logic here, if in fact the Israel-ite women did marry from outside their clan, in other words, replacing their murdered males by marrying from another ethnic group, as projected, then that imbalance would be evident numerically only in the final unmarried generation! So the 3.4 million figure is a reasonable minimum!

Here now, we have estimates of Israel's population by two different methods, one giving us numbers in the **2.98** range, the other **3.4** to **4.25** million. Could a lesser population figure produce an 'army' of six hundred thousand? Statistically, it's very unlikely!

More Uncounted Individuals

But, these weren't all. There were yet two other significant population groups that we need to take into consideration that would have participated in the Exodus. First, there is the 'mixed multitude' that went out with them. To warrant mention (Ex. 12:38), these would have to have been a significant number. Would these represent at least ten percent of the population?

The second significant population group, usually not considered, is Israel's livestock.

Remember,

livestock was Israel's primary industry before they came into the land. (Gen. 47:1-6) They had 'very much cattle' according to Ex. 12:38. They were allowed the land of Goshen by Pharaoh for that very reason. The pasturelands there in the Nile Delta were among the best. They kept Pharaoh's cattle also. (Gen. 47:1-6) Their servitude didn't involve mud-brick-making or building work only! But, how much livestock did they have? As to a number of cows, oxen and mules they had, we can only speculate. Israel also had dogs. (Ex. 11:7) (Many being sheep herders, this would be no surprise.) But as to the number of sheep and goats they had, their primary flock animals, we can at least project the minimum they would have possessed. We don't need entirely to guess. The clue to the number of these is found, in of all places, their observance of the Passover!

Israel was given specific instructions with regard to the observance of an annual Passover. They were told to, on the tenth day of the first month, select out a perfect lamb of the first year, (not more than one year old), (Ex. 12:5) That they were to select out a lamb according to the size of their household (Ex. 12:3-4), That they were not to divide a lamb between separate households, thus affecting its wholeness. (Ex. 12:46) Being that lambs are typically born in the early spring, in order to have been less than one year old, their Passover lambs would have to have been from that year's lambing. All but an extreme few of last year's lambs would have been thirteen to fifteen months old in any given Passover season. So, these Passover lambs must have been from one to three months old, for the most part. A lamb that age would have been from 10 to 20 pounds, half that being edible meat.

If we allow that on average, there were fifteen individuals, two families together, including their children and elderly, **per lamb**, then we can calculate how many Passover lambs were killed that evening, for Passover, that first year.

We know from the above two methods that there were from three to four million Israelites. Working from the lower estimate, would allow 3.0 million people. Dividing that by 15, per lamb, would require that 200,000 lambs (or goats) were killed that evening! Now, in any flock, there is a critical number that can be culled out each year, above which, if an excess were taken, the population of the flock could collapse. So, the question is, how large a flock (of sheep and goats) would it take to sustain that kind of cull of prime yearlings, each year, and not negatively impact the population or the genetic quality of the flock, so as to cause the population of the flocks to diminish? We have here a means of determining, to a certain rough degree, a minimum size Israel's flocks had to have been, in order to provide them with an annual harvest of animals, in process of keeping just the Passover! (When we consider the annual sacrifices added later, this number would have to have been greater than what this exercise will provide. Also, the simple fact that they ate lamb on more occasions than just this one, suggests a larger real number than this estimate will produce!) The below projection

suggests the MINIMUM there had to have been. The actual number could have been far greater!

First, some things we need to know about sheep:

1. Sheep typically live about 12 to 13 years,
2. Sheep are usually born in the spring,
3. Sheep can be bred at about a year old, but since the breeding season is in the fall, most lambs would be only 7 to 8 months old, by the next breeding season. This makes their first breeding at about 20 months old.
4. This would leave the number of breeding years of the typical ewe at about ten years,
5. Sheep bear every year, usually bearing one lamb. Twins are common, triplets occasional.

Now we know that some 200,000 lambs were killed for each Passover. But these were only a portion of the lambs born that year. First, these were just the males, and not all of the males. These were the *select* males. It is safe to presume that there were lambs in the flock that were not select-able on account of blemishes or deformities. It is also probable that these non-select lambs would not be the ones the shepherds would want to keep to maintain the breeding stock for subsequent years either! So, that means an additional number would have to be born in that generation to provide that year's contingent, needed to maintain the breeding stock. So far, we're dealing with just the number of males born each year. Now, if the number of 'non-select' male lambs was ten percent of the new lambs, then the number of 'select' lambs (those taken for Passover) would have to be increased by ten percent. If the number of males needed to provide that generation's contribution to maintain the breeding stock is taken into account, the number would have to be increased again by 102 percent. (1 in 7 males, ÷ 10 years breeding life).

We can now calculate how many sheep and goats Israel had to have possessed in order to have enough young lambs to keep the Passover yearly, and not pull down the overall flock population.

How Large were their Flocks?

Taking the 200,000 Passover lambs, times 110% (adding the non-select ones) times 102% (adding the replacement breeders for subsequent years) we arrive at a total of 224,400. But, these are just the number of males born. How many ewes would there have to be to bear 224,400 males? Presuming an equal number of females born as males, then twice that number would have to be born, meaning 448,800 new lambs each year, to provide these needed number of males to sustain the flock size.

The next question is, How many ewes would there have to be in order to bear that many lambs each year? Typically, 100 ewes will bear 125 lambs each year, on account of multiple births by some. That means 359,000 ewes would be needed. ($448,800 \div 125 \times 100$). Allowing a ram to ewe ratio of 1 to 7, we can now know how many rams would be needed to maintain a flock of sufficient size to provide their Passover sacrifices, without causing the sheep/goat population to collapse.

In summary, the size of their flocks would have to have been:

359,000 breeding ewes 2 to 11 years old

51,300 breeding rams 2 to 11 years old, (1 to 7)
35,900 yearling ewes to maintain flocks (1 in 10)
5,130 yearling rams to maintain flocks (1 in 10)
Israel's total flocks would have to have been at least **451,300** just to sustain against the Passover cull. This is very likely conservative!

If their number of dogs was 1 for each 100 people, then they would have had 30,000 dogs,

If their cattle to people ratio was 1 for each 25,
(again perhaps low), then that would add another
120,000 cattle.

Exodus 13:13 suggests they had asses as well.
If one to each 50 people, then there'd be 60,000 asses.

In all of this, no consideration is made for the livestock that the mixed multitude might have had.

We now have considered the respective sizes of each of the major segments of populations making up the Exodus. We have:

3,000,000 Children of Israel
300,000 Mixed Multitude (allowing 10%)
451,300 Sheep & Goats (conservatively)
30,000 Dogs (estimated)
120,000 Cattle (estimated)
60,000 Asses (estimated)

These all together make a total congregation of **3,961,000** individuals, (people and livestock). This is the size of the huge mass of individuals who left Egypt 3500 years ago pursuing that Covenant of Promise made with Abraham exactly 430 years prior. This figure is likely conservative.

Now we have a reasonable answer to the question, How big was the Exodus? Two independent methods project-out at somewhere around **four million!** The next important question is, How long did it take? As this question has considerable relevance to the matter of exactly when the Pass-over in Egypt was eaten, we'll go to that next.

How Long Did the Exodus Take?

Some four million individuals: the children of Israel, a mixed multitude with them and very much cattle, as it says. (Ex. 12:38) A massive number! We can barely comprehend the logistical dynamics of such a congregation. Those who accept that this event occurred within the confines of those very few hours remaining, after midnight, in the Pass-over night haven't worked thru these dynamics.

For example, if the people leaving got underway at a rate of a thousand a minute, it would have taken over 66 hours! To move that number within the five hours remaining until dawn,

would require a rate of 13,333 per minute to depart, and if starting right at midnight which it didn't! Obviously, the idea of a 'same night' Exodus poses clear logistical impossibilities.

Let's review some of the things we know about this unprecedented event:

They selected their lambs on the tenth, (Ex. 12:3)

They killed the Passover at dusk, (Ex.12:6)

They roasted it whole, innards intact! (Ex.12:9)

They ate the Passover in the evening hours, eating quickly (in haste or trepidation), (Ex. 12:11)

They gained their release after midnight, (Ex.11:4)

Pharaoh called for Moses and Aaron, (Ex.12:31)

They left in orderly ranks, (Ex. 13:18)

They baked unleavened cakes after leaving, having packed their dough and breadboards, (Ex.12:34&39)

They left by night, (Ex.12:41-42, Deut. 16:1)

It was the 15th day of the first month, (Num.33:3)

Exodus was on the 'selfsame day', (Ex.12:41-42)

They went out in the sight of the Egyptians, as they were burying their dead, (Num.33:4)

They were told to remain in their houses until morning, (Ex. 12:22 & 28) and they did! (12:50)

They were to burn the remains of the lambs in the morning, (Ex. 12:10)

They spoiled the Egyptians before leaving as was prophesied to Abraham. (Ex.11:2, 12:36, Gen.15:14)

They were to be urged to leave, (Ex.11:1 & 12:33)

Before we continue, there are three things we need to pause and take note of:

First, that their sojourn was to have been 430 years, as mentioned in Exodus 12:40. Most read this verse and conclude they were in Egypt that long. As the footnote indicates, in the *New King James*, version the verse should read: "*in Egypt and Canaan*" as it has it in the Septuagint and Samaritan Pentateuch. The 430 years was from the time of the Abrahamic Covenant. Peloubet's Bible Dictionary shows that the 'sojourn' was divided, in their article: "*Exodus*". The 430 years included the portion of their 'sojourn' in Canaan before having come down into Egypt.

Second, that they would be utterly driven out by Pharaoh. But notice, in Exodus 11:1, it states two things. We tend to regard this as just one. First, they were to gain their release. That happened after midnight on the fourteenth. But in leaving, they were urged to leave by the people that had just given them the requested 'spoils'. Pharaoh didn't drive them out at this time. It was the people who urged them! Pharaoh drove them out of Egyptian territory a week later. That event also occurred by night, but we're getting a little ahead of the story. The point here is that they were not 'driven' out this first night. They were 'urged' to leave. The 'being driven' event came at the Red Sea!

In other words, leaving Egypt was a week long process. Just moving out away from the city where they had lived, in eastern Goshen, on the Pelusiac Branch of the Nile, in a place called Avaris, just across the river from a Pharaohnic capitol, known in a later dynasty as Pi-Rameses. (today's: Tell ed-Daba) These things are known now. Recent on-going archaeological investigations have exposed much. These are not widely published. The book:

"*Pharaohs and Kings*", by David M. Rohl, 1995, Crown Publishers, (ISBN 0-517-70315-7) is an excellent reference and resource on many specifics.

The Overlooked Plague

Third, the spoiling of the Egyptians. Some insist it was done prior to the Passover. In order to have left Egypt immediately after midnight, all being gone before daylight, as the Judaic persuasion relates, it would've been essential that this activity be accomplished before Passover. But another event, that of the **ninth plague**, precluded that from happening. God instructed Israel to select their lambs on the tenth day, keeping them until the onset of the fourteenth day. The tenth day was key, as that was the day the plague of absolute tangible darkness began. It began in the afternoon of the tenth, lasting three full days, ending mid afternoon of the thirteenth. The Egyptians 'sat right where they were' for three days, unable to see anything, this darkness was so intense (Ex.10:23) even lamps wouldn't throw light!

Now, this has some potent ramifications: First, Israel couldn't have spoiled the Egyptians during this time. How would they have found their way to their doors, and how could the Egyptians have seen to find anything? Some pose that Israel had light in their dwellings (Ex. 10:23), suggesting this meant the entire area, outside as well, where THEY lived. If that were the case, why wouldn't any 'edge' Egyptians migrate on over into Israel's area? No, it was dark everywhere except inside Israel's dwellings. A couple of benefits of that: 1.) It gave Israel a three day **rest** prior to their leaving. All work stopped, as did all their hard labors! 2.) If you noticed, they were instructed to roast the Passover lambs whole, with the entrails within!! Any hunter knows that to attempt to cook an animal whole, innards-in, the intestines would likely burst, contaminating the meat. What the darkness period did, is it made the lambs **fast**, to become cleaned-out prior to being slain. Keeping them in a pen near their dwellings, keeping them in darkness, giving them water only, would give them a fast period, resolving this considerable problem! God knew what He was doing! (Consider also the three hours of darkness over the land during the afternoon while Christ was on the cross! This immediately preceded the death of the True Pass-over Lamb of God!) The light came back in the afternoon of the thirteenth day, to allow Israel time to proceed with their God-instructed Passover preparations.

Placing the ninth plague earlier, it would have to be placed several days earlier, to have been over with by the tenth, so that Israel could select their lambs as instructed! But, there was no long time interval between the ninth plague and the tenth. The ninth was unannounced, notice! It fits exactly between the lamb selection and the time for its preparation for being slain! It started during the daytime and ended during the daytime, three days later.

Move 'em Up, Head 'em Out!

These considerations taken, we are now to a point where we can begin to examine the event of the Exodus itself. This was no small undertaking! It is unprecedented in all of world history. As late as midnight on the fourteenth, Israel believed they weren't going! Their hopes had been dashed time and time again.

How does a nation of four million people and livestock pack-up and leave in a matter of hours? How long would it take to accomplish the task? And, what does this have to do with Passover?

Well, it takes time to accomplish something like this. Can we determine how much time? We can make reasonable projections if we know certain things. What we do know is the numbers involved, but we'd need to know the column dimensions to be able to create a time-model of how long it took.

It says in Exodus 13:18 that they left in ordered ranks. We know also that they congregated by tribes. These people individually kept and knew their family and tribal genealogies! (Num. 1:18) This was no mad scramble! Forming-up could not be done inside the city where they lived, it had to be done outside somewhere. There had to be a clear staging area, where individual tribes could form prior to departure. The assemblage, if allowing only ten square feet per person, would have involved 918 acres! (Some 6,262 feet square, or a 1.2 mile square!)

Are you beginning to comprehend the magnitude?

Now, if they left in a column of five files wide, as some suggest, the column would have been 606 miles long, allowing four feet for each person in line behind the previous. That's 3-1/3 times the entire distance they traveled. Obviously, we need to make more realistic projections.

If we only had a way to determine the dimensions of the column. We do know the aggregate number. If we had at least the width or the length, we could determine the other dimensions. If we knew one of their 'choke points' giving us the column width, we could calculate the length or the approximate time it would take the column to pass a given point. Or if we knew the length or time to pass by, we could calculate the width. If we had a way to know these essential things, then we could know how long the Exodus likely took!

Well, actually, **there is** such information. We are given just such a situation where a column dimension can be determined. The unnoticed source is the Red Sea crossing on the seventh day out. Due to recent discoveries, the location of the Red Sea crossing is now known. It is at a delta of gravel that extends into the Gulf of Aqaba. Two fallen pillars were found there. One had an inscription that could still be read. They were placed by King Solomon to commemorate the location, known in his day but largely rejected today, as it doesn't fit modern preferences. After all, wasn't Mount Sinai over in the Sinai Peninsula? Though the Bible says it was in Arabia? (Galatians 4:25)

In the Land of Midian

The Red Sea crossing was at a place about halfway up the eastern side of the Sinai Peninsula where the Gulf is some eight miles across. A large flat open delta extends out into the sea, with a mountain range forming a barrier to the south. It is at a place today called **Nuweiba**, a place rejected by eminent 'scholars' and archaeologists ever since the time of Constantine, whose mother, after having a 'vision', intuitively located Mount Sinai as being elsewhere! Chariot remains have even been located offshore at the site, nevertheless, religious scholars remain pointedly unimpressed.

We should remember that Moses, having fled Egypt forty years earlier, found sanctuary among the peoples of Midian, where he first encountered the mount we know as Mount Sinai. After Israel crossed the Red Sea, he again came into the land of Midian where his father-in-law came to the encampment. (Ex. 18:1-12) The ancient land of Midian is on the eastern side of the Gulf of Aqaba, over in southern Saudi Arabia. Check your maps.

The crossing point is about eight miles from shore to shore. It is at a point where the sea floor rises, being much shallower than the gulf to either the north or south.

Eight Miles, Ten hours!

This distance provides us with answers. We know the time they had for a crossing, and the distance involved. That's two of the vital elements, from which we can calculate the third. We have length, and the time for the column to pass-thru. Then, how wide was the column?

We read in Exodus 14:20 of the two participants, the Israelites and the pursuing Egyptian army, moving through the Red Sea all through the night. In the morning, just at dawn, the walls of waters collapsed. Like when leaving Egypt, here now, in their seventh day out, they left (were **driven** out of) Egyptian territory 'by night'. Thus the second part of the prediction in Exodus 11:1. When Pharaoh's army approached, the pillar of cloud that led them formed behind them, creating a separating barrier that kept the two moving bodies apart. It remained dark behind, but light ahead. If this were in day-light, that wouldn't have been the case. By now, it was the third quarter of the month, and the quarter moon wouldn't have risen until about midnight.

What we have is an eight mile gap that Israel had to cross during the night time. From dusk to dawn, there was some ten hours. To cover this distance, their speed, prodded by the urgency of their situation, would have been a sustained two miles an hour, nearly double their normal rate. If that was the case, then we can know that they could have covered twenty miles. But we need to take into account the length of the column, because it wasn't just the straight-line distance across. We also need to factor-in the length of the column. It may have been eight miles for those at the front ranks, but it was eight miles plus the length of the column to those in the rear! The last had also to get across, not just the first. So then, the distance we're concerned with must include the crossing distance **plus** the column length. Those together must not much exceed twenty miles! So, if the crossing distance was 8 miles, then it leaves 12 miles for the column length. That must've been its approximate length. So if the column was twelve miles, (63,400 feet) long, then the width would have to have been some **630** feet. (40,000,000 square feet ÷ 63,400) At ten square feet per individual, some 2 ½ feet by 4 feet, the column would be some 250 individuals wide with 16,000 in each column. Such an assembly could entirely pass through the eight miles in one night time.

It Also Was at Night

Though some pose that the wind blew all night, thus providing the drying effect so they could cross dry shod, as it says in Ex, 14:29, the practical logistics require that they began through as soon as the waters parted. If God could make the waters stand on both sides, a towering wall for some ten hours, it should be no problem for Him to have extracted the wetness from the sea bottom at the same time. (Read where He let some of it seep back under the Egyptian chariots!) The time / distance logistics dictate that they begin crossing by early evening, in

order for the last in line to be climbing up onto the opposite shore as morning approached. (Ex.14:24 & 30.) The statement in 14:20, that "*the one came not near the other all that night*", suggests both were moving all night. If they were stationary, there'd be no need to make this point.

Another proof of the fact that the Egyptians were extremely close behind, is found in the dead soldiers being visible to the Israelites on the east shore. There was a strong east wind all night. An east wind is out of the east (see Ex. 10:13 & 19) This would have been contrary to the direction they were going, so for Pharaoh's army to be visible to them on the east shore, they had to have been very close behind. Any body floating would have drifted further from shore, not closer!

Before leaving this subject, we should pause to consider the forces Pharaoh brought with him. The scriptures say 600 chariots and mention "*his army, his chariots, and his horsemen.*" (14:17) We tend to think just of his 600 chariot force, which may have been the more impressive component. But being familiar with a typical armed campaign, especially a determined one, Josephus describes them as numbering 50,000 horsemen and 200,000 footsoldiers! (Antiquities 2:16:3) As a cross check, we might want to confirm our dimensional projections against this component of the story as well.

A moving chariot would need a space of at least 15 by 25 feet. Armed footsoldiers:15 square feet each. Each mounted horseman, about 10 by 15 feet. So, all these together, the Egyptian Army would have needed some 10,725,000 square feet of space. If the army kept a prudent distance from the side-walls, say 55 feet on either side, (no doubt their horses weren't all that thrilled with their situation), then the Egyptian column would have been some 500 feet wide. That would make their column 21,450 feet long at least. That would be 4.0 miles. So, the Egyptian Army would've easily fit within the water-walled canyon, being maintained at a mile or so behind Israel. Likely, at least most of the foot soldiers were up in front, the horsemen behind them, and chariot forces last. Chariots and horsemen need wide-open space to be effective.

Interesting that chariot evidence found off shore at Nuweiba suggests Pharaoh and his chariot forces entered in pursuit last in the column.

If Cecil B. DeMille's version of the collapse of the Red Sea waters was anywhere near correct, and if the water cascaded-in at 100 feet a second, from one end, say west to east, it would have taken 7 minutes to progress across 8 miles. Lots of time for the army to panic and attempt to rush eastward. A geyser-wave from the west would also propel spray and wreckage (and bodies) hundreds of feet eastward. We ought to give pause to the potent realities of this most incredible spectacle.

From There to Here

Now that we have viable and somewhat verifiable dimensions for the Exodus column, we need to ask if it is likely that they could have covered this distance from 'Avaris-on-Pelusiatic' in the time frame proposed? Many say the progression out of Egypt (Egyptian Territory) took

seven days, which there-after became the basis for the seven day *Feast of Unleavened Bread* observance. Is this possible?

We tend to think of the Exodus as taking place in just one night. The act of leaving their former Egyptian homes and city. There is a broader view, that being, that the Exodus encompassed the full seven days. An even broader one yet, that it was the entire forty years! Perhaps we need to consider every possibility. One vote for the latter is that Israel first ate of the produce of the Promised Land on the very anniversary of the time they first started out from Egypt! (Jos. 5:11)

If Israel started out as the fifteenth day of the first month was beginning, around dusk, then it would have been six days to Nuweiba on the west shore. (144 hours.) That distance is some 180 miles.

Another consideration, besides their rate of travel, is whether or not they took time-out to get sleep. Six days without sleep is humanly prohibitive! The pillar of cloud by day (protecting them from the sun in the open desert) and the pillar of fire by night, suggests constant motion, day and night.

I'm going to pose to you something novel on this.

The suggestion is that **they did both**. They kept moving, yet they also took time out to rest each day! The way they might have done that is on a rotational basis. Now, we know that the people were organized and orderly. (Ex.13:18) They marshaled into and marched as separated tribes. Thus there were **twelve** blocks of people, plus another two at least: the **mixed multitude** and their considerable **flocks and herds**.

Both Exodus 12:37 and 13:20, with Numbers 33: list various encampments. As day three began, they were leaving the populated areas, entering into the 'wilderness'. Normally, a three day journey would be the ultimate distance an armed force with elite chariots and horsemen could cover in one day. A three day journey is what Pharaoh had expected, as a condition of their release, causing him to react upon receiving reports that the Israelites 'had fled' (by the time word got to him.) A three day journey should've been well short of reaching the ungarrisoned wilderness. He '**let**' them go, but later was, by circumstance, put in the position of '**driving them out**'. (Ex.11:1) A cross check on this is the fact that Egypt's Army caught-up to them late on day six, having begun pursuit after day three. The army could move at triple the speed. If this were later than day six, it'd have been a rather slow army and the entire 'days of unleavened bread' scenario would have serious technical problems!

When Did they Sleep or Eat?

If they all stopped to sleep at once, the front of the column would've been marching 9.6 hours longer than those at the very back. The column, 12 miles long, moving at a rate of 1.25 miles per hour would have taken some 9.6 hours to pass. By the same token, those further back in the column would have waited hours, as the column passed, for their turn to fall-in. My suggestion is that they traveled day and night, but rested on a rotational basis, allowing the over-all column to keep moving. Here's how it would work. Instead, what they could have done was, as they reached the day's march-limit, the first tribe would move aside and stop. The rest of the column would continue on by. As the second tribe got beyond the first, they'd

do the same, allowing the rest to continue on by them. Each tribe would do the same in rotation. As the last passed by the first, the first would fall-in after the end, and each resting tribe ahead would fall-in behind as the column cleared by them. Now, as each tribe moved aside to rest, it would've taken **8.9 hours** for the rest of the column to pass on by, allowing them that much time to rest and prepare their unleavened bread on the road, as Exodus 12:34 & 39 states. In fact, the Exodus became permanently identified with this activity! Succoth would have been the first place where they began doing this with Etham, at the edge of the wilderness, being the second!

Now, resting in rotation wouldn't have stopped the column, but it would slow the overall average rate of travel slightly. If the march-speed was 1.25 mph, and if they did one of these rotational rests once each day, then the overall rate would slow by 7%. (14 blocks of marchers, with one tribal block stopped 8.9 hours out of each 24 hours.) So, their actual rate would average at **1.16** miles per hour.

Could Israel reach Nuweiba from Avaris in 6 days? Six days at 1.16 mph equals 167 miles. Awfully close! Making only the slightest adjustment in the decimal would allow 180 miles. Also, if the stop at Nuweiba was their sixth stop, then they would have only stopped five times prior in the six days travel. That would easily compensate for the projected 13 miles shortfall. The point being, the distance to a Nuweiba crossing was about exactly right for the travel time they had, supporting the seventh-day Red Sea crossing idea advocated by many.

Back to Day One!

With these components determined, the size of the column, its length especially, we can now review more realistically the dynamics that came to play in Israel's Exodus from Egypt. From the fourteenth day, when the lambs were slain, then roasted, then eaten, being finished just before midnight, literally, all hell broke loose.

During their sleep, Egypt's dogs all began going berserk! (Ex.11:7) Followed by shrieks of horror from every household. (12:30) It took time for Pharaoh to comprehend what'd happened (remember, this plague wasn't pre-announced to Egypt.)

It took more time to summon or send a message to Moses and Aaron. More still to get the message out to all the people that they'd gained their release at last! But that would've taken time as well. If they sent out 500 men, and each could notify 100 people a minute, it would've taken a full hour to spread the word. This, and at the same time, convince audio-witnesses of the Egyptian horror scene that it was **safe** to disregard Moses' clear instruction to 'remain in their houses' until morning. This is one problem that 'same-night' Exodus advocates have to explain away.

If there was 8 people living in each 400 square foot house, and adding some 100 square feet for each house to create streets and alleys, then the city where Israel lived had to encompass 186 million square feet, or 4,270 acres. At 640 acres per square mile, that's **6.7 square miles**, or an area some 2.6 miles square. Stock attendants would have been outside in the fields some distance away.

Now, keep in mind that Pharaoh didn't live in beautiful downtown shantytown! His palace was across the Pelusiac Nile. His messengers had to get themselves across, then find Moses

and Aaron in the dark of night, (though admittedly, there was a full moon.) (Lunar calendars have their predict-ability!) This would have taken some time also. (Maybe M&A 'left the light on' for them!)

Then there's the problem of getting out of the city. But before doing so, they had to burn the paschal lamb remains, not just throw it on a fire, but stay and be sure that it was consumed. (There was an important reason for this.) Disregarding Moses' instruction to remain in their houses until morning was another 'problem' neatly bypassed by 'same night' advocates. They would have had to fill their waterjars at the wells or at the river, round-up their herds and flocks in the dark, go water them at the river, pack what they were taking, and, Oh yes, go 'trick or treat' the Egyptians for their 'spoils'. (They being in such a good mood at this point.) Talk about chaos and gridlock! All of this without allowing them to get any sleep!?

Or, what about letting go of the Judaic nonsense, and let the scriptures mean what they say, that Israel left **as the night following began**, giving them all of the fourteenth day daylight to get fully ready and proceed out to the staging area.?

From midnight, it would have taken Pharaoh time to realize the magnitude of what had happened. More time to call for messengers and send them to get Moses. Some say Moses and Aaron came to him, others, that Pharaoh just sent a message (sav-ing them having to explain the time it would have taken Moses to have made the round trip across the river, though the language suggests they did go).

But, Forgetting All That!

But, if we ignore all these time consuming factors, and somehow *instantly* translate all Israel to a 620 acre open area, outside the city, just after midnight, already formed-up, would they be **able** to Exit by dawn, as the 'same night' advocacy insists?

Earlier, we determined the column to be some twelve miles in length, that's if they could maintain a constant 630 foot front. If the roadways south-easterly were narrower (and they would be as they passed through towns), then it'd have to be longer! We know that in their initial exuberance, they'd have moved a little faster than their average 1¼ mph. Let's say they could sustain 2 mph for hours. That still means that it'd have taken SIX HOURS for the Exodus to be fully out on the road. But, there would be only five hours or so from midnight to dawn! All the time ignoring time needed to get notice to all, spread the word, pack-up and round-up themselves and their critters! And, Oh yes, we forgot to burn up the lamb remains, or to spoil the Egyptians. Obviously, the 'same night' scenario is impossible. Logistics demand it.

The Jews Couldn't Be WRONG?

What is most preposterous about this is the implicit suggestion that the Jews could ever be off-base on something so endemic to their cultural expression as the Passover! You think this through. You do the math. Under what possible logistical scenario could that many people ever have massed and left in just those few hours remaining before dawn.

Clearly, by Biblical proscription, the Passover and the Exodus occurred on two consecutive nights, **not**IN the same night. (the term: 'selfsame day' means something else, and notice it doesn't say 'selfsame night', which it easily could have!)

No! Christ **didn't** change the night for observing Passover. He observed it at its true and original hour. He **knew** when it truly was. He was there after all! (1st Cor. 10:4) That rock who followed them in the wilderness, That ROCK was Christ!! He was the one who 'passed-over', BOTH times: in their situation and in ours!

We just need to realize why His True Passover is not meant for everyone just now. Especially those who have rejected His Messiahship. ○