

Deaf sign language hidden in the fresco *The Crucifixion of Saint Peter* by Michelangelo Buonarroti (1475-1564)

Deivis de Campos^{1,2,3}, Luciano Buso⁴

¹Departamento de Ciências Básicas da Saúde, Universidade Federal de Ciências da Saúde de Porto Alegre, Avenida Sarmiento Leite 245, 90050-170, Porto Alegre, RS, Brazil.

²Departamento de Ciências da Vida, Universidade de Santa Cruz do Sul, Avenida Independência 2293, 96815-900, Santa Cruz do Sul, RS, Brazil.

³Programa de Pós-Graduação em Promoção da Saúde, Universidade de Santa Cruz do Sul, Avenida Independência 2293, 96815-900, Santa Cruz do Sul, RS, Brazil.

⁴Treviso, 31030, San Vito di Altivole, Italy, Studioso e ricercatore scientifico nel campo dell'arte.

Summary. Since antiquity, specialists have worked to facilitate the communication of hearing impaired individuals, which according to the current literature, is among the disabilities that have the greatest impact on the quality of life. The system by which deaf people communicate is based essentially on sign language and the manual alphabet, employing gestures, and facial and body expressions. Although there is no exact data on how many people communicated through sign language in ancient times, studies show manual alphabets were used by deaf people in Europe in the early 15th century. Perhaps this was a reflection of a significant number of deaf people living throughout Europe at that time and who needed sign language to communicate. In this context, this manuscript, for the first time, demonstrates the renowned Italian Renaissance artist and genius of human anatomy Michelangelo Buonarroti (1475-1564) may have used deaf sign language in the fresco *The Crucifixion of Saint Peter* [*Cappella Paolina*, Vatican City, Italy]. This would demonstrate the engagement of one of the greatest Renaissance artists, with a clinical condition that has been studied by numerous health specialists since ancient times. (www.actabiomedica.it)

Keywords: Michelangelo Buonarroti, *The Crucifixion of Saint Peter*, Fresco, Hidden signature, Sign language, Deaf.

Introduction

A recent study¹ shows hearing loss was the fourth leading cause of years lived with disability (YLDs) worldwide in 2015, representing 5.8% of YLDs due to all causes. Additionally, in 2015, half a billion people worldwide had a disabling hearing loss and 1.34 billion had a mild-to-complete hearing loss in the better-

hearing ear-6.8% and 18.1% of the world's population, respectively. Accordingly, hearing loss has received unprecedented attention and medical specialists from various fields (otology, audiology, neuroscience, engineering, public health, and public policy) have combined their efforts to improve the quality of life and facilitate communication for individuals with hearing impairment.¹⁻⁴

As a rule, the deaf or hard of hearing access information and communicate through sign language. In this language system, signs are articulated through gestures, and facial and body expressions, and consequently, perceived through sight. In this context, the manual alphabet, which is a system of representing the letters of the alphabets of written oral languages [*using the hands*], becomes essential to better understand the deaf community, as it is mainly used to form words [*especially names of localities or people*] that for which there is no equivalent gesture in deaf sign language.⁵⁻⁸

Although there is no exact data on the number of hearing impaired people who consequently communicated through sign language at the time, studies show that some manual alphabets were used by deaf people in Europe in the early 15th century, even in some Renaissance paintings.^{9,10} Perhaps, this may suggest there were a significant number of deaf people living throughout Europe at that time who needed sign language to communicate. It should be borne in mind that in the early fifteenth century endogamous marriage was quite common,^{11,12} and consequently the birth of deaf children was also frequent, as inbreeding represents a risk factor for hearing disability.^{6,13} That is why Italian Renaissance artists had no difficulty working with their hearing-impaired friends and colleagues. Even today, especially in southern Italy, there is a deeply rooted tradition of expression through non-verbal communication, the use of hands, facial expressions, and body language in widespread.⁹ With this in mind, this manuscript demonstrates for the first time that the renowned Italian Renaissance artist and genius of human anatomy Michelangelo Buonarroti (1475-1564) may have used the sign language of the deaf [*the ancient Italian manual alphabet*] in the fresco *The Crucifixion of Saint Peter* located in the *Cappella Paolina*, in the Vatican City, Rome.

Analysis

The fresco that chronicles *The Crucifixion of Saint Peter* was painted by Michelangelo Buonarroti in the *Cappella Paolina*, in the Vatican City between 1546 and 1550, it represents one of the artist's principal works (Figure 1).¹⁴ With a detailed analysis of this famous piece, it can be seen that at the bottom of the



Figure 1. *The Crucifixion of Saint Peter* fresco (1546-1550) [Dimensions: 625 x 661 cm]. Michelangelo Buonarroti, *Cappella Paolina*, in the Vatican City, Rome.

fresco Michelangelo included some characters making hand gestures that may be in accordance with the sign language of the deaf [*ancient Italian manual alphabet*],⁷ and consequently designating the letters *M*, *B*, *D* and *F*. Together, those read from left to right could be understood to form the initial letters of the artist's name, as follows: *Michelangelo Buonarroti Di Firenze* [*Michelangelo Buonarroti from Florence*] (Figure 2).

Discussion

During the Renaissance, there were many legal and social restrictions that made it difficult for artists

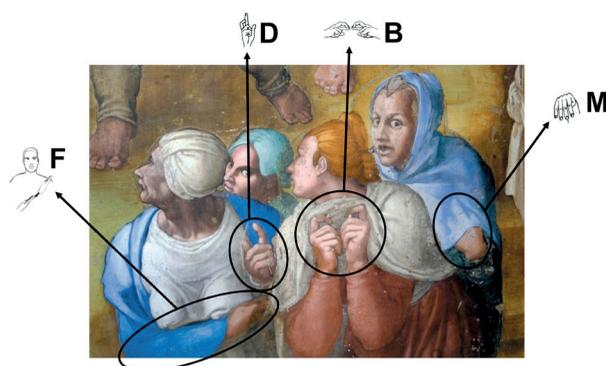


Figure 2. Detail from *The Crucifixion of Saint Peter*. Note the similarity between the gestures of Michelangelo's characters and the gestures that designate the letters *M*, *B*, *D* and *F* in the old Italian manual alphabet used in deaf sign language.⁷ Michelangelo Buonarroti, *Cappella Paolina*, in the Vatican City, Rome.

to expressing their true intentions when producing a work of art. Perhaps the main one being that artists were forbidden to sign their own works, particularly those commissioned by the hierarchy of the Catholic Church. The stated purpose was to ensure artists remained in their places and to protect them from the sin of pride. For this reason, many artists inserted images of their own faces, or even letters alluding to their names within their works.⁹

Therefore, we can infer that the cultural context in which Michelangelo found himself may indeed have led the artist to camouflage [*through deaf sign language*] his initials in *The Crucifixion of Saint Peter*. Indeed, the literature has shown that Michelangelo wished to leave a record that he had authored this work. Proof of this is that the artist portrayed himself in the figure of a man in a blue turban who appears mounted on a white horse at the top of the fresco (Figure 1).¹⁴ In this way, *The Crucifixion of Saint Peter*, besides containing the artist's self-portrait, may also include his signature in the form of the initial letters of his name, including the mention of his origin [*Di Firenze/from Florence*] employing the sign language of the deaf that was used in Italy at the time the fresco was produced (1546-1550). Clearly, this attitude is quite understandable, because after all, this would be the last fresco the artist would paint in the Vatican.⁹

The fresco *The Crucifixion of Saint Peter*, provides further details that seem to suggest Michelangelo was in fact trying to evoke the main clinical feature of the deaf, which is the non-perception of audible sounds, namely *silence*; as can be seen:¹⁴

1. Michelangelo depicts St. Peter in silence, contrary to the apocryphal Acts of the 3rd century and the *Golden Legend*, which tells Hegesippus' version, according to which Peter on the cross considers the two reasons for his desire to be crucified upside down: *not to compare himself with Christ and to represent the condition emblematically, for we are the sons of the first man, whose head is buried in the earth*. Peter's silence underscores the severity of his accusing gaze directed at the viewer (Figure 1).

2. The omnipresence of silence in fresco of St. Peter is suggested by a character in the central group that is holding a finger on his lips, which is undoubtedly a gesture alluding to silence (Figure 3). According to

the literature, Michelangelo uses this same symbolic resource [*a finger on the lips*] to evoke the symbology of silence in one of his earlier works [*Madonna of Silence*] painted in 1538 (Figure 3).

The first reports about the education of deaf children date back to the sixteenth century in Italy and Spain. Even though Bartolo della Marca d'Ancona (1314-1357), in his *Digests Nova*, mentioned the possibility of the deaf being able to express themselves with signs and use lip-reading to understand other people's speech, Girolamo Cardano (1508-1576) was the first scientist in Italy to support the possibility and the social duty of educating deaf people, although he was not involved in this specific field himself. He was reproducing the position sustained by the early humanist Rodolphus Agricola, in his *De inventione dialectica* (1479), where it was reported that the deaf had been trained to understand and to communicate with everyone through writing. Cardano invented a code of teaching for which, unfortunately, no evidence remains. Later, Fabrizio Acquapendente (1533-1619), borrowing and sharing the statements of Cardano, argued, in his two essays devoted to the matter, there is a difference between mimics and the use of signs by deaf people and that muteness was a mere consequence of the lack of hearing.⁵ The pioneering experiences of teachers of the deaf are documented in sixteenth-century Spain. The Benedictine monk Pedro Ponce de Leon (c.1508-1584) is the first one about whom there is information. He taught several deaf children to write and to represent words manually, although little is known about his teaching method.^{5,10}

Within this historical context, it is highly likely that Michelangelo knew of these authors and their publications about sign language, and also about the importance of the ancient Italian manual alphabet for the deaf community, for like many Renaissance artists, Michelangelo was a versatile artist with extensive knowledge in many areas, including those related to the organization and functioning of the human body.^{9,15-18} This is completely in keeping with what Leon Batista Alberti (1404-1472), a prime example of Renaissance man, wrote. According to Alberti, *the artist in his social context cannot be a mere artisan, but an intellectual well versed in all disciplines and fields*.⁹ Thus, Michelangelo may actually have used sign language used by the deaf

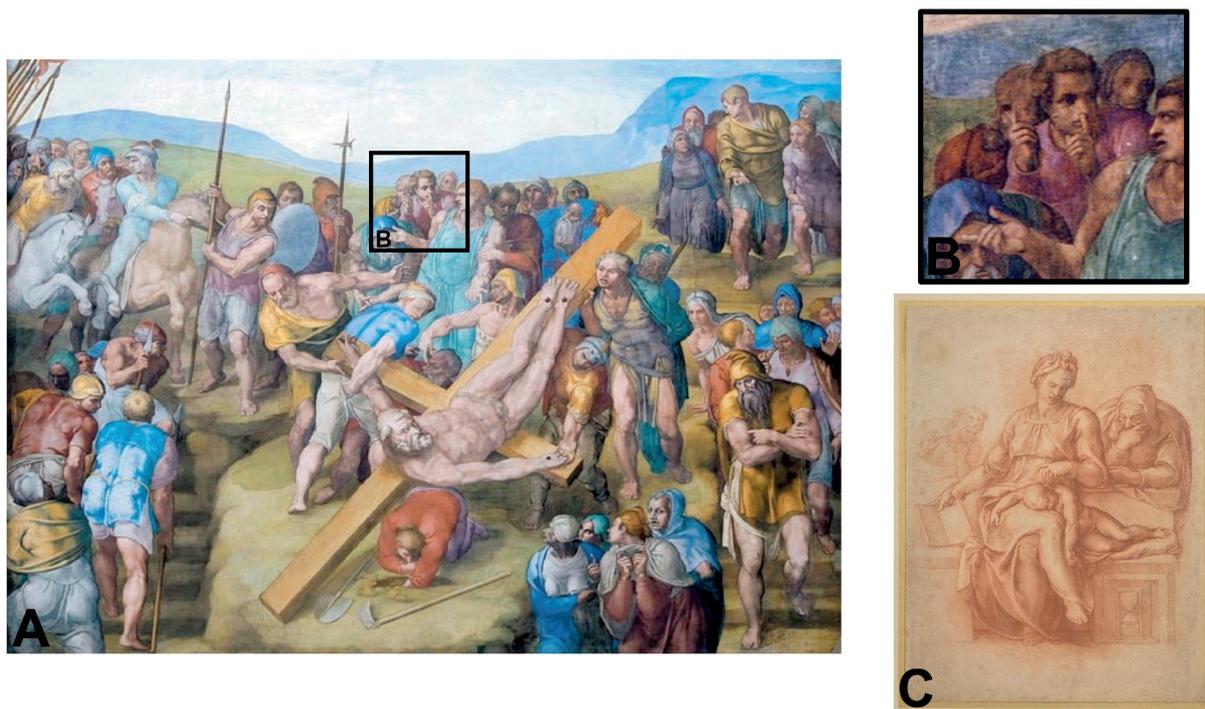


Figure 3. (A) Detail from *The Crucifixion of Saint Peter*, showing a character with his finger on his lips, alluding to silence (B). Michelangelo Buonarroti, *Cappella Paolina*, in the Vatican City, Rome. (C) *Madonna of Silence* [*Madonna del Silenzio*] (c.1538) by Michelangelo Buonarroti. Note that John the Baptist (on Mary's right) has his finger on his lips, alluding to silence (Red Chalk - Dimensions: 21.7 x 16.5 cm, is part of the Cavendish-Bentinck family's Portland Collection).

in Italy at the time, to sign the fresco *The Crucifixion of Saint Peter*.

Therefore, Michelangelo in his social and cultural context actually shows himself to be someone who was concerned with conveying a message that would certainly encompass the deaf community of his time, for as the specialized literature⁹ describes him: *Michelangelo, in addition to expressing his universalist sentiments in his works, also believed that the Catholic Church should fulfill God's will through true brotherhood between the rich and the poor, and above all, between the privileged and the oppressed.*

In addition, it should also be noted that the information presented in this manuscript highlights the social engagement of one of the greatest artist's humanity has ever seen, with a clinical condition that since antiquity has been extensively studied by numerous health experts.

"Man is unique not because he does science, and his is unique not because he does art, but because science and art equally are expressions of his marvelous plasticity of mind."
Jacob Bronowski (1908-1974)

Potential conflict of interest:

None declared.

References

1. Wilson BS, Tucci DL, O'Donoghue GM, Merson MH, Frankish H. A Lancet Commission to address the global burden of hearing loss. *Lancet* 2019; 393: 2106-2108.
2. Fenton T. Communicating without Speech: Practical Augmentative and Alternative Communication. *J R Soc Med* 2002; 95: 627-628.

3. Emmett SD and West KP. Gestational vitamin A deficiency: A novel cause of sensorineural hearing loss in the developing world? *Med Hypotheses* 2014; 82: 6–10.
 4. Frank A. Deaf Families' Unique Experiences and Obstacles. *J Soc Work Disabil Rehabil* 2017; 16: 216–229.
 5. Brentari D. *Sign Languages*. New York: Cambridge University Press; 2010.
 6. Johnston T, Schembri A. *Australian Sign Language (Auslan): An introduction to sign language linguistics*. New York: Cambridge University Press; 2007.
 7. Magarotto C. *Vocabolario della lingua gestuale italiana dei sordi*. Roma: Armando Editore; 1996.
 8. Sandler W. The Body as Evidence for the Nature of Language. *Front Psychol* 2018; 9: 1782.
 9. Blech B, Doliner R. *The Sistine Secrets: Michelangelo's Forbidden Messages in the Heart of the Vatican*. New York: HarperCollins Publishers; 2008.
 10. Bragg L. Chaucer's monogram and the 'Hoccleve portrait' tradition. *Word & Image: A Journal of Verbal/Visual Enquiry* 1996; 12: 127–142.
 11. Alvarez G, Ceballos FC. Royal Inbreeding and the Extinction of Lineages of the Habsburg Dynasty. *Hum Hered* 2015; 80: 62–68.
 12. Bittles AH, Black ML. Evolution in health and medicine Sackler colloquium: Consanguinity, human evolution, and complex diseases. *Proc Natl Acad Sci USA* 2010; 107: 1779–1786.
 13. Cupp MA, Adams M, Heys M, Lakhanpaul M, Alexander EC, Milner Y, et al. Exploring perceptions of consanguineous unions with women from an East London community: analysis of discussion groups. *J Community Genet*. Epub ahead of print 16 July 2019. DOI: 10.1007/s12687-019-00429-4.
 14. Vasari G. *Vida de Michelangelo Buonarroti: florentino, pintor, escultor e arquiteto (1568)* / Giorgio Vasari; tradução, introdução e comentário: Luiz Marques. Campinas: Editora da Unicamp; 2011.
 15. Strauss RM, Marzo-Ortega H. Michelangelo and medicine. *J R Soc Med* 2002; 95: 514–515.
 16. Di Bella S, Taglietti F, Iacobuzio A, Johnson E, Baiocchi A, Petrosillo N. The “delivery” of Adam: a medical interpretation of Michelangelo. *Mayo Clin Proc* 2015; 90: 505–508.
 17. De Campos D, Oxley Da Rocha A, De Oliveira Lemos R, Malysz T, Antonio Bonatto-Costa J, Pereira Jotz G, et al. Pagan symbols associated with the female anatomy in the Medici Chapel by Michelangelo Buonarroti. *Clin Anat* 2017; 30: 572–577.
 18. De Campos D. A hidden rib found in Michelangelo Buonarroti's fresco *The Creation of Adam*. *Clin Anat* 2019; 32: 648–653.
-
- Received: 02 December 2019
Accepted: 11 February 2020
Correspondence:
Deivis de Campos, Ph.D.
Departamento de Ciências Básicas da Saúde
Laboratório de Anatomia Humana
Universidade Federal de Ciências da Saúde de Porto Alegre - UFCSPA
Avenida Sarmiento Leite 245, 90050-170, Porto Alegre, RS, Brazil
E-mail: dcampos@ufcspa.edu.br