

# Migraine aura as artistic inspiration

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Giorgio de Chirico was a central figure in twentieth century art. In Paris before the first world war he knew Picasso and the cubists and was a friend of their main advocate Guillaume Apollinaire, who dubbed de Chirico's independent style "metaphysical art." During and after the war the work of the "Metafisica" group gathered around him was important to painting not only in Italy but also in Germany and France. De Chirico's early works were especially influential on the surrealists in Paris after the war. In de Chirico's paintings and drawings there are several unusual and recurrent features that have not previously been explained. This paper postulates an illness as a basis for these details.

## Motion sickness and headaches

De Chirico suffered from several complaints, which he recorded in his memoirs.<sup>1</sup> As a young man his journey from Greece to Italy had to be broken because of severe motion sickness. He described several attacks of abdominal pain associated with anorexia. These episodes, described in some detail in his memoirs, led him to seek medical help several times; no diagnosis, however, was recorded. The pains seemed to last quite a short time, between 12 hours and three days, and were reported to be relieved by sleep and followed by full recovery. He is also reported to have suffered from attacks of vomiting, on one occasion before the opening of an exhibition. In his memoirs he recalled two episodes of headache as a young man. These were described as "terrible" and "extremely painful."

The triad of motion sickness, abdominal pain, and vomiting suggest the "periodic" syndrome. This is also known as abdominal migraine and is often found in migraineurs. Lanzi found that between 30% and 40% of 16-18 year old patients who had migraine had cyclical abdominal pain and recurrent vomiting.<sup>2</sup> De



FIG 1—Giorgio de Chirico, lithograph from "Mythologie," 1933

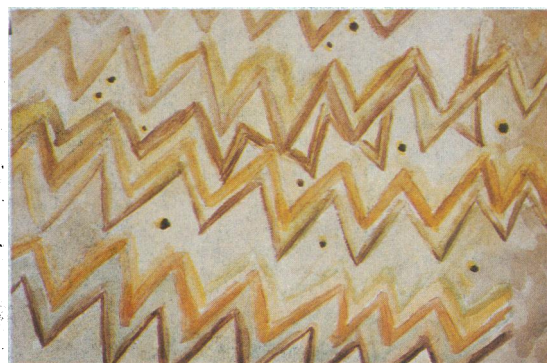


FIG 2—An entry in the national migraine art competition



FIG 3—Giorgio de Chirico, "The Return to the Castle," 1969, oil on canvas

Chirico's abdominal pains occurred several times, and, though severe, they were successfully treated with sedatives alone. There is nothing to suggest a sinister cause for them. De Chirico lived to the age of 90. The headaches might have been migrainous, but no clear description is provided, and no mention is made of associated features. That the headaches of his youth were recorded in his autobiography written 30 years later, however, suggests that they were probably very severe.

## Flashes and shadows

The feature that is of most interest in relation to his art and in confirming the diagnosis of migraine is his descriptions of what may be identified as scotomata. The first example comes from his memoirs. It occurred on the day of his father's death and is reported as if it were a portent:

All at once, on my right, on the other side of the street, I saw on the first floor balcony of a house a great black pall flying in the wind. It was like a flash of darkness in the

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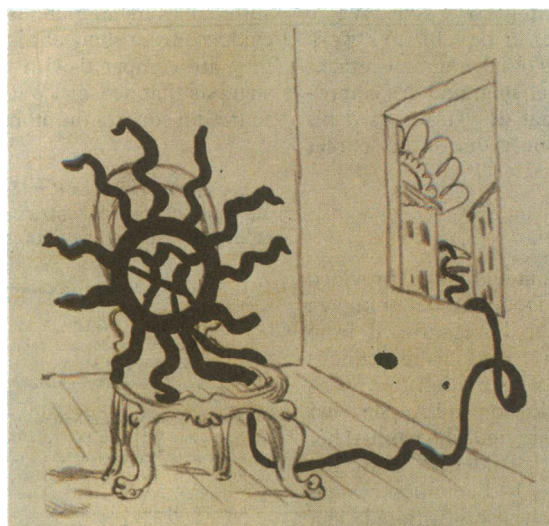


FIG 4—Giorgio de Chirico, lithograph from "Calligrammes," 1930

bright light that flooded everything. I felt a sudden anguish and terrible presentiment.

In his semiautobiographical novel *Hebdomeros* another vision is described:

He sensed also that he was going to witness inexplicable phenomena. . . . Until then everything had gone well, but now the cock, or rather this silhouette, this shadow of a cock was becoming gradually obsessive and began to occupy a preponderant place in the countryside and to play a part in the life of this modest and tranquil spot. Now the silhouette moved downwards; at the same time it moved upwards; acting as a corrosive, it consumed the steeple on one side while on the other it broke into the sky by standing out against it and unfolding there with a slow and inexplicable regularity.<sup>3</sup>

These two passages describe negative scotomata. The second example clearly documents the appearance of a defect in the centre of the visual field and its gradual spread towards the periphery, a characteristic description of a negative scotoma.<sup>4</sup> The gradual "build up" as described here distinguishes it from other causes such as transient ischaemic attacks.<sup>5</sup> Central scotoma enlarging over 20-30 minutes and then disappearing is probably the only pathognomonic feature of migraine.<sup>6</sup> The premonition that began the attack is commonly found in migraine.<sup>7</sup>

## Rings, stars, and dancing lines

Though migraineurs may not be aware of negative scotomata, they cannot fail to notice the vivid scintillating scotomata. In 100 cases of migrainous visual phenomena analysed by Fisher scintillating zigzags were the most common pattern described (30 cases).<sup>8</sup> Other descriptions included sparkling, dazzling, dancing, or flickering lights, fire rings, stars, and dancing lines. He also found that a whole range could be described by a single patient. In another passage in *Hebdomeros* de Chirico writes:

But how confused it all was, good heavens! Delightful ribbons, flames without warmth, thrust forward like thirsty tongues, disturbing bubbles, lines drawn with 'maestria' which he thought had long been forgotten, delicate waves, obstinate and isochronous, moved continuously up and up towards his bedroom ceiling. It all went away in a corkscrew formation, or else in regular zigzags, or else in strictly perpendicular fashion resembling pikes carried by a disciplined troop. . . .<sup>9</sup>

De Chirico continues directly from this passage:

Hebdomeros, fortified by many experiences, imagined that the spiritual fever which had laid him low at this moment would last no longer than any of the preceding ones. Since he supposed all this would happen to him again, he lingered late that evening and his thought went beyond the permitted limits.

Attacks similar to this one had evidently occurred before. De Chirico referred to this episode as a "spiritual fever," suggesting not only his view as to its cause but also that it was an illness that "laid him low."

De Chirico reported severe headaches and clearly described episodes of negative scotomata and scintillating scotomata, the last occurring repeatedly and for a similar duration on each occasion. In addition, he suffered from motion sickness, unexplained abdominal pain, and vomiting, which could all represent symptoms of migraine. All these features lead to the diagnosis of classic migraine.

There is one contemporary reference to this diagnosis. André Breton, the leader of the surrealists, recalled how the poet Apollinaire had said that "at that time he was painting these pictures [1914-5] Chirico was suffering from certain abdominal pains and migraines."<sup>10</sup> It is not clear whether de Chirico knew them to be migraine attacks or whether the diagnosis has been later added by Breton, who had a medical training. Apollinaire's recollection suggests that de Chirico may have painted under the influence of migraine.

## Illustrated migraine attacks

There are three sets of de Chirico's pictures that closely resemble patients' illustrations of classical migraine attacks. In a set of prints illustrating Cocteau's *Mythologie* the jagged effect of the water is very similar to the advancing edge of a scotoma (fig 1) and may be compared to a painting from the national migraine art competition (fig 2). The second example (fig 3), a painting from the 1960s, has as its central feature the silhouette of a man with a spiky edge, while figure 4, a lithograph from 1929, shows a black sun motif intruding into an interior scene. Both of these are reminiscent of drawings of negative scotomata by patients suffering from migraine (fig 5). Other migrainous phenomena, such as the distortion of space, may be discernible in a series of paintings known as "Metaphysical interiors." This association, however, is more tenuous.

In a series of 207 paintings by migraine sufferers, 145 (70%) showed stars or flashes of light, 99 (48%) showed fortification spectra, and 33 (16%) showed visual loss.<sup>9</sup> Each painter, however, necessarily illus-

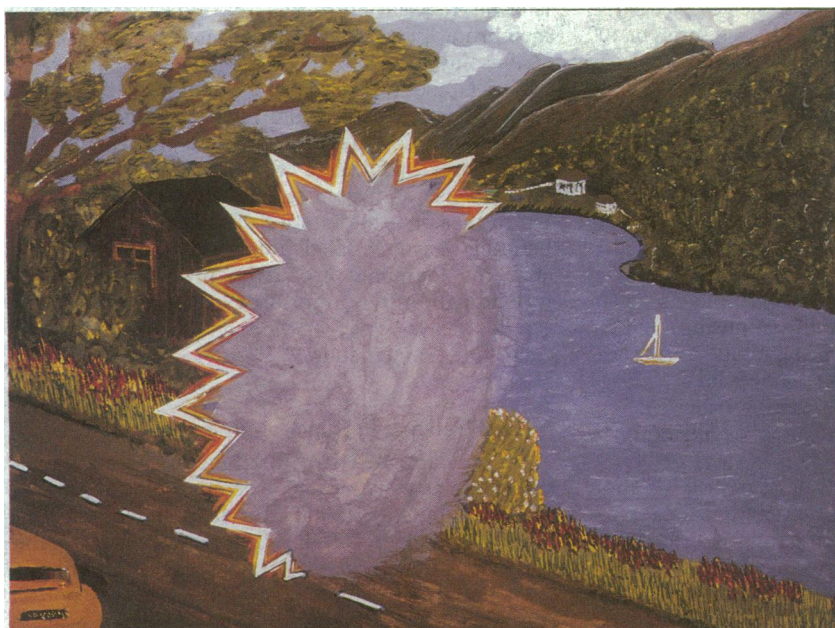


FIG 5—An entry in the national migraine art competition

trated these common features in his own style. We do not suggest that the examples of de Chirico's work discussed here are illustrations of his migraine attacks as are those from the national migraine art competition. Rather, we propose that de Chirico used his experiences of classical migraine as one of the sources of inspiration for his paintings.

### Hallucinatory inspiration

Visual migrainous hallucinations have provided inspiration for others. Charles Dodgson, better known as Lewis Carroll, is known to have suffered from migraine and is thought to have used his migrainous disturbances of body image as inspiration for *Alice's Adventures in Wonderland*.<sup>10</sup> Atkinson and Appenzeller described a patient who had migraine who painted her complex visual hallucinations.<sup>11</sup> Hildegard of Bingen (1098-1180), a nun and mystic, had countless visions that she not only described but also illustrated. Her migraine "visions" have been reviewed by Singer<sup>12</sup> and Sacks.<sup>7</sup> It is of interest in our context that she thought that the visions were of divine origin, as de Chirico too seemed to interpret his as privileged revelations of another reality.

The symptoms acknowledged by de Chirico, taken with the evidence from his writings and confirmed by independent contemporary comments, suggest that he

suffered from migrainous visual hallucinations. The evidence from some of his prints and paintings, when they are compared with those of other migraineurs, suggests that de Chirico used these hallucinations as a source for some of the more striking details of his work.

We thank Mr Derek Robinson of Boehringer Ingelheim for allowing us to see entries to the national migraine art competition and to use figures 2 and 5.

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## The exhumation of Mattia Preti, painter

Victor G Griffiths

The Conventual Church of St John in Valetta, Malta, is widely regarded as one of the most precious examples of baroque art in southern Europe. It embodies the monastic element in the triple constitution of the Military and Hospitalier Order of St John of Jerusalem, the other elements of which are represented by the massive fortifications of Valetta itself and by the remains of the renowned Holy Infirmary standing at the tip of the peninsula overlooking the entrance to the Grand Harbour.

Of the artistic treasures in St John's church, the two that immediately attract the eye are the magnificent series of fresco paintings covering the colossal barrel vault of the church and the multicoloured series of 400 richly inlaid marble tombstones that cover the entire floor of the nave. The paintings are the work of Mattia Preti, and one of the tombstones covers his remains.

Mattia Preti was not the first nor the greatest Italian painter to adorn St John's. The superior genius of Caravaggio in the turbulent last years of his brief life had in 1608 left there two of his greatest masterpieces, the "Beheading of the Baptist" and a "St Jerome." After a period of relative obscurity Preti has risen in the estimation of art critics and art buyers to an exalted position as an exponent of seventeenth century baroque painting. In terms of magnitude and extent alone his singular embellishment of St John's, coupled with scores of other great paintings in various Maltese churches, renders him unrivalled as a contributor to the island's artistic heritage.

Born in 1613 to a noble family of Taverna in Calabria (hence his widely used appellation of "Il Calabrese"), Mattia Preti served his artistic apprenticeship in Naples and Rome, where Caravaggio's example and influence could inspire him. Among his mentors and exemplars are counted Guercino, Guido Reni, and Domenichino, and his travels to Florence, Venice,

Paris, and The Netherlands enabled him to study some of the best works of Luca Giordano, the Caracci, Veronese, Titian, Tintoretto, and Rubens. Many critics judge Preti to be almost worthy of being mentioned in the same breath as these great masters.

In 1659 Preti's noble origins enabled his acceptance into the Order of St John of Jerusalem as a Knight of Grace in the Langue of Italy and thus to offer his artistic services to the Order. Here is an interesting parallel and yet a contrast with Caravaggio, whom the Order rewarded with a Knighthood of Obedience for his great works for St John's, and mere months later imprisoned, unfrocked, and expelled "tamquam membrum putridum et foetidum" because of his serious misdemeanours.

The Grand Council of the Order in Malta under Grand Master Lascaris and his successors De Redin and Raphael Cottoner gratefully accepted Preti's offer to decorate the church of St John without charge at his own expense, and he started his work in October 1661. Up to that time the interior of the great church, the building of which dated from 1573, just seven years after the founding of Valetta, must have been as forbiddingly austere as its fortress like exterior. Preti's genius was to cover it with an exuberant riot of colourful ornamentation.

### Mattia Preti and St John's church

He first designed structural alterations by adding and enlarging windows and widening arches and aisles, and contributed elaborate carvings and sculptures. Then from 1662 to 1666 he was totally occupied by the marvellous transformation of the barrel vault with his fresco paintings, although this medium was not as congenial to him as oils on canvas. He is said to have ingeniously used the porous character of Maltese