Francisco José de Goya y Lucientes (Fig. 1) was a painter endowed with a great expressive capacity. His work, which was carried out between the end of the Seventeenth and the beginning of the Eighteenth Century, covered a period of more than 60 years, with a massive production, a wide range of subjects and numerous techniques, clearly eclectic. Oil paintings, etchings, drawings, lithographs were produced with such intensity which would appear not to have ever completely satisfied the artist’s ambitions. Goya’s works would appear to have been produced in two periods: the first, in which the artist was proving his value, a period which included the tapestries and portraits; the second, that devoted to expressive liberty, which is characterised by a varied production of Works of Art ranging from Caprichos to the Majas, the Disasters of War, Black paintings to the Bull fights. This second period – according to the opinion of the critics – shows the signs of his severe illness, perhaps syphilis with which he had been affected in his youth and which had led to complete deafness, after an acute onset which began when he was 46 years old.

Goya’s art ranges from Baroque to the Romantic movement, of which Goya can be considered the first of the Great Masters; others were inspired by Goya, amongst whom, Manet and Picasso. A pioneer in new artistic tendencies and new expressive forms, he can be considered the father of modern art.

Goya was born in Fuendetodos, in the Province of Saragossa, 30th March, 1746, in a modest family; he moved later to Saragossa where his father was a gilder; he studied at a school “Escuelas Pías de San Anton” which took in gifted children from poor families. When he was 13 years old, he became apprentice to a painter in Saragossa. Later, thanks to his friendship with a painter, Francisco Bayeu, who had become one of the Court artists, he moved to Madrid. In 1770, he travelled to Italy. He went to Naples, to Rome where he met Giovan Battista Piranesi, and particularly to Milan. He is reported to have led a disorderly life, not only with women, but also in taverns. When the Academy of Parma announced a competition, Goya took part, submitting a painting Hannibal in the Alps, and came second, following Paolo Borroni, awarded first place.

The following year, upon his return to Saragossa, he accepted the first assignments to decorate the Cathedral. Two years later, he married Josefa Bayeu, the sister of his painter friend, and worked upon the frescoes for the Monastery of Aula Dei. In 1774, he moved to Madrid, where the Painter Anton Mengs, who was very powerful at Court level, gave him the opportunity to receive assignments to paint cartoons for the Royal Tapestry Hall. The tapestries were to be hung at San Lorenzo del Escorial and at Prado, two palaces outside the city where the Court stayed during the autumn and winter. Over the next 17 years, he produced 62 sketches with popular and country scenes. The Princes: the future King Charles IV and his wife Mary Luise, liked his work. He therefore met with the approval of the Nobility and painted their portraits. In 1780, he was unanimously elected Member of the Royal Academy of
Art in Madrid. Three years later, he was a guest, for a month, of don Luis, younger brother of King Charles III, and painted *The Family of Luis de Borbon*; at the same time, he painted *The Count of Floridablanca* (Fig. 2) and *The Duke and Duchess of Osuna*. Goya, who became very popular, with numerous requests for portraits, was nominated *Pintor del Rey* (1786).

In 1788, Charles III died and was succeeded by his son, who became Charles IV. In 1789, Goya became *Pintor de Cámara*, namely, Court Artist. Belonging to this period was the oil painting on canvas *San Isidro Prairie* which was never transformed into a tapestry probably because it would have been very difficult to weave the many small details comprised therein. The painting focused on the Feast of the Patron Saint of Madrid, on May 15th, during which the pilgrims are eating, dancing and playing, in a happy atmosphere, full of light.

The French Revolution broke out, throwing the European aristocracy into a state of terror. In 1792, France declared that it had become a Republic. The following year, Louis XVI and Marie Antoinette were beheaded. France declared war against Spain. In Madrid, Manuel Godoy, the Queen’s lover became Prime Minister. In 1801, Goya painted a portrait of this man – the most influential man and the most hated, at that time, in Spain.

Coming back to 1792, Goya became seriously ill; the disorder, the first signs of which had become evident already in 1777, at the age of 31, bringing him to death’s door. He stayed for a long time in Cadiz, a guest of his friend Sebastián Martínez, then returned to Madrid where he began working again.

In 1795, he was nominated Director of the Royal Academy. He painted the *Portrait of the Countess of Alba* and the *Duke of Alba*. Godoy signed an unfavourable peace agreement for Spain and, in the meantime, Napoleon Bonaparte became Commander of the French army. In 1796, Goya began work on *Los Caprichos*, a series of 80 illustrations published three years later. The series commenced with a self-portrait in which Goya, with a top hat, appears very sure of himself; in actual fact, it should have begun with a famous illustration called *El sueño de la razon produce monstruos* (Fig. 3), a phrase that was pronounced by Don Quixote of Cervantes. There is a person fast asleep in the picture (the artist dreaming?) surrounded by horrendous
animals: bats, owls, a lynx and a black cat. The Caprichos were prepared with the intention of making a satire on errors, man’s bad habits, eccentricities and madness, and also to criticize the power of the monks, the clergy and the Inquisition. In 1799, Goya became Primer Pintor de Cámara.

In France, Napoleon came to power. After several preparatory studies, Goya painted, upon request, the portrait The Family of Charles IV (1801). From 1797 to 1800, Goya painted, at the request of Godoy, the Maja desnuda and, from 1800 to 1805, the Maja vestida. The nude was prohibited by the Church and punished by the Inquisition, but the Commissioner was so powerful that he could afford not to obey the law. Unlike those nudes that smile delightfully, painted by other artists in Europe, Goya’s Maja, like many other women whose portraits he had painted, does not smile; Goya’s Maja is realistic, as are also The Old Women, painted with make-up on their faces and a witch-like expression.

In 1807, with the excuse of invading Portugal, the French army occupied Spain. Godoy was overthrown and Charles IV abdicated. His successor Ferdinand VII was forced into exile. On May 2nd, 1808, the revolution broke out in Madrid. A people’s rebellion which was suppressed in a sea of blood, offered Goya the opportunity to realize two paintings 2nd of May, 1808, and the most famous, Shooting of May 3rd, 1808 (Fig. 4) which he was to paint, however, in 1814. The Spanish war of independence lasted five years.

In 1810, Goya began to prepare a series of engravings entitled The Disasters of War, but, in that same period, also painted a portrait of Joseph Bonaparte, Napoleon’s brother, who had come to the throne of Spain. In the Disasters of War, Goya described the massacre which took place between the French and Spanish, the violence and the atrocities of the war. In 1814, after having lost the war and the abdication of Napoleon, Ferdinand VII returned to Spain and commenced a process of severe repression towards the liberals. Goya, to gain the King’s appreciation, painted pictures related to the rebellion of May 2nd, 1808.

In 1816, he published another series of famous works including 33 dedicated to the The Bull Fight. Goya had a passion for bulls, bull-fighters and bull-fights; perhaps in his youth, he too had taken part in bull-fights. The pictures are impregnated with deadly violence.

In 1819, Goya bought a villa close to Madrid, called La Quinta del sordo, but he became seriously ill again. He was cared for by Dr. Arrieta to whom Goya dedicated a picture (1820). Goya was portrayed as a patient, in the arms of his doctor who was giving him some medicine (Fig. 5). Between 1820 and 1823, he decorated the walls of two of the rooms in the new house with a series of 14 paintings, defined, on account of their content and appearance, Black Pictures. Included in this series, but which were later removed and copied on canvas, in Prado, were the horrendous Saturn devouring his sons (Fig. 6) and The Pilgrimage to San Isidro. And this was the final vision of Goya’s world. Dominating were wide-open mouths and the whites of eye-sockets; the figures, monstrous and tragic, expressing all the desperation of the author.

Goya, who was afraid of repressive reactions, asked the
Francisco Goya and his illness

King, and obtained permission, to go to France to the Baths of Plombières. He went first to Paris, then to Bordeaux, where many of his liberal friends lived, amongst whom the painter Delacroix. He went back to Spain twice more, once to ask the King to accept his resignation as Court Painter (1826). His resignation was accepted and the King assigned him a generous pension. Whilst in exile in France, in the city of Bordeaux, he painted his last pictures, the lithographs Bulls of Bordeaux and the very beautiful picture The milkmaid of Bordeaux (Fig. 7), a forerunner of the Romantic Movement. Goya died in Bordeaux, on April 16th, 1828, after an attack of cerebral thrombosis which had occurred 14 days earlier.

Goya’s art and his ill health

Goya painted society as it was in his time; his subjects range from the sweetness of children to the sensuality of the Majas, from the horror of the monsters triggered by fantasy, no longer controlled by reasoning, to the pathetic severity of his ladies who never smile, from the atrocities of battle scenes, to the violence of the bull-fights. He was one of the greatest portrait painters. Goya had to please his buyers, and his customers conditioned some of his work, but also when portraying his subjects, he always tended to emphasize their character, their vices hidden by the luxury of their clothes, and to propose the miseries of a society going to ruin. When he became independent, his artistic work was free from restrictions and that was when monsters, witches, scenes of violence, as well as fantasy began to appear, all of which related to the anxiety, worry, and nightmares which were now part of his personality. In some of his pictures, this climate of madness was depicted to perfection.

Biographers have divided the painting course of Goya into two periods, before and after his illness. The first characterized by joy and light, the second by horror and ghosts. In actual fact, also in the early period, already some of those figures were beginning to appear and were later found to take the form of his nightmares. The dividing line between these two periods was probably related to his illness. In November 1792, Goya became seriously ill in Seville; he began to suffer from headaches, dizziness, tinnitus, hearing loss, as well as problems with his sight, paresis in the right arm. This was followed by a state of depression together with hallucinations, delirium and gradual loss of weight. He wrote to his friend Martín Zapatero, on 17th January, 1793, informing him about his disorders. His friend replied...
mentioning his poca cabezón, hinting the possibility of a venereal infection resulting from his disordered life. In March 1793, Sebastián Martínez wrote to Zapatero telling him that Goya was a little better, but that the improvement was very slow: Tengo confianza en la estación y que lo baños de Trillo, que tomará a su tiempo la restablezcan. El ruido y la sordera en nada han cedido, pero está mucho mejor de la vista y no tiene la turbación que tenía, que le hacía perder el equilibrio. In April 1793, he returned to Madrid, he was extremely deaf and this state of health was to remain for the rest of his life.

The causes of this severe illness have been repeatedly discussed: syphilitic or mercurial encephalopathy, due to anti-syphilitic treatment, the lead contained in the colours that Goya used, or vascular? Unfortunately, references to this situation are limited to the mention made in the correspondence with Zapatero who wrote only: The nature of this illness is of the very worst kind and I become quite sad when I think of Francisco’s recovery. We will look, in detail, into the possible causes of the disorders from which he suffered. Three years later, Goya became very ill again, but little else is known. Certainly, he was now completely and permanently deaf.

Goya gradually presented with psychological disorders, such as depression and hypochondria, and, like all deaf people, became difftent. Belonging to this period are some pictures including Inquisition Court and The funeral of the little seamstress expressing situations of mental derangement. The influence that this illness had upon Goya’s artistic work has been repeatedly focused upon. Dividing into two separate periods, before and after, is possibly fictitious because, as already pointed out, tragic elements are found also in the works produced in the early period, certainly, however, in the second period, horror appears more and more often and lead to the production, from Caprices to Black paintings. Furthermore, clearly in coincidence with further outbreak of the disease (in the years 1796, 1819, 1825), the production slows down, to recommence again with greater enthusiasm following the improvement in his health. It is interesting to observe how the deafness influences the humour of the artist and, therefore, becomes a factor conditioning his works.

Certainly after the year 1793, a change can be seen in Goya’s way of painting, the subjects go beyond reality with a tonality that is increasingly fantastic and dramatic. One significant example of the developing process that Goya was facing, during his lifetime emerges from a comparison between two pictures in which Goya depicts the same place. We refer to Pratería di San Isidro, produced in 1788, and San Isidro Pilgrimage, in 1820-23. The first is festive, full of the joy of life, the second, produced more than thirty years later, is horrendous: the crowd, which is in procession, is made up of men and women singing salms with their mouths wide open, their eyes looking upwards, their faces that look like masks.

Morbid causes

Those Authors who have studied Goya’s health conditions have, obviously, been able to offer only hypothetical diagnostic conclusions: all are in agreement in recognizing the presence of central and peripheral neurological lesions, but have offered interpretations which are considerably different concerning the causes of these pathological conditions. Some have hypothesized a syphilitic origin, others arteriosclerotic, and yet others blame chronic intoxication from lead or mercury. In our opinion, the three aetiological causes do not exclude one from the other, indeed they probably share the responsibility for the origin and progression of the pathological condition.

Syphilis in the 18th Century was very widespread and there can be no doubt that the type of life that the artist led would have easily exposed him to venereal infection, on the other hand, the fact that his wife had as many as 20 pregnancies, of which only 5 reached term and only one son survived after the death of his parents, would, indeed, add to this suspicion. But even if infected with syphilis, this alone would offer an explanation only for some of the morbid manifestations from which the artist suffered during part of his life. The neurological disorders may have become more severe due to the iatrogenic effects of the mercurial treatment. At that time, in fact, treatment of syphilis, comprised not only infusions of guaiac and of salsaparilla, but a mercurial ointment was still used which led to effective remission of the disease, but also, with prolonged use, to lesions involving the central nervous system (mercurial tremour, depression), as well as the peripheral areas (optic neuritis, dizzy syndromes), as well as stomatitis, enterocolitis and renal disorders.

Mercurial ointment was introduced for treatment, in the 16th Century, by Berengario da Carpi and by Giovanni da Vigo and, on account of its positive anti-syphilitic action, became used worldwide for approximately three centuries, despite the fact that it had long since been known that prolonged used of the so-called “Neapolitan ointment” could lead to iatrogenic lesions in some subjects.

Authors, of ancient times, from Fernelius 6 to Frambesarius 4, from Ettmüller 7 to Ramazzini 4, had already attributed chronic onset of “tremorem manuum” and “gravem vertiginem terebricosam et continuam”, to mercurial intoxication while much more recent studies had reported the presence of optic neuritis and depression, all manifestations mentioned, at least occasionally, in Goya’s clinical history.

The above-mentioned symptoms were, however, fairly rare in subjects with syphilis and is found, primarily, in “iatroliptes”, i.e., in those who, on account of their profession, were used to performing unctions in patients, but, in the case of Goya, the painter may have come into greater contact with mercury for professional reasons, indeed the
repeated contact with cinaber, a mineral rich in this particular element, once used to obtain the colour red.

If, on the other hand, we take into consideration the hypothesis that the artist’s illness was, at least in part, caused by toxic factors related to his professional activity, it should not be forgotten that the pigments, of mineral origin, used to obtain colours were primarily those containing lead which were the most toxic. Constant absorption of this metal by the skin or respiratory tract could produce, over a long period of time, a slow intoxication, responsible, in some subjects, for neurological, intestinal and sensorial disorders.

The lead contained in the white lead as basic carbonate and in chrome yellow in a chromate form is extremely harmful if taken for several years and the toxicity of some colours has been well-known for a long time. Bernardino Ramazzini, who was the first to describe professional disorders dedicated an entire chapter (Chapter IX) of his work to the typical pathological conditions which affected painters (“De pictorum morbis”). He maintained that, in colours, the strongest toxicity was due to pigments of mineral, not vegetable, origin, and that, unfortunately, the former were used far more, as they lasted longer (“cum metallici colores vegetabilibus longe durabiliores sint”).

We now know that it is, indeed, lead which is the most important toxic component of these mineral colours and that this is absorbed primarily by the skin on the hands, but also by way of impregnated clothes and also the very bad habit of holding pens in the mouth. The metal gradually accumulates in the organism causing changes in the microcirculation and the enzymatic systems which then result in widespread angiosclerotic lesions and neuropsychopathological disorders. A typical example is lead encephalopathy with fainting fits, hallucinations, delirium and various psychopathological states ranging from simple instability to depression and dementia. Equally typical are retrocochlear deafness and the dizzy syndrome due to toxic labyrinthopathy or to central lesions, whilst saturnine paralysis of the radial nerve were fairly frequent.

A highly suggestive symptomatological pattern if compared with the clinical manifestations of Goya’s illness which include a severe progressive deafness, dizzy spells, psychological depression, hallucinations, an episode of palsy in the arm, manifestations which can be related to the chronic lead intoxication. Nonetheless, some doubts remain inasmuch as we have no information regarding the presence of lesions in the oral mucosa, of convulsive episodes or of the typical episodes of abdominal colic, which are always present in saturnism. It should also be emphasized that, even taking into consideration the large amounts of white lead used by Goya (confirmed by the bills related to the costs of the colours he used), saturnine intoxication is a fairly rare occurrence in painters, indeed this hypothetical diagnosis has been made only in the attempt to offer an explanation for the psychopathological conditions of Correggio and of Van Gogh. Other categories of workers, in whom contact with the toxic element is much greater or much more pronounced, run even greater risks.

The doubts therefore remain and tend to suggest that probably there were more causes, than just the one, responsible for the pathological events that affected this great Spanish artist during part of his life, but that these resulted from a multiple aetiology, from the association of two or more of the above-mentioned factors, since none of these, alone, would offer an unequivocal explanation for all of these symptoms. The most likely hypothesis would be that in addition to the predisposition to arteriosclerotic lesions other damage was caused by intoxication due to the heavy metals and, perhaps, syphilis infection. There appears to be no reason for the suggestion that Goya was affected by schizophrenia. This idea was proposed to explain the dissociation, in very different periods, observed in Goya’s work. In particular, it has been stressed that three attacks, or return of the disorder, were followed immediately by a period of apathy and, then, by a phase of frenetic activity.

This is not, however, feasible, as such a serious psychopathological condition would have severely affected the personality of the artist making him a slave of stereotype fixations and not allowing him the creative originality which was typical, above all of the second period of his artistic production. It was, indeed, in that phase that the creative and original personality of Francisco Goya emerged with great force, he finally felt that his own fantasy had been freed from the restrictions related to the commissioned works of art and to his position as Court Artist. Even if we cannot hypothesize a serious psychopathological condition, there can, however, be no doubt that Goya had suffered from a state of depression that the residual complications of his illness had, in particular, accentuated. Particularly the increasing severity of his deafness, as often occurs, would have played a not indifferent role in inducing the sense of melancholy, iso-
lation, seeking refuge in fantasy. With time, almost total deafness had set in, to the extent that Goya was forced to leave the Academy as he was unable to hear the students’ questions (“La sordera es tan profunda que absolutamente non oye nada” (numero di Valles Varela). In this regard, it should not be forgotten that one of the Maestro’s works produced in 1812, considered in the past an anatomical study of various positions of the hand, was reinterpreted by Ferrerons and Gascon 3, in 1998, as a study of signs of the alphabet, that is to say, an attempt made by Goya to devise a new means of communication (Fig. 8). Certainly this severe handicap must have had a marked effect upon the psychology of this great artist clearly contributing to his state of depression, much more so than the effects triggered by the tinnitus, headache, dizzy spells, delirium, since, with the progressive course, his relationships with other people became more and more difficult 9.

Conclusions
At this point, one obviously wonders what relationship exists between his poor health and his painting, and between genius and madness. There can be no doubt that the physical disorders, and, in particular, the psychological situation related either to that early period or secondary to the physical disorders, influenced the artist’s production. Infinite examples, both in literature and art, have been reported. As far as concerns the literature, how much of this was influenced by tuberculosis and how many important works of art were produced by great artists who were also somewhat mad. The fact is that genius and madness are intertwined functions of the brain. A work of art is the result of two mental processes and his illness: acquiring the visual impression and elaboration of the latter to transform it into a work of art. The genius sees and elaborates the image according to parameters that are different from those of a “normal” person; the genius needs to continuously experiment because he sees in front of himself, different and new routes and cannot use everyday approaches. It is not, therefore, surprising that geniuses are also a little mad. As for Goya, he was no exception, not only because, even before his illness, his painting shows tragic elements, but also because after his illness, his production becomes dark and gloomy displaying the above-mentioned characteristics. His genius remains great and impossible to imitate.

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