

# **Visualizing the Fourth Dimension: As Seen Through the Eyes of Artists**

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Throughout our lives we are taught to look at objects and even situations from various angles and consider other points of view. Nonetheless, people respond with confusion and dismay when asked to visualize the world with the possible addition of a fourth dimension. This seems to challenge what we have spent our whole lives defining as a reality – that there are three solid dimensions, sometimes less, but never more. Although it is true that we can only see, touch and fully understand life in a three-dimensional world, we cannot simply dismiss the possibility of a fourth dimension. Keeping our minds open to this may seem difficult, but through various explanations and attempts at hands-on applications, one can gain a greater understanding. This concept may fall into place and become more realistic as people continue to explore its possibilities and think critically about the fourth dimension.

One way to contemplate the fourth dimension is to study the works of various abstract artists, particularly cubists. Considered by many to be one of the greatest artists of all time, Pablo Picasso is a prime example. He took everyday objects and scenes, such as a clarinet player or even a fruit dish, and distorted them in ways that make the objects unrecognizable to most. Nonetheless, his pictures represent solid everyday objects; they are not mere figments of his imagination. If one contemplates Picasso's works and considers that he may have been working from the viewpoint that three dimensions do not limit us, his paintings may begin to make more sense. Another cubist who quite possibly worked from the angle that we can have a four-dimensional reality was Georges Braque. Many of his works were very similar to Picasso in the sense that they both distorted objects and portrayed them in unseen (and likely unimagined) ways.

There are so many angles to work from when trying to grasp the fourth dimension, and abstract art is just one. When one begins to realize that we do not need to be limited (at least mentally) to a three-dimensional world, numerous doors are opened and a myriad of possibilities begins to unfold. I chose to consider the fourth dimension from the view of cubists, but I am aware that there are so many more possibilities. Looking from various angles can open our eyes and allow us to apply math thinking to life in the real world.