THE ART OF SPATIAL ILLUSION

Immersive Encounters between People, Media, and Place

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19TH C. PANORAMIC PRECISION

The Colosseum of Hornor and Parris

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19TH C. PANORAMIC PRECISION

The Colosseum of Hornor and Parris

Capturing a Gigantic View of London

Building on Barker's innovation, the subsequent chapter looks into how his foundational ideas and the system he introduced fostered unparalleled risk-taking and catalyzed a wave of new innovations. While our attention often gravitates towards the panorama painting itself – the artwork's content – this approach, though understandable, risks overlooking several other crucial aspects. The history of image capture and the production processes of panoramas, especially Thomas Hornor's monumental panorama of London of the 1820s, emerges as both immensely intriguing and under-explored. What I aim to highlight is the remarkable determination and technological ingenuity required to capture and later exhibit what was, at that time, considered an almost accurate portrayal of the city. Revisiting Hornor's story might very well serve as a reminder of the power we hold in our hands today. Advanced digital tools, encompassing both hardware and software, have simplified the process of capturing and visualizing spaces/places to such an extent that we might sometimes overlook their value and significance. High-resolution video capture and scanning technology are readily available to everyone with a reasonably new mobile phone. Thomas Hornor, in the 1820s, did not have access to 360-degree cameras or laser scanners – and perhaps fortunately so. If he had had access to such digital technology, we would not have the privilege of recounting his extraordinary endeavor to create a 360-degree depiction of London, which would later become a notable visitor attraction and a conceptually groundbreaking spatial illusion.

St. Paul's Cathedral, a masterpiece by Christopher Wren built between 1675 and 1711, required restoration by the 1820s. The quest to craft the London panorama started in 1821, when Thomas Hornor chanced upon St. Paul's Cathedral. He would later publish his story in *View of London and the Surrounding Country* (1822),

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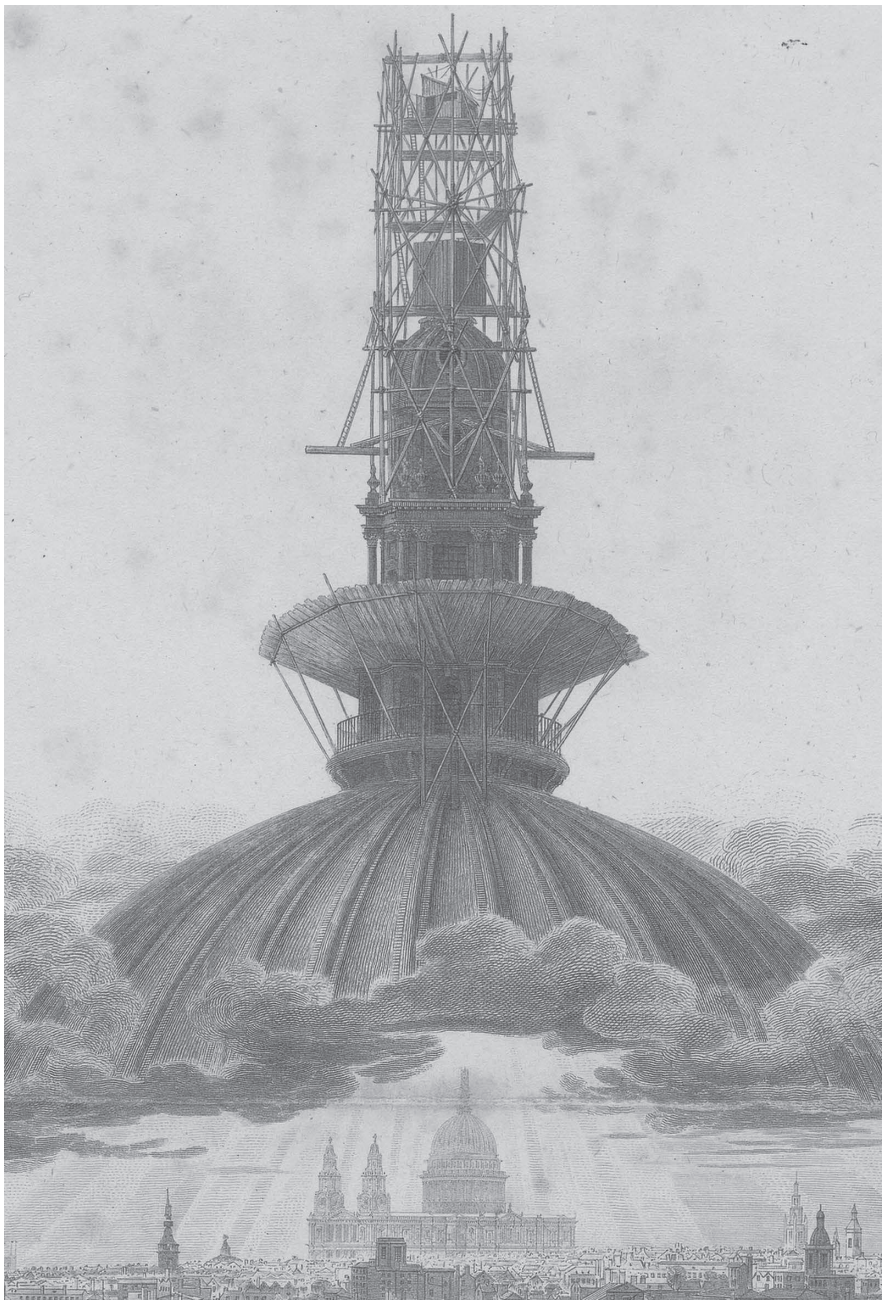

FIGURE 3.1 Detailed elevation of scaffolding around the cross by T. Horner 1822.

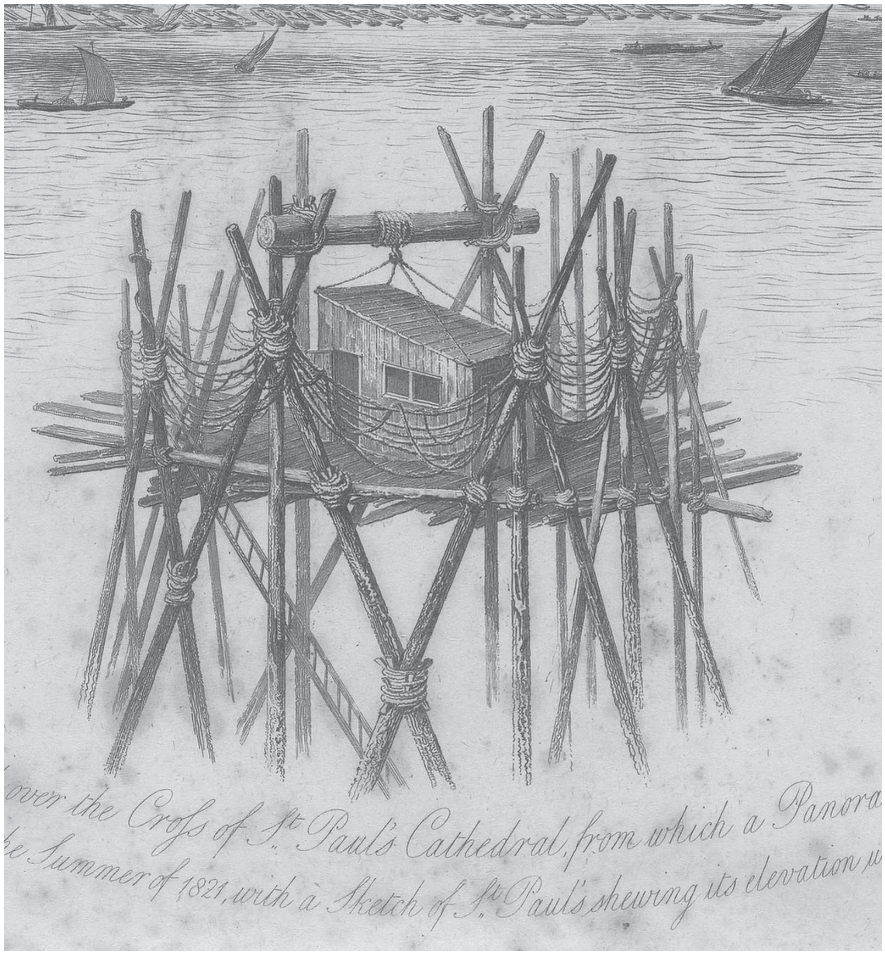

FIGURE 3.2 Detailed elevation of observatory, showing improvised structure in breath-taking height by T. Horner 1822.

enabling me to retrace his steps through his own account. The need for repairs on the dome's exterior led to scaffolding being erected around the cathedral's summit.

Hornor, a surveyor and drawing artist, immediately recognized this as an extraordinary business opportunity. He obtained permission to use the scaffolding[1] as a perfect vantage point to produce a series of sketches and drawings (Hornor 1822: 4; *cf.* Oettermann 1997: 132). Hornor describes that he ascended to the Golden Gallery, 560 steps up, encircling the lantern at the dome's summit at 85 meters (approx. 279 ft). After arriving at this height, Hornor probably realized that the spot, due to its position among the scaffolding with a limited view, was not as perfect as he first imagined.

Hornor climbed further, to the top of the dome's cross, 111 meters high, where he, hardly imaginable today, constructed a small timber shelter, braced only by ropes acting as guardrails.

He referred to this extraordinary structure as his 'observatory' (1822: 14), equipped with 'an apparatus for delineating the most distant and intricate scenery with mathematical precision' (1822: 15). This device, mounted to his structure atop St. Paul's, enabled Hornor to adjust his drawing perspective as needed. He noted that he began work at dawn, around 3 am, to capture the city's first light and avoid the obscuring effects of factory smog (1822: 20), producing drawings that detailed buildings and objects up to 130 miles away (Oettermann 1997: 134). While Hornor had initially planned to produce only four sheets of his drawings, later to be sold as engravings to visiting tourists – depicting east, west, north, and south views – his high elevation project evolved into an all-consuming task. He noted later that he had spent the entire summer creating nearly 300 drawings, covering an area of 512 sqm (approx. 1680 sqft) (Hornor 1822: 18, 23), far surpassing his original intent.

Oettermann highlights that with an unobstructed view, Hornor captured what was regarded as a nearly perfect image of London, laying the groundwork for his eventual grand 360-degree panorama of the city. An article from the *Berliner Kunstblatt* praised the resulting experience for its 'telescopic accuracy,' which elevated the illusion to a level of 'sheer magic' (Berliner Kunstblatt: 223–224; *cf.* 1997: 134). This commentary serves as a testament to how Hornor's work blurred and extended the boundaries between perceived reality and illusion. His sketches, and later the full panorama, represent a carefully selected and constructed visual impression – an amalgamation of numerous perspectives over time – that presented an idealized London under a sky as clear as those over Paris or Rome (Hornor 1822: 19; *cf.* Brewer 2007: 237). Oettermann observes that Hornor's Panorama of London was even more detailed and complete than London itself, transforming it from a mere reflection of reality into a hyperreality akin to a mail-order catalog (Oettermann 1997: 137; *cf.* Brewer 2007: 237). In essence, Hornor's panorama, which positioned viewers at a divinely privileged vantage point – high enough for an all-encompassing view yet low enough to discern every detail – was as much about artful "depiction" as it was about "deception".

Hornor not only details the technicalities of his work, but also extensively shares his own personal experiences. He emphasizes the significant dangers he and any others helping him faced while working on the scaffolding and notes: 'Indeed scarcely a day passed without some part of the scaffolding or the machinery connected with it being disturbed' (Hornor 1822: 21). Hornor compared his work with that of a man climbing a mast during strong winds and in heavy sea:

> it was impossible for a person to stand on the scaffolding without clinging for support to the frame-work; the creaking and whistling of the timbers, at such times, resembled those of a ship labouring in a storm, and the situation of the artist was not unlike that of a mariner at the mast-head.
>
> *(1822: 21)*

Beyond these dazzling descriptions, Hornor also reflects on moments of tranquility and peace, such as entering the serene cathedral in the early morning, the

lengthy ascent to the dome's peak, and the quietude of the city below before dawn 'gradually revives the city into activity, hustle, and business' (1822: 20). In the next section, I will look at the venture of producing a panorama experience that he produced from the images drawn high above the city. While the final panorama would of course never be able to replicate this rich multisensory journey, it is evident that the experiences Hornor had while capturing the views from St. Paul's Cathedral deeply influenced the creation of the final work showcased in the Colosseum. The bespoke-built visitor attraction was called *Panoramic View of London.*

The Panoramic View of London at the Colosseum

As Hornor created these drawings during his summit residency, he likely recognized that the sketches made on relatively small sheets could be transformed into a single piece of art with a commercial appeal far beyond what he initially envisioned. He devised a plan to exhibit his work to a national and international audience in a manner almost as striking as his own view from St. Paul's. Perhaps inspired by other entrepreneurial image representation ventures in the city, such as Louis Daguerre's diorama, which opened in 1823 near Regent's Park and showcased transparencies of 70 x 45 feet, Hornor enlisted the young architect Decimus Burton, then only twenty-three and on his first commission, to design a substantial round building.

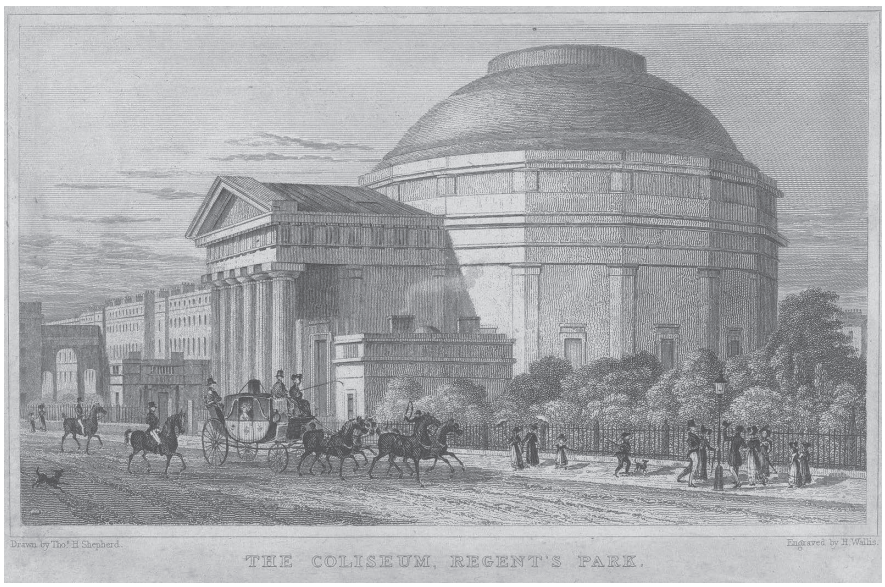

FIGURE 3.3 Elevation of The Colosseum in Regent's Park. London. Artist Henry Wallis, 1827.

This building was to be located at the south-east corner of Regent's Park, between the Outer Circle and Albany Street, in a prime location soon to be known as the Colosseum.

Hornor could hardly have chosen a more prestigious site or a better architect for his project at the time, aiming to showcase his innovative approach to a broader audience. The site that would become Regent's Park was one of London's eleven royal parks and formerly Henry VIII's hunting ground. At the beginning of the 19th century, Prince Regent George IV envisioned transforming the existing green land into a new public park estate and commissioned John Nash (1752–1835). Nash was considered one of the leading British architects of the Regency and Georgian eras in the United Kingdom. Lieutenant-Colonel James Burton (1761–1837), a builder and one of the most influential property developers of the time, was tasked with the construction work. The project began in 1811, with James Burton, who had financially supported several of Nash's previous projects, taking on the financial patronage of Regent's Park's transformation. In fact, James Burton acquired several land leases around the park. Given Nash's dependent relationship with James Burton, it is perhaps unsurprising that he promoted Burton's son, Decimus Burton, who then became chiefly responsible for the designs of notable terraces and the villas of the Inner Circle (Bowdler 2009; *cf.* Williams 1990: 11–12). Moreover, it is perhaps not surprising that James Burton chose a prime estate in Regent's Park for the new family mansion, which Decimus Burton designed and built in 1818, today known worldwide as *The Holme* (*cf.* Picturesque Guide 1829: 29). All of this contributed to the young Decimus Burton kick-starting his career and later becoming one of the most highly regarded Victorian architects and urban designers of the 19th century, albeit not always having received the attention of previous generations of architectural historians.[2]

Work on the Colosseum building commenced in 1824 and concluded in 1827, coinciding with the principal work on the park, which provided a grand entrance and setting for an enormous panoramic painting that spanned the entire inner circle of the building (Oettermann 1997: 134). Despite several delays and financial disputes that attracted media attention, the construction of the building and panorama was completed in approximately two years. Decimus Burton's building became a significant attraction in London upon completion. Regrettably, the building in its final form no longer exists today, necessitating reliance on photographs, etchings, and detailed descriptions for its historical study. The most notable surviving photograph, taken by Roger Fenton (1819–1869) around the 1860s,[3] shows the south side elevation of the building, capturing in great detail not only the portico but also the distinctive roof of the rotunda. John Limbird's *A Picturesque Guide* to the Regent's Park (1829) offers the following observation:

> It is a polygon of sixteen faces, each twenty-five feet in length. Attached, on the west side, is a noble Grecian-Doric portico, of six columns, occupying three of the faces of the polygon. The order of the portico is continued round the entire

> building; the entablature being supported by antæ, or pilasters placed at the angles. . . . Upon the entablature is an attic, from which springs a dome, having three grandini, or steps, at bottom, and a moulding and parapet at the summit; behind which is a gallery, formed from the purpose of viewing the surrounded scenery.
>
> *(Limbird 1829: 25)*

The upper portion of the dome is glazed, making it appear as a vast skylight, 75 feet in diameter, while the rest of the dome is covered with copper and painted (1829: 25). The entrance portico was constructed from brick and stucco with Portland stone cement, tinted to imitate natural stone (*cf.* Limbird 1829: 25; Mogg 1844). With its entrance portico and connected rotunda, the "Colosseum" bore a closer resemblance to the *Pantheon* Temple (118 to 125 AD) in Rome, and the literature does not clearly explain the choice of name.[4] What is clear, however, is Decimus Burton's affinity for neoclassicism, evident in the Roman and Greek revival architectural styles, which would later evolve into Regency styles. Surrounding the building were gardens 'laid out so as to appear much more extensive than they really are, and comprise conservatories, waterfalls, fountains, a Swiss cottage, a marine cave and grotto, all of beautiful construction' (Mogg 1844). The setup was clearly aimed at attracting and impressing potential visitors, with seemingly no expense spared. Most contemporaries were struck by the building's size and architectural splendor at the time; however, not everyone was satisfied. Among the critics was James Elmes, who claimed that he had originally worked with Hornor as his architect on the building's design and that Decimus Burton's design closely mirrored his original concept for an octagonal-shaped building with a dome and entrance porticus. He also asserted that it was he who had initially introduced Mr. Hornor to Mr. Nash, the architect of the Crown. Furthermore, Elmes critically questioned the building's ill-conceived name, arguing that its form did not resemble that of the Colosseum in Rome at all (Elmes 1831: 144).

The inner structure of the rotunda and dome was undoubtedly the most impressive architectural feature of its time. Critics were especially taken by the gigantic dome, which featured both an inner and outer shell, including a significant glazed section. Limbird notes:

> At sixty feet above the footing spring the principal rips of the dome. They are forty-eight in number, and are formed with size thicknesses of inch-and-a half plank; at bottom, fourteen inches deep.
>
> *(Limbird 1829: 25)*

Once the building's inner structure was completed, the drawings were enlarged 256-fold and transferred onto canvas by an artist named Barbor, before Edmund Thomas Parris (1793–1873) was commissioned and took a central role in overseeing the production of the panorama painting. Parris, known as a portrait and

subject painter as well as an illustrator, had already established a good reputation by the late 1820s. Around the same time Hornor was developing his plans to create a large panoramic painting, Parris conceived a mechanism that, many years later, would enable him to access Sir James Thornhill's paintings in the cupola of St Paul's Cathedral without extensive scaffolding. This innovative idea is quoted by multiple bibliographic sources as having caught Hornor's attention in the early 1820s, leading him to later assist in the production of his panorama of London at the Colosseum (*cf.* Sidney 1895: 368–369). Parris presumably saw this as an ideal opportunity to test his invention and to demonstrate his capabilities, and subsequently dedicated himself to working on the panorama with Hornor and a team of painters for four years until 1829. Critics were full of praise for Parris's panoramic painting, and even James Elmes, the architect Hornor had dismissed, commented:

> Of the Panorama within its walls, it is impossible to speak too highly; its deception is so complete, and the accuracy of the architectural and other details so correct. Every church, house and other building may be known, and like the real view, will bear even the test of telescopic examination.
>
> *(Elmes 1831: 144)*

Two surviving drawings housed in the Guildhall Library, showcasing interior views of the Colosseum shortly before its completion, serve as an invaluable resource that unveils numerous intriguing details about the transfer of the panorama onto the large canvas and its ultimate appearance. The first drawing presents the interior of the main circular exhibition hall of the Colosseum, with an internal diameter of 38m (approx. 115 ft) and a height of 24m (approx. 79 ft). This huge panorama was created beneath a semi-circular cupola adorned with plaster to mimic the sky. A glass lantern, reaching a height of 11.5m (approx. 38 ft), crowned the structure, atop which sat the hut Hornor had utilized on the summit of St. Paul's Cathedral to produce the panorama (*cf.* Comment 2000: 27–28). Elmes further observes that the inclusion of the 'original ball and cross' from the Cathedral as part of the panoramic display introduced an element of site-specificity and realism for the visitors (Elmes 1831: 144).

From the drawing and various historical documents, we can gain a good understanding of the unique, location-based experience that Hornor's panorama provided, which extended far beyond merely entering a grand room adorned with a vast painting. The visit was meticulously arranged and choreographed. Upon Hornor's opening, visitors were likely ushered in from the west side of the building, leading them through a corridor. This passage cleverly opened into a saloon, designated for the exhibition of artworks and offering views of the magnificent panorama of London (*cf.* Mogg 1844: 194). In this circular ground-floor salon, under a tent-like roof designed to conceal the panorama, refreshments were served before guests were invited to move towards the structure's center. Here, they encountered the 'Ascending Room, capable of holding ten or twelve persons, which is

elevated by concealed machinery to the desired height for viewing the Panorama' (Kronheim and Skirving 1845: 6). The mentioning of a mechanical lift is important as it was one of the groundbreaking innovations at the time. In fact, the term "elevator" was not even introduced in a broader sense, and critics found all sorts of interesting ways to describe it: 'By the aid of machinery that transports a movable room through the building's core, visitors are elevated to the panorama's peak, thus avoiding the need to climb stairs' (*cf.* Mogg 1844: 194). Elmes remarked: 'Within the building's central cylindrical shaft is an ascending room, allowing individuals to enter at the base and swiftly ascend to the top' (1831: 144). Besides the "movable" or "ascending room," access to the viewing platforms was also possible via a double helix staircase in the center tower, which also served as the stabilizing core for the building's intricate cast-iron roof structure. Interestingly again, its form and the large circular opening at its heart bear again a resemblance to the *Pantheon* in Rome, rather than the *Colosseum*.

The two drawings showcasing the interior of the Colosseum and the panorama experience offer a vivid glimpse into the visitor experience from atop the multi-leveled platform.

The rotunda's circular wall was almost entirely enveloped by a vast canvas, upon which the panoramic painting was depicted. A tent-like curtain concealed the panorama's lower edge, ensuring the drawing's termination did not disrupt the illusion of a boundless vista. These illustrations enable us to appreciate the curved wall and the space separating the viewers on the platform from the panorama painting – both elements crucial for simulating a distant view and depth, rather than the sensation of merely observing a flat image representation of the city on a screen. The infusion of natural light from the roof's opening further enhanced the painting's realism. The reproduced illustrations are particularly intriguing because they document the creation of the panorama in the Colosseum, thereby revealing not only the scale of the building and its architecture but also its function as a panoramic device and the ingenious methods employed to paint the large panorama on the canvas, utilizing Edmund Thomas Parris's innovative suspended cradles.

The depiction of numerous ropes and movable platforms suspended high above the ground, and panorama painters resembling circus artists on slender timber platforms and cradles at breathtaking heights – some connected to the central core, others hanging from the roof's iron truss structure with pulleys and metal wheels – highlights the considerable ingenuity and risk involved in the project. Studying these images, one can discern the shared drive between Hornor and Parris – a willingness to push physical boundaries to achieve their artistic vision. Both individuals, undeterred by the significant heights within and outside the dome of St. Paul's Cathedral and the associated dangers, embraced innovative technologies and developed new techniques to accomplish feats previously unmatched. However, despite their dedication and ingenuity, their success was hindered by the disappearance of a key financial partner, putting Hornor's panorama venture in jeopardy even before its official opening to the public.

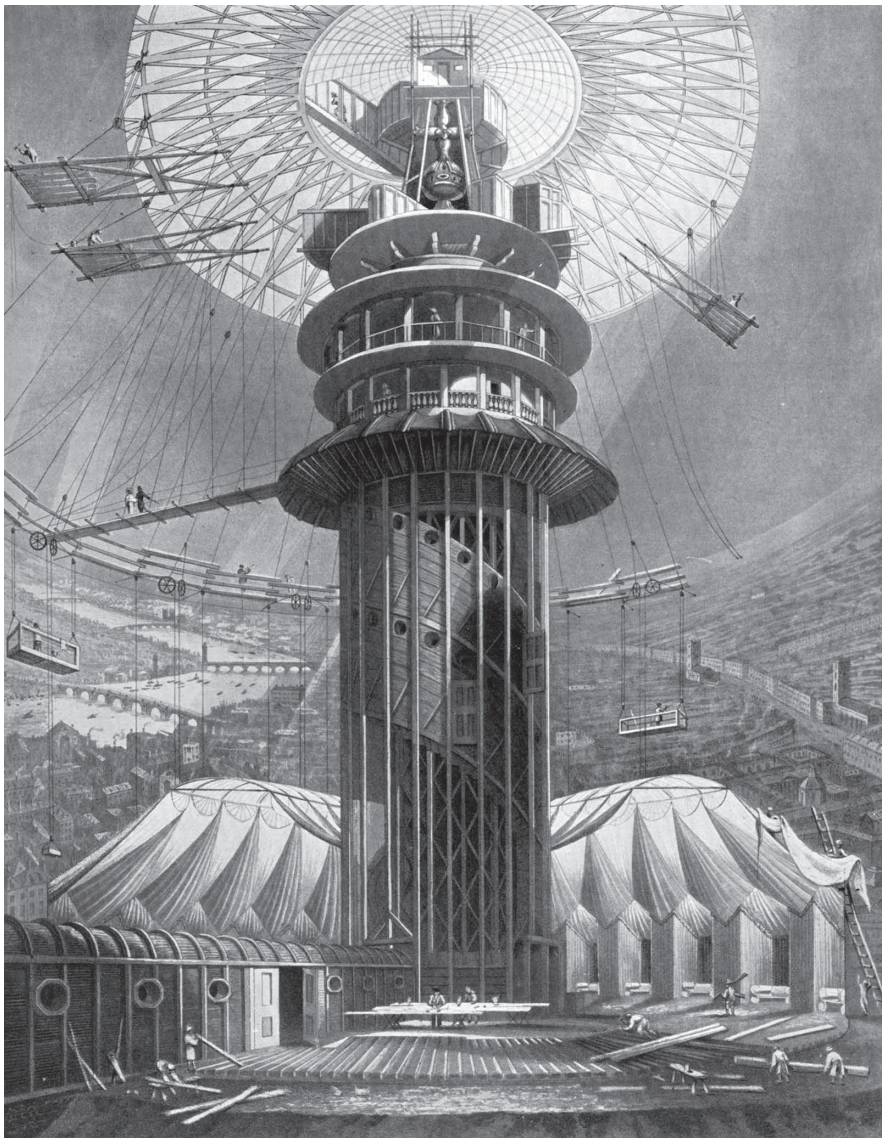

FIGURE 3.4 Interior view of the Colosseum, Regent's Park, London, 1829, showing workmen, including painters suspended in cradles, preparing Thomas Hornor's panorama of London. The spiral staircase and a lift took visitors to viewing platforms modeled on the cathedral's dome.

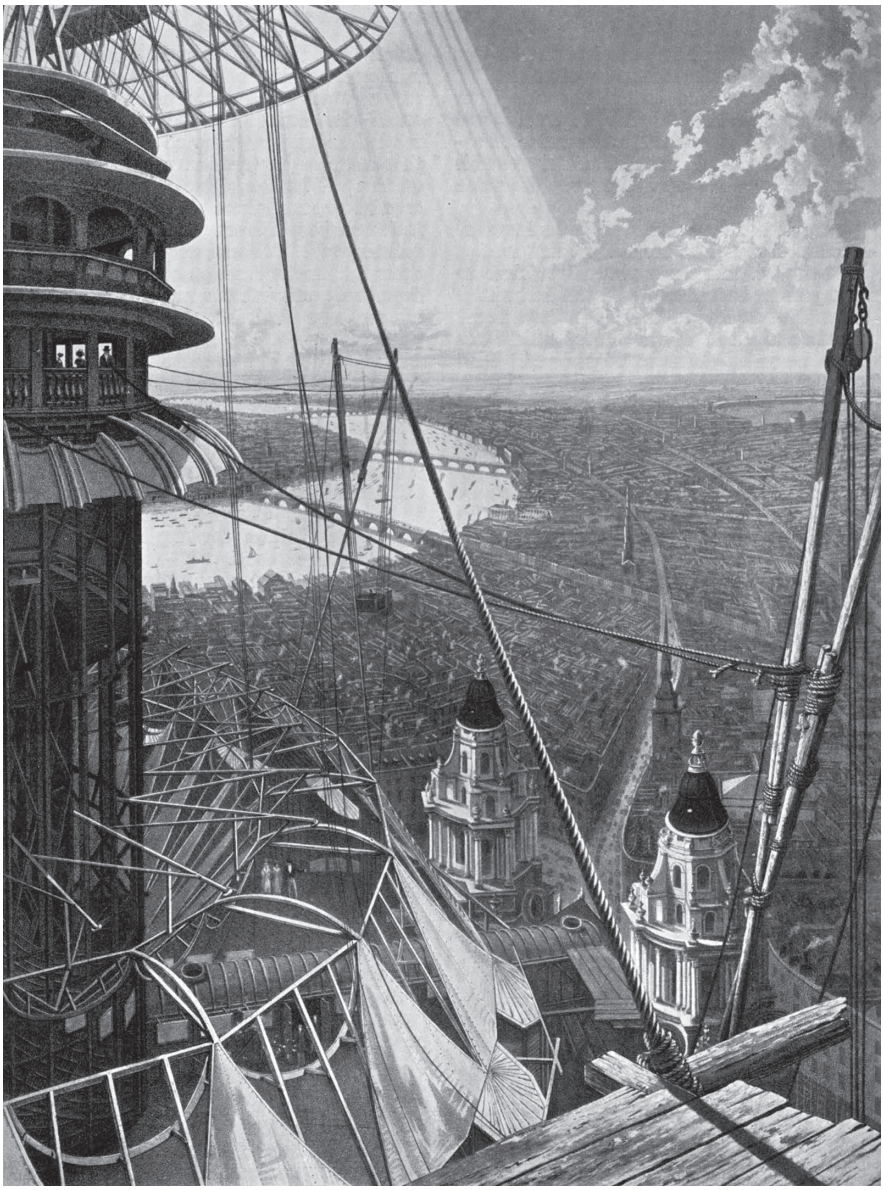

FIGURE 3.5 Bird's-eye view of the Colosseum's interior, Regent's Park, London, 1829. Showing the staircase, upper part of the pavilion, figures at the viewing stations and a painter in a cradle, putting the finishing touches to Thomas Hornor's panorama of London.

Thomas Hornor, who was not particularly wealthy and could make little to no advance payment for his enterprise, managed to finance the construction of a large building on a spectacular site. So how did he finance this extraordinary undertaking? The answer appears to lie in his alliance with a banker named Rowland Stephenson (*cf.* Mogg 1846: 194), whom Edward Mogg mentions filed for bankruptcy a few years later. This piqued my interest, leading me to consult *A Handbook of Bankers* (1867) by F.G. Hilton Price, which lists bankers and brief descriptions of their businesses since 1677. Indeed, there is substantial information on Rowland Stephenson, who was the principal partner of the banking firm Remington and Co. Relatively shortly after the building's construction, in 1828, 'some unfavourable reports had gone abroad respecting the credit of Messrs. Remington and Co. . . . resulting in many customers withdrawing their accounts from them' (Price 1867: 117). Despite the support of some prominent bankers, 'on 27th December 1828, it was reported that Mr. Rowland Stephenson, the active partner, had absconded with a large sum of money' (Price 1867: 117). The subsequent investigation revealed that Mr. Stephenson not only had temper issues but was also allegedly addicted to gambling, leading to a defalcation of £200,000, which he attempted to cover with Exchequer Bills belonging to his customers. Stephenson's banking career ended rather abruptly when he was charged with bankruptcy and embezzlement, resulting in a warrant being issued for his arrest (1867: 117–118). Some news articles and key scholars on the subject mention that he fled to the US to escape apprehension, and Hornor followed him soon thereafter (*cf.* Otto 2015: 181).

Hornor was not able to recover the costs for his investment, fell under financial pressure to repay his loan, and subsequently left the panorama business and London behind. After his disappearance, some of his friends managed the Colosseum until it closed and was sold in 1835. And as if the events surrounding the Colosseum were not enough of a warning for new investors, in 1837, Robert Burford, proprietor of the existing Panorama Leicester Square, opened a further panorama of *The Ancient City of Rome*. Unsurprisingly, over the following years, the Colosseum changed owners several times. Otto provides a detailed account of this tumultuous history, noting that 'it was bought by John Braham (1774–1856), the most gifted tenor of his time, and the comedian Frederick Henry Yates (1797–1842)' (2015: 181). Little is known about what plans Braham and Yates had for the building and its panoramic painting, but it was reported that the 'whole was for some time in possession of the vocalist Braham, to whom it is believed to have proved anything but a profitable concern' (Mogg 1848: 194). In 1843, the Colosseum was sold to David Montague, proprietor of the Princess's Theatre in Oxford Street, who hired William Bradwell, chief set designer at the Covent Garden Theatre, to refresh its interior décor and stage a series of new attractions (Otto 2015: 181). This marked a period of renewed efforts to turn the Colosseum's financial fortunes around. A specially printed description of the renovated Colosseum, titled *A Description of the Colosseum* (1845), assured visitors that the 'first glance of the visitor will render it unnecessary to assure him that the outlay has been enormous; and that a higher feeling than the mere object of gain must have prompted so lavish an expenditure'

(Kronheim and Skirving 1845: 1). Indeed, significant improvements were made and several new attractions were introduced, such as a gallery of sculptures, curiosities, and other delights; a *Glyptotheca*; and a *Glaciarium* (a real ice rink, described as 'artificial ice'), partly designed and built by Bradwell. A *camera obscura* was installed on top of the building 'at a scale never before attempted' (1845: 5, 23; Otto 2015: 181). In addition to the *Grand Panorama of London*, other panoramic paintings were produced, presumably covering the original painting, such as *London by Night* and *Paris by Night*. Quite interestingly, at one point Parris' original panorama underwent substantial renovations. Apparently, the new proprietors were keen to improve and add to Parris' original work, which was not deemed to have met a high enough standard initially. The new owners of the building and enterprise attempted to explain:

> The very disadvantageous circumstances under which this work was executed, and the precipitancy with which the door of the Exhibition were thrown open to the public, prevented Mr. Parris from doing himself complete justice; and the present proprietor was, therefore, most happy to secure that gentleman's serviced in the renovation and emendation of THE PICTURE, which he has ALMOST ENTIRELY REPAINTED.
>
> *(Kronheim and Skirving 1845: 7)*

Despite all efforts, time was not on the side of the new proprietors and the Colosseum. Its initial appeal quickly diminished, overshadowed by the emergence of newer attractions in London. This led to yet another change in ownership, and although there was a brief resurgence of visitors in 1851, coinciding with the Great Exhibition, the Colosseum was eventually put up for auction in 1855 (*cf.* Otto 2015: 182). Various attempts to commercially utilize the building also failed, leading to its closure in 1864. Architectural critics of the era did not particularly esteem the building, possibly due to its association with a series of failures and frequent changes in ownership that were regularly reported in the news. Consequently, the building was demolished in 1874.[5]

The Colosseum at Regent's Park may not have been the last venue to showcase large-scale panoramas to a paying audience, as similar attractions later emerged in Germany, France, the Netherlands, and beyond. Indeed, myriad related visual attractions appeared across Europe and the US. However, Hornor's London panorama stands out as a milestone for me in terms of scale, daringness, and technological sophistication; all elements that combined created an unprecedented level of spatial immersion in an artistically created image-space. Furthermore, the panorama in the Colosseum underscores how the city and the image of the city are inextricably linked. The value Hornor placed on the "experience" he had while initially sketching from the top of St. Paul's Cathedral is evident in his own written notes. This is further highlighted by the inclusion of his hut, as well as St. Paul Cathedral's original ball and cross, in the panoramic exhibition itself. It suggests that the attraction visitors felt towards the Colosseum was not just due to the spectacular

artwork – the reproduced and painted image of the city – but also in recreating the spectacular experience of its creator, who had an exclusive vantage point overlooking the city from the top of St. Paul's Cathedral.

What is also striking is the extraordinary partnership between Thomas Hornor and Edmund Thomas Parris, which led to the creation of a technically demanding yet spectacularly impressive art of spatial illusions; an experience that was unique worldwide. Following their brief collaboration, both men pursued vastly different paths. Parris enjoyed a successful career as a painter until he died in 1873. He was appointed to paint Queen Adelaide in 1832 and commissioned in 1852 to restore Sir James Thornhill's interior frescos of the dome in St Paul's Cathedral (1853–56), employing a technique and apparatus he had invented much earlier and that led to a partnership with Hornor back in the 1820s. Furthermore, Parris is remembered today for preparing a model for a piece of tapestry for the Paris exhibition of 1867 (*cf.* Rogal 2002 [1886]: 384). Edmond Thomas Hornor, on the other hand, faded into obscurity after his business went bankrupt, and the date of his death remains unknown (*cf.* Oettermann 1997: 138).

Blurring the Lines between Materialized and Imagined Experiences

As I conclude Part 1 of this book, I want to briefly reflect on the diverse sections that have taken us from Renaissance cabinets of curiosities and whispering chambers to the Georgian and Victorian panoramas of the 18th and 19th centuries. Despite the stark differences among these spatial settings – each a unique and artistic masterpiece in its own right – there are underlying similarities that I aim to highlight and carry into the next section. To begin with the apparent, each example discussed offers a spatially immersive experience. The illusion of space or location plays a pivotal role in all the historical examples mentioned, striving to forge an emotional bond with the visitor through meticulously crafted spatial qualities of individual rooms, entire cities, and even gateways to celestial realms. I have described some of these spaces as analogue "storytelling devices," leveraging acoustic and visual effects with specific intentions. However, as William Uricchio astutely observes, the narrative engagement that would later become central to early cinema (*cf.* Gunning 1990) takes a backseat to the 'sense of being in a place' itself (2011: 5).

I want to come back to the point that I mentioned at the very beginning – our point-of-view (POV). What is our stance when encountering these spatial settings whose surfaces have been purposefully designed to engage us; what are these early forms of spatial immersion inviting us to experience; and what role do we play in them?

Shared and Location-Based Experience

Panoramas, in particular, placed an 'emphasis on presence, on the unfolding of space in a manner that encourages the viewer to feel "really on the very spot"'

(Uricchio 2011: 10; *cf.* 5). This alludes to the fact that the experiences, such as those produced by cabinets of curiosities, fresco chambers or panoramas, created a distinctive "location-based" experience; one that, at the time, could not be easily replicated or transported to other locations. Furthermore, and this is a point of particular importance in the context of crafting digital immersive experiences today, all the examples I have discussed were what I would call "shared experiences". The spatial scenarios portrayed on their interior architectural surface, actualized the experience not solely through the depiction and installation of objects or images, but were designed to produce a communicative event. The event was created by involving people in a shared space at the same time. Whether it was the cabinets of curiosities, fresco chambers, or panoramas, all seemed to employ a similar spatial strategy. These experiences leaned heavily on natural or designed properties of a space or architectural setting and used tactics such as acoustics, atmospheric sound, spoken words or a sensationalized sense of vision to create a spectacular image-space.[6] This created a certain uniqueness, distinctiveness, and exclusivity attributed to a particular location that also determined how an attraction was promoted and presented; all of which was important to promote a location and attract audiences.

Scientific Discovery and Worldview

A common thread among the historical examples I mention here is the pursuit of scientific discovery and, in parts, also a thriving towards innovation. This can of course be seen as part of a broader philosophical framework of the Enlightenment during the 17th and 18th centuries, which facilitated a pivot away from previously established worldviews towards an embrace of rationality and intellectual engagement. Cabinets of curiosities, for instance, emerged in an era marked by a burgeoning desire to categorize and comprehend the natural world, necessitating the invention of a scientific methodology for collection, display, and analysis. Giulio Romano's Chamber of the Giants, on the other hand, stands out for its innovative design, creating a unique audiovisual experience with a "scientific quality" that drew the attention of visitors, architects, scholars, and intellectuals. Barker's invention of the panorama introduced a novel, immersive architectural viewing apparatus that produced an optical illusion previously unknown. Hornor developed a method to capture the image of London with geographical accuracy, while Parris, who devised an ingenious technique for painting panoramas at great heights, was celebrated for the scientific precision and value of his work. In doing so, both invited people to see the world through scientific eyes, largely relying on spatial, acoustic, and visual deception and illusion. Such immersive panoramas were developed with a distinct commercial intent, necessitating that these experiences be crafted and presented in a manner that would captivate the scientific curiosity of the audience as well as catering to their entertainment desires, leading me to my next point.

Entertainment Value

The examples discussed in Part 1 share a common sense that these spatial settings were built to either showcase, amuse, or entertain a visiting audience, of course for varying reasons and with different intentions. Despite the scientific value rightfully attributed to cabinets of curiosities, they also showcased the collector's social standing and wealth. These cabinet rooms were designed not just for visitors to peruse the collections, but also to reflect the visitors' admiration back onto the collectors themselves. Guests were welcomed and entertained, in addition to being informed about the collections and the achievements and admiration for the collectors. Hosts and visitors shared not only the same space of wonderment but also a conversation and an experience in which insights were exchanged. A good example of this is also when the Holy Roman Emperor was visiting the *Palazzo de Te* in Mantova in 1530 to bestow the title of Duke upon Federico. A series of banquets in the *Camera di Amore e Psiche* were organized (*cf.* Maurer 2016: 375). The decorative chamber, along with the tableware, perfumed dishes, and other hosting practices, was designed to impress, engage, and indeed entertain the guests. Last but not least, the entertainment value of commercial panoramas is perhaps altogether too evident. Their aim to entertain is evident by the fact that these were built for a paying audience. Proprietors would develop strategies for the audience to maintain an interest in staying within the premises, which included the selling of additional items and offering refreshments. The Colosseum visitor platforms, for instance, were explicitly designed as 'sociable spaces' intended to 'draw people together for more extended periods of time' (Otto 2015: 176), further underscoring their role in providing a prolonged entertainment. This discussion brings us closer to understanding why cabinets, fresco chambers, and panoramas have been captivating in the past and continue to do so today. We must remember that these experiences are fundamentally about "representation" and thus provide a somewhat "detached" experience, linking them to a romantic worldview (*cf*. 2015: 167). Yet, their appeal lies in their capability to entertain and our innate curiosity and quest for discovery.

Virtual Travel

Another notable characteristic of the immersive spaces discussed here is the implication of virtual travel. Ferrante Imperato's room, along with many other cabinets of curiosities, was a place where collected books, artifacts, objects, and specimens from all around the world were translocated into a single location. These items, brought back from distant lands and organized with scientific intent or at least aspirations, allowed visitors to implicitly travel to these far-off places without leaving the room. This concept also extends to the fresco chambers, where guests venture into the mystical realms of, for instance, Greek mythology, momentarily immersed in an imaginary world populated by deities, heroes, and mythological beings. The trope of travel is most deeply ingrained and explicitly themed in the London

panoramas; a motif that also recurs in other panoramic installations not covered here. Indeed, the notion of virtual traveling is part of a long lineage of related spectacles, such as August Fuhrmann's (1844–1925) *Kaiserpanorama* – a room-sized stereoscopic entertainment and educational viewing device; Louis Jacques Mandé Daguerre's (1787–1851) well-known *Diorama* – one of which was located near Baker's panorama in London; or *Hale's Tours* – an early cinema experience where the audience sits in train carriages to enjoy so-called phantom rides.[7] We could almost think of panoramas as quintessential precursors to StarTreks's *Holodecks* created for and in an era of ingenious "contrivances".

> Panoramas are among the happiest contrivances for saving time and expense in this age of contrivances. What cost a couple of hundred pounds and half a year half a century ago, now costs a shilling and a quarter of an hour. . . . The mountain or the sea, the classic vale or the ancient city, is transported to us on the wings of the wind.
>
> *(Blackwood 1824: 472)*

With Hornor's and Parris' Colosseum panorama, the trope of virtual travel was strikingly staged. Visitors experienced a journey facilitated by hidden machinery and a "moving room" that elevated them into the air, offering an imaginary view of London that was previously seemingly unimaginable. Subsequent shows at the Colosseum featured other cities, such as Paris at night, setting a precedent for other panoramas worldwide. These exhibits allowed people to visit an "other place" – not physically, but virtually, through an architectural design that supported optical illusions. Referring to a newspaper article from 1830,[8] Otto encapsulates this thought in the following quote:

> In this remarkable moment, individuals who had been mere spectators or mental travelers ("imagonauts") transformed into immersants. Upon entering this virtual realm for the first time, they were engulfed by a surge of sensory information – the "grand burst of magical and imposing effect" that "breaks upon [the] bewildered eye".
>
> *(Otto 2015: 172)*

Change of Scopic Regime and Limitless Vision

Cabinets of curiosities, fresco chambers, and panoramas can be seen as storytelling venues where audiences were able to acquire some form of new knowledge and see the world through new perspectives. Using spatial and architectural means these environments elevated the visitor to a higher state of knowledge. By altering the scopic regime from a perspectival vision to a simulated omnipotent one, these spaces positioned the observer at the center of the experience and significantly enhancing it through creating a profound sense of immersion. This finding

resonates with the idea of assuming a God-like perspective, echoing Thomas Aquinas's (1225–1274) notion of God as the all-seeing and almighty, the essence of omnipotence. This transformative vision produced by cabinets, chambers, and panoramas has a key characteristic – it transcends our visual boundaries. Ferrante Imperato's cabinet in Naples, for instance, blurred the distinction between wall and ceiling. The displays crafted a new order that imposed itself upon the architecture, challenging our conception of an enclosed space and proposing an almost boundless informational realm. Giulio Romano's Chamber of the Giants took this a step further, erasing the separation between wall and ceiling altogether, which transformed into a space without limits, depicting an anti-gravitational heavenly scene. Similarly, Barker's and Hornor's panoramas, through detailed paintings, ingenious set design, and the strategic composition of foreground and background, along with the use of natural light, effaced the boundary of the circular canvas. This clever manipulation deceived the viewer's eye into perceiving an expansive vista of a vast city or a landscape illusion, further illustrating the capacity of these spaces to redefine the limits of visual experience.

Sense of Empowerment

My previously mentioned points lead me to my last point. Immersive spaces give the person standing or sitting inside the space a sense of entitlement, empowerment, and indeed sovereignty to see the whole. In other words, they allow us to see connections and to make sense of not only "what" we see, but also "who" we are within a contextual surrounding, our literal and metaphysical stance within a bigger, surrounding picture. Such immersive experiences change an established perspective and invite visitors to reflect upon their own views of the world – a concept typically associated with the Enlightenment. Visitors can build up an understanding of contextual relationships between themselves and what they see. This notion is particularly pronounced in the case of the panorama, where visitors are deliberately placed in the very center, but has of course earlier roots, of which the rooms and chambers in the *Palazzo del Te* are good examples. Some of the examples offer a high degree of freedom, for instance in terms of looking or moving around. Such is the case in cabinets of curiosities, painted fresco-chambers or panorama platforms, where visitors can walk around without losing their centric and divine vision. In doing so, they become "mobile observers", encouraged to explore and examine everything they please. I therefore wonder if what Otto mentioned in relation to the panorama can be also considered for the cabinets of curiosities and fresco chambers. They offer a 'spectatorial freedom and unstructured environment established' which established 'a field of open causality' for spectators – all of which 'generated a sense of relative freedom and arguably also of agency, in excess of that available in everyday life' (2015: 174, 2011: 30). They provide an empowering experience which, at least in the case of panoramas, was perceived by some to offer such a realistic impression that they seemed to transcend physical and metaphysical boundaries (*cf.* 2015: 169; *cf.* Blackwood 1824: 472–475).

Part 2 will look closer at more physically engaging, movement-based, and narrative immersive experiences of the late 19th and beginning 20th century, which provide a bridge to cinematic representations and ultimately by adding 'navigation, immersion, and interaction', to the digital virtual realities we are familiar with today (2015: 167).

Notes

1 Oettermann mentions in his accounts that the dome and cross of St. Paul's Cathedral was undergoing renovation in 1823–24 (1997: 132); Comment cites that the scaffolding for the bell tower was erected between 1822–24. Hornor's refers that he produced the work from cathedral summit in the year 1821.
2 He is perhaps best known for having built Wellington Arch, Hyde Park Screen, the Palm and Temperate Houses at Kew; the Clubhouse of the Athenaeum Club, London; Carlton House Terrace; Spring Gardens, and St. James's Park.
3 Roger Fenton is one of the leading British photographers and instrumental in founding the Photographic Society (today known as The Royal Photographic Society).
4 This was already observed in the earliest text I used here (*cf.* Limbird 1829: 26).
5 Otto gives an excellent account on the 'fall and rise' of the Colosseum for anyone who wants to read a more detailed account (Otto 2015: 181–184). Otto also presents a lot of historical facts about the Colosseum in *Multiplying Worlds: Romanticism, Modernity, and the Emergence of Virtual Reality* (2011).
6 The term "image-space" is meant to also include cabinets of curiosities as outlined earlier.
7 This trajectory continued with the Lumière brothers and Pathé, who dispatched cinematographers worldwide to bring back moving images from distant locales. This topic will be further explored in Part 2.
8 *Cf. Morning Journal* on 15 February 1830.