

# Dali's Stairway to Heaven

## or, the Sacred Geometry of the Cross<sup>1</sup>

*by George Khutsishvili, Ph.D. Professor  
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**D**o art, science and religion need each other to better understand, found and communicate their truths? I hope not to sound heretical to any representative of these fundamental fields of human spiritual development if I say they do.

We claim to be understanding the world around us and within us. We know that the universe is one, and the space is infinite. What we mean by this is that beyond the distant worlds seen in powerful telescopes are other worlds, and we may nowhere meet a limit or border. That is, when moving outwards. When moving inwards, it seems we just need to reverse the picture, and we get particles consisting of smaller particles, although Heisenberg's 'uncertainty principle' prevents us from digging indefinitely into the matter. Anyway, we cannot expand our understanding of mega-, macro- or microcosm beyond an unending *circulus vitiosus*.

On the other hand, we believe in God and Providence, and thus consciously limit our ambition by accepting an incomprehensibly higher organization of the world than man can conceive. And again, an average person takes the pictures of the world provided by science and religion as independent and self-sufficient, tacitly giving preference to one or the other, but rarely doing effort to unite them. We understand very little of our own soul: if ancients naively placed the soul in the heart (however, creating a perennial tradition for poetry), modern rational man has advanced his knowledge by replacing the soul higher up, into the brain. Poorly aware of how our body and soul are related while we are alive – and even less aware of how souls communicate - we fearfully await the moment when the death do us part. And when our life ends, we get a chance to obtain the know-how, but we cannot report back on this evidence, or get a copyright, as soul communicates only via live body.

Believing in higher truth means not sufficing with parallelisms of body and soul. Genius's vision grasps glimpses of Truth, and leaves a puzzle to us mortals. Human development is a vector pointed to the impossible. Art is a creative effort to express/conceive what rational mind is helpless to tackle alone. And science can stimulate art in this synergic effort to conceive the Eternal Unity.

The Artist's Nuclear-Age Vision of the Universal Unity Many works of Salvador Dali were based on his obsessions. The genius's powerful imagination created pictures concomitant with the age, its dominating paradigms, and it could be easily anticipated that shortly after World War II and the launch of 'cold war', the rise of nuclear physics and appalling reality of an apocalyptic end of the

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<sup>1</sup> Peace Times, #4, 2002, by International Center on Conflict and Negotiation (ICCN).  
[http://www.iccn.ge/files/pt\\_4\\_2002\\_full.pdf](http://www.iccn.ge/files/pt_4_2002_full.pdf)

world in a nuclear catastrophe would become his leading creative obsession. An inherent aspect of this 'creative obsession' became geometrical figures, such as spheres, triangles, cubes and cubic elements whose function and placing seemed to be overt and exposed compared to those traditional hidden structures that underlay composition of elements in the works of masters, especially since Raphael. Compared to Dali's previous paintings where religious motives were mostly secondary, or even to those dedicated to religious topics (e.g. *The Temptation of Saint Anthony*, 1946), this decisive turn may be seen with particular strength in a series of Dali's religious works covering the period of 1950-55: *The Madonna of Port Lligat*, *Christ of Saint John of the Cross*, *Nuclear Cross*, *The Last Supper*, and finally, *Crucifixion (Corpus Hypercubus)*.

As Robert Descharnes, one of Dali's closest friends and biographers writes, *Christ of Saint John of the Cross* (1951), the most popular of Dali's religious works, "was inspired by a drawing, preserved in the Convent of the Incarnation in Avila, Spain, and done by Saint John of the Cross himself after he had seen this vision of Christ during an ecstasy" (Robert Descharnes, *Dali*, London: Thames and Hudson, 1994, p.114). According to the same author, at the bottom of his studies for this painting, Dali wrote: "In the first place, in 1950, I had a 'cosmic dream' in which I saw this image in color and which in my dream represented the 'nucleus of the atom'. This nucleus later took on a metaphysical sense; I considered it 'the very unity of the universe', the Christ! In the second place, when, thanks to the instructions of Father Bruno, a Carmelite, I saw the Christ drawn by Saint John of the Cross, I worked out geometrically a triangle and a circle, which 'aesthetically' summarized all my previous experiments, and I inscribed my Christ in this triangle" (Ibid.). Judging from these words, one might conclude that Dali apparently thought at that time he came to a final solution of his religious quest. Yet new mysteries awaited myriads of his fans ahead.

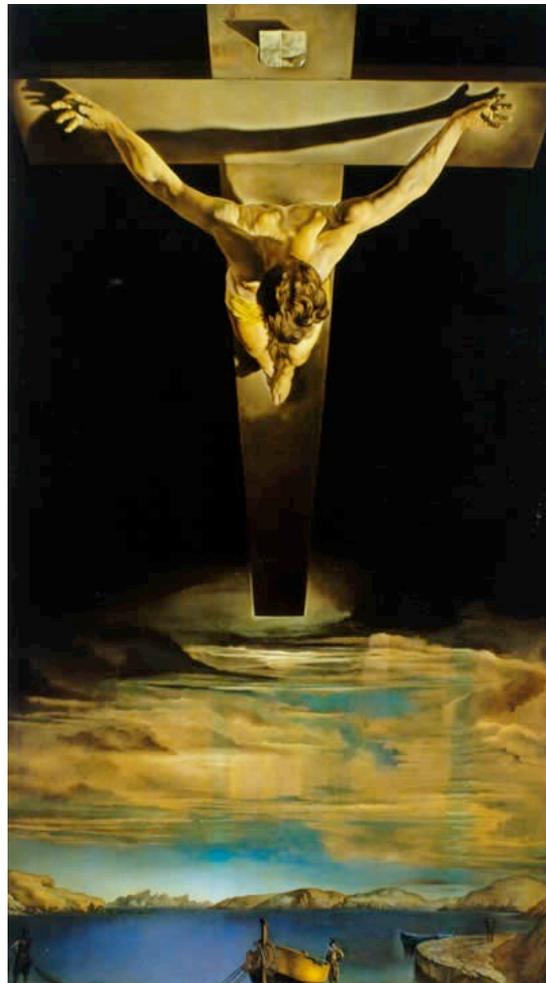


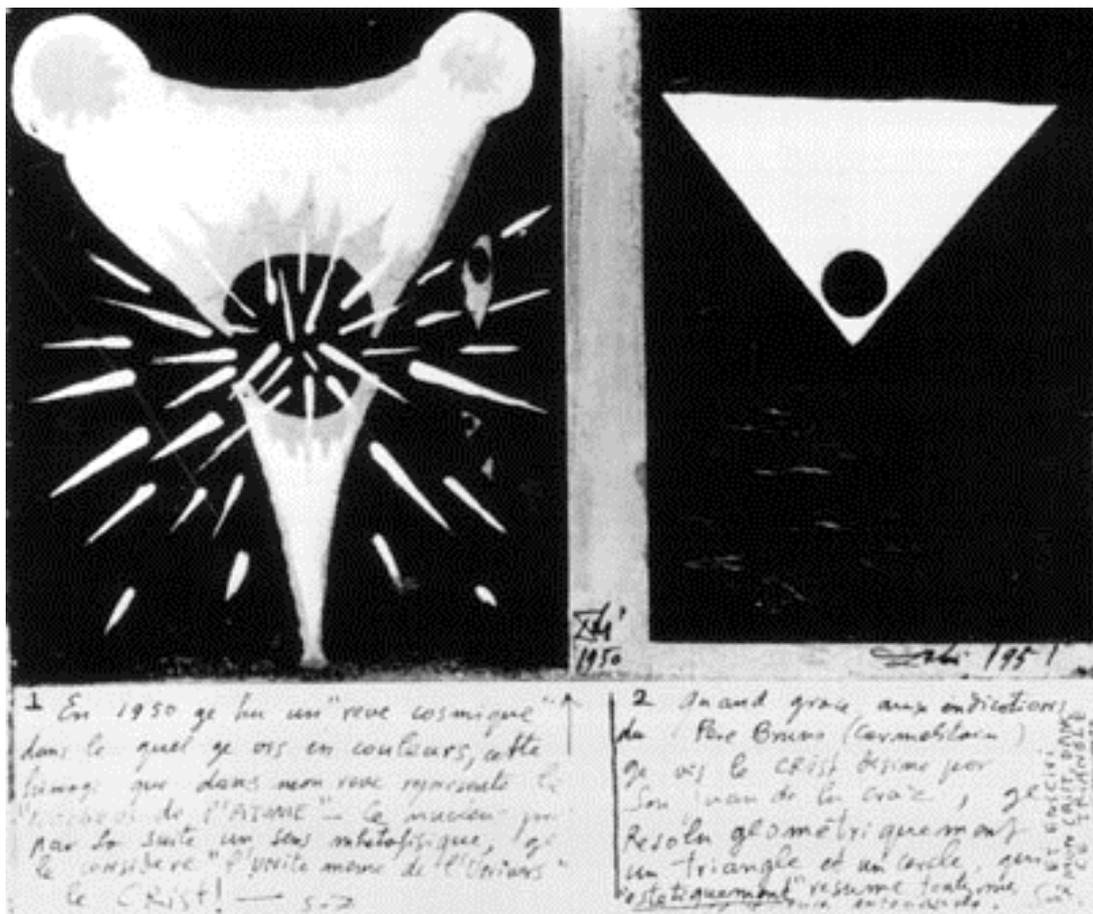
**Crucifixion (Corpus Hypercubus)**

1954, Oil on canvas, 76 3/8 x 48 7/8"  
Metropolitan Art Museum, New York. Gift  
of Chester Dale, 1955

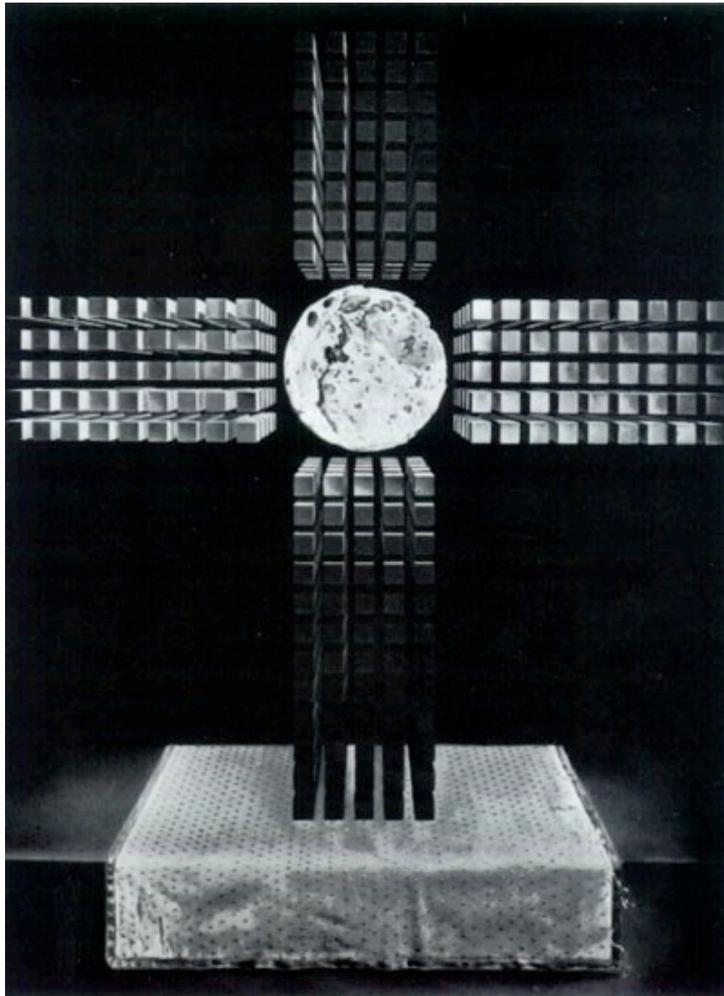
**Christ of Saint John of the Cross**

1951. Oil on  
canvas,  
81 x 45 5/8"  
Glasgow Art  
Gallery and  
Museum





**Study for Christ of Saint John of the Cross**  
 1950-51. Gouache, 6 3/4 x 8"  
 Collection T. J. Honeyman, Glasgow



**Nuclear Cross**

1952. Oil on canvas, 30 3/4 x 22 7/8". Private collection.



**The Last Supper**

1955. Oil on canvas. 167 x 268"  
The Chester Dale Collection, National Gallery, Washington, DC

## Who in America Has Inspired Dali's 'Geometrical' Vision of the Script?

In early 1953, inspired by his trip to New York, Dali announced that “he was going to paint a picture that he himself termed as sensational: an exploding Christ, nuclear and hypercubic” (Descharnes, 118). As the master himself pointed out, this would be his first painting reconciling a (neo)classical formula of technical implementation with the contents composed of cubic elements, resulting in “metaphysical, transcendent cubism” (Ibid.). According to Dali, the masterpiece “is based entirely on the Treatise on Cubic Form by Juan de Herrera, Philip II’s architect, builder of the Escorial Palace”; it is a treatise inspired by *Ars Magna* of the Catalonian philosopher and alchemist, Raymond Lulle” (Ibid.). As we will see, it may as well be based on the twentieth-century scientific vision. The painting called *Corpus Hypercubus* was finished and first exhibited at the Carstairs Gallery in New York in 1954. There are hints that some situation, or a person during his U.S. trip might have inspired the idea. Or was it just a powerful impression from Manhattan’s architectural ‘cubism’? On the other hand, it would only be natural to presume that some scholarly person(s) in Dali’s circle and contacts, which included many celebrities of his time, could have given him a clue or idea.

As we may glean from the canvas composition, the cross, composed of eight cubic elements (Dali also speaks about a ninth cubic element of the composition: see in further text), represents a construction highly unusual for religious arts but known in geometry as an unfolded hypercube, or tesseract, a three-dimensional image of the four-dimensional figure unimaginable in a physical reality but having a legitimate place in mathematical abstract constructions. On the other hand, making note of the canvas name (‘*Corpus Hypercubus*’, which literally means, ‘the body of Christ as a hypercube’), we may conclude that not only the cross is hypercubic, but the name rather pertains to the whole dynamic construction, including Christ and the cross. A crucified figure unifying with a structure it is crucified on. A memory comes to mind of a powerful modern sculpture of Christ overlooking the gulf of Rio-de-Janeiro, topping the mountain and spreading hands as if in flight, blessing and protecting the city, at a distance looking itself like a giant cross (a visionary image of the Christ/Cross). Looking attentively at the painting, certain questions already apply:

- Does the canvas name suggest it should be understood as ‘Christ’s (Hyper) Cubic Body’, and what may this mean?
- What is the meaning of Christ’s crucifixion on a (hyper)cubic cross protruding in three dimensions, challenging and breaking all traditions of depicting the cross in the Christian cultures?
- The planes/dimensions of the cross are unequal: the plane parallel to Christ’s figure is more salient and complete, while a perpendicular plane is incomplete, more expressive and dynamic (emerging?);
- Why are the cubic elements of the cross semidetached from each other, and how is this related to the dynamics of the scene: are they conjoining (uniting?) or separating (exploding?)?
- Christ is not nailed to the cross but floating in the space in front of it, no stigmata are visible on hands and feet, and small cubes are forming in front of his body to mark the corners of an (emerging?) eighth cube to complete an octahedral structure;
- Dali writes: “The number nine is identifiable and becomes especially con-substantial with the body of Christ” (Ibid.) Where is the ninth cube? Presumably it is the one under Gala’s feet, understood as exalting her to the crucified figure (to unite with it?);

- And, finally, why does Dali think the Christ's figure is shown as exploding and nuclear?

The Christ's body itself would not suggest of any such dynamics, unless it is meant to identify with the transfigured cross.

### **The Eschatological Mystery of the Cubic Christ/Cross**

Jesus was sent by Father God to this world to fulfill his Mission with regard to humankind. His double nature of Son of God and Son of Man was a necessary part of providence, a spatial-temporal incarnation being necessary for men to realize Christ in themselves via the process starting with seeing resemblance to Him and ending with realizing spiritual unity with Him. After his physical death, his apparitions to a few chosen ones hardly resemble anything known on earth (cf. relevant places in Revelation, or the scene of transfiguration of Christ in the Gospels). The Cross plays an outstanding role in Christ's agonizing transcendence to the kingdom of heaven. There had been lots of speculations in history of Christianity, as well as in modern scholarly writing about the function of the cross in "the death of Christ as an epiphany of sacred violence" (Robert G. Hamerton-Kelly, *Sacred Violence: Paul's Hermeneutic of the Cross*, Minneapolis: Fortress Press, 1992, p.63). Cross was seen as a vehicle for Christ's transcendence via sacrifice-suffering-death, but hardly had any hypotheses been invented about how exactly could the geometry of the cross have fulfilled this role.

We read in the Gospels, "And it was about the sixth hour, and there was a darkness over all the earth until the ninth hour"<sup>2</sup> (Luke 23:44); "And at the ninth hour Jesus cried with a loud voice, saying... My God, my God, why hast thou forsaken me?" (Mark 15:34). According to St. Luke, at the same ninth hour "the sun was darkened, and the vail of the temple was rent in the midst. And when Jesus had cried with a loud voice, he said, Father, into thy hands I commend my spirit; and having said thus, he gave up the ghost" (Luke 23:45-46).

Why did a complete darkness fall on Golgotha in these unlikely hours? And, keeping in mind the highly charged atmosphere of the entire scene and the lack of chronometric devices available around Golgotha, was it really hours that separated the ends of this temporal interval? Human perception might turn into hours what was really minutes. What might have happened in this interval was that Jesus underwent a transformation mortals were presumably not entitled to see, or it might as well go beyond their imagination. And the Cross had to play a crucial role in this transformation. What was on the cross before 'the sixth hour' was the living suffering Christ, and what was left there after 'the ninth hour' was his dead body. Jesus Christ was gone from this world...

Robert G. Hamerton-Kelly writes that "the crucifixion is the crux of God's plan for unmasking and overthrowing the powers of this world, understood through the Cross as the structures of the Sacred" (Hamerton-Kelly, 82). The Cross is a structure through which God allows men to understand the meaning of salvation. The Crucifixion is a model of the soul transcending the limits of this world. The challenging enigma, a decisive moment of which is described in Dali's painting, is disclosed in the further text in an attempt to see the Cross not only as a powerful archetypal symbol, or even a real purifying power, but as an actual door into another world, a 'stairway' to heaven.

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<sup>2</sup> Note: In some interpretations, these mean, respectively, 12 noon, and 3 p.m.

## The Enigma of Hypercubic Cross Revealed?

Dali's painting apparently pertains to the very moment of Christ's death. The 'Body of Christ' (Corpus) is no more the same as the dead body nailed to a simple wooden cross that continues to exist somewhere in a three-dimensional world. The stigmata are no more seen on hands and feet. The Corpus is apparently shown from beyond 'the human plane', which it has already transcended. This is obscurely indicated in Dali's words: "The extremely noble figure of Gala is the perfect union of the development of the hypercubic octahedron on the human level of the cube" (Descharnes, 118). Gala's function will seem to be more or less artificially introduced in the whole composition, unless a proper explanation is found for it. One explanation may be that Gala is ascending to Christ's figure (while standing on the ninth cube) to unite with it by further developing the emerging structure. But how? Let us leave this question unanswered at the moment, and try to concentrate on the Christ/Cross figure itself. This is a configuration symbolizing the Light (= the Life of Men) and the embodiment of the Word (= Logos, or Order). Christ's embodiment is now becoming one with the Cross: Christ himself is becoming the Cross, and the Cross is transfiguring at the same time through developing a hypercubic form. Indeed, different aspects of the painting may allow different interpretations. In all cases, it is obvious that Dali is groping for a pictorial-art explanation of the eschatological mystery of salvation-through-death-on-the-cross. At the moment of leaving this world, Christ is shown as transcending the three-dimensional physical space – or, if you will, the 'four-dimensional' spacio-temporal continuum if we include time in the dimensions - by means of the transfigured Cross as a vehicle to 'commend his spirit into Father's hands'.

The first discovery that may be hidden in the painting is that it is describing in the language of art the story that goes beyond what was recorded in old Greek in the canonical or apocryphal Gospels, or any other holy scripts available. **I am going to defend the thesis according to which the Hypercubic Crucifixion, as an attempt to describe the story of Christ's death on the cross from beyond the human vantage point, takes place to transcend/overcome the physical reality by acquiring a fourth spatial dimension, to transform via a four-dimensional structure into hyper forms, go beyond the limits of this world, and unite with God.** As Dali or his biographers do not mention, and nowhere in the existing interpretations do we meet such an explanation, we may as well propose that this is the first time this thesis is being put forward.

Mathematical discourse proves inductively the existence of higher-dimensional spaces, ad infinitum. The point is zero-dimensional, and the line is one-dimensional. Imagine one-dimensional creatures 'living' on a line (Fig. 1). They may essentially be of two types, depending on how they are pointed (say, by marking one end or the other). Let us take the two that are symmetrical in regard to a point. They may be superposed only if we transcend one-dimensionality of a line, and 'define' a plane, a two-dimensional realm, by turning one 'creature' around the point of symmetry to coincide entirely with the other. (Let us not be confused by the fact that computer appears to be doing this operation on a two-dimensional screen.) Now, let us imagine two-dimensional creatures (say, cartoon characters) 'living' on a plane. They have much higher degree of freedom, moving in all directions on the plane, but let us again pick out two essential types, symmetrical to each other with regard to a line (Fig. 2). They may only be superposed if we leave the plane, turn the one around the axe of symmetry to coincide with all its points with the other, and thus introduce/domesticate a third spatial dimension, appearing finally in the world we all happen to live in. Have we come to the natural limit? If you say 'yes', I would suggest that you a 'three-dimensional creature' go and look into a mirror, see the two physically existing symmetrical images (yourself and your reflection), and ask a perfectly legitimate question: how can we superpose these two (Fig. 3)? And the equally legitimate answer is: via introducing a next dimension, and going out into a higher-dimensional realm via 'turning' one image in a fourth-dimensional movement 'around' the mirror as a plane of symmetry. The fact that this is hard or

impossible to imagine, does not mean the operation is not legitimate. The mind proves what the imagination cannot reach. In psychological terms, understanding a fourth dimension correlates with reconciling with a mirror-image of yourself, your eternal rival and critic, and, in a general methodological way, teaches you how to transcend the seemingly irreconcilable through elaborating a metaview. This is a general methodological tool for overcoming any conflict, understanding the unity of incompatibles, and the identity of indiscernibles.



Fig 1

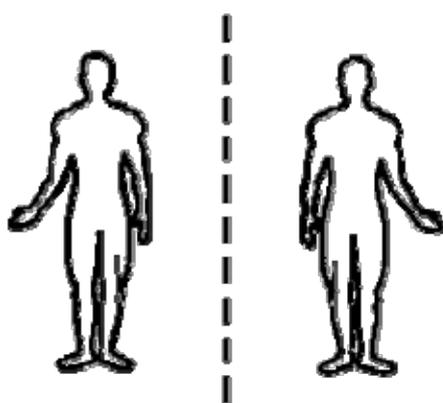


Fig 2

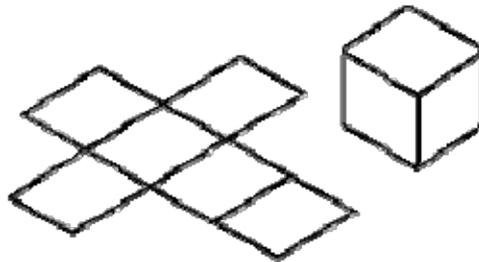


Fig 3

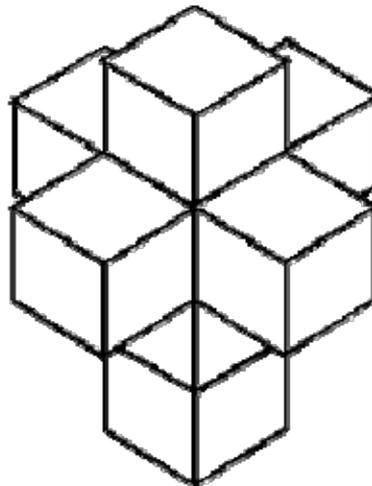
But what about the hypercube as a transcendence vehicle? We are getting now to the special role that cube and cubic form are playing in the mathematical idea of overcoming the limits of the physical space. (a) Take four matches, and make a square, reaching out into a plane from a line (Fig. 4). That four matches-long piece of line is the same as an unfolded square. (b) It will take six squares to close them into a cube, reaching out into the space from the plane (Fig. 5). The flat cross-like figure represented by the six squares arranged in a certain order, is the same as an unfolded cube. (c) Isaac Asimov (Isaac Asimov, *Where Do We Go From Here?*, Book I, Penguin: London, 1974) concludes that if we take eight cubes, and arrange them in a certain order, we may consider the resulting spatial figure as an unfolded hypercube, or tesseract (Fig. 6).



**Fig 4**



**Fig 5**



**Fig 6**

Although we cannot imagine a ‘folded’, or actual four-dimensional tesseract, unless we ourselves transcend the limits of physical reality, we cannot help asking ourselves when standing before Dali’s powerful painting: is this just a kitch-styled crucifixion with an idealized human figure in front of a strange-looking cross, or a desperate and futile attempt to lift oneself by the hair and look beyond the imaginable, or a real intellectual breakthrough opening a new world for us? Or may it be that the inductive way of reasoning plays a trick on us: maybe the efforts to reconstruct the fourth dimension have so far been fruitless because the proposed number or imagined arrangement of the cubic elements of tesseract were incorrect? Should the temporal section shown in Dali’s *Crucifixion* be projected/developed into a configuration of Nuclear Cross whose wings are composed of thousands of cubic components centering on a strange-looking nucleus. On the other hand, Dali’s *Nuclear Cross* is two-dimensional, but that was painted two years before the idea of *Corpus Hypercubus* visited the master.

On the human way of conceiving the world, a Greek mythical vision (cf. Hesiod’s *Theogony*) of chaos turning into logos stands out, where development is understood not just as raising the degree of complexity but moving towards purity and perfection, and in Plato we already see a special role played by geometry as a precondition for understanding the philosophical meaning of the world, also enshrined in the famous inscription on the entrance to Plato’s “Academia”.

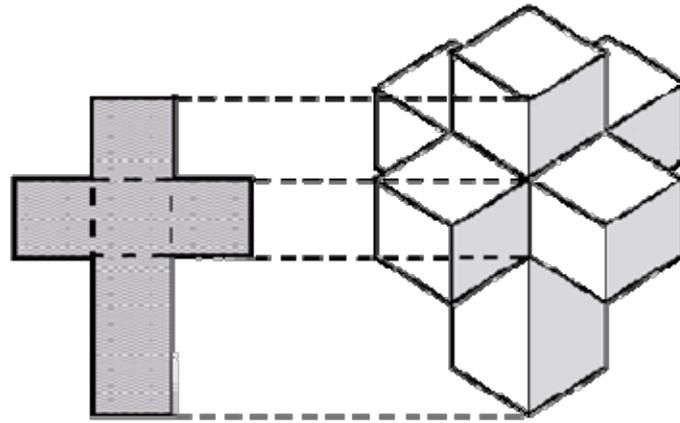
Symmetry is one of the most advanced tools of measuring the degree of perfection, and the ideas

of the cross, cube, pyramid, and finally, sphere have been landmarks of human understanding of perfection.

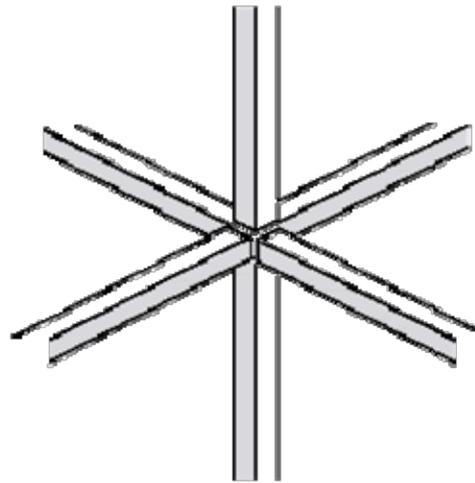
Pre-Christian images of the cross bore the meaning of the four sides of the world, later symbolizing also the four elements (Terra, Aqua, Aeris, Ignis). Even in Christian times, the shape of the cross was wide interpreted at different stages and in different cultures and traditions. Ancient images of the inverted cross, encircled cross, Jaina Swastika (interpretable as a moving cross), Georgian “cross of wine” (a powerful image of elevation), a “T-cross” as seen e.g. in early Renaissance paintings, etc. (Fig. 7) come to mind, interweaving in fancy ways with the modern big-bang theory and cosmological models of the expanding universe. If curvature value of the space is positive and constant in cosmic distances, this means we are within an enormous ellipse or sphere. Beyond it may be other, no less sophisticated (hyper)spaces, and things would be very different (including the number of dimensions) when viewed from within or without a closed universe.



**Fig 7**



**Fig 8**



**Fig 9**

We are now getting to the next point: the evolution of the Cross in the process of human reflection. Plato in *Phaedo* describes *eidos* as a pure form, ideal principle of essence. Looking, say, at a triangular figure, our soul recognizes (remembers) in it a pure triangle that exists in the world of ideas the soul also inhabited before it was born into this world. Looking at a cross, we recognize in it a process of salvation. Creative anamnesis allows us to recognize a clue to the mystery of Universal Unity in Crucifixion. Let us try to reconstruct this process stage by stage from the start. To start with, the traditional two-dimensional cross has grown a third dimension, not in the sense of just getting thicker, but exactly in becoming a three-dimensional ‘cross’ (Fig. 8), now resembling a turnstile and protruding its wings in all possible directions that are at right angles to each other (Fig. 9). Furthermore, this new structure has grown cubic, precise and dynamic, turning into an unlimited inverted hypercube. Paradoxically, in Crucifixion Christ and the Cross replace each other: Christ’ body is becoming cross-like, and the Cross is growing into a sophisticated configuration of higher dimensions. On a ‘human plane’, the moment the three-dimensional visible structure folds into a four-dimensional ‘invisible’ structure, is the moment of Jesus’ death, the Light gone and the overall darkness left on the abandoned world. This might be only one link – yet crucially important for human understanding – in the chain of transformations and transfigurations on His way to become one with Father. The further transformation, not seen in but projectable from the canvas composition may be reconstructed as follows. The hypercubic octahedral structure will attract the ninth cube (Gala) to unite with it, will then grow new cubic elements, eventually transforming into a four-dimensional ‘Nuclear Cross’ composed of multiple cubic elements centered on a transfigured Christ as a nucleus of the universe. May a certain

image of the curving encircled cross (Fig. 10) be used here so that the wings of the universal cross protrude infinitely outwards but the curvature of the space finalize them to close up in a giant sphere? If we dare try to penetrate beyond Dali's vision, or imagine alternative versions, Leibnitz's monad is what first comes to mind: monads are ideal atoms of the world, closed in themselves ("having no windows") yet reflecting the entire universe, a certain-stage sample of whom is a human soul. Einstein's cosmological model of a closed yet unending universe is both monadic in Leibnitzean sense, and circular-infinite in a Hegelian sense.

Liberation of the soul in the agony of death has a visualizing analog/aspect in the unclosing of the universe, developing a hyperspatial external view on the same universe (cf. Christ of St. John of the Cross) we see only from within while we are alive. From a view "ex parte interna" we breakthrough to achieve a view "ex parte externa". Together with Gala, we witness hypercubization of the Corpus/Cross. Together with St. John, thanks to Dali's mediation, we witness and share the Crucifixion from beyond the human plane. For a divine case, we may "retrospect" to imagine the Cross developing to ultimately enclose the Corpus in a perfect Finale. In a human case, we can only humble our selves in expectation of the Unknown.



**Fig 10**

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