

HOME BIOGRAPHIES HISTORY TOPICS MAP CURVES SEARCH

Júlio César de Mello e Souza

Quick Info

Born 6 May 1895 Rio de Janeiro, Brazil

Died 18 June 1974 Recife, Brazil



Summary

Júlio César de Mello e Souza was a Brazilian mathematician who wrote very popular texts such as *The man who counted* under the pseudonym Malba Tahan. Brazil's National Day of Mathematics was instituted in 2013 to be on 6 May, Mello e Souza's birthday

Biography

Júlio César de Mello e Souza was the son of Joao de Deus de Mello e Souza (8 March 1863 - 9 March 1911) and Carolina Carlos de Toledo Mello (4 November 1866 - 1 June 1025). Joao de Deus had been born in Rio de Janeiro to parents who had emigrated from Portugal. He worked in the office of an industrial company but in 1884 went to Queluz where, together with his brother Irineu de Mello e Souza, he founded a boarding school for the children of farmers, the 'Colégio Joao de Deus'. Carolina had moved from Serra Negra to Queluz when she was seventeen years old to take over running the local primary school. Joao de Deus and Carolina met and married when Carolina was eighteen. Their eldest three children, Maria Antonieta de Mello e Souza (1885-1952), Laura Marieta de Mello e Souza (1889-1940) and Joao Baptista de Mello e Souza (1888-1969), were all born in Queluz. Brazil hit hard economic times with a decline of the coffee farms, and the Colégio Joao de Deus was forced to close. Joao de Deus, with his wife and three children, returned to Rio de Janeiro where he worked for the Ministry of Justice. Julieta de Mello e Souza (1893-1981) and Júlio César de Mello e Souza (1898-1948), Rubens de Mello e Souza (1900-1924), Olga de Mello e Souza (1902-1973) and Jose Carlos de Mello e Souza (1905-1990). Seven of the nine children would become teachers. Let us note at this point that Rubens became a test pilot and died testing a plane when only 24 years old.

Conditions in Rio de Janeiro were difficult and the family returned to Queluz where Carolina ran a school with four classes all in the living room of her home. Júlio César was taught at the school by his mother but also helped with tasks such as cleaning the blackboard, giving back homework, etc. Júlio César [3]:-

... was a child of great vitality and imagination. Inventive and mischievous, his favourite toy was the frogs in the backyard and on the banks of the Paraíba River. To the bulging frogs he gave solemn names of "Monsignor" and "Illustrious Sir". As a little boy, he played at teaching a group of frogs and leading them with a wand. The memory of the joy with the frogs of his childhood became famous. As an adult, many friends and admirers began to present him with replicas of frogs in crockery, wood, iron, jade and crystal.

Both Júlio César and his older brother Joao Baptista were given private lessons so they could sit the entrance examinations for the Military College of Rio de Janeiro. Júlio César was successful and began his studies there in 1906 as a boarding student. Tuition fees at the Military College were not cheap and after three years he had to leave since his father could not afford to continue paying. He said in a 1973 interview (see Appendix 1 of [5]):-

I left because the Colégio Militar was very expensive and Dad couldn't get it free for me and it was very hard for him, who had a lot of children, to pay for an expensive school at that time. Then I left the Colégio Militar and got a free place at Pedro II. Semi-free. And there I took my humanities course.

He had sat the entrance examinations for the Colégio Pedro II and performed so well that he was awarded a scholarship to cover most of the costs. He began his studies there in 1909. This college, the third oldest in Brazil founded in 1837, took pupils from the full range of ages. Most of the students

belonged to the country's economic and political elite. At this boarding school, Júlio César would offer to write essays for his fellow pupils and in this way made some money which he used to fund his trips home and also to buy bars of his favourite chocolate. One event at the Colégio Pedro II made a particularly strong impression on the young boy. One night the principal of the college woke him up and took him outside to see <u>Halley</u>'s Comet. It was 18 May 1910 and he recalled it in his 1973 interview (see Appendix 1 of [5]):-

How wonderful of the Director. This extraordinary man leaves his house before dawn and walks for almost an hour to get to the boarding school to wake up two boys to see <u>Halley</u>'s Comet. We were the only ones who had remained there because the others had all been collected by their parents.

At this time, Mello e Souza "had no passion for mathematics" but he decided he wanted a career as a teacher. He explained in the 1973 interview how he became a mathematics teacher (see Appendix 1 of [5]):-

There was a teacher I had, his name was Henrique César de Oliveira Costa, Costinha. ... He was a good teacher and I took a liking to Mathematics with him. But when I dedicated myself to teaching I decided to teach History, but I didn't like it. To study History you have to read books, magazines ... It's very difficult. Then I started teaching Geography, I didn't like it either because we have to be aware of countries that become independent, that become republics and I don't know what. I said to myself: "Better not teach Geography." So, I started teaching Physics, but Physics has a laboratory, it's a lot of work. "You know what, it's better to teach Mathematics." Because Mathematics is that thing, it doesn't vary. And then I became a mathematics teacher.

His father had died in March 1911 and Mello e Souza continued his studies in Rio de Janeiro. In October 1912, he was appointed as an assistant at the National Library of Brazil in Cinelândia square in Rio de Janeiro. This library, established in 1810, had only been inaugurated in its new building two years earlier on 29 October 1910. It was an appointment that Mello e Souza loved, enjoying being among such a wonderful collection of books. His mother moved from Queluz to Rio de Janeiro where, in 1913, she founded a new school in the Copacabana district. Mello e Souza began studying Civil Engineering at the Polytechnic School of the Federal University of Rio de Janeiro in 1913 and also worked as a teacher at his mother's school. He also taught for four years at the Guanabara Public Primary School. In addition to studying civil engineering and teaching, he also began working for a teaching qualification taking evening classes at the Normal School, the Escola Normal do Distrito Federal, which later became the Rio de Janeiro Institute of Education. He wanted to train to be a teacher; it was important to him to understand how best to present material:-

When I was a student, teachers were all self-taught. Teachers at the Colégio Militar, at Pedro II, had never taken a teacher's course, so they were real criminals. There were teachers who didn't teach anything, didn't know didactics, didn't know anything ...

The engineering course at the Polytechnic School was for five years and so Mello e Souza should have graduated in 1917 but he chose not to at that time. In fact he graduated with his engineering degree on 13 September 1932, but we will come to that below. His publishing career began in 1918 with the newspaper *O Imparcial* \bigcirc . The secretary of the paper was Leonidas de Rezende and Mello e Souza offered him some short stories he had written. They were not published and soon Mello e Souza went along to the newspaper office and asked for them back. He changed the name on the last page from Mello e Souza to R S Slady, took them back to Leonidas and told him that these were Portuguese translations he had made of stories by an American author R S Slady that were very popular in New York. The first of these, *The Jew's Revenge*, was published in *O Imparcial* \bigcirc on the following day and Mello e Souza decided that to be a successful author he needed to create a pseudonym. He invented Ali Ielid Izz-Edim ibn Salim Hank Malba Tahan, a believer in Allah and his holy prophet Mohammed, known simply as Malba Tahan. He explained (see Appendix 1 of [5]):-

I prepared the mystification about this pseudonym for seven years (1918-1925). I studied Islam, read the Quran and Talmud and even took private Arabic lessons with Dr Jean Achar. ... My idea was to surprise Brazil with a literary mystification. Invent an Arab writer and publish educational oriental tales.

In 1925 he approached Irineu Marinho, director of *A Noite* (The Night) the most popular Brazilian newspaper published in Rio de Janeiro (see Appendix 1 of $[\underline{5}]$):-

He received me with great kindness and sympathy at his residence in Santa Teresa. I told him the truth. My idea was to surprise Brazil with a literary mystification. Invent an Arab writer and publish educational oriental tales. Irineu Marinho read 2 or 3 short stories (which I had taken as a sample) and found the idea very interesting and decided to help me. He recommended that his secretary, Euricles de Mattos, publish the tales of Malba Tahan on the front page of 'A Noite', preceding them with an apocryphal biography. ... He never revealed to anyone (not even to Euricles) the secret of the literary mystification of which he was not only an accomplice, but largely responsible.

At this time Mello e Souza was a teacher at Colégio Pedro II. He had, as we saw above, been a pupil at this school and there he had been taught by Euclides de Medeiros Guimaraes Roxo (1890-1950), a mathematics teacher who became director of the school. In 1921 Mello e Souza had been appointed as a Substitute Professor for Roxo at the Colégio Pedro II and two years later, after a public competition, had been appointed to a permanent post at the school.

On 26 March 1925, Mello e Souza married Nair Marques da Costa (25 January 1905 - 18 June 1974), whom he had met when she was a student at the Rio de Janeiro Institute of Education. They had three children: Rubens Sérgio de Mello e Souza (16 April 1928 - 26 June 2002); Sônia Maria de Mello e Souza (5 July 1929 -); and Ivan Gil de Mello e Souza (15 March 1934 - 28 July 2010). He spoke of his wife and family (see Appendix 1 of $[\underline{5}]$):-

Nair was my student at Escola Normal ... she was my geometry student. My eldest son is called Rubens Sérgio de Mello e Souza. I named him Rubens in honour of my brother Rubens. The next, called Sônia Maria de Mello e Souza, is married to an Engineer from the City Hall. And the youngest is called Ivan Gil de Mello e Souza. Ivan Gil de Mello e Souza is not just one name, it's two names; Ivan Gil. None of them have a vocation for mathematics. My oldest son is a naval officer, he is studying law now to leave the navy. My daughter is a painter, makes paintings, and my youngest son, who is an architect, builds houses at Coabe, makes affordable houses.

These articles were the first of a very large number, all written by the mysterious Arab author, Malba Tahan, in newspapers and magazines throughout Brazil. Also in 1925 his first book *Contos de Malba Tahan* T was published; it was the first of over 100 books with author Malba Tahan or Júlio César de Mello e Souza. You can see the titles of some of these books at <u>THIS LINK</u>.

In parallel with these fascinating Arab books, he published mathematics texts, for example the first were *Curso de Matemática* (1931), *Matemática* (1931), *Trigonometria hiperbólica* (1932), *Algebra* (1932) and *Matemática Comercial* (1932). His fame, however, came though some extraordinary books like *Matemática divertida e curiosa* (1934) and, his most famous, *The Man Who Counted: A Collection of Mathematical Adventures* (1937). Note that we have given the title of the English translation of this last mentioned work but the date we give is for the publication of the Portuguese first edition. Here is the publisher's description of *The Man Who Counted:-*

Malba Tahan is the creation of a celebrated Brazilian mathematician looking for a way to bring some of the mysteries and pleasures of mathematics to a wider public. The adventures of Beremiz Samir, The Man Who Counted, take the reader on a journey in which, time and again, Samir summons his extraordinary mathematical powers to settle disputes, give wise advice, overcome dangerous enemies, and win for himself fame, fortune, and rich rewards. We learn of previous mathematicians and come to admire Samir's wisdom and patience. In the grace of Tahan's telling, these stories hold unusual delights for the reader.

Alex Bellos writes [1]:-

I love 'The Man Who Counted'. The book transports you into a magical world of Bedouins, viziers, sheiks, princes and kings, rich in references to Islamic traditions and locations in the Middle East. The maths is gentle, accessible and drives the stories. It's mostly arithmetic, but there are geometrical puzzles too, and also curiosities like the magic square - a "square filled with numbers", which the Sultan presents to Beremiz after it has been salvaged from the house of a calligrapher.

For more information about these two famous books by Mello e Souza and several others, see THIS LINK.

We mentioned above that Mello e Souza graduated with an engineering degree on 13 September 1932 although he completed the course in 1917. It seems likely that he did this to improve his chances in a competition for a full professorship at the Colégio Pedro II. He entered the competition in July 1933 submitting the thesis *Estudo elementar das curvas planas - Funçoes Modulantes* \bigcirc . He was one of five candidates for the position all of whom had engineering degrees. The candidates sat a written test on the theory of determinants, studies by <u>Sylvester</u> and <u>Cayley</u>, and the theorems of <u>Pascal</u>, <u>Brianchon</u> and <u>Desargues</u> concerning conics. The successful candidate was Haroldo Lisboa da Cunha (1909-1991) who was certainly a fine

teacher. Lisboa da Cunha later became Director of the Secondary Education Department of the Ministry of Education and then Secretary General for Education and Culture. Later he was Professor at the Universidade do Estado da Guanabara and in 1960 he became rector of the university. It was always unlikely that Mello e Souza would win against someone like Lisboa da Cunha since his revolutionary teaching methods were much criticised at the time.

Although Mello e Souza is best known for *The Man Who Counted*, many today find his importance to be in the teaching methods he advocated. The authors of [50] write:-

... in his work beyond literary activities, Mello e Souza contributed to Mathematics Education in at least the following three ways: the publication of texts on the teaching of mathematics, the production of teaching materials and the elaboration of courses, which he taught in many parts of the nation, aimed at training teachers. In relation to the publication of texts on the teaching of mathematics, we can mention such works as 'A didática da matemática' (1957), 'O mundo precisa de ti professor' (1966), 'Páginas do bom professor' (1969) and 'Roteiro do bom professor' (1969).

Antônio José Lopes writes in [18]:-

I want to say that, unlike most Malba Tahan fans, I was not hooked by Malba Tahan from the book "The Man Who Counted". I was attracted by the book "Didática da Matemática," a book in which he presents his ideas on how and why to teach mathematics.

In [42] the authors look in detail at Mello e Souza's teaching methods:-

At the time, there was an exaggerated use of symbols in the form of theorems and demonstrations, it was not intended to teach Mathematics involving reality, contextualising the contents. Malba Tahan's proposal presented a dynamic, living Mathematics, which sought to involve everyday life, reality, moving from abstraction to concrete. During his classes, he used concrete materials in the classroom, such as games, riddles, invented stories full of content and everyday situations, simulations and many other ways of teaching and learning that gave rise to more than 125 published works.

Mello e Souza's home life is described in [3]:-

As soon as they were married in 1925, Julio and Nair moved to Dona Carolina's house, Rua Almirante Gonçalves, in Copacabana, where three of Julio's brothers, José Carlos, Nelson and Rubens, also lived [Note by EFR: Rubens had died the year before]. Following the advice of his brother-in-law José Milliet, Julio Cesar bought a piece of land in Ipanema, which at the time was an immense beach. In the early 1940s, with the neighbourhood's appreciation, he sold the land and finally bought a house for his family, Rua Artur Araripe 43, in Gávea, a neighbourhood in the south of the city, which was beginning to be urbanised. The street was a dirt track, with no exit, and there was no public lighting or piped gas. The house was two storeys high and at the back was a yard with two leafy mango trees. Parties with relatives, friends and students were common. The card game in the living room with friends, especially "Copacabana", created by Malba Tahan, or the endless meetings in the second-floor office, where the writer told a thousand stories, remained in the memory of family and dear friends. Everything at the Artur Araripe house was very well taken care of, with simplicity and good taste. Nair, always pretty and whimsical, ran the services and economy of the home, as well as the education of her children, allowing Professor Malba Tahan to study and write his books.

There was a passion that Mello e Souza found late in his life when he devoted much effort into helping those with leprosy (see Appendix 1 of [5]):-

I introduced myself to a lady called Dona Eunice and said: "I want to work for lepers." She said to me, "Look, Malba Tahan, I'm going to tell you something; the leper is ungrateful. Jesus healed ten and only one returned to give thanks." I then said to Dona Eunice: "I don't care if a leper is grateful or ungrateful. I decided to work for them because they are excommunicated, they are repressed by society, they are cursed and since biblical times they have suffered horrors." So I decided to dedicate myself exclusively to lepers. I do not expect gratitude, nor ingratitude. But, on the contrary, I have only received proof of friendship, of sympathy from lepers. My wife says I know more lepers than healthy people. It's possible. Having visited all the leprosariums and being friends with them it is clear that I have met very sick people.

A little of his character is related in [34]:-

He usually woke up at 4 a.m. and walked around the house barefoot, looking for inspiration. His desk was filled with dictionaries, letters, books, incomplete articles or chapters, and blank papers. Often, he would sleep next to the book or encyclopaedia he was reading.

In June 1974, Mello e Souza was still living as he had for so many years, teaching, giving courses, writing columns for newspapers and working on new books. On 18 June 1974 he was staying in the Hotel Boa Viagem in Recife where he was giving lectures at the conference 'The Art of Storytelling'. He rose early as usual and was preparing to deliver the talk "Games and Recreations in Mathematics Teaching" at Colégio Soares Dutra. He died following a heart attack at 5:30 in the morning. His death was reported in newspapers across Brazil in which was included the note he had written himself many years earlier:-

Malba Tahan has died and asks everyone for forgiveness for his faults, mistakes, ingratitude and injustice. He also asks them to pray for him.

Beginning in 2013, Brazil celebrates a National Day of Mathematics on 6 May, the birthday of Mello e Souza [34]:-

In his honour, Mathematics Day is currently celebrated in Brazil on 6 May, the date of his birth. For a long time, this date was informally celebrated by the Brazilian Society of Mathematics Education, and officially in some Brazilian States, such as Rio de Janeiro, since 1994. At the national level, a project was presented on 5 May 2004 by deputy Raquel Teixeira to institute Mathematics Day. The objective was for the Ministry of Education and Culture to encourage cultural and educational activities on that date, in addition to a moment of reflection on Mathematics Education, encouraging teachers and students to cultivate culture and knowledge. Only on 26 June 2013, the President of the Republic, Dilma Rousseff, sanctioned a law which officially instituted the National Day of Mathematics, which must be celebrated annually throughout the national territory.

Let us end with a comment by Jefferson Santos, the author of [34] who is a Professor of Mathematics and undertakes research on 'Ethnomathematics'

and on 'Mathematics on the African Continent':-

I have always admired the work of author and lecturer Júlio César de Mello e Souza, whom I met at University when I was studying Mathematics through reading the book 'The man who counted'. As a result of this enchantment, interest in the "playful" side of Mathematics was awakened, as well as the dream of writing similar books, but I still didn't have the time, courage or opportunity. Throughout my professional journey, I have always tried to teach in line with the style of this great teacher, extolling the History of Mathematics, showing students its importance and its applications in our daily lives, as well as games, productive groupings and remembering when teaching/learning Mathematics that it is not just calculations.

Other Mathematicians born in Brazil A Poster of Júlio Mello e Souza

References (show)

Additional Resources (show)

Cross-references (<u>show</u>)

Written by J J O'Connor and E F Robertson Last Update November 2022

DJF/JOC/EFR Copyright information Accessibility statement

School of Mathematics and Statistics University of St Andrews, Scotland



If you have comments, or spot errors, we are always pleased to hear from you.