



Portrait of Hieronymus Bosch, 1570s. Cornelis Cort (1533–1578).
Found in the collection of The Netherlands Institute for Art History, The Hague. Photo credit:
HIP/Art Resource, NY.

Pieter Bruegel the Elder. Painter and Patron (with Bruegel's self portrait). Drawing. Pieter Bruegel the Elder (c. 1525–1569).
Graphische Sammlung Albertina, Vienna, Austria. Photo credit: Erich Lessing/Art
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Bosch and Bruegel

Disability in sixteenth-century art

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The Italian Renaissance reflected a best of all possible worlds, an Elysian existence peopled by gods, angels, and men and women only a step below the angels.¹ The Flemish school of art of the same period—ignored for centuries—depicted less pleasant realities. Its paintings were peopled by peasants and beggars. Originating in the Spanish Netherlands, it was a culture soon to be embroiled in a bloody religious war set in motion by the Reformation and Philip II of Spain. The war would result in the division of the region into Catholic and Protestant countries.¹ The school of the Northern Renaissance presented an earthier perspective of the human condition, bereft of angels or gods.

Sadly, the snobbery of the time elevated Italian Renaissance high art while belittling primitive Flemish peasant art, an enduring bias against the Flemish masters that resulted in the delay of the first international showing of their works until 1902 in Bruges.¹

Pieter Bruegel the Elder (1525–1569) is representative of the Flemish genre. Influenced by Hieronymus Bosch (1450–1516), Bruegel connected himself to Bosch by copying his predecessor's paintings.²

The Flemish painters did not go completely unappreciated. In 1574, after Bruegel's death, Abraham Ortelius, cartographer and the father of the modern atlas, "wrote that Pieter Bruegel was the most perfect painter of his century" with an "ability to

depict 'many things that cannot be depicted.'"^{3p6}

In 1958, French physician Tony-Michel Torrillhon based his doctoral thesis on the assertion that Bruegel's accuracy in painting eye disease indicated that he was a physician,⁴ an inference that has never been proven. Torrillhon's thesis showed extensive examples of Bruegel's uncanny anatomical fidelity. That expertise also appears in both Bruegel's and Bosch's depictions of other physical infirmities, illustrating the artists' sophisticated knowledge of anatomy.⁵ Further, their work shows us in their details and settings how their subjects were treated in the sixteenth century. Thus, the subjects of Bosch's and Bruegel's paintings—the poor, the infirm, and the sightless—warrant reflection from a medical-humanistic perspective.

Parable of the Blind Leading the Blind (1568)

In 1568, Bruegel painted the *Parable of the Blind Leading the Blind*. It is based on the Biblical narrative in the gospel of Matthew (Matthew 15:14): "and if the blind lead the blind, both shall fall in a ditch." Bosch had previously painted the parable, including only two subjects, but Bruegel chose to depict six blind men, with a sightless leader in the act of falling into a brook. In Bruegel's painting, the eyes of the first blind man cannot be seen, but those of his followers are visible in the painting. Some have suggested that the painting shows a verifiable cause for sightlessness for each man whose eye can be seen. Writers including Jean Martin Charcot, Paul Richer, and Torrillhon have posited the following potential diagnoses (counting from right to left):^{5pp58–59}



Parable of the Blind Leading the Blind. Pieter Bruegel the Elder (c. 1525–1569).

Museo Nazionale di Capodimonte, Naples, Italy. Photo credit: Scala/Ministerio per i beni e le Attività culturali/Art Resource, NY.





The Adoration of the Kings. 1564. Oil on oak, 111.1 x 83.2 cm. Bought with contributions from The Art Fund and Arthur Serena through The Art Fund, 1920 (NG3556). Pieter Bruegel the Elder (c. 1525–1569).

National Gallery, London, Great Britain. © National Gallery, London/Art Resource, NY.

- Blind man 2: Enucleation.
 - Blind man 3: Corneal leukoma.
 - Blind man 4: Atrophy of the globes.
 - Blind man 5: Total blindness with the visor misplaced as a result of photophobia with the visor askew to protect the eyes from light.
 - Blind man 6: Pemphigus.
- Ophthalmologist Zeynel Karcioglu, in his survey of the pathologies illustrated in the painting, asserts:

It seems that the second man's eyes have been surgically removed, but the cause of the removal is not known. I am not sure if we can say that he had a straightforward enucleation because the eyelids are missing on both sides as well as the globes. If the eyelids were removed, it was not really an enucleation but exenteration, which raises the question what could be the cause of bilateral exenteration that left the man blind but still alive? ^{5pp58-59}



Man Yawning (The Yawner). Pieter Bruegel the Elder (c. 1525–1569). From the collection of the Musées Royaux des Beaux-Arts de Belgique, Brussels, Belgium. Photo credit: HIP/Art Resource, NY.

Karcioglu is so confident of Bruegel's accuracy that he goes on,

A different possibility is the eyelids that were left behind sealed the anophthalmic sockets. If this were the case, I would have expected to see horizontal scars possibly with embedded eyelashes centrally; Bruegel wouldn't have overlooked such detail.^{5pp58–59}

Karcioglu also researched the history of enucleation, verifying that the procedure was performed during Bruegel's lifetime. It was initially performed in the 1500s by Batisch. He concludes that this man lost his vision to cauterization, possibly to relieve pain or to resolve a persistent infection.

The third man has large corneal opacities identified as corneal leukomas. Corneal opacities can be a consequence of many corneal pathologies. If the end stage of corneal disease,

as in this man, is a large, white, disfiguring scar, it is identified as a leukoma, as opposed to smaller lesions called either nebulas (ill-defined) or maculas (localized and smaller). A colleague of mine also felt that they could be cataracts.

The fourth man has a clinical combination of atrophic eyes, a large irregular scar on his right upper cheek, and a disfigured face. The diagnosis proposed is phthisis bulbi. His lower face lesions could be two vertical keloids, and he has lost his eyebrows and eyelashes. The combination of injuries may have been the result of a chemical or thermal burn leading to eye infections that resulted in blindness.

The next sightless man is thought to have lost his vision to pemphigus. Karcioglu writes that he has

thickened lower eyelids and conjunctival scarring with obliteration of the palpebral fissure medially and scarring of



Head of a Mercenary (Head of a Lansquenet). Wood. Pieter Bruegel the Elder.

Musée Fabre, Montpellier, France. Photo credit: Erich Lessing/Art Resource, NY.

corneas. His lips also reveal old mucosal lesions. . . . Most likely, the diagnosis for the last blind member of the group is *bullous pemphigoid*.^{5p59}

One of my colleagues also plausibly suggested trachoma.

Bruegel's contributions to ophthalmology through his art were not limited to a single painting. Karcioğlu also investigated other Bruegel works such as *Adoration of the Magi*.⁵ The king in a red cape on the left of the painting has right upper eyelid ptosis, suggesting a seventh nerve palsy. In another painting, *The Yawner*, Bruegel's subject is considered to be the first documented example of blepharospasm and lower facial dystonia.⁵ The eponymous name for this disorder is Bruegel Syndrome!

Other contemporary ophthalmologists support Dr. Torrillhon's and Dr. Karcioğlu's conclusions. A Spanish group agrees with their diagnoses for *The Blind Leading the Blind*,⁶ and have added a diagnosis of exophthalmos for one subject

in the the *Adoration*, as well as in the subject in *Head of a Lansquenet*.⁷ This group agrees with the diagnosis of Bruegel's Syndrome in *The Yawner*.⁸

Disability in Bosch and Bruegel's art and times

Bosch and Bruegel each created works depicting people with amputations, in particular Bosch's drawing, *The Procession of the Cripples*, and Bruegel's *The Beggars*. The works are notable for their attention to anatomical detail, accurate enough to allow for a tentative retrospective diagnosis of the infirmities illustrated. As well, they may also reflect the attitude of the prevailing culture toward those with such infirmities.

A joint analysis of *The Procession of the Cripples* by rheumatologist Jan Dequeker, orthopedist Guy Fabry, and neurologist Ludo Vanopdenbosch at the University Hospital in Leuven, Belgium, offers a reliable methodology for retrospective diagnosis.⁹ First, what are the main changes suggesting a



Beggars (The Procession of the Cripples). Hieronymus Bosch (c. 1450–1516). Pencil on paper.
Graphische Sammlung Albertina, Vienna Austria/Bridgeman Images.



The Mendicants (The Beggars). Pieter Bruegel the Elder (c. 1525–1569). Louvre (Museum), Paris, France. Photo credit: Erich Lessing/Art Resource, NY.

primary cause for the disability? Second, are there associated features independent of amputation and prosthetics? The working diagnosis combines these deductions with historical information about the pathologies and the prevailing culture.

The cases in the Bosch drawing are numbered starting from the top left and proceeding left to right to the bottom. In Case 4, the authors note the following:

- Gender: Male; Age >30.
- Main changes—Recent high amputation of right distal

femur, loss of left toes.

- Associated features—Weakness left limb? Leper’s clothing, mouth-nose mask.
- Working diagnosis—1) Leprosy with post-infectious gangrene; 2) Neural weakness.⁹

Cases 8 and 27 are also presumed to be lepers because their associated features—a prominent nose and a facial deformity, respectively—accompany amputations. Leprosy was endemic in Northern Europe during the lives of Bosch and Bruegel,

affecting as many as 25 percent of Northern Europeans of that time.¹⁰

Another retrospective diagnosis for cases 2, 14, and 26 is of historical interest. A scourge common in Bosch and Bruegel's time, it is almost unknown today. These men are suspected to have experienced ergotism. They show amputations at various anatomical sites and wear pilgrim's capes.⁹

Ergotism results from ingestion of rye or wheat contaminated with the fungus *Claviceps purpurea*. The condition resulted in the deaths and crippling of many thousands of people throughout Europe during the Middle Ages.¹¹ The fungus produces alkaloids, including ergotamine, that cause vasoconstriction that can lead to dry gangrene and convulsions, with characteristic burning sensations and central nervous system effects including mania or psychosis. Ergotism in Europe was primarily caused by rye bread, and a popular religious pilgrimage of the time was the Way of St. James to Santiago de Compostela in northern Spain,¹² with rye bread a staple food on pilgrimage. The lay fraternity of the Hospital Brothers of Saint Anthony was founded in 1095 to care for pilgrims and the sick, and particularly for those suffering from ergotism; the disease was associated with the order and commonly called St. Anthony's fire. It is possible that these lay healers had connected rye bread with the incidence of ergotism—they grew their own rye for bread in carefully cultivated fields.¹² Their therapeutic expertise for easing the symptoms of St. Anthony's fire was legendary. Pilgrims claimed that the relics of their order's patron, St. Anthony, cured ergotism.⁹

Ergot-induced vascular injury was illustrated by other artists of the period, including Johannes Wechtlin and Matthias Grunewald (who painted a triptych for the Isenheim Monastery). In *The Temptation of Saint Anthony*, Grunewald not only depicts dry gangrene of the fingers and feet, but also livedo, skin gangrene, and typical ergot-induced vasculitic lesions.^{9,13}

Other maladies have been proposed for the remaining disabled persons in Bosch's drawing. Although polio may also have been endemic then, it probably would not have been distinguished from leprosy.⁹ The subjects portrayed in Bruegel's *The Beggars* are therefore presumed to have had either leprosy or polio. Potts Disease is a possible diagnosis for cases 2, 12, and 30 in the Bosch drawing. They show marked dorsal hyperkyphosis in older individuals. A post-traumatic amputation in an otherwise healthy appearing man in Case 10 is also plausible.⁹

On the other hand, cases 1, 6, 9, and 29 in *The Procession of the Cripples* appear to be fakes. Case 6 is shown kneeling, with a drawing showing an amputated leg before him. He is potbellied and holds a wine jar, implying alcoholism as his sole impairment. Case 29 has a flexed knee but a healthy surrounding leg, presumably another fraud. But in Bruegel's painting *The Beggars*, most of the men, even though they have what are clearly real disabilities, have foxtails on their clothing, the

mark of a hypocrite.⁹ Why should actual cripples be lumped in with obvious fakes?

There were many beggars in Bosch and Bruegel's society. Destitute cripples and fakers alike were treated as petty criminals and were incarcerated in workhouses, of which it has been said, "the modern sanction of imprisonment for serious crime traces back to the workhouse for the poor more than any other source."¹⁴

The noblemen of the Dutch Revolt, rebelling against the Inquisition, were called beggars as an insult, but turned the tables and gleefully took the epithet to themselves.

the Leaguers rode into Brussels, and, crowding into the council-chamber, laid their petition for a removal of the Inquisition before the council. They demanded that a deputation to press the object of their petition be sent to the king, and declared themselves no longer responsible for riots and tumults which might arise from neglect of their prayer.

The duchess was very much alarmed at the crowd. Tears of distress rolled down her cheeks as their petition was read. One of the counsellors, Count Berlaymont, to relieve her fears, uttered the sneer which, like the name "Christian," given by their enemies to the disciples at Antioch, was immediately adopted by the Leaguers, and became the name by which they were known for generations—a name of terror to their foes and a rallying-cry to all the friends of liberty in the land. "Beggars" was the contemptuous term used by the count: "What, madam!" said the proud lord, "is it possible your highness can entertain fears of these Beggars?"

At once the word was caught up by the party, who had long wanted a distinctive name, and at the banquet held immediately after the interview in the palace, the hall resounded with cries of "Long live the Beggars!"^{15pp215-16}

After the Protestant Reformation and its religious wars, the nation of Holland emerged from the former Spanish Netherlands and embraced Reformed Theology. Cripples were considered examples of the wages of sin. As Dequeker, Fabry, and Vanopdenbosch note, "In many sixteenth century paintings of 'The temptation of St. Anthony,' the 'diabolic beggars' (le diable boîteux) are often the physically disabled."⁹

Bosch and Bruegel in the medical humanities

With so little knowledge of Bruegel at our disposal, we may conclude that we are never likely to understand his mind fully or be certain of the meanings of a number of his works. My own view is that he was in large part a moralist and ironist with a deep vein of humanity and humor who perceived the grotesquerie and comedy in the endless spectacle of life, a penetrating observer who had a poor opinion and small expectations of mankind but found a compensation for this pessimistic vision in his contemplation of the

majestic, impersonal order of nature. Art scholars and historians of ideas, the northern Renaissance, and related fields will of course continue to study his creations, but it should be kept in view that what we don't know of him is perhaps not very important when we consider the universal appeal of his art and its incomparable inventiveness and transfiguring realism, which have provided us with great and unique images of his world and time.

—Perez Zagorin, "Looking for Pieter Bruegel"¹⁶

The world of Bruegel and Bosch was cruel. The tragedies of life were considered to be evidence of sin. But amid the tragedy, Bosch and Bruegel steadfastly committed themselves to artistic realism in chronicling universal suffering. They meticulously reproduced the ravages of disease with an accuracy that permits plausible diagnoses in the twenty-first century.

Bruegel and Bosch also remind those in the healing professions that a culture's response to the most vulnerable speaks volumes about that society's values. Are the homeless and disabled today still singled out for contempt? Studies remind us that contemporary attitudes towards people with physical disabilities retain remnants of prejudice.¹⁷ The compelling images of Bosch and Bruegel can serve as a powerful introduction to the vulnerable among us and an invitation to the better angels of our natures. In the words of Steven E. Brown, cofounder of the Institute on Disability Culture:

People with disabilities have forged a group identity. We share a common history of oppression and a common bond of resilience. We generate art, music, literature, and other expressions of our lives and our culture, infused from our experience of disability. Most importantly, we are proud of ourselves as people with disabilities. We claim our disabilities with pride as part of our identity.¹⁸

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