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Maude Dickinson, the Dongor Hygienic Company and 'Radio-Activity in the Service of Man'

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Abstract

This article explores the life and work of Maude Dickinson, an overlooked yet significant figure in early twentieth-century scientific experimentation and commercialisation. Following the death of her partner Thomas Gordon Dickinson in 1908, Maude embarked on a personal quest to develop the 'perfect antiseptic', leading to the founding of the Dongor Hygienic Company in Brighton, England. During her research she discovered what she referred to as 'magic crystals', later dubbed 'organic radium', which she believed possessed extraordinary purifying properties akin to those of established radioactive substances. Dickinson then developed a range of products incorporating these purported properties, including table-water, treatments for rheumatism, and yeast-less bread. While her claims are not unique and are similar to those made by producers of contemporary products like 'Radior' and the 'Q-Ray Electro-Radioactive Dry Compress', her work is notable for its scientific ambition and her apparent commitment to validating her 'New Activity' and its potential 'service to mankind'. This article examines Dickinson's scientific endeavours, the commercialisation of her discoveries, and the complex interplay between commercial products and scientific understanding of the time.

Keywords

Radioactivity, Radium, Quack, Women scientists, Beauty, England

Introduction

In the early decades of the twentieth century, scientific discovery and commercial enterprise were increasingly intertwined, particularly in the burgeoning field of radioactivity. During this period, a host of products emerged that claimed to harness the health-giving properties of radioactive substances, blurring the boundaries between

legitimate scientific innovation and speculative marketing. Amid this landscape, Maude Dickinson (c1868-1933), shown in Figure 1, stands out as a particularly intriguing and largely overlooked individual. Dickinson founded the Dongor Hygienic Company in Brighton. Her initial goal was to create the 'perfect antiseptic', a substance that she eventually believed she had discovered in the form of what she called 'magic crystals' and later marketed as 'organic radium'.

Figure 1. Maude Dickinson. From: *The Brighton Season*. Acc/ID: BH700464. By kind permission of Brighton & Hove Museums.

While many contemporaneous products made bold claims about their radioactive properties, Dickinson's work appears to be distinctive for its underlying scientific intent. She appeared to engage seriously with contemporary scientific discourse, seeking validation from respected authorities and aligning her work with emerging understandings of germ theory and radioactivity. Her membership of the Royal Institution and the Women's Engineering Society and her efforts to consult with leading scientists reflect a deliberate attempt to participate in the scientific community, even if her unorthodox methods and commercial ambitions may have likely constrained the reception of her work.

This article aims to recover Maude Dickinson's contributions to experimentation and commercialisation. It situates her within the broader context of popular and professional engagement with radioactivity, examining the nature of her scientific claims and the commercial strategies employed to market her discoveries. In doing so, it reflects on how figures like Dickinson complicate our understanding of the boundaries between science, commerce and credibility.

The design of this article is a historical analysis grounded in visual and material culture methodologies, with a particular focus on marketing. It draws on a self-assembled archive of primary sources, including printed advertisements, postcards and surviving products supplemented by materials from museums and private collections, to examine how scientific language and symbolism were used to market both radium-based and antiseptic products widely and Maude Dickinson's products specifically.

Maude Dickinson

Maude Dickinson (Figure 1), originally named Mary Lock, was born circa 1868. Her father, Peter Lock, is recorded as a 'gentleman from Fareham'. However, there is limited verifiable evidence regarding her early life, including the exact date and location of her birth.[1]

We know a little more about her later years, particularly her 1885 marriage to John Oldridge Dicker, a solicitor and Freemason residing in Camden Square, London. This union appears to have been a tumultuous one, as evidenced by Mary's petition for divorce just five years later, citing grounds of adultery and desertion. In response, Dicker lodged a counter-petition, asserting that Mary, now known as 'Maude', was living with one Thomas Gordon Dickinson as his wife.[2]

The enigma of Maude's life continues into the twentieth century. She is identified once more in the 1901 census, where she is recorded as residing with Thomas (known as Gordon) Dickinson and a young woman named Kathleen Marion Dixon, who is listed as her 'niece'. Further investigation reveals that Kathleen was born in Kansas, USA on 25 September 1889, although the circumstances of her birth remain unclear. Notably, Kathleen later adopted the surname Dixon-Dickinson, and Gordon acknowledged her as his daughter. These factors have led to speculation that Kathleen may have been the illegitimate child of Gordon and Maude.[3]

Although further details regarding this period of Maude's life remain scarce, it is clear she was dealt a huge blow with the illness and then, on 23 October 1908, the death of Gordon in Paris.[4] His will, which designates her as an executor, also confirms that

[1] The known details of Maude's life have been pieced together by researchers, notably Helen Close and Geoff Hellman, through census records, marriage and death certificates and legal documents.

[2] Close H. Maude Dickinson and a "New Activity". 26 Jan 2021. Women Writes. https://woman-writes.com/2021/01/26/maude-dickinson-and-a-new-activity/ (accessed 4 Apr 2025).

[3] Close. Maude Dickinson, 2021 (Note 2).

[4] Correspondence from Bibliotheque Municipale des Annonciades in Boulogne-sur-Mer, received by Geoff Hellman and seen by this author.

her earlier divorce had not been finalised, as she is referred to as the 'wife of John Oldridge Dicker'.[5]

Early experiments

While it has been necessary to piece together the records of Maude's early life through census records, marriage and death certificates and legal documents, the available evidence regarding her professional career is, in contrast, derived from a single source: a book authored by the writer Frank Hotblack (dates unknown) in 1920.

Presented in the format of a standard scientific treatise of the period, Hotblack's 195-page work "*A New Activity?" A Treatise on Mrs. Dickinson's Discovery of a "New Radio-Activity"* provides an account of the scientific experiments and discoveries attributed to the woman he refers to throughout as 'Mrs. Dickinson'. Next to nothing is known about the author, his credentials for compiling such a publication or who commissioned him to do so in the first place. While the exact relationship between Frank and Maude is also not apparent, we learn that he has been conducting an independent investigation of her experiments and believes she is 'undoubtedly a genius'.[6]

Hotblack reports that, following the death of Gordon, Maude dedicated herself to scientific experimentation, initially as a personal interest and later as a professional pursuit. While the precise cause of Gordon's death is not specified, it is suggested that it served as the catalyst for her quest to develop a 'perfect antiseptic' intended for both medical and public use.

The initial experimental process, which spanned two years, is described in considerable detail. In her home laboratory, Maude was said to have examined all known substances with antiseptic properties, with a particular focus on 'Oriental essential oils'. Hotblack notes that Maude had previously travelled to the 'East', where she had observed firsthand the healing, health-enhancing and preservative qualities of these oils.[7]

It was this style of oils, including those from cinnamon groves, lemon bushes, orange trees and pine forests, that Maude focused on combining with other essential oils such as lavender, laurel, rosemary and violet.[8] Her initial experiments were a success:

> Mrs Dickinson found that by a certain blending of these, according to ancient and traditional rights, already known to her from both the inspired and the ancient Egyptian writings, that she could produce an "Antiseptic Perfume" of exceptionally high therapeutic and germicidal value, and one whose aroma at the same time was sweet in the sick room.[9]

[5] Close. Maude Dickinson, 2021 (Note 2).
[6] Hotblack FA. "*A New Activity?" A Treatise on Mrs Dickinson's Discovery of a "New Radio-Activity" (with some notes on radium).* London: Jarrolds Publishers; 1920. p.61.
[7] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.49.
[8] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.49.
[9] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.49.

The 'perfect antiseptic'

Although early theories in the Hippocratic Corpus showed rudimentary understanding of germs as harmful agents, it was not until the late nineteenth century that researchers were able to definitively link specific microorganisms to particular diseases, solidifying the foundations of germ theory.[10]

As research into both private and public hygiene advanced, a period of vigorous public health campaigns emerged, accompanied by widespread anxiety about the 'hidden dangers of germs lurking in everyday life', especially in intimate activities like kissing (Figure 2).[11]

Figure 2. Postcard, date unknown. Author's collection.

This heightened awareness manifested in various forms within public discourse. Concerns ranged from the potential transmission of harmful germs through kissing to the perceived health risks associated with the popularity of beards. While public health initiatives promoted practices such as covering one's mouth when coughing or avoiding

[10] Tomes N. The Making of a Germ Panic, Then and Now. *American Journal of Public Health*. 2000; 90(2): 191-198.
[11] Tomes. The Making of a Germ Panic, 2000 (Note 10). p.192.

handshakes, entrepreneurs capitalised on the growing 'antiseptic consciousness' by offering products they claimed would protect consumers from infectious diseases caused by these poorly understood microorganisms.

These types of products varied widely, ranging from sensible health measures to the fanciful, bizarre and occasionally dangerous. Antiseptic wall paint, for instance, promised to eliminate germs from household surfaces, while antiseptic toothpaste was marketed as a solution to oral hygiene concerns. In an even more peculiar manifestation, several companies introduced a product designed to protect couples from germs while still allowing them to kiss. Known as 'kissing screens' (Figure 3), these small devices were placed between the lips. The screen itself was typically covered with a netting impregnated, by an unspecified method, with an antiseptic agent, purportedly offering a 'pure and hygienic kiss'.[12]

Figure 3. Kissing screen. Postcard, date unknown. Author's collection.

Against this backdrop, Maude's search for the 'perfect antiseptic' emerges not only as a deeply personal endeavour but also one that aligned with the broader scientific and research trends of the early twentieth century.

[12] Advertisement. The Pure and Germless Kiss. *Popular Science Monthly.* Feb 1920. p.62.

Dongor antiseptic perfume

Part of Maude's quest for the 'perfect antiseptic' was seemingly to ensure its widespread availability, allowing others to benefit from its purported healing properties. According to the account provided by Hotblack, this ambition went beyond personal interest and was driven by a broader desire to enhance public health and hygiene. Consequently, it became essential for her to commercialise her discovery to ensure it was widely available and in many, different, useful forms.

In 1912, Maude founded The Dongor Hygienic Company, initially located at New Steine Mansions in Brighton. Operating under the brand name 'Dongor', a name derived from an inversion of Gordon's name, she developed and marketed a wide range of hygiene products incorporating her antiseptic oil. While her innovations were numerous, and Hotblack notes that she was the originator of 50 different inventions and mechanical devices, several products stand out.[13] Among them were the 'Dongor Patent Safety Hatpin' and the 'Dongor Cycle Safety Seat'. The product 'Iclene', designed for artificial teeth, claimed to 'thoroughly exterminate all germs and unpleasant odours, keeping the mouth sweet and pure'.[14] 'Petits Chiens', a 'toilet water' for dogs, acted as both a perfume and disinfectant, purportedly keeping dogs 'immune from chills and infections'.[15] Dongor also produced a series of public-use products, including a handy spray designed to purify sick rooms, theatres and cinemas.[16] In one advertisement this was described as 'an air purifier which is also a powerful aromatic germicide … The disinfectant is a blending on scientific lines of fragrant Oriental extracts with germ-destroying properties'.[17]

While there is limited evidence to suggest that Dongor products were widely available internationally, Maude did trademark the Dongor name in the United States, filing two separate trademarks on 24 March 1913. The first, No. 69,283, covered paper disks impregnated with disinfecting solutions and metal caps for telephone transmitters. The second, No. 69,281, included disinfectants, insecticides, lotions for hair, sunburn prevention and insect bites, as well as face creams and tooth cleansing preparations.[18]

Without access to company records or sales data, it is difficult to accurately assess the success of Dongor. However, the variety of products offered and the prominent publications in which they were advertised, such as the *Daily Mirror*, *Evening Standard* and local Brighton publications, suggest that significant financial resources were being invested in its marketing efforts. And Dongor'*s* own adverts claim that the company was supplying products to over 500 organisations, including the Red Cross Society.[19]

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[13] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.61.
[14] Advertisement. *The Daily Mirror*. 19 Dec 1912. p.10.
[15] Advertisement. *Ladies Field.* 18 Jan 1913. p.67.
[16] Advertisement. *Tunbridge Wells Courier.* 4 Mar 1914.
[17] Advertisement. *Kinematography Weekly*. Jun 1913. p.81.
[18] U.S. Patent No. 69,281 (Class 6. Chemicals, Medicines, and Pharmaceutical Preparations) Maude Dickinson, Brighton, England. Filed 24 Mar 1913; U.S. Patent No. 69,283 (Class 21. Electrical Apparatus, Machines and Supplies) Maude Dickkinson, Brighton, England. Filed 24 Mar 1913.
[19] Close. Maude Dickinson, 2021 (Note 2).

The company appears to have achieved a notable degree of success, and Maude's reputation became sufficiently established that, in recognition of her accomplishments, she gained the moniker 'High Priestess of Hygiene'.[20]

This was a relatively short-lived period of success for her antiseptic products. By the mid-1910s a new generation of scientific researchers began to challenge some of the earlier theories about deadly germs and the idea that they could be eradicated by antiseptic products began to fade in the public's mind.[21]

Dongor goes radioactive

In the meantime, Dongor had already shifted its focus and entered the fast-growing area of commercial radioactivity. According to Hotblack, who this author thinks was clearly not a disinterested chronicler, this shift was the result of a breakthrough that belonged to a long-standing tradition of serendipitous scientific advancements, which included the development of steam power, the formulation of the laws of gravity, and the breakthroughs of Henri Becquerel (1852-1908), Marie Skłodowska Curie (1867-1934) and Pierre Curie (1859-1906).[22]

The precise circumstances of Maude's discovery of what was later termed a 'New Activity' is explored in meticulous detail. In essence, while working on an 'Antiseptic Medical Cream Soap' one of Dongor's many products, Maude noticed small crystalline particles precipitating on the paper covering the storage jars. Initially, she assumed these particles were merely impurities and disregarded them. However, on 24 December 1913, she chose to investigate further. Using a magnifying glass and later a microscope, she observed that the particles were reddish-brown and exhibited an unusual 'active' quality, in particular glittering and scintillating in sunlight. While Maude was unaware of the nature of these crystals, her immediate reaction was to exclaim: 'Radium!'.[23] The following year, while conducting additional tests on the crystals by applying heat, she reported that an explosion produced a 'new, hard, transparent crystal, like a diamond', which was strikingly different from the original reddish-brown particles but again was suggestive of a radioactive substance.[24]

This assumption could be considered to be an exaggerated interpretation, and it was never definitively proven that Dickinson had discovered a form of radioactivity, as we shall see later. However, in Dickinson's defence, radium was not well understood in the early 1900s. What was clear, however, was that it was the most expensive substance in the world at the time, available only in minute quantities.[25] It had begun to be hailed as a miraculous cure, often promoted as a remedy for various ailments, and was in high demand. Additionally, there was already a longstanding tradition of scientists claiming

[20] Anon. A Record of the Season's Social Happenings. *The Brighton Season*. 1915. p.40.
[21] Tomes. The Making of a Germ Panic, 2000 (Note 10). p.193.
[22] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.48.
[23] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.50.
[24] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.52.
[25] Santos LJ. *Half Lives: The Unlikely History of Radium*. London: Icon Books; 2020. p.65.

that they had discovered new forms of radiation or radium alternatives, such as 'Brillium' and 'Solium'. The 'discovery' of the latter was later shown to be a hoax.[26]

One of the most famous of these faux discoveries were 'N-rays', claimed by the French physicist Prosper-René Blondlot (1849-1930). While working at the University of Nancy, Blondlot asserted that he had discovered a new type of ray, which he named N-rays, after the university. The popular press quickly embraced his claims, and other scientists also reported being able to detect these rays emanating from various materials. However, a critical demonstration in front of Pierre Curie and his colleagues at the Museum of Natural History in Paris failed to convince.[27] Ultimately, the existence of N-rays was later disproven.[28]

Maude's reaction to her discovery of a type of radium should be understood within this context. While she believed she had discovered a form of 'organic radium', she used this term to describe the source of the crystals as being derived from vegetable or organic oils, distinguishing it from the 'inorganic' radium discovered by Marie Skłodowska Curie. She further speculated that this discovery could explain the remarkable success of her products and specifically why her antiseptic had been proven so effective. This belief drove the argument that, if the crystals did indeed possess such properties, it would account for many of the exceptional qualities previously observed in Dongor hygienic preparations, qualities the origin and cause of which had not, perhaps, been fully understood at the time.[29]

It was then necessary to test this hypothesis and, according to Hotblack, Maude pursued this objective through a combination of experimentation and consultation with 'scientific authorities'. Her research demonstrated that the crystals were not the result of impurities, leading her to conclude that they must be the product of some form of chemical reaction. She shared her findings with colleagues and specialists from various fields, including journalist Cayley Calvert, the head chemist at the well-known chemical firm Savory and Moore, and scientists like Sir William Barrett (1844-1925), Professor Wintour F Gwinnell (c1846-1921) and FW Keeble, probably Sir Frederick W Keeble (1870-1952). According to Hotblack, almost everyone she consulted was reportedly astonished by her results and expressed agreement that she had, indeed, discovered a form of radioactive particle, although they were not able to definitively prove it.

At this point, Hotblack's treatise shifts from a relatively standard scientific account to a more mythological and speculative narrative characterised by frequent name-dropping and recounting visits to prominent chemists, laboratories and manufacturers. Throughout this section, these authorities are described as either offering opinions on the nature of Maude's findings or noting that the properties of the crystals were strikingly similar to those of radium. Tests included checking for the effects of her crystals on photographic plates and the use of scientific instruments like the spinthariscope to observe nuclear disintegrations, the electroscope to detect electrical effects in the air, and the microscope to examine small objects and structures.

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[26] Holmes III RW. Substance of the Sun: The Cultural History of Radium Medicines in America. PhD Thesis, University of Texas at Austin, 2010. p.58.
[27] Quinn S. *Marie Curie: A Life*. Lexington MA : Plunkett Lake Press; 2019. p.218.
[28] Nadis F. *Wonder Shows*: *Performing Science, Magic, and Religion in America*. New Brunswick NJ: Rutgers University Press; 2005. p.18.
[29] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.51.

Observations of the properties of the crystals ranged from noting the effects they had on glass to their effects on skin. It was put forward as evidence that the diamond-like form of the crystals, upon prolonged contact with Maude's skin, caused a temporary burn.[30]

This was noted to resemble the effects of both X-rays and radium, which had been shown to cause erythema (a burn or reddening of the skin) in early experimenters with these substances. This original observation led to the rapid adoption of X-rays and radium in hospitals and clinics in major cities where their burning properties were utilised therapeutically for conditions such as skin cancers and birthmarks.[31]

The possibility that Maude's 'organic radium' might emit similar rays, though noted to be less violent or rapid, suggested that her discovery could have analogous therapeutic uses.

Although the inferences of many of these experiments were, according to Hotblack, inconclusive or merely 'suggestive' of the presence of radium, Maude's experiments intensified, focusing not only on understanding the properties of this material but also on exploring its potential benefits. Drawing on her experience and the established reputation of Dongor, she began investigating the commercial applications of this 'New Activity'.

Commercialising radioactivity

As with her development of a business centred around antiseptic oils, Maude's new approach aligned with broader commercial trends of the time. There are numerous examples of entrepreneurs with limited scientific expertise, as well as well-established scientists, who capitalised on the inclusion of radium in their products. A notable example is Professor Siegmund (or Sigmund) Saubermann (dates unknown), a Professor of Pathology and Therapeutics at the University of Berlin, who leveraged his academic reputation to introduce the 'Saubermann Radium Emanation Activator' in 1912. This device was an earthenware receptacle containing a small amount of radium salts at the bottom. The principle behind it was that when water was placed in the Activator, it became charged with radium emanations, thus rendering the water radioactive.[32]

Emanation was a well-known property of radium. In 1899, scientists observed that radioactive minerals, including radium, released a gas, which was initially referred to as an 'emanation' and later identified as 'radon'. Further experiments revealed that this heavy gas could be collected in flasks, but it also appeared to diffuse throughout the laboratory, settling on nearby equipment. Subsequent tests on both the air and the objects themselves revealed that they had become radioactive. This phenomenon came to be known as 'induced' or 'excited' radioactivity.[33]

It was determined that these emanations or induced radioactivity could be used in a number of different products. The notion that radioactivity was beneficial to health was a concept grounded in the principles of hormesis. This approach postulated that small

[30] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.52.
[31] Santos. *Half Lives*, 2020 (Note 25). p.40.
[32] Santos. *Half Lives*, 2020 (Note 25). p.119.
[33] Santos. *Half Lives*, 2020 (Note 25). p.30.

doses of potentially harmful agents, when administered in controlled amounts, could have positive effects. Thus, exposure to low levels of radium, either naturally occurring or induced in substances like water, would induce a mild stress response in the body, triggering a physiological reaction that acted as a catalyst for healing. This philosophy was known as 'Mild Radium Therapy'.[34]

The period 1920-1930 is generally characterised of one of 'radium mania', a time when enthusiasm for products including the element reached unprecedented levels. Although precise figures of radium-infused products are difficult to quantify, estimates provide a sense of the phenomenon's scale. For instance Michel Genet, author of 'Radium: A Miracle Cure!', estimates that between 1914 and 1945, approximately 200,000 radium-containing products were produced globally for medical purposes, with a comparable number of commercial, non-medical items also in circulation.[35] In addition to Saubermann's Radium Emanation Activator, products that emerged during this period include similar devices such as the 'Revigator' and the 'Radium Bath Cylinder'. There were also products such as Frederick Godfrey's (1900-64) 'Renair Radioactive Antiseptic Hair Restorer' and 'Caradium' (Figure 4), introduced by Mayfair salon owner Helen Cavendish (dates unknown) in 1911.[36]

Figure 4. Caradium Hair Restorer. Embossed glass bottles, c1920s. Author's collection.

Cavendish marketed herself as a 'specialist in Radio-Active Toilet Preparations', offering a wide range of products, including a hair restorer that combined radium water with pure herbs. This product was designed to be applied to the roots of the hair, with

[34] Santos. *Half Lives*, 2020 (Note 25). p.90.
[35] Genet M. Radium: A Miracle Cure! *Radiation Protection Dosimetry*. 1998; 79(1-4): 1-4.
[36] Santos. *Half Lives*, 2020 (Note 25). p.165.

claims that it stimulated 'the pigment glands, invigorated the scalp, and restored colour in a natural way'.[37]

While outside the scope of this paper, it is intriguing to consider the entrepreneurs who took radium from the laboratory and introduced it into everyday life, particularly the women who played a role in this process. When discussing radium and radioactivity, eminent scientific figures like Marie Skłodowska Curie, her daughter Irène Joliot-Curie (1895-1956), and Lise Meitner (1878-1968) rightfully come to mind. However, it is also important to recognise the role of individuals such as Helen Cavendish and Maude Dickinson.

Cavendish is of particular interest as her scientific career shares many parallels with Maude's. Although Cavendish marketed herself as a 'radium scientist', there is no substantial evidence to suggest that she had any formal scientific training, much like Maude. And similarly, she was, as a female beauty salon owner, somewhat of a trailblazer, part of a growing number of businesses that offered 'explicitly feminised services, for women by women'.[38] It is likely that Cavendish also developed her product through a process of trial and error.

And specifically, the role of women in early twentieth-century science was often marginalised, with few formal pathways for recognition or advancement. It was often fraught with barriers that limited both their opportunities and recognition. Hotblack's reflection on Maude's experiences mirrors this reality:

> The discoverer, unlike all other scientists, has not followed the usual beaten track of orthodox or convention. Her work, from its early experimental stage right up to its more advanced position of to-day, has been carried out in the face of great difficulties by her alone, and under most original and unique methods.[39]

Further progress and discussion

After what Hotblack describes as an extensive period of initial research, Maude presented her radioactive crystals and the associated products and services in 1915. She chose the Congress of the South Eastern Union of Scientific Societies, held in Brighton on 2-5 June 1915, as the platform for this debut.[40]

By the following year, the products had been rebranded under the name 'Radioleum'. According to Hotblack, the name was suggested by Professor Gwinnell, whom Maude had met at the 1915 Congress, where he served as a judge. The term 'Radioleum' combined 'Radio' with 'Oleum' (the Latin word for oil), reflecting the product's origin in Dongor oils. This rebranding also led to the creation of the term 'Radiole' to describe her crystals.[41]

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[37] Advertisement. *Daily Mail*. 11 May 1920. p.11.
[38] Clark JP. *The Business of Beauty: Gender and the Body in Modern London*. London: Bloomsbury Publishing; 2020. p.5.
[39] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.61.
[40] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.54.
[41] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.56.

Maude began showcasing her products at various exhibitions, mostly in Brighton but on occasion in London, following a consistent pattern. She displayed both the raw materials – her oils and crystals – as well as examples of their practical and commercial applications.

These uses were wide and varied and include a method for 'wool cleaning', without impairing or affecting its 'fibre, texture, or virtue', and 'radioactive antiseptic cream' was reported to be a cure for eczema.[42]

By far the biggest category of products were made with water that had been rendered 'radioactive' through exposure to her crystals, alongside demonstrations of its potential uses, such as stimulating plant growth, removing corrosion or scale in boilers, a drinkable table water and even liqueurs 'and a wine made with "New Activity" ' which was said to be 'excellent'.[43] It was also reported that a 'middle-aged man' had volunteered to be experimented on and had applied a 'special preparation' of 'radio-active' oils and 'radio-active' water which was reported to have increased the growth of his hair and beard, as well as it resuming 'more or less the natural colour it had been in the past'.[44]

Some of the more unusual applications involved mixing the treated water with coal dust to form 'briquettes', which were marketed as a viable alternative to coal. Another product was a bread made with flour and her 'radioactive water'. This bread was reportedly sent to Queen Mary (Hotblack published a letter from her private secretary acknowledging receipt) and to prisoners of the First World War in Germany.[45]

The bread was said to offer two key benefits. First, it could be made without yeast, which was particularly important during a time when the British government had imposed restrictions on imports from Germany, a major supplier, resulting in shortages.[46] Second, the bread was claimed to have preservation qualities, likely inspired by the notion that radium could preserve food. This idea had first been proposed by analytical chemist Dr Hans Lieber (dates unknown) in 1904.[47] Maude's Dongor bread was said to stay fresh for extended periods, reportedly even retaining its freshness after being shipped to Germany and being distributed to prisoners of war there.[48]

While there is little evidence to suggest that most of these products were ever more than experimental, and therefore not produced on a commercial scale, it is clear that some supposedly radioactive Dongor products were indeed brought to market. One such product was a treatment for gout and rheumatism, which was advertised in publications, including the *Daily Express* in August 1915. While this was unnamed in the advertisement, the reader was advised that they could get a sample bottle of the product at The War Exhibition, Knightsbridge, where Mrs Dickinson had a stand.[49]

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[42] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.169.
[43] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.138.
[44] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.119.
[45] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.117.
[46] Anon. The Heyday of Yeast: World War I. Drinking Folk. https://drinkingfolk.com/eating-yeast/ (accessed 4 Apr 2025).
[47] Anon. Radium to Save Food. *LA Times.* 22 May 1904. p.58.
[48] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.171.
[49] Advertisement. *Daily Express*. 13 Aug 1915. p.8.

Again, this reflects the trajectory of the commercial usage of radium, which was a sought-after ingredient for therapeutic products targeting a range of bodily ailments, including rheumatism, gout, neuritis, sciatica and nervous disorders, to name a few. Numerous products made use of radium for these purposes. For instance, the 'Radipad' and 'Radiomite' radioactive insoles, along with rheumatism pads from the Radior Company, claimed to be effective in 'expelling the dreaded acid crystals in all uric acid complaints' while also being 'comfortable to wear'. [50]

Another example was the 'Q-Ray Electro Radioactive Compress', a woven case filled with radioactive ore in parallel pockets. The product was marketed as combining both 'mild radioactivity' and heat, with a plug attachment allowing it to connect to the electrical mains. It was designed to treat conditions like rheumatism, lumbago and menstrual pain, with prices ranging from £5 to £21, depending on the level of radioactivity inside.[51]

It is unsurprising that the most successful of this new style of products marketed by Dongor were those that aligned with the broader trends of popular radioactive products at the time. While some items, such as the Q-Ray, were definitively proven at the time and subsequently by this author's own tests to contain actual radioactive material, it remains unfortunate that no one has been able to determine whether Dongor products did -whether through Dickinson's so-called 'organic radium' or a more conventional radioactive source.

Radium-based health and beauty treatments began to fall out of favour in the late 1930s, although the Q-Ray remained on the market until at least the mid-1950s. This decline can be attributed to the emergence of more effective treatments, as well as public scandals such as the 'Radium Girls' and the death of American millionaire playboy Eben McBurney Byers (1880-1932), which both related to radiation poisoning. Additionally, changing regulations, particularly the Radioactive Substances Act of 1948, further contributed to the diminishing popularity of these products in the UK.[52]

However, despite being a pioneer in the commercial application of radium, Maude's interest had waned long before it became unprofitable. In 1917 despite four years of intense work, she was unable to conclusively determine whether her substance was 'organic radium', another compound, or whether it emitted radioactivity at all.[53]

For Hotblack, however, this lack of definitive proof was not particularly significant. He argued that success in science is not solely defined by discovering or uncovering 'natural forces' but, perhaps more importantly, by the ability to apply them for the benefit of mankind. Dickinson, in his view, had already achieved something notable, not because she had proven the validity of her discovery but because she had found a way to make it available commercially.[54]

Maude's subsequent activities remain somewhat unclear. In 1922, there was a brief resurgence of interest in her work, as reported by the *Brisbane Telegraph*, which noted that she was residing at East Cliff, Brighton, where she maintained a house, laboratory and 'workshops of wonders'. However, while many of her claims remained similar to

[50] Advertisement. *Daily Express*. 4 Jul 1916. p.5.
[51] Q-Ray marketing material, c1930s. Author's collection.
[52] Santos. *Half Lives*, 2020 (Note 25). p.224.
[53] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.58.
[54] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.60.

earlier ones, they had begun to adopt a more mystical and Egyptian-inspired narrative. Her crystals were now described as resembling the self-created scarab or beetle of ancient Egypt, and her bread was referred to as being 'mummified'.[55]

Maude Dickinson passed away on 31 March 1933 in Brighton and was buried in Hove Cemetery, North Section, Grave 265.[56] In a codicil to her will, dated 1925, she revoked the executorship from Sydney Crosbie and appointed Charles Frederick Wheen Dimond in his place, along with Alfred George Hastings White, the librarian for The Royal Society, whom she referred to as her dear friend. In her will, she bequeathed to White 'all tubes and contents, crystals, and scientific photographs related to my research ... along with the gold box with the ruby clasp containing such tubes, as well as my collection of scarabs, should the British Museum be unwilling to accept the bequest'.[57]

The fate of her crystals remains unknown.

Conclusion: 'Radio-Activity in the Service of Man'

Without definitive proof of whether she had indeed discovered a 'new radioactivity' and with no surviving crystals, Maude Dickinson's legacy remains difficult to define. While it is unlikely that she had discovered a new form of radium her attempts to exploit it commercially are easier to determine.

The larger (and more interesting) question of whether her products and scientific work should be classified as 'quack' science – operating outside the established medical framework – is a complex one, shaped by both the scientific standards of her time and the ways in which she presented her work. The marketing strategies she employed, along with the treatise written by Hotblack, particularly stand out for their use of exaggerated claims and widely used testimonials. These methods closely resemble those used by patent medicine sellers who often relied on persuasive narratives and anecdotal evidence to establish credibility in the absence of rigorous scientific validation. As mentioned previously it is not known whether Dickinson commissioned Hotblack to write his treatise or whether it was instigated by the publishers Jarrolds. While this is unlikely to ever be satisfactorily established it is instructive to consider that the company published other scientific treatises and, in 1920, began publishing *Discovery: The Magazine of Scientific Progress.*

While such marketing strategies were not limited to dubious products, they became a staple of the rapidly expanding commercial health industries. The use of endorsements from respected figures was a well-established technique across various sectors, including beauty. As author Diane Barthel observes in *Putting on Appearances*, these endorsements frequently drew upon scientific authority to lend products an air of credibility, even when their scientific validity was questionable.[58]

Throughout Hotblack's treatise the reader is given multiple examples of positive testimonials from Dickinson's peers including one Alfred W Oke (dates unknown) who

[55] Anon. Marvellous Scarab. *Brisbane Telegraph*. 2 Oct 1922. p.2.
[56] Correspondence with Geoff Hellman.
[57] Close. Maude Dickinson, 2021 (Note 2).
[58] Barthel DL. *Putting On Appearances*: *Gender and Advertising*. Philadelphia PA: Temple University Press; 2010. p.39.

is quoted in the forward of Hotblack's book as remarking that 'from what I have seen of the results of Mrs. Dickinson's experiments in connection with radioactive bodies, her research can best be described as 'Radio-Activity in the Service of man'.[59] These positive testimonials help to build up a picture that, despite her unorthodox methods, Dickinson's contributions were regarded as valuable by at least some within the scientific community.

However, this impression becomes more complex when we look closely at the sources validating her work. Once we set aside the references to well-known scientific figures, we are left with limited information about those who offer direct endorsements. For instance, we know little about Oke other than that he was a member of the Royal Institution and the credentials listed after his name – 'B.A., LL.M., F.C.S., F.G.S., etc.' – which offer little evidence of his scientific authority to make such specific statements. Furthermore, Hotblack's own qualifications to author such a treatise are not provided and it is merely stated that he is a writer who was asked by his friend William Wortley Baggally (1848-1928), a scientist and investigator of the Society of Psychical Research, to summarise the experiments of both Dickinson and the other scientists who had been trying to definitively confirm their validity.[60]

Nevertheless, Hotblack's account also overwhelmingly emphasises Dickinson's commitment to thorough research and her active engagement with contemporary scientific understanding. She, at least according to Hotblack, sought to consult with leading authorities in the field, although these efforts were not always successful; for example, her attempt to meet with Sir William Crookes (1832-1919), a pioneering scientist who was known for commercialising his discoveries, was declined due to his illness.[61] And, as mentioned earlier, her status as a woman in a male-dominated discipline may have limited her access to certain resources.

Rather than isolating herself from the scientific community, she actively sought to establish her place within it. She showcased her products at scientific conferences and her membership of both the Royal Institution and the Women's Engineering Society not only reflects a level of respect for her work and expertise but also underscores her determination to engage with her professional peers and contribute to ongoing scientific discourse.[62]

Ultimately Dickinson's legacy reflects the difficult balance between her scientific efforts and the commercial strategies she employed. Her efforts exemplify the challenges of navigating a rapidly expanding market and a period of intense innovation, where the lines between scientific inquiry and commercial success often became blurred.

[59] Hotblack. "*A New Activity?"*, 1920 (Note 6). Foreword.
[60] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.60.
[61] Hotblack. "*A New Activity?"*, 1920 (Note 6). p.59.
[62] Close. Maude Dickinson, 2021 (Note 2).

Biographical details

Specialising in the late 19th and early 20th century Lucy Jane Santos is a freelance historian and consultant uncovering the hidden stories of how science and technology have transformed daily life, especially when it comes to innovations in beauty practices. Her debut, *Half Lives: The Unlikely History of Radium* was shortlisted for the 2021 BSHS Hughes Prize which recognises books that communicate the history of science in an engaging and accessible way to non-specialists. Her latest book, *Chain Reactions: A Hopeful History of Uranium* was shortlisted for the 2025 National Centre for Writing's Book of the Year (History) Awards. Lucy is currently working on *Nobody's Perfect: The Making of Some Like It Hot*, which will be released in 2026.

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