

A LESSON FROM A FIG TREE?

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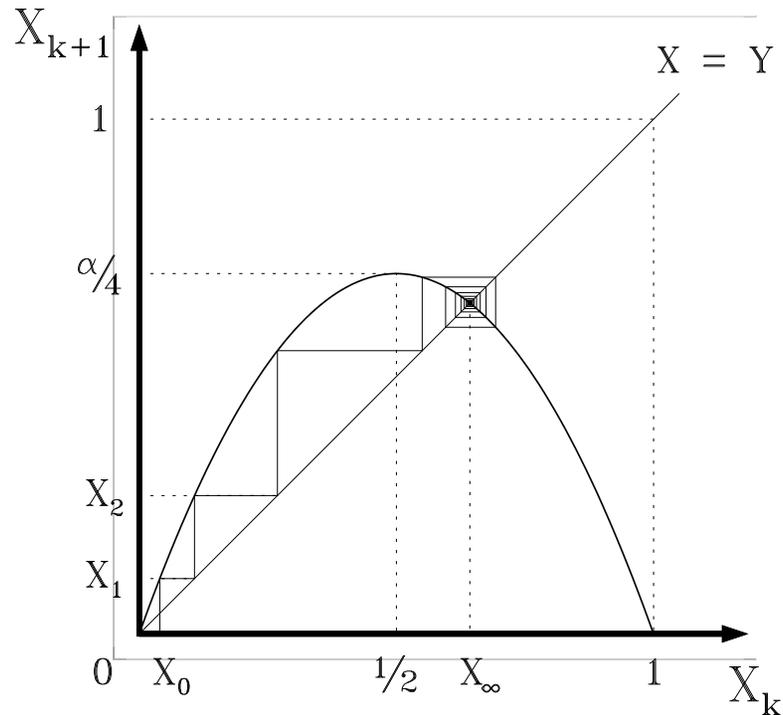
Outline

- *Relates the Biblical call to abandonment to the root of the Feigenbaum tree.*
- *Shows that “our choices” in life are reflected in the bifurcations diagram.*
- *Emphasizes life’s logistic in “coming down” the chaotic tree.*
- *Relates the Feigenbaum tree to the Biblical fig tree cursed by Jesus.*
- *Argues that Feigenbaum tree(s) may fulfill end of times parables.*
- *Exhibits ultimate protection of “the elect” in the midst of chaos.*
- *Shows that the elect comprise the “Body of Christ” in “the Church.”*

Symbols from Chaos Theory

Logistic parabola

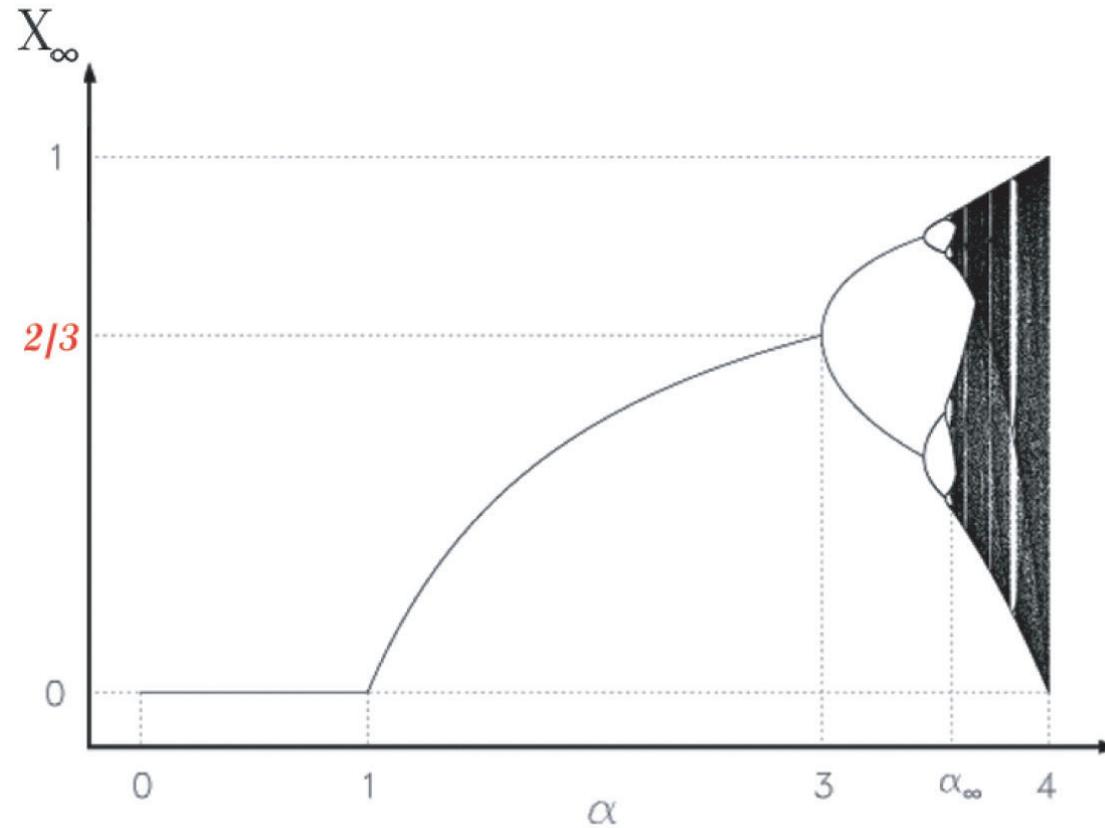
$$X_{k+1} = \alpha X_k(1 - X_k), \alpha \in [0, 4]$$



Distinct destinations X_∞ , depending on “heat” α

$X_\infty = 0$, if parabola **below** $X = Y$

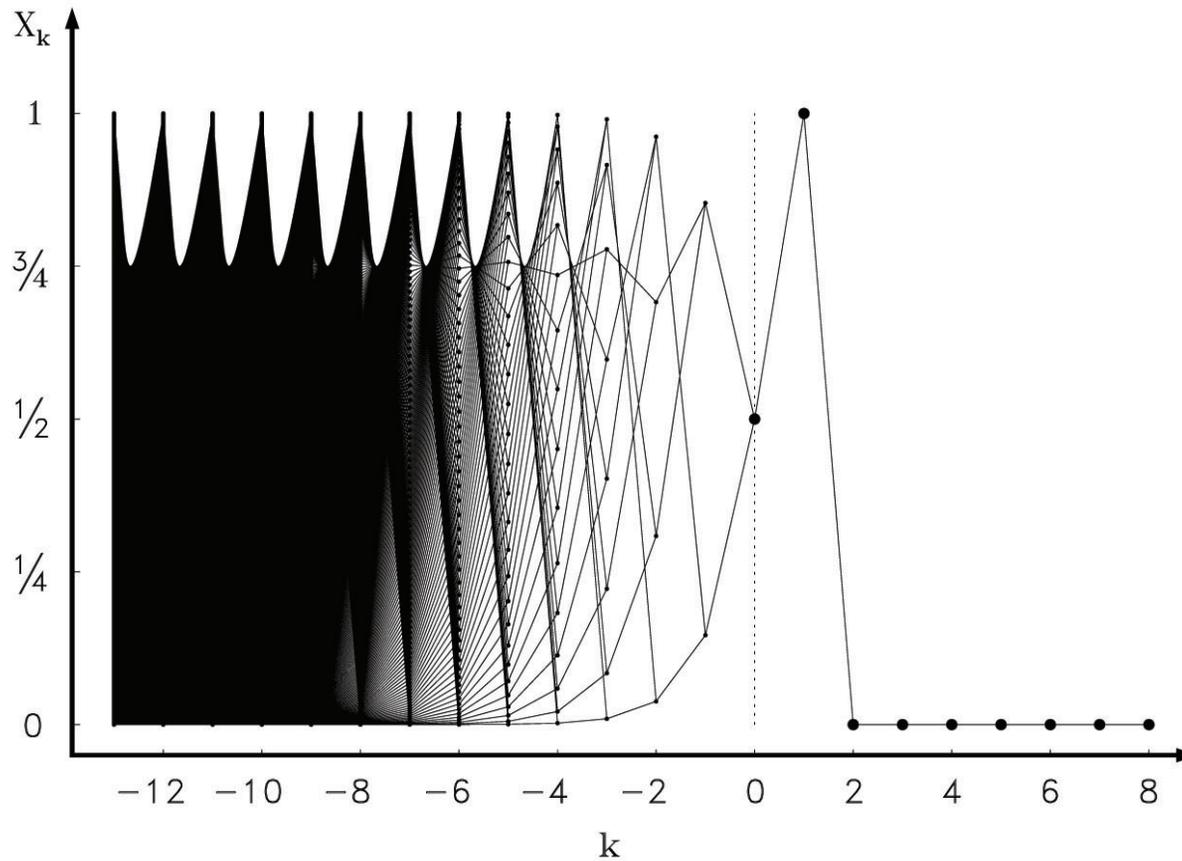
A Scientific Fig Tree



Universal cascade of bifurcations once “threshold” is crossed
All numerals in periodic dance and great many multi-fractal “thorns”
Strange attractors and sensitivity to initial conditions

Escaping from Utter Chaos

$$X_0 = 1/2, \alpha = 4$$



To the **origin** and **root** as in a delicate hopscotch and with probability zero

The following citations explain “**Extinction**” as **Abandonment**:

- As evidenced in Jesus’ words in the Bible, “Whoever wishes to come after me *must deny himself*, take up his *cross*, and follow me. For whoever wishes to save his life will lose it, but whoever loses his life for my sake will save it” (Mk 8:34-35), “**surrendering to Love**” represents a fundamental element in Christianity.
- This “*emptying of self*” is nicely captured by the dynamics associated with the *root* of the Feigenbaum tree, for only “*in going to zero*” it may be fulfilled “Do not worry about your life, what you eat or drink, or about your body, what you will wear” (Mt 6:25), or “Do not worry about tomorrow, tomorrow will take care of itself” (Mt 6:34).
- As the logistic map may be used to symbolize, in the product of X and its complement $(1 - X)$, the ever present “stresses” we all face, traveling to zero happens when we choose to diminish ($\alpha \leq 1$) rather than to enhance ($\alpha > 1$) such tensions.
- Jesus’ plea to “*extinction*” is in “Amen, amen, I say to you, unless a grain of wheat falls to the ground and *dies*, it remains just a grain of wheat; but if it *dies*, it produces much fruit” (Jn 12:24), and in “Whoever loves father and mother more than me is not worthy of me, and whoever loves son or daughter more than me is not worthy of me” (Mt 10:37).

- This is also in “Whoever is ashamed of me and of my words, the Son of Man will be ashamed of when he comes in his glory and in the glory of the Father and of the holy angels” (Lk 9:26), and in “Everyone of you who does not renounce all his possessions cannot be my disciple” (Lk 14:33), that help appreciate the relevance of sharing “our rabbits.” (!)
- For as Jesus said, “Whoever wishes to be great among you shall be your servant; whoever wishes to be first among you shall be your slave” (Mt 20:26-27), “Amen, I say to you, unless you turn and become like children, you will not enter the kingdom of heaven. Whoever humbles himself like this child is the greatest in the kingdom of heaven” (Mt 18:3-4).
- This repeated invitation to “**humility**” relates surrendering to choosing to be below the threshold $X = Y$, geometrically Jesus Christ himself, “Our refuge and fortress” (Ps 91:2), “our shelter from the *wind*” (Is 32:2), the “lamb of God” who expiates the sins of the whole world (1 Jn 2:2), who, in the wisdom of *rectitude* and *justice* (Prv 2:1-11), takes people to rest, as He assures, with *God the Father*: the **Origin** (Jn 14:6). (!)
- For Jesus said that “the one who humbles himself will be exalted” (Lk 14:11) and hence invites to “Seek first the kingdom of God and his righteousness” (Mt 6:33), in order to experience His gifts and in particular His **peace** (Jn 14:27).

The following reflections pertain to **The Real Choices**:

- As chaos happens in “*dust*” subject to sensitivity to initial conditions, such “unforgiving” state symbolizes the “strange” dynamics to which “the wicked” are “attracted” to. (!)
- Such a “*restless*” condition also provides further imagery regarding God’s own punishment. For, as the Virgin Mary remarks while acknowledging the greatness of God, “He has shown might with His arm, *dispersed* the arrogant of mind and heart” (Lk 1:51).
- In addition to the earlier citations regarding *turbulence*, *chaos* and *strange attractors* may be visualized in the *nets* that trap due to *pride* (Ps 31:5) and quite vividly in God’s response to Job, “*Can you bring down the haughty with a glance, bury them in the dust together, in the hidden world imprison them?*” (Jb 40:12-13). (!)
- Although not every location on Feigenbaum’s tree above the root is chaotic, being below or above $X = Y$ are, at the end, the ultimate **real choices**. For being above represents the “*pride*” in trying to establish our own way (Rom 10:3), a *worthless* condition (Ps 4:3), that quite easily leads to *chaos* and *death* (Sir 15:17).
- The distinct destinations in the fullness of chaos, $\alpha = 4$, further differentiate “*blessings*” from “*curses*” (Dt 30:15-20, Ps 37:22), and quite graphically *wheat* from *chaff* (Mt 3:12).

- That Jesus, $X = Y$, is the proper separatrix, “the anointed” (Is 45:1), is further seen in “I came into this world for judgment, so that those who do not see might see, and those who do see might become blind” (Jn 9:39) and notably in “Do you think that I have come to establish peace on the earth? No. I tell you, but rather division” (Lk 12:51).
- For Jesus says shall change the apparent order of matters as “many who are first will be last, and the last will be first” (Mt 19:30), for in the judgment of nations He says will separate the humble *sheep* from the arrogant *goats* (Mt 25:31-46).
- This distinction is also seen in Jesus’s strong assertions, “**I am the good shepherd**” (Jn 10:11), “**I am the gate**. Whoever enters through me will be saved, and will come in and go out and find pasture” (Jn 10:9), and in his powerful admonition, “Enter through the *narrow gate*; for the gate is wide and the road broad that leads to destruction, and those who enter through it are many” (Mt 7:13-14).
- The defining identity on Jesus’s words “I am the way the truth and the life. No one comes to the Father except through me” (Jn 14:6), graphically fulfilled in the transition to the root of the Feigenbaum tree, further explains that He is, consistently in the Bible, “The Lord’s own gate, where the victors enter” (Ps 118:20).

The following passages further express **The Logistic of Life**:

- The scenarios of the logistic map may be used to denote not only our “chart of life” but also God’s own “logical organization.” For the *logistic of salvation* is “Amen, amen, I say to you, whoever hears my word and believes in the one who sent me has eternal life and will not come to condemnation, but has passed from death to life” (Jn 5:24), “For God so loved the world that he gave his only Son, so that everyone who believes in him might not perish but have eternal life” (Jn 3:16, Jn 8:24, Jn 11:25-26).
- These and several other citations on both the Old and New testaments clearly exhort to “come down the (Feigenbaum) tree,” as **Zacchaeus** the tax collector quite accurately and quickly did (Lk 19:1-10), away from pride, anxiety and sin, so that people, by *understanding* the word of God, may bear ample fruit (Mt 13:23) and may joyfully say to God, “I have examined my ways and turned my steps to your decrees” (Ps 119:59). (!)
- This is, once again, God’s call to **conversion**, for people to decrease so that Jesus may increase (Jn 3:30).
- For, as explained in the Bible, God rejoices when the wicked turns from his evil ways and has no pleasure in the death of anyone who dies (Ez 18:23,32).



The following citations pertain to **The Cursed Fig Tree**:

- Few days before Jesus' crucifixion, He surprisingly cursed a living fig tree. "When he was going back to the city in the morning, he was hungry. Seeing a fig tree by the road, he went over to it, but found nothing on it except leaves. And he said to it, '*May no fruit ever come from you again.*' And immediately the fig tree withered. When the disciples saw this, they were amazed and said, 'How was it that the fig tree withered immediately?' Jesus said to them in reply, 'Amen, I say to you, if you have *faith and do not waver*, not only will you do what has been done to the fig tree, but even if you say to this mountain, 'Be lifted up and thrown into the sea,' it will be done. Whatever you ask for in prayer with *faith*, you will receive" (Mt 21:18-22).
- In the account according to Mark, the event is recorded in two stages, with the edict "*May no one ever eat of your fruit again!*" happening on the same day Jesus' overturned the tables at the temple, and with the disciples noticing the tree "*withered to its roots*" the day after (Mk 11:12-23).
- Was Jesus, metaphorically, just cursing the unbelief of the people of Israel at his time? Is there an additional reason for Him withering a fruitless tree, one not yet in season?

- In the spirit of the symbols of disorder herein, it is sensible to suggest that what Jesus symbolically cursed that day was any of the prideful roads (already cursed) that take people away from God and into sin, pathways that if unchecked lead to “chaos” and “death.”
- For, after all, away from its root, the modern Feigenbaum tree, like the ancient and metaphoric one, does not produce any visible fruit in any season, but only *thorns* of anxiety and *dust* that choke the word (Mt 13:22), and hence it is rightfully cursed to its roots. (!)
- This is symbolically consistent with God’s desire for people to bear good fruit (Jn 15:8) and with the related observation that “people do not pick *figs* from *thornbushes*” (Lk 6:44).
- For those who turn their hearts away from “the Lord” are *cursed* (Jer 17:5) and they justly receive the same *rebuking* Jesus gave to the *wind* (Mk 4:39-41), a curse of *evil* that his disciples may also utter, now understandably to a tree, in His name (Mk 16:17-18). (!)
- These and other citations, including John the Baptist’s “Even now the *ax lies at the root of the trees*. Therefore every tree that does not bear good fruit will be *cut down* and thrown into the *fire*” (Mt 3:10), enhance God’s invitation for people to *always* “produce good fruit as evidence of our repentance” (Mt 3:8), a godly sorrow at all seasons, a “*sweet fig of joy*,” that may only be attained in Jesus, the ever precious *root*. (!)

The following reflections pertain to **Eschatology and the Fig Tree**:

- The fine structure of the Feigenbaum tree and the Biblical symbolism of the fig tree serve to study the history of God's people and the delicate topic pertaining to the end of the age.
- The story starts, of course, with Adam and Eve, and their **fall** from obedience and nakedness (Gn 2:25) into sin and “coverage” with *fig leaves* (Gn 3:7). (!)
- As the serpent, 2/3, lied to the woman, “a cascade of bifurcations” quickly happened, and this led to dust and death, for God decreed “for you are dirt, and to dirt you shall return” (Gn 3:19) and He banished man from the garden of Eden (Gn 3:23).
- The story reached a crescendo when God established a **covenant** with His people, the descendants of Abraham, Isaac and Jacob (Israel), through the circumcision of every male, and later via the following of **God's law** as given to Moses.
- The Bible relates the struggles of the Israelites in keeping the law, and tells us of their times of peace and and their times of distress.
- Throughout the story, the *fig tree* and the *vine* appeared as powerful symbols describing what would happen to the people of Israel.

- For instance, under the ruling of King Solomon, “Judah and Israel lived in security, every man under his *vine* or under his *fig tree*” (1 Kgs 5:5); but, in punishment, God “will lay waste their *vines* and *fig trees*” (Hos 2:14, Jl 1:7,12).
- The fig tree represents *perseverance*, as a *fig poultice* administered by the prophet Isaiah healed a repentant King Hezekiah of Judah (Is 38:21), and also the *hope* of a future day of prosperity, security and peace (Ez 34:28-29), for on those days *justice* shall prevail and hence “He who tends a fig tree shall eat its fruit” (Prv 27:18).
- Symbolically, and as stated by the prophets, the particular state of grace of an Israelite (and intrinsically of any human being) may be traced at the alternative stages of the Feigenbaum tree, for a fall in grace implies traveling a “road to chaos.” This is seen, for instance, in Jesus’ famous *parable of the sower* (Mk 4:1-20).
- Invariably, the reasons for people’s distress are found in *disobedience*, for example, “We conceived and writhed in pain giving birth to *wind*” (Is 26:18), “Why is the land ravaged, scorched like a wasteland untraversed? Because they have abandoned my law, but follow rather the hardness of their hearts” (Jer 9:11-13). “My people go into exile because they *do not understand*” (Is 5:13).

- This rebellious behavior, happening despite awesome displays of power by God, e.g., the manna He sent them from heaven (Ps 78:27-32), points the Jewish people away from the root of the Feigenbaum tree, as “their hearts were *not constant* toward him”, as “they were not faithful to God’s covenant” (Ps 78:37).
- These notions are consistent with Israel’s *stubbornness*, “the first fruits of God’s harvest” (Jer 2:3), at the time when the story reached its “plenitude” with the coming of Christ.
- For “although he had performed so many signs in their presence they did not believe in him” (Jn 12:37), for “they stumbled over the stone that causes stumbling” (Rom 9:31-32), that is, for they chose to be over $X = Y$.
- For “they did not acknowledge it openly in order not to be expelled from the synagogue. For they preferred human praise to the glory of God” (Jn 12:42-43). For although they had a zeal for God they could not discern and hence submit to the righteousness of God in Christ (Rom 10:2-4).
- These arguments regarding the “*obstinate branch*” (Ez 15:1-8) are relevant when considering Jesus’ eschatological discourse and, in particular, the very precise wording of Jesus’ **parable of the fig tree**, as recorded in the synoptic Gospels.

- According to Matthew and Mark, Jesus said, “Learn a *lesson* from the *fig tree*. When its **branch** becomes tender and sprouts leaves, you know that summer is near. In the same way when you see all these things, know that he is near, at the gates. Amen, I say to you, this generation will not pass away until all these things have taken place. Heaven and earth will pass away but my words will not pass away” (Mt 24:32-35, Mk 13:28-31).
- According to Luke, “He taught them a *lesson*. ‘Consider the *fig tree* and all the *other trees*. When their buds burst open, you see for yourselves and know that summer is *now* near; in the same way, when you see these things happening, know that the kingdom of God is near. Amen, I say to you, this generation will not pass away until all these things have taken place. Heaven and earth will pass away, but my words will not pass away’ ” (Lk 21:29-33).
- As the Feigenbaum tree does have a rather thin and hence rather “*tender branch*” that loses its stability as it passes by $X_\infty = 2/3 = 0.666 \dots$ and quite literally “*sprout leaves*,” one wonders if Jesus’ words are being fulfilled in our times via these scientific discoveries.
- For we may indeed **see** for ourselves *other trees* with their “buds burst open” into dust, rotten trees that capture the ways to disorder *universally*, as found by Mitchell Feigenbaum. (!)

- Is this just a coincidence? The recent findings of simple roads to chaos and the very advent of the chaotic tree may be seen instead as consistent acts of **God's mercy**. (!)
- For without lessening that within the parable's context "these things" may naturally mean persecutions of believers (Lk 21:12-19), a time of great tribulation (Mt 24:15-28), and powerful signs in the sky (Mt 24:29-30), the "geometric" connections via chaos theory yield an unexpected but relevant call to **conversion** for the people of Israel and for all.
- Although an exact date for Jesus' return may **not** be drawn, "But of that day and hour no one knows, neither the angels of heaven, nor the Son, but the Father alone" (Mt 24:36, Acts 1:6-7), these reflections, in consonance with the predicted modern advent of the nation of Israel (e.g., Ez 36:1-37), provide indeed powerful reminders.
- For we ought to be *watchful* (Mk 13:32-37), for as Jesus said, "There once was a person who had a *fig tree* planted in his orchard, and when he came in search of fruit on it but found none, he said to the gardener, 'For three years now I have come in search of fruit on this *fig tree* but have found none. So cut it down. Why should it exhaust the soil?' He said to him in reply, 'Sir, leave it for this year also, and I shall cultivate around it and fertilize it; it may bear fruit in the future. If not you can cut it down' " (Lk 13:6-9). (!)

The following passages are related to **The Elect**:

- Right before the parable of the fig tree, the Gospel according to Matthew records Jesus' prophetic words, "And then the sign of the Son of Man will appear in heaven, and all the tribes of the earth will mourn, and they will see the Son of Man coming down upon the clouds of heaven with power and great glory. And he will send out his angels with a trumpet blast, and they will gather his *elect* from the four winds, from one end of the heavens to the other" (Mt 24:30-31).
- These "God's chosen ones, holy and beloved" (Col 3:12) may be visualized in the **root** of the Feigenbaum tree and they are associated, in their dynamics, with the **pre-images of zero**, when the logistic map takes on its maximal value of $\alpha = 4$.
- As the fullness of chaos contains great many (but countable) unstable paths which, if precisely followed, lead to the desired state of surrendering and as these roads are extraordinarily intertwined with periodic or chaotic scenarios, one may vividly see why "Many are invited but few are chosen" (Mt 22:14).
- The subtle *hopscotch* out of the root and into chaos without consequences (Jn 10:9) helps visualize other passages related to the faithful *wheat* surrounded by *weeds* (Mt 13:24-30).

- Quite vividly it helps observe Hananiah, Mishael and Azariah “walking in the fire” with no consequences, when King Nebuchadnezzar of Babylon threw them into a fiery furnace (Dn 3:1-92), and Daniel the Prophet being unhurt at the lion’s den after refusing to stop praying to God as decreed by King Darius (Dn 6:2-24).
- It also allows to visualize God’s promises for all when people **trust** in Him. For “Though a thousand fall at your side, ten thousand at your right hand, near you it shall not come. You need simply watch; the punishment of the wicked you will see” (Ps 91:7-8). And also permits to cherish the mystery of salvation for people may see ‘How constricted the road that leads to life’ is (Mt 7:14) and “How hard is to enter the kingdom of God!” (Mk 10:24).
- For it is easier for a camel to pass through the eye of a needle than for one rich to enter the kingdom of God (Mk 10:25), easier **indeed** to go everywhere than to enter through the *middle point*, the Ω point (borrowing from Pierre Teilhard de Chardin), the point of *consciousness*, for traveling an orbit to equilibrium and rest may be assigned a probability of zero and for exploring strange attractors forever and missing the point is truly silly. (!)
- These observations further emphasize God’s gift through Jesus Christ, an increased appreciation that leads people to yet more **humility** and **joy**.

The following citations pertain to **The Church**:

- As the Bible teaches, once all is consummated, the only remaining set shall be the upright root of the Feigenbaum tree, the holy and united **Church**, the bride of Jesus (Rv 19:7).
- For at that stage of the story, “There is neither Jew nor Greek, there is neither slave nor free person, there is no male and female, for you are all *one* in Christ Jesus” (Gal 3:28), and hence there shall be one flock for the one shepherd (Jn 10:16, Ez 37:24).
- For Jesus, “the root and offspring of David” (Rv 22:16) shall be set up as a “signal for the nations” (Is 11:10), to gather into one, via his death, the dispersed children of God (Jn 11:51-52).
- That Israel shall heed to God in due time (Rm 11:25-29) is also foreshadowed in Jesus’s encounter with Nathanael, a **true Israelite**, whom Jesus saw *under the fig tree* (Jn 1:47-51). For, quite vividly, the **root** is where “true Israelites” belong. (!)
- Inside the root there is certainly plenty, for when “zeroes” agree, they add up powerfully, that is, $0 + 0 = \infty$, for, as the Bible says, nothing is impossible to God (Mt 18:19-20). (!)
- The following poem-songs help us reflect on the message of this lecture:

Y = X

Y = X

is justice that illuminates,
is balance that fascinates:

Y = X.

Y = X

is the incarnate alliance,
is the established reliance:

Y = X.

Y = X

is true word that matures,
is a spiral that endures:

Y = X.

Y = X

is the precious resting place,
is the state of mighty grace:

Y = X.

Y = X

is smoothness that esteems,
is a hummingbird that gleams:

Y = X.

Y = X

is the short and precious root,
is the weaving of the truth:

Y = X.

Y = X

is a future that forgives,
is crowned science that is:

Y = X.

Y = X

is the ever tender tune,
is the impartial tribune:

Y = X.

Y = X

is all innocence that heeds,
is a garden with no weeds:

Y = X.

Y = X

is the simple clear sign,
is the majestic design:

Y = X.

Y = X

is independence that heals,
is matrimony that shields:

Y = X.

Y = X

is the real chaste embrace,
is the goodness of a yes:

Y = X.

Y = X

is a smile that edifies,
is a spin that rectifies:

Y = X.

Y = X

is all gentleness in us,
is the everlasting plus:

Y = X.

Y = X

is inspiration that calls,
is growing to be small:

Y = X.

Y = X

is the forgotten territory,
is the improbable story:

Y = X.

Y = X

is revelation that nests,
is surrendering the rest:

Y = X.

Y = X

is the dustless short incline,
is the faithful narrow line:

Y = X.

Y = X

is renouncing all spears,
is experiencing no fears:

Y = X.

Y = X

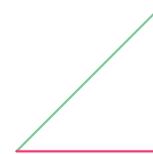
is the perennial giveaway,
is pure life with no decay:

Y = X.

Y = X

is the only perfect remedy,
is loving, even the enemy:

Y = X.



GEOMETRY (!)

A riddle I bring along,
asking you which is your view:
is zero plus zero, nothing
and the sum of ones, two?

If brothers apply their creed
and truly become small,
what they ask, the Lord concedes:
appending nothings equals all.

And if sisters all attune,
choosing justice as their song,
in the forging of good tune,
space among them is all gone.

The “plus” portrays the essence
also included in the “times,”
geometry explains recompense
that leads us to the sublime.

The question forever parting
in love, I ask you anew:
is zero plus zero, nothing
and the sum of ones, two?



**One plus one a larger one
zero plus zero a vibrant whole,
one plus one, not two but unity
zero plus zero yields infinity.**

Two little ones do not add naught
but everything, this is a truth,
a matrimony does not yield two
but harmony that makes us youth.

**One plus one a larger one
zero plus zero a vibrant whole,
one plus one, not two but unity
zero plus zero yields infinity.**

Zero plus zero does not add naught
but the eternal embracing all,
one plus one does not yield two
but the goodness that always goes.

**One plus one a larger one
zero plus zero a vibrant whole,
one plus one, not two but unity
zero plus zero yields infinity.**

$$0+0=00$$

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