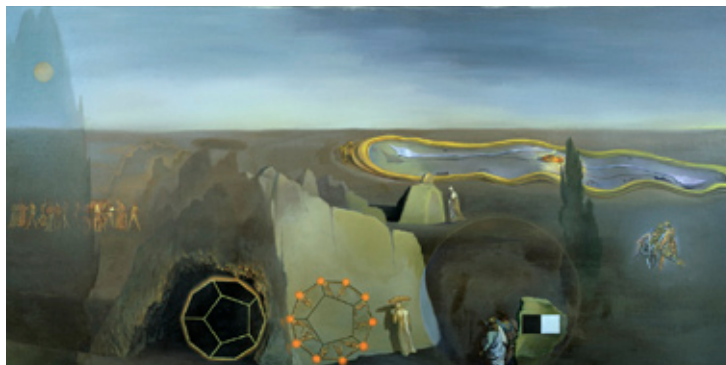


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Dalí and Science

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Thinkers and literati can't give me anything. Scientists give me everything, even the immortality of the soul.

Salvador Dalí in *The Dalí Dimension* (DVD), directed by Susi Marquès, Media 3.14, Barcelona, 2004

Since we now live in the atomic age ... it is up to artists to work out a way of putting across an up-to-date message.

Clete Wiley, 'Dalí, showman of art, tells of his nuclear mysticism', *Waterloo Daily Courier*, Iowa, 6 February 1952, p. 3, quoted in Elliott H. King, 'Nuclear mysticism', *Salvador Dalí: Liquid Desire*, National Gallery of Victoria, Melbourne, 2009, p. 247.

'In the surrealist period, I wanted to create the iconography of the interior world – the world of the marvellous, of my father Freud. I succeeded in doing it. Today the exterior world – that of physics – has transcended the one of psychology. My father today is Dr Heisenberg.

Salvador Dalí, *Anti-Matter Manifesto*, Carstairs Gallery, New York, December 1958 – January 1959, quoted in Elliott H. King, 'Nuclear mysticism', *Salvador Dalí: Liquid Desire*, National Gallery of Victoria, Melbourne, 2009, p. 247.

Dalí's intense
curiosity
and clarity
of thought
informed
a life-long
interest in
science

Dalí's intense curiosity and clarity of thought informed a life-long interest in science, and in 1935 he described himself as a fish swimming between 'the cold water of art and the warm water of science'. Even the artist's elaborate signature, which graced his work from 1938 onwards, was inspired by the liquid crown visible in a stroboscopic image of a milk-drop splash photographed by engineer Harold Edgerton in 1926.

From a young age Dalí was a voracious reader of science and came to own many books on physics, geometry, optical science, genetics, mathematics and natural history. In practice and in his writings, Dalí subscribed to the Renaissance view that men should acquaint themselves with all aspects of knowledge. Like the Renaissance artist Leonardo da Vinci before him, Dalí's interest in even the most theoretical scientific subjects was never abstract but was driven by a curiosity about how to apply such principles to his art. For example, in the 1920s Freud's theories about dreams and the human unconscious were published in translation. Dalí used Freud's principles of psychoanalysis on himself and painted the results with a scientific rigour and precision. His work continued to reflect the key scientific discoveries of the twentieth century spanning Einstein's notion of space-time, the cracking of the DNA code by Crick, Watson and Wilkins in 1953, and a series of major advances in nuclear physics.

Above all, Dalí sought clarity in his painting and in his thought, even though he was also a champion of irrationality. His painting never lost its tight, meticulous handling and its focus on detail. It is as though he was striving to achieve a perfection in the logic and handling of his pictures equal to the perfection of a mathematical equation.

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A fascination
 with modern
 physics was
 evident in
 Dalí's work...

In the late 1940s Dalí became acquainted with the Romanian mathematician and aristocrat Matila Ghyka, whose writings concerned the golden mean, a harmonious proportion known to the Ancient Greeks and present in both nature and art. The artist was convinced that Ghyka had solved the problem of geometrical composition and used a transcription of his golden mean composition diagram as inspiration for many of his compositions (refer to Tim Phillips talking about Dalí's technique in *The Dalí Dimension (DVD)*, directed by Susi Marquès, Media 3.14, Barcelona, 2004).

The development of catastrophe theory, proposed by the brilliant French mathematician René Thom in 1968, became a source of endless fascination for Dalí, who described it as 'the most beautiful aesthetic theory in the world' during his 1979 speech, 'Gala, Velázquez and the Golden Fleece', presented upon his induction into the prestigious Académie des Beaux-Arts at the Institut de France.

The artist must have felt an affinity with the topologist who regarded his mathematics as more closely related to poetry and philosophy than empirical science and was himself multi-talented.

Dalí's last series of paintings was inspired by the aesthetics of Thom's geometric figures that explain catastrophe theory, a study and classification of phenomena characterised by sudden shifts in behaviour caused by small changes in circumstances.

A fascination with modern physics was evident in Dalí's work from early on. The *Persistence of memory*, 1931, his most celebrated image of melting watches suggesting the flexible nature of time, may have been influenced by Albert Einstein's theories of relativity, and in 1932–33 Dalí wrote the *Tragic Myth of the Angelus by Millet*, in which he quoted the eminent quantum physicist Erwin Schrödinger in order to challenge the borders between art and science. Following the detonation of the atomic bomb in August 1945, Dalí became captivated with nuclear physics which opened up a mysterious world where a new dimension of reality and matter was possible. Intrigued by the idea that matter is made of tiny particles, he began to paint his own imagery as if it was disintegrating into multiple atoms that floated into space.

This period, known as Nuclear Mysticism, coincided with his return to the Catholic church and many of the paintings appear to use ideas from modern science as a means of reinterpreting and rationalising the Christian religion.

Dalí was one of the first artists to work with three-dimensional imaging or holography – a new medium discovered by physicist Dennis Gabor (Gábor Dénes) who was awarded a Nobel Prize for his research in 1971. The new technology was brought into being after the invention of the laser in 1960, which delivered a pure, stable light source ideal for creating holograms. In collaboration with specialised experts in the field, including Gabor, Dalí created a number of holographic images, notably two using Multiplex holography, a technique combining special lighting, cinematography and restricted movement on the part of subjects being filmed. The image produced by this method can be viewed three-dimensionally from all sides.

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Dalí had
 attended some
 of the bizarre,
 often violent,
 theatrical
 performances...

The first involved the young performance artist and rock musician Alice Cooper. Dalí had attended some of the bizarre, often violent, theatrical performances staged by Cooper and his band, which featured gothic imagery, almost Dalinian in style, including fake blood, boa constrictors, baby dolls and guillotines. The finished Alice Cooper 'chronohologram' (shown at New York's Knoedler Gallery in April, 1973) revealed the bare-chested musician clad in exotic jewellery singing into a microphone resembling a segmented Venus de Milo statuette threaded along a glass rod – a symbol of American youth culture shattering past traditions.

A second image employing the same technology, also completed in 1973, depicted Dalí in the act of painting a portrait of his wife Gala. (For more detailed technical information regarding holography and Dalí's involvement with the technique please refer to Ted Gott, 'Optical experiments', *Salvador Dalí: Liquid Desire*, National Gallery of Victoria, Melbourne, 2009, p. 289.)

Since his childhood Dalí had been fascinated by the Dutch painter Gerard Dou (1613–1675), whom he believed had been experimenting with stereoscopy, another form of optical illusion. The process 'uses two almost identical pictures to generate a three-dimensional effect. The two pictures are brought together in a system of mirrors or prisms so that the viewer gets a spatial impression of the subject, just as human sight delivers' (Frank Weyers, *Salvador Dalí, Life and Work*, Könemann, Cologne, 2000, p. 86).

In the 1970s the artist experimented with the technique himself, and some of the resulting stereoscopic paintings were based on photographs taken by his friend, the photographer Marc Lacroix, with a special camera.

A symposium titled 'Culture and Science: Determinism and Freedom', held at the Dalí Teatre-Museu in 1985 was a fitting realisation of Dalí's contemporary Renaissance belief 'that artists should have some notions of science in order to tread a different terrain, which is that of unity' (quotation in response to a journalist from *Le Figaro* newspaper, *Salvador Dalí and Science*, Carme Ruiz, Dalí Study Centre, Newspaper El Punt, 18 October 2000).

Attended by scientists, including some Nobel prize winners, philosophers, artists, writers and musicians, the conference sought to explore the role of chance in nature. Dalí, too weak to attend, but fascinated by the ideas and arguments expressed, watched from a television monitor in his bedroom. He later invited some of the key speakers, including René Thom and the Nobel Laureate chemist Ilya Prigogine, to meet him personally in order to engage in further discussion.

Dalí's level of understanding of modern science is debated, but it is clear that his deep intuition allowed him to feel totally at ease in the company of scientists whose language was a constant source of inspiration to him. When Dalí died in 1989, books by Matila Ghyka, Erwin Schrödinger and Stephen Hawking were found by his bed.

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The serene face
 dematerialising
 in a shower of
 fragile atomic
 particles floating
 away to take
 their place in
 the greater
 universe...



Galatea of the spheres, a supremely elegant portrait of Dalí's wife Gala, seamlessly fuses his driving interests during this period. The serene face dematerialising in a shower of fragile atomic particles floating away to take their place in the greater universe, is a clear reference to the artist's fascination with nuclear physics. It can be no accident that the clearly delineated, sinuous tendrils of hair resemble those of Botticelli's *Venus* (c.1482–86), while the prodigious technical and compositional skills of the artist also serve to remind us of the ideals of the Italian Renaissance. Dalí's belief that 'divine mysteries' might be unlocked through contemporary science (Nuclear Mysticism) may be hinted at by the magical nature of the Madonna-like face, a mass of spinning spheres in delicate, metallic tones imprinted on a luminous sky.

Dalí was in awe of his own ability to overcome the technical problems inherent in this complex work, which perhaps intensifies its value as a powerful act of homage to Gala. He particularly desired that the image should be exhibited in a suite of rooms dedicated to the eternal female in his Teatre-Museu in Figueres. It is displayed on an easel that once belonged to the nineteenth-century academic French painter, Meissonier, in a gallery known as the Palace of the Winds – a reference to the strong wind called the tramontana that frequently blows in the Empordà region of Catalonia.

Salvador DALÍ

Spanish 1904–89,
 worked in United States 1940–48
Galatea of the spheres 1952
 oil on canvas
 65.0 x 54.0 cm
 Fundació Gala-Salvador Dalí,
 Figueres (0057)
 © Salvador Dalí, Fundació Gala-
 Salvador Dalí, VISCOPY, 2009

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...the
dramatic
changes in
the world
brought about
by the advent
of nuclear
science.

This painting was first exhibited in 1954 with the longer title of *The chromosome of a highly coloured fish's eye starting the harmonious disintegration of the persistence of memory* at Carstairs Gallery in New York. Dalí's intention was to reinterpret his famous painting *The persistence of memory*, 1931 (Museum of Modern Art, New York) in response to the dramatic changes in the world brought about by the advent of nuclear science. The artist lifts the protective skin of his earlier work to reveal its underlying structure. Rectangular blocks in the foreground and rhinoceros horns hurtling through space in the background symbolise that the world is formed of atomic particles, constantly in motion. Dalí embraced nuclear physics and the opportunities it offered to understand the nature of the cosmos. The elemental parts in the painting confirm this view – rather than exploding into an uncontrolled chaos, they appear to be suspended in a balanced harmonious pattern, and the fleet of rhinoceros horns resembling atomic missiles become less sinister on discovering that Dalí saw the horns, which grow in a perfect logarithmic spirals, as symbols of the fundamental spiritual order in the universe.

However, by locating the work in his beloved Bay of Cullero at Portlligat, Dalí suggests no region in the world can ever be entirely free from the threat of nuclear destruction. The addition of a fish motif, sometimes used by Dalí as a symbol of life, may indeed be a metaphor for man's potential to destroy the world with nuclear weaponry.

One of the most striking differences between the two works is the reincarnation of the head washed up on the beach. In the earlier version of the painting the solid bone-like shape asleep on the beach, a variation on Dalí's *Great masturbator*, self-portrait, 1929, is a focal point, its silhouette sharpened by the dark background. In the later painting it has become a soft, jellyfish-like skin almost dissolving into space as the scales of the fish above are reflected on its delicate surface.

The soft watches, recurring motifs in Dalí's oeuvre, remain, but they now appear to hover in space, except for the watch which breaks apart as it droops from the dead, now segmented, olive tree. The solid gold stop watch swarming with ants has been removed altogether to be replaced with a fourth melting watch that drifts under the grid-like ground. Talking about his 1931 canvas Dalí revealed that his 'famous watches are nothing but the soft extravagant, and solitary paranoiac-critical Camembert of time and space' (Salvador Dalí, *La Conquête de l'irrationnel*, Éditions surrealists, Paris, 1935; in Haim Finkelstein (ed., trans.), *The Collected Writings of Salvador Dalí*, Cambridge University Press, Cambridge, 1998, p. 27).

Salvador DALÍ

Spanish 1904–89, worked
in United States 1940–48
*The disintegration of The persistence
of memory* 1952–54
oil on canvas
25.4 x 33.0 cm
The Salvador Dalí Museum,
St Petersburg, Florida
Worldwide Rights: © Salvador
Dalí, Fundació Gala-Salvador Dalí,
VISCOPY, 2009. In the USA: ©
Salvador Dalí Museum Inc., St
Petersburg, FL, 2009

What are
the 'real'
and unreal'
elements in
the painting?

Dalí under the microscope



Looking and discussing

- What are your **first impressions** when you look at this work?
- **Discuss** what might have happened before and after the scene depicted in the painting took place.
- Can you **find a face** in the painting? Whose might it be?
- What are the **'real' and unreal' elements** in the painting?
- **List all the things you see** in the left-hand column and what they make you think about in the right-hand column, as shown in the examples below.

See

Shimmering fish
Broken watch
Ocean skin peeled back
Segmented tree

Think

Beauty of nature
Apocalypse
Different realities
Over-compartmentalised world

Discuss your ideas as a class. How have other people's ideas enriched your enjoyment/ understanding of the work?

- How have the art elements of shape, colour, space, texture and size contributed to the meaning or messages suggested in the work?
- **Create** a headline for this painting.
- What **questions** would you like to ask Dalí if you were able?
- **Imagine** that this artwork was **a type of music**, a city, a plant – what would it be? In each case, explain three ways in which it compares.
- This work can be **read as a landscape, a still life or a self-portrait**. **Explain** how Dalí's painting can fit into each genre.

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Salvador Dalí Museum Inc., St
Petersburg, FL, 2009

Compare and contrast *The persistence of memory* and *The disintegration of the persistence of memory*.

Dalí under the microscope

Why is it important to try **to see the original painting in a gallery** rather than as a reproduction on the internet or in a book?

Researching

This painting was **a reinterpretation of Dalí's most famous painting, *The persistence of memory***, 1931 (Museum of Modern Art (MOMA), New York), in response to the dramatic changes in the world brought about by the advent of nuclear science.

Locate *The persistence of memory*, 1931, on the internet or in a book.

The MOMA once used the following adjectives to describe the soft watches in the painting: '**irrational, fantastic, paradoxical, disquieting, baffling, alarming, hypnagogic, nonsensical and mad**'.

- Find your own **descriptive words or phrases to describe** these extraordinary watches.
- Why might *The persistence of memory* be Dalí's most famous work?
- **Compare and contrast** *The persistence of memory* and *The disintegration of the persistence of memory*.
- Make a list of all the **differences and similarities** you can see – consider mood, forms, and the art elements and principles of colour, line, texture, space, size and composition.
- **Discuss the reasons why you believe Dalí made changes**. For example, why might he have removed the stopwatch seething with ants in his second version of the painting?
- **Research the key scientists of the twentieth century** and their contributions to scientific advancement – consider Dennis Gabor, who invented holograms; Sigmund Freud, who proposed the notion of psychoanalysis; Crick, Watson and Wilkins, who cracked the DNA code; and famous physicists Albert Einstein, Erwin Schrödinger, Werner Heisenberg and Stephen Hawking.
- In what ways do **the two paintings reflect the scientific advances** and the consequences of those advances that occurred during the twentieth century?
- **Locate** another Dalí work on this site which responds to scientific advances. Explain in note form why you have chosen it.
- **Research the photographic images of Harold E. Edgerton**, inventor of the electronic flash, whose stroboscopic image of a splashing drop of milk created in 1936, influenced Dalí's signature.

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Since we now
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... it is up
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up-to-date
message.

Dalí and Science

Dalí under the microscope



The bigger picture – thinking beyond

- **Why might a fusion of art and science be beneficial?** What particular qualities does each possess? Consider the similarities and differences in each discipline.
- **Discuss** situations and projects relevant to today that would be enriched by combining art and science.
- Do you believe art is an appropriate way of communicating scientific principles, advances and/or issues? **Discuss** with reference to a work by Dalí and another artist.

Since we now live in the atomic age ... it is up to artists to work out a way of putting across an up-to-date message.

Salvador Dalí. Clete Wiley, 'Dalí, showman of art, tells of his nuclear mysticism', *Waterloo Daily Courier*, Iowa, 6 February 1952, p. 3, quoted in Elliott H. King, 'Nuclear mysticism', *Salvador Dalí: Liquid Desire*, National Gallery of Victoria, Melbourne, 2009, p. 247.

- **Do you agree with Dalí that it is the role of an artist to communicate key issues of their time**, or should artists be more concerned with communicating universal messages that transcend history and culture? Discuss.
- **Dalí believed that we are living in an era of intense specialisation** which fails to appreciate the important connections between different areas and disciplines. He advocated a return to a more holistic world that sought unity in all things as was present in the Renaissance.

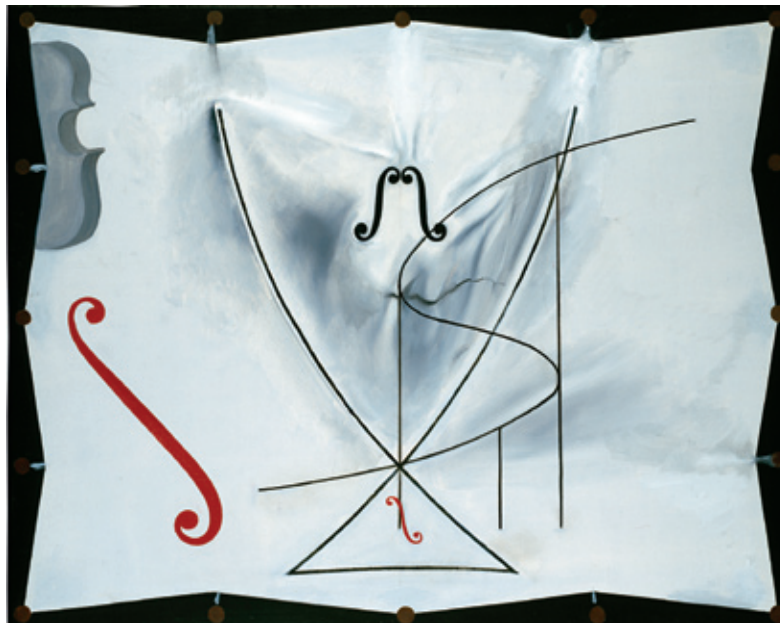
Argue for or against Dalí's viewpoint with reference to situations in today's world.

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The most
beautiful
thing we can
experience
is the
mysterious

Dalí and Science

Dalí under the microscope



The most beautiful thing we can experience is the mysterious. It is the source of all true art and all science. He to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, is as good as dead: his eyes are closed.

Albert Einstein

... one of the strongest motives that lead men to art and science is escape from everyday life with its painful crudity and hopeless dreariness, from the fetters of one's own ever-shifting desires. A finely tempered nature longs to escape from the personal life into the world of objective perception and thought.

Albert Einstein

After a certain high level of technical skill is achieved, science and art tend to coalesce in aesthetics, plasticity and form. The greatest scientists are always artists as well.

Isaac Asimov

- **Explain the above quotations.** To what extent do you agree or disagree with them? Discuss one or more of them with reference to works by Dalí on this site.
- **Research** other artists today and throughout history who have attempted to combine science and art. **Consider Renaissance artist Leonardo da Vinci** and Australian contemporary artists Stelarc and Patricia Piccinini.

Salvador DALÍ

Spanish 1904–89,
worked in United States 1940–48
Untitled. Swallow's tail and cellos
1983
from the *Catastrophes* series
oil on canvas
73.2 x 92.2 cm
Fundació Gala-Salvador Dalí,
Figueres (0317)
© Salvador Dalí, Fundació Gala-
Salvador Dalí, VISCOPY, 2009

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The
 disquieting
 wasteland of
 Dalí's earlier
 work is
 shattered by
 the atomic
 bomb

Dalí and Science

Dalí under the microscope



A question of interpretation

It is sometimes interesting to **discover how members of the public with no art history training might respond to or interpret works of art**. The following responses to *The disintegration of The persistence of memory* were written by young people under the age of thirty years. Before you compare their spontaneous impressions, first **read the description below** of the work written by a curator at the Salvador Dalí Museum, St Petersburg, USA (Peter Tush, Curator of Education at the Salvador Dalí Museum, St Petersburg, in *Salvador Dalí: Liquid Desire*, National Gallery of Victoria, 2009, p. 261).

'In *The disintegration of The persistence of memory*, Dalí presents an apocalyptic reinterpretation of his most famous painting, *The persistence of memory*, 1931 (Museum of Modern Art, New York). By showing the disintegration of the familiar composition, Dalí indicates how he has changed, and indeed how the world has changed, over the two decades between 1931 and 1952. Where once the mysteries of the universe were explained through psychoanalysis, now they are explained through quantum mechanics.

First displayed in 1954 at the Carstairs Gallery in New York, this painting originally had the longer and more inclusive title, *The chromosome of a highly coloured fish's eye starting the harmonious disintegration of the persistence of memory*. The longer title indicates one of the new elements added to the composition – a fish – which bears witness to and possibly initiates the end of the world'. The disquieting wasteland of Dalí's earlier work is shattered by the atomic bomb, 'with all of the objects breaking down and separating into elemental parts, a metaphor of the material world dissolving into its atomic structure.

Peeling back the skin of his earlier work, Dalí reveals a network of rectangular blocks in the foreground and bomb-like rhinoceros horns hurtling through space in the background. Yet the elements are not exploding into chaotic disarray, but rather are held in harmonious suspension, showing that even explosions have an underlying harmonious nature.

Salvador DALÍ

Spanish 1904–89, worked
 in United States 1940–48
*The disintegration of The persistence
 of memory* 1952–54
 oil on canvas
 25.4 x 33.0 cm
 The Salvador Dalí Museum,
 St Petersburg, Florida
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 VISCOPY, 2009. In the USA: ©
 Salvador Dalí Museum Inc., St
 Petersburg, FL, 2009

There is an
unsettling
ambiguity in
the work's
refusal to
provide
a distinct
perspective

Dalí under the microscope

One of the most striking features of the 1931 canvas was the head, a variation on Dalí's *Great masturbator* self-portrait, 1929, which resembled a foetus washed up on the beach, eyes closed as if dreaming or dead. Here the head appears to have dissolved into the merest layer of jellied skin on the verge of liquefying, with the colourful fish scales reflected on the head's surface.

The watches continue to melt in the disintegrating space, but they have become unanchored, drifting away from their former positions, and the soft watch in the dead olive tree now breaks apart. The hard watch from the 1931 version, a solid gold timepiece swarming with ants, has been replaced by a fourth melting watch that drifts underneath the grid-like ground, pieces of colour breaking off, while a small pearl-like stone balances over it on the nearest block, like a place marker. Despite the changes in composition and focus, the soft watches still conjure up familiar associations, from the disturbing *memento mori* reminder of mortality, to the fluid meaninglessness of time in the dream state, to a visual shorthand for the relativity of Einsteinian space time.

In addition to the fish, a second new element appears in the painting – the bomb-like rhino horns. Like a nautilus shell, a rhino horn is a natural form that develops along a perfect logarithmic spiral, a Dalinian symbol for the underlying spiritual order in the universe. Yet here this symbol of divinity has become an atomic bomb, harbinger of the world's destruction, suggesting that man is still capable of his own destruction regardless of the cosmic order. By locating this work in his beloved but isolated region of the Bay of Cullero, Dalí indicates that there is no area left unaffected by the revelation of atomic power.'

Undergraduate student of philosophy

Dalí presents us with a serious challenge to our conceptual framework, but does so with a whimsical absurdity that prompts both profundity and frivolity. Dalí excels in the stark intersection of bizarre imagery and a methodological crafting of warped perspectives.

It is not the metaphorical melted clock, but the continual augmentation of form, of our entire perceptual scheme, that drives a relentless undercutting of meaning. The curved horizons, intersecting themes and continual disintegration of pattern force me to reassess my basic assumptions when viewing art. I cannot gain a clear ground from which to interpret this work – every attempt to continue the pattern or to build an image falls into obscurity and ambiguity. The colour scheme is striking in its refusal to adhere to distinct contrasts. A very mottled, indistinct pallet of blues and greys seems to bleed between images. There is an unsettling ambiguity in the work's refusal to provide a distinct perspective. We are challenged over and over, particularly in the mirror curving away, to adjust to the painting's meanings, not our own.

In a distinct way, the disintegration of memory, of our own mental concepts, highlights the absurdity of the human mind. There is something quite whimsical and coy in the fish and the clock, in the obscurity and randomness of the objects that have forced such a shift in my understanding of constructed realities. Restricted perspective is laughed at – shown for all its ridiculous results. And yet like these objects, our own states of consciousness are in a sense bizarre, incomplete and vague.

For me this image is challenging. At first I was certainly uncomfortable, as I was forced to alter my 'understanding' of the work time and again. There is, however, a frivolity and absurdity that hides at the edges of the work – a vehicle that enhances, not reduces, its epistemological import.

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Dalí places the action on a rigid and rocky landscape that reminds me of the coast of his native Catalonia, where I also come from.

About how you lose memory as you get older, even though you try and hold on to it.

Dalí and Science

Dalí under the microscope

Journalist

Disintegration means, in a way, deconstruction; that's what it seems to me Dalí is doing here: breaking and deconstructing into small pieces a painting with some of his famous Surrealist symbols, like the melting clocks. The artist reflects this disintegration with futurist shapes (squares and pointed cylinders) that are placed in a symmetrical way and painted with faded colours.

All together it gives the impression of being in a dream and even of having a hallucination or a nightmare that could pessimistically symbolise the decay of the war and the society of the future. We can't forget that it was painted in 1954, so this deconstruction could have been influenced by the Spanish Civil War and the Second World War, and represent the confusing destruction of these conflicts.

At the same time, Dalí places the action on a rigid and rocky landscape that reminds me of the coast of his native Catalonia, where I also come from. The good things about Dalí and Surrealism are the multiple interpretations within one single painting. So with my Catalan background I could interpret this disintegration as the destruction caused by the Spanish Civil War. I would then add that in this painting Dalí reflects on how volatile a human being's life is.

Physiologist

The title is very interesting. I feel more inclined to guess the message from the title. I am not sure what the persistence of memory is, but I like to think it is about the disintegration of memory. About how you lose memory as you get older, even though you try and hold on to it. How bits of memory are compartmentalised into the individual blocks (individual neurons if you will), and how additional memory is added by associating with old bits of memory that you already have. The artist has the individual blocks; the tree is sectioned to signify this. The real 'whole world' is on top; as you move lower it is divided into individual blocks. These morph over time, so you have melting clocks, although they remain whole. Over time they disintegrate and you end up with floating pieces of memory – the red dress you wore, the man at the intersection, the falling leaves, etc. The real world on top is just composed of single cells holding the individual pieces. So in the end you only remember very definite pieces of the whole picture. Others just disintegrate and are maybe replaced by other pieces of the whole.

I like the melting clocks too. It is a hard thing for an abstract image to strike a chord with a lot of people and I wonder if many have imagined melting clocks before in their head. Like on a hot day when things seem hazy, it is not hard to imagine clocks melting, and hence it is very appealing. I wonder if much of the appeal with Dalí's melting clocks may be because of his ability to paint images that have already been formed before in people's heads.

IT consultant

My first reaction was to the title of the piece, and the reaction was 'What does THAT mean!?' And then a few seconds later just as I was starting to digest the meaning of the title, the image loaded up on the page and my reaction was once again 'What the?!'.

As I looked at the painting I kept thinking of the title. I think the title grabbed me more than the image itself. The thoughts knocking about in my head were about how memory is such an

It's like waking up after a weird dream and thinking that it makes no sense at all, while just a few seconds ago in dreamland it made perfect sense.

Dalí under the microscope

odd thing. You think you remember something; there's no telling how clearly you remember it and when you try to describe a memory it's never quite the same. And yet the memory, as clear or muddy as it is, is still persistently in your mind. The title combined with the visual image reminds me of trying to remember and re-tell a dream. It's like waking up after a weird dream and thinking that it makes no sense at all, while just a few seconds ago in dreamland it made perfect sense. And in order to recapture the feeling of it all making sense you have to let go of your reality and go back into a dream-state.

What was Dalí trying to convey? I have no idea whatsoever, but the first thought in my head was: maybe he was having a bit of fun by throwing things together to see how people react.

As with a lot of Dalí's other work, I like it. It's not a pretty picture and I can't really admire the beauty of his work, but it makes me think. The title, the images, everything about it makes me think. The water and cliffs remind me of a beautiful beach at sunset, but then there's something that resembles a dead fish on the shore which takes the romance out of it. I've seen the melting clock before and it always makes me think of how time is just melting away before I have time to get a grasp on it. But in this particular image the clock combined with the bricks make me think of *The Wizard of Oz* – the yellow brick road and how the Wicked Witch melted. I wonder if she wore a watch?

- **In what ways do the spontaneous impressions differ from the expert's writing?**
- Do the responses by amateurs **add to your understanding** and/or enjoyment of the painting? If so, explain how.
- With reference to the individual responses, **explain how the interest/career of a viewer may affect the way they interpret/enjoy a painting.**