

Figure 1 18th Century Engraving of Philadelphia Skyline, Nicholas Scull engraver

Chapter 2: Above the Roof: Exquisite Miniature

The late Alfred Kazin, one of New York's intelligentsia, mused as he looked out the window toward the city, "I feel I am dreaming aloud as I look at the rooftops, at the sky, at the massed white skyline of New York. The view across the rooftops is as charged as the indented black words on the white page. The mass and pressure of the bulging skyline are wild."¹ As ships at sea, as inscriptions on a page, yet full as the body of an animal, wild, the city skyline revealed the "beautiful bedlam and chaos of New York" in a profile that flattens the mass of buildings into a cipher.

The same buildings when seen from below and close at hand, thicken into squat forms distorted by foreshortening. Vitruvius acknowledged the mutability of scale in the design of upper story columns or sculpture, recommending that they be elongated proportionally so they would not appear to be pitching forward.² He also advised reducing the upper tier of military towers by one fifth so they would not seem top-heavy when seen from below. The smaller and taller proportions of aerial architecture take into account the position of a viewer, addressing the eye more than the body.

In the 15th century, Leon Battista Alberti wrote that watchtowers were "an excellent ornament" for the profile of a building. He proposed exaggerating the apparent height through a proportional reduction in the size of each successive tier of a tower. Specifically, he recommended finishing the watchtower with a round portico open in every direction and a hemispherical roof like a small building that, when seen from afar, would appear to rise from the roofs as if from another ground.³ Alberti described the tower as an architectural instrument of vision, exemplified by the watchtower King Ptolemy reportedly built on the island of Faro, topped with fires to guide ships at night and moving dials to indicate the direction of the wind, the angle of the sun, and the time of day. In this tradition, most cities carry a second, miniature city of steeples, towers, and cupolas that can be considered visual devices, which barely correspond to the buildings below. The ornaments of the roof are visible signs that mark the city while they measure space and time in weathervanes and clocks. Above, the scale of design shifts to present a well-ordered composition made to be seen rather than inhabited, like a floating image of what the city might wish to be. Novelist Steve Lopez describes the new skyline of



Fig. 2 Peter Cooper, The South East Prospect of the City of Philadelphia, (Library Company of Phila.) 1720

Philadelphia as a surreal vision unreachable from the streets of impoverished neighborhoods below, like a dream.⁴

In this tradition, an ornamented skyline was a city's signature, revealed most effectively in promotional drawings that captured a view of the city from a distance. Scenes such as a vast prospect of London drawn by German draftsman Johannes Homann in 1705, often exaggerated the prominence of towers or shifted their positions to compose a graceful array. Towers were identified in a key that listed the most prominent buildings to give the city an architectural hierarchy as well as a picturesque profile. The first such view of Philadelphia, by sign painter Peter Cooper in 1720, shows wharfs and houses topped by the modest cap of the Quaker meeting house and the belfry of the newly built courthouse, which he significantly enlarged. In addition, he shows three oddly domed minarets, mingled with the masts of ships that are either creative exaggerations of towers on prominent houses or complete fantasy (Fig. 2).⁵

Philadelphia Style

By mid-century, Philadelphia had a skyline worth painting. As if responding to Cooper's vision, a florescence of cupolas, steeples, and domes wrote the order of city institutions on the skyline. In the 1750s, a masterful tower was completed for Christ's Church, a slender steeple added to the Second Presbyterian Church on Arch Street and a tall belltower added to the Pennsylvania Statehouse.⁶ Even before construction was complete, Thomas Penn, proprietor of Pennsylvania, commissioned a



Figure 3. James Gibbs, design for Steeples



Figure 4 James Gibbs, St. Martin's in the Fields, London

prospect of Philadelphia from the East.⁷ George Heap, with surveyor Nicholas Scull, drew a seven-foot long panorama from the New Jersey side of the Delaware River in which Philadelphia's nascent towers are exaggerated to dominate the scene (figure 1).

Steeples of Presbyterian and Dutch Calvinist churches, as well as a tower of the 1753 Pennsylvania Academy, balance the aerial composition, while the modest peaks of Philadelphia's Quaker Meetinghouse and Philadelphia's old Courthouse, which had appeared in Cooper's painting, take positions of prominence on High Street, the central axis. The size of the towers is particularly nettlesome in Heap's view for he shows them significantly larger and higher than they would appear, yet he retains the proportional tapering of tier upon tier. As a result, the buildings below become much larger in relation to the surrounding houses than they were in reality. Both Heap and Cooper usually masked the problem by obscuring the buildings in a field of roofs, but Christ's Church appears in Heap's engraving as massive in relation to the surrounding houses. His representational dilemma points out the paradox of aerial perspective, when height confounds size so something high seems both small and large at the same time.

Heap offered the drawing for display in 1752, suggesting that he may have worked from the architect's plans for the three central towers rather than a view of completed buildings.⁸ The huge drawing was engraved full size in London and almost 700 prints in two editions were sold in Philadelphia. A smaller version of the prospect juxtaposed with a city plan served as an emissary to people in London so they might admire the geometric structure and classical architecture of Philadelphia in a single image.

The architects who contributed to Heap's prospect worked in a genre of English Palladian classicism developed in London by Sir Christopher Wren and his contemporaries. Wren's numerous churches built following the 1666 fire in London carried steeples that were fantastic, free essays in formal and proportional manipulation, creating a distinct aerial signature. Typically, several tiers composed a geometric progression that left the contingencies of



Figure 5. Christ's Church Steeple, 1755, Robert Smith



Figure 6 Independence Hall Steeple, Edmund Woolley and Andrew Hamilton, 1754, restored by National Park Service 1951-70

program and site on the ground to build toward architectural perfection in miniature in the sky.

The design of steeples in London and drawings for hypothetical towers not built came to Philadelphia's builders by way of architectural pattern books published by designers such as James Gibbs (Fig. 3). Gibbs offered a series of plans for towers with stacked tiers that progress from square to octagon in plan, often finishing in a semicircular dome and spire. He wrote that the steeples were "of gothick extraction; but they have their beauties, when their parts are well dispos'd, and when the plans of the several degrees and orders of which they are compos'd gradually diminish and pass from one form to another without confusion, and when every part has the appearance of a proper bearing."9 In the illustrations, each tier is stretched proportionally to be more slender and tall than the one below, and each is raised on a pedestal so even when seen obliquely, it appears as a complete element. As a sequence, the elements reduce in size while tracing a geometric sequence from square to circle, a transformation that recalls a classical description of earth as square in form beneath a serene spherical heaven. In design, the steeple traversed the territory in between.

The steeple of Christ's Church in Philadelphia resembles Gibbs' design of St. Martin's in the Fields in London built 1721-6, reiterating a progression from the earthly body of the church toward aerial perfection (Fig. 4 and 5). The architect, Robert Smith was praised by Owen Biddle, for a composition of "three distinct parts of Architecture...no one having any thing in it that is common to the others; and yet they agree very well with each other, forming one complete and consistent whole.¹⁰ The parts compose an articulate sequence by means of their differences.



Fig. 7 Carpenter's Hall, Robert Smith, 1770-72



Figure 8 Headhouse with Cupola (Redevelopment Authority of Philadelphia)

Architectural details of the main block, built in brick and rectangular in plan, are restated in the lowest tier of the tower also brick but square in plan and rising to a distinct cornice line.¹¹ The next tier repeats the circular windows and pediments of the building below, however it is wooden and white with chamfered corners that take the square one step toward a circle. Above, an octagonal, domed temple with elongated openings stands almost independently to hold the church bell. The dome is topped with a spire that tapers to a vanishing point, stretching lines of aerial perspective toward infinity. Finally, the spire is topped by a golden sphere, weathervane and crown. The sphere completes the geometric sequence and the final crown at the tip is a pure sign of Anglican belief that shimmers in the sun at the point where the physical mass of building is reduced to nothing.

As the 1754 tower represented the Anglican Church on Quaker Philadelphia's skyline, the tower of the Statehouse, built in the same year four blocks away, represented secular government through a composition of similar elements (fig.6). The Statehouse tower, designed by Edmund Wooley and Andrew Hamilton, reiterates the square plan three times and the octagon twice, while the spire is reduced to a vestigial pointed cap. Here, the strongest termination is the dome, distinguishing the Statehouse tower from a church steeple by only a change in emphasis.

The consistency and decorum of Philadelphia's traditional skyline was reinforced by the Carpenter's Company of Philadelphia. For example, the Carpenter's Company guildhall, built in 1772, was designed by Robert Smith, the architect of Christ's Church, a prominent member of the guild, and an outspoken advocate of American independence (Fig.7). Its facade is a crisp demonstration of Philadelphia classicism in brick with painted wood trim. Its small cupola reiterated the top octagonal section of both Christ's Church and the Statehouse tower, abbreviating the sequence as an object sign on the city skyline. In an architectural gesture that recalled hallowed monuments of the city, the cupola could advertise both the skills of guild carpenters and their political stand.

Thirty years later and four blocks south, the Second Street Headhouse copied the profile of Carpenter's Hall and its cupola, (fig. 8). Like Carpenter's Hall, the Headhouse occupies a position at the end of an axis, presenting a classical facade to a long view. Built to preside over a pre-existing market and house a volunteer fire company, the Headhouse may have evoked the authority of the Statehouse to define its civic role and to bring a private fire company into the public realm. Its double purpose of authority and service was also expressed in the devices of the building: a clock to measure the hours of the market, and a bell reminiscent of the bell in the Statehouse (the Liberty Bell), as well as a gold weathervane and lightening rod. Clock, bell and weathervane marked the place and time of market activities to take a place in the city's architectural hierarchy.



Figure 9: Roofscape at Longleat

The Large and the Small

As if in a garden, Cupolas, domes, steeples and towers of eighteenth century cities such as Philadelphia constitute a aerial landscape of miniature architecture that floats on a rolling terrain of roofs (fig. 9). Above the cornice and free of the enclosure of the city streets, perfect, classical buildings like small temples stand against the horizon, recalling the temple follies that adorned eighteenth-century neoclassical English landscape gardens such as Stowe and Stourhead (fig. 10).

Both landscape temples and the architectural tradition of steeple design drew on an ancient tradition of small household shrines or aediculae that offered a small house within the house to domestic gods. In many cultures, the sacred could dwell within the profane so long as icons or relics were sheltered in a miniature building or picture frame that defined a place apart.¹² Similarly, miniature temples in a landscape or roofscape are detached from their surroundings either by garden walls or a cornice so they are seen more than touched.¹³ From a place apart, they reflect on the surrounding countryside or the city below, offering a glimpse of a more perfect elsewhere, a landscape of myth within a landscape of fact.¹⁴



Figure 10 Temple of Apollo, Stourhead Gardens

In the classical tradition of architecture, the decorated frames of windows, and doorways defined space, dividing one room from the next, inside from outside, and here from there. Alberti specifically likened a picture frame to a window that allowed a view into a scene elsewhere. In the same tradition, cornice lines separated areas vertically, marking the termination of a building at the sky. Above the cornice, roofs were the floor of an upper realm. Likewise, an architectural molding often defined the upper limit of basements even if they rose above ground to press the underground into a distinct spatial realm. In the realm of the sky, steeples stacked higher and higher with multiple cornice lines to define several tiers of architecture, each separated from the one below in both geometry and scale.

Steeples and miniature temples in gardens are defined architecturally as worlds apart, yet, unlike painted pictures, they are enterable. On occasion, a privileged few may step across the frame into the garden scene or onto the roof, like patrons of theatre who sometimes took a role in a play. This transgression turns perfection into folly, pointing up the mismatch of scale across the boundaries of illusion. The miniature temples of Stowe and

Stourhead within composed garden views offered scenes from mythic journeys of adventure and redemption that visitors could paradoxically both see and enter. As tableaux of a story, the temples appear magisterial through a haze of suspended disbelief, yet close at hand the rooms are absurdly small, like architectural toys. Through a shift in scale, they transform the narrative quickly from drama into farce, superimposing sublime and absurd in the pleasure of a garden stroll.

The view from inside garden pavilions and rooftop temples also shifts the scale across a threshold. In the Roman tradition, both were built for pleasure to offer distant views over countryside or



Figure 11 By definition, toys are miniature

city where a lord might take a select party of guests to enjoy a delicate dessert.¹⁵ From a pavilion, the party might overlook a garden designed as a miniature of the surrounding landscape, or, from high in a tower, survey the pattern of the landscape as if it were a garden.¹⁶ In both places, the view confounds scale, rendering the viewer large and the landscape small. Roland Barthes wrote that the Eiffel Tower first invited ordinary people to enjoy a panoramic view of Paris from above, a God's eye or Gulliver's eye view that turned the city into a garden landscape.¹⁷

Gulliver's adventures in Lilliput and Brobdingnag, published in 1715, were widely read in the same years that church steeples, garden pavilions and city prospects became popular. Jonathan Swift's story was ultimately a comedy centered on Gulliver's travails across shifts of scale when the experiences of eye and body did not correspond.¹⁸ In his first encounter with the landscape of Lilliput, Gulliver described a gracious realm, "like a continental garden, and the inclosed fields which were generally forty foot square, resembled so many beds of flowers."¹⁹ The town also was picturesque, "like a painted scene in a theatre." Gulliver's next thought turned to the problem of relieving his pressing bodily needs without despoiling the scene, moving instantly from the visual to the corporeal. Gulliver entered the delicate world of Lilliput at the cost of great bodily awkwardness for he could participate in Lilliput visually yet he moved in an alien landscape as if stepping from a prospect to enter a scene made miniature by the view. Separated by his size, Gulliver recognized all of the features of Lilliputian architecture yet could not enter the buildings. Ultimately, he gained the confidence of his hosts by making fun of his predicament in architectural games. He stretched a handkerchief to be a tournament ground for miniature horsemen and, on the request of the king, he allowed the army to march through his legs as they might a triumphal arch, turning himself into a monument.

Olympian View

To enter the extraordinary landscape above the traditional corniceline of a city is a form of trespass similar to Gulliver's in which the body seems large and precarious while others on the ground are rendered inhumanly small.²⁰ Michel de Certeau opens an essay on walking in the city from a position on the 110th floor of New York's World Trade Center. He sees the city as an undulating mass rising from the harbor to sink at midtown, rise again and gently dampen its oscillations as it reaches into Harlem. In an eerie image, he imagines himself as Icarus flying above his father's labyrinthine city on the waxen wings of a building. At once a god and a voyeur, he is fragile and ultimately doomed by the vanity of vision. De Certeau argues that in the view from above, the city by which one was possessed is reduced, for a moment, into a text that can be read or an object that can be possessed.²¹ In this encounter, either the viewer, as Icarus, must lose his too-large body, or the view must become a too-small fetish object or a bodiless text.

The ultimate view from above was described by Plato in last verses of Socrates description of an ideal Republic. He related the story of Er, a soldier who was so seriously wounded in battle that he was lifted away from his damaged body in death. Leaving his body behind, Er was led into the heavens and shown the mechanism of the

crystal spheres, bright whorls embedded one in another along a spindle held by Necessity.²² Made infinitely large as a spirit, Er could see the great system of the universe as a device manipulated by Necessity and her three daughters, the three fates, as a tiny device, almost a toy.

Cicero reinterpreted Plato's story in the Dream of Scipio that appeared in the closing chapter of his meditation on society, De re publica. In Cicero's story, Scipio Africanus sleeps and is carried into a dream in which he meets his grandfather who tells of the future and the past. His grandfather, a great soldier, leads him to a perch atop the Milky Way from which he can see and hear the harmonious spheres of the Universe. Scipio looks down toward the earth and the minuscule empires of men while his grandfather entreats him to look beyond the earthly lair to see the grandeur of the heavens. A discussion of the frailty of the body and of earthly fame follows and a reminder that the eternal spirit moves the body but must not be moved by it. His grandfather intones that those pure in soul will soar above the material to the realm of the stars.²³ Both Plato and Cicero locate their cosmological portraits at the end of their descriptions of the ideal city as if to locate that city finally under the heavens and within the workings of the universe. Their emissaries ascend in the dark space of sleep and death to leave their bodies and find the earth, even the universe made miniature and humming like a machine.

In Philadelphia, the olympian view is symbolically given to the city's founder, William Penn, a statue of whom was raised to the top the City Hall tower in 1894 to overlook the main axes of the city from its center. The colossal figure by Alexander Calder is similar in size to its contemporary, the Statue of Liberty in New York harbor, yet crowns a tower in the city rather than looking toward the skyline from the water (like the traditional urban prospect). The view from the tower compares with that of the Eiffel Tower, erected only five years before. Indeed, the City Hall building and tower had been designed by John MacArthur twenty-two years before, yet the construction lagged. When finally complete, an observatory at the base of the statue offered visitors a position which they could see the pattern of the city, as if through Penn's eyes. This prospect from Philadelphia's City Hall in Center Square, at the intersection of Market and Broad Streets atop the geometric spindle of the city plan reveals the two flanking rivers, Penn's four green squares, and the grid of streets repeating in the cardinal directions to recall the mechanism of classical cosmology.

The metaphor is made explicit in the sculptural program that Calder devised for the entire building. Over the reticence of a tight-fisted city council, Calder and MacArthur built a comprehensive sculptural narrative on the four facades of City Hall that depicts the proported four races of man coming together at the center of Philadelphia: Anglo-European figures on the north facade, Asian on the east, African on the south, and Native American Indian facing West. Calder reinforced his message in the capitals of four massive columns that support the tower, each a phalanx of muscular men with the designated racial characteristics. In the 1870s when he conceived the scheme, Calder's vision had real resonance. Philadelphia had been the seat of Quaker abolitionists who played a significant role in the recent liberation of slaves in the American South and William Penn, in particular, was cited in a national debate over contested land in the

West for his policy of peaceful negotiation with native peoples.²⁴ Atop the tower, Calder's statue of Penn faces northeast toward the site where in 1684 he signed a treaty, purchasing land for the city from the Leni Lenape Indians. This iconography raises the view to symbolically encompass the four corners of the earth and anchor the tower, the building and the city firmly at its center, an architectural gesture that embodies ancient Roman rituals of city founding.²⁵

Modern City Skyline

The completion of Philadelphia's City Hall opened another era of urban design that again reinterpreted Philadelphia's history and remade its skyline. At the turn of the twentieth century, the opening of Fairmount Park touched off a major effort to build an urban parkway to link the park with the city center. Guided by principles of the City Beautiful movement, the



Fig 12 Philadelphia Museum of Art from the Benjamin Franklin Parkway (Philadelphia Athenaeum)

head of the School of Architecture at the University of Pennsylvania, architect Paul Philippe Cret, proposed a boulevard modeled on the Champs Élysée in Paris. Cret's plan, modified and completed by French architect Jacques Gréber as the Benjamin Franklin Parkway required demolition of over 1000 buildings to open a view of the city skyline that framed the City Hall tower with heroic classical buildings in a park.²⁶ On opposite end of the boulevard, a monumental temple of the Philadelphia Art Museum looks down from a hill toward the center of the city. Gréber's 1917 drawing of a view along the parkway shows a picturesque skyline of domes and towers with trees in the foreground and a series of fountains and sculptures and pylons to enliven the route.²⁷ His disciplined classical composition proposed a civic order of temples in the park in contrast to the dominating urban presence of City Hall. In the 1920s, Cret finally proposed that City Hall be demolished save its tower, in order to restore Penn's original Center Square to a green space.²⁸ In part, this shift toward an expression of civic identity as a garden rather than a tower recognized that the battle for architectural dominance of the urban skyline could not be won. Throughout the nineteenth-century, large commercial buildings rose throughout the city. Every warehouse and department store projected a tower into the skyline, overshadowing church steeples and eventually overtopping City Hall.²⁹ Below, a tradition of three-story buildings with a roughly consistent cornice line was also broken, erasing the rolling surface of roofs that rode like a landscape underneath the city's steeples and domes. The urban prospect had become a chaos of commercialism and city's civic order could no longer be read in its profile.

Under the advice of the Beaux Arts trained Cret and Gréber, Philadelphia, like Paris, invested in massive demolition to open vistas at the ground. They literally brought the park into the city so that cultural buildings such as the Rodin Museum could rest in a garden. This massive effort relocated the ceremonial entrance of the city. Abandoning the Delaware River, where Benjamin Heap had drawn his prospect, to industry, the Parkway opens the city to the northwest to greet wealthy families who arrived from their suburban estates by following the road along the Schuylkill River through Fairmount Park. The prospect from the Schuylkill was composed with gracious buildings designed to add to the picturesque composition, including the pre-existing Philadelphia Waterworks of 1821 and a row of boathouses built from 1850 to 1920. The Parkway extended the drive and its picturesque composition of buildings into the center of city to end in a ceremonial approach to the City Hall Tower. The other end of the Parkway is completed by the massive Philadelphia Museum of Art, finally opened in 1929, "the Philadelphia Acropolis," which crowns Fairmount. The scale of the Art Museum relates to the view rather than to immediate urban surroundings or human size, presenting a

monumental façade of colossal Greek columns to end the long view down the Parkway from the city. Anything smaller would have been dwarfed in the distance (Fig. 12).

On the other side however, the mass of the Art Museum dwarfs the delicate Greek pavilions of the Waterworks that had graced the view from the Schuylkill since 1820 (Fig 13). Both take advantage of the picturesque frame of the natural landscape to detach the view as a composed prospect, but they contradict each other in size.



Fig 13 View to Art Museum and Waterworks from Schuylkill River.

Philadelphia's urban ambitions were dampened during the depression of the 1930s and the city suffered a general decline that persisted into the 1960s. After WWII, the City Planning Commission under the leadership of Edmund Bacon sought to modernize and again engaged issues of scale, specifically how to insert large buildings and infrastructure into a city of small rowhouses. From the start, Bacon's strategy contradicted prevailing urban renewal models of "slum clearance" by rehabilitating neighborhoods deemed historic. He began with the oldest district near the Delaware River now known as Society Hill and his ambitions soon encompassed the entire center city area.



Figure 14 Headhouse and Society Hill Towers, (Redevelopment Authority of Philadelphia)

In a treatise on urban design, Bacon's first design principle, "meeting the sky," implores designers to consider the skyline as a "major determinant in city building."³⁰ The complement, "meeting the ground," he argued should, "set the scale of the foreground," in a composed view. To demonstrate, he discussed several historical examples of urban design, then presented an aerial perspective sketch of Philadelphia to show how new highrise towers should be placed in relationship to the steeples of Philadelphia's eighteenth-century landmark buildings.³¹ He invoked the visual dynamics of artist Paul Klee to explain how massive new towers could be composed visually with old buildings in a dynamic balance.

Bacon's vision of a new skyline emerged first in the reconstruction of the area surrounding Headhouse Square. Using federal funds managed by the Philadelphia Redevelopment Authority, Bacon led the effort with two highly visible projects as a promise of things to come. Concurrently in 1959, the RDA renovated the Headhouse sponsored the construction of Society Hill Towers, a prominent set of three apartment towers designed by I. M. Pei, at the other end of the Second Street vista.³² The two projects consistently appeared together in RDA newsletters and in newspaper articles as a complementary pair, often juxtaposed in a striking telephoto shot to exemplify a harmony of old and new that would characterize the redeveloped city (fig. 14). In the image, the space between the two buildings is visually compressed, so the headhouse in the foreground appears small and precious against the gridded modern plane of the towers. The telescope lens presents the buildings in two dimensions as fragments characteristic of collage, defining the headhouse as an landmark anchor in the city fabric.



Fig. 15 Headhouse, before and after renovation, showing removal of first floor awnings and continuous cornice

The details of the Headhouse renovation also offer a glimpse of the modern transformation of the rooftop realm. Before 1959, both the market and the shops along Second Street on either side of the Headhouse Market had tin roofs or awnings that projected from a continuous cornice line just above the first floor level to define upper and lower strata of a layered city (fig. 15). This intermediate horizontal line that met neither the sky nor the ground was not included in Bacon's visual canon. During renovation, the first floor awnings were removed to visually unify the two-story headhouse building and its cupola into a



Figure 16. Bendiners Philadelphia, 1965

single object floating in an open space, shifting its scale without changing its size

In the early 1950s, the Pennsylvania State House had been similarly reunited with its cupola and turned into an object when a distant view was opened to unify building and tower in a single glimpse.³³ Early in his tenure, Bacon completed an earlier scheme to demolish of three blocks of buildings to create Independence National Historic Park. The long view opened from the north redefined the Statehouse as a small, historic object that was renamed Independence Hall, refurbished, and opened for tourism.

In this architectural redefinition, the headhouse retained its association with the Statehouse but to a different effect. The headhouse, once a structure linked with the market now appears isolates, small, and quaint, like a Currier and Ives scene (Fig. 16). It still defines an enclosed city square once cobbled to ease the passage of vehicles now cobbled to slow traffic. The

marketplace has become a pleasure park lined with restaurants in an atmosphere more cinegraphic than historical. The place and the building have persisted, yet their definition has changed from a place of measure and exchange to a collage of images. The architectural reference to the Statehouse, now Independence Hall, still holds, yet it no longer speaks of authority but history. And this history has become as vague and open ended as the classical tales evoked by garden temples; ideas such as "liberty" and "community" resonate with myth so



Fig. 17 Recent view over West Philadelphia

broadly that specific references cannot contain them. Headhouse begs stories like the temples at Stourhead, yet they are stories of an American heroism that just as elusive

Addressing a similar shift of scale, Roland Barthes suggested that the Eiffel Tower has come to symbolize the whole of Paris by provoking its tourists to dream precisely because it is oversized and useless.³⁴ When seen from a distance, the tower confounds scale to appear as a feature in a garden, reducing the city to a uniform ground. Conversely, the view from its peak turns Paris into a panoramic landscape in miniature, making the sky large. Such disjunctions in scale, at the Eiffel Tower, the Philadelphia Art Museum, and the Headhouse, open gaps in the urban fabric between the viewer and the scene, gaps that must be read poetically.³⁵ Perhaps such lacunae are a necessary part of the city, like aediculae in a household, to create an architectural pause, a punctuation mark that makes the city legible.



Fig. 18 Le Corbusier's totem figure with open mouth raised to the sky.

New Rooftops

A city of figure and ground, memory objects and pauses, redefines the rooftop by bringing it to the ground. Rooftops of a modern city no longer define a continuous raised landscape with miniature figures, but a gargantuan profile without clear strata that rises from the ground. Roofs of modern flat-topped buildings cannot be seen from the street and are designed as blind utilitarian spaces, the counterpart to basements. Clocks and weathervanes have become billboards, chimneys have become ventilators and belfries broadcast towers (Fig. 17). Roofdecks trespass in the space of machines and share their invisibility, as places from which to see but not to be seen. Aerial infrastructure of electric and communication wires spread as thin networks similar to underground systems, which tether private space to a virtual public realm. Flat-topped buildings receive these aerial emissaries like open containers. Through yawning mouths they inhale fresh air and exhale stale, revealing monstrous equipment like teeth and tonsils -- interior parts gone outside (Fig. 18). Machines on the roof emit the same corporeal rumblings as the basement, a wild landscape more of Brobdingnag than Lilliput.³⁶

Lines from the rooftop often lead to the basement, tying the two spaces together; air conditioning and ventilation equipment have components both up and down. New York's water towers carry an underground system to the rooftops, and plumbing stacks run the full height of buildings, linking basement to roof. Electrical wires, telephone and cable TV can run either above or below ground, and early twentieth century civil engineers considered subway and elevated trains as comparable options for urban infrastructure. Both above and below ground, utilities assume easements across private property increasingly limiting private rights to the space in between.

The connection of above and below by electronic networks also rewrites the strata of the city. In a novel by Pete Dexter, a newspaper columnist receives a phone call from an

appreciative reader and turns to look out his office window across the expanse of South Philadelphia, "toward the city that loved him."³⁷ As he descends into the streets however, the mood changes. His assumed role as 'voice of the people' has raised an anger that he does not see from his high place. A neighborhood gang stalks, and finally kills him down in a gutter outside a local bar. A similar motif in *Rocky* links the boxer hero, working out in a meat locker (effectively underground), via television with his rival in a tower office. When Apollo Cree sees Rocky on the screen, he recognizes a real contender and the first omen of his own downfall.³⁸ In both stories, infrastructure links places high in buildings to low on the streets, portending engagement of the body. Electronic extensions of the ear and eye penetrate physical boundaries and refigure the limits of architectural space. Up and down, near and far collapse both through stories and through dedicated channels, visual and electronic, which dissolve the layers of the city.

⁴ Steve Lopez, Third & Indiana (NY: Penguin Books, 1994), 20 & 82.

¹ From *New York Jew*, quoted in Davis Remnick, "In the Capital of Words," The New Yorker (1998): 142.

² Vitruvius, The Ten Books on Architecture, trans. Morris Hicky Morgan (New York: Dover, 1960), Book VI, Chapter 2, paragraph 2 (p.174). See also Book III, Chapter 3, paragraph 12 &13 (p.85) in which he recommends proportional diminution of the diameter of tall columns toward their capitals and Book X, Chapter 13, paragraph 5 (p. 310) in which he describes military towers diminishing to one fifth less in size at the top.

³ Leon Battista Alberti, On the Art of Building in Ten Books, trans. Neil Leach and Robert Tavernor Joseph Rykwert (Cambridge, MA: MIT Press, 1988), Book 8, chapter 5 (p.260).

⁵ Cooper's key at the bottom of the painting notes that the twin towers adorn a building belonging to John Witpain and the single tower marks Samuel Bunkley's house. Martin Snyder argues that the 7 foot 9 inch painting may have been commissioned by the Penn family in response to a similar view of New York harbor drawn by William Burgis in about 1720. Martin Snyder, P, City of Independence: Views of Philadelphia Before 1800 (New York: Praeger, 1975).

 ⁶ Reverend William P. White and William H. Scott, The Presbyterian Church in Philadelphia (Philadelphia: Allen, Lane & Scott, 1895). White and Scott date the Second Presbyterian Church steeple to 1753.
 ⁷ Snyder, City of Independence: Views of Philadelphia Before 1800, 45.

⁸ Heap shows the middle tier of Christ's Church as square and brick. It is octagonal and wood. The highest tier is shown too tall and too open. Richard Penn notably complained that the tower of the Statehouse appeared to be leaning and the perspective was incorrect. Nicholas Wainright, "Scull and Heap's Map of Philadelphia," Pennsylvania Journal of History and Biography (1957).

⁹ James Gibbs, A book of architecture, containing designs of buildings and ornaments (London: 1728).
¹⁰ Owen Biddle, Young Carpenter's Assistant or a System of Architecture, Adapted to the Style of Building in the United States (Lancaster, PA: Benjamin Warner, 1817), 56. In stacking dissimilar elements, Christ's Church steeple differs from many of Gibbs' reiterative designs.

¹¹ Christ's Church on 2nd Street just north of Market St was begun under the direction of John Kearsley, a physician and "gentleman-architect" and completed in 1744. The steeple was added ten years later under the design of Robert Smith from Scotland, a member of the Carpenter's Company. John L Cotter, Daniel Roberts, and Michael Parrington, The Buried Past, Barra Foundation Book (Phila.: Univ. of Penna. Press, 1992), 105.

¹² Rudolf Wittkower, Art and Architecture in Italy, 1600-1750 (London: Hammondsworth, 1972 (1958)).and John Summerson, Heavenly Mansions (London: 1949), 1-22.

¹³ Jay Appleton, "Some thoughts on the geology of the picturesque," Journal of Garden History 6, no. 3 (1990): 27-291.

¹⁴ Susan Stewart, On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection (Durham and London: Duke University Press, 1993), 46.

¹⁵Mark Girouard, Life in the English Country House (New Haven: Yale University Press, 1978), 47. ¹⁶John Dixon Hunt

¹⁷ Roland Barthes, "The Eiffel Tower," VIA 2 (1973): 164.

¹⁸ Stewart, On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection, 68.

¹⁹Jonathan Swift, The Portable Swift (NY: Viking Press, 1948), 222.

²⁰ We are accustomed to seeing things at a distance across a landscape so feel no distortion in size.

²¹ Michel de Certeau, The Practice of Everyday Life, trans. Steven Randall (Berkeley, CA: Univ of Calif., 1984), 92.

²²Plato, "The Republic," in The Collected Dialogues, ed. Edith Hamilton and Huntington Cairns (Princeton, NJ: Princeton Univ. Press, 1961), 840.

²³ Macrobius, Commentary on the Dream of Scipio, trans. William Harris Stahl (NY: Columbia Univ. Press, 1952), 77.

²⁴ In the 1876 Centennial celebration in Philadelphia, which was also marked by the construction of the City Hall, Penn's treaty with the Lenape Indians was invoked to support humane treatment and cultural reeducation of Western tribes. Philadelphia was the center of the Indian Rights Association dedicated to educating Indian youth so they could be absorbed into the general population. See Gary B. Nash, First City: Philadelphia and the Forging of Historical Memory (Philadelphia: University of Pennsylvania Press, 2006). ²⁵ Joseph Rykwert, The Idea of a Town: the anthropology of urban form in Rome, Italy and the ancient world (Cambridge, Mass: MIT Press, 1988).

²⁶ David Brownlee, Building the City Beautiful, the Benjamin Franklin Parkway and the Philadelphia Museum of Art (Philadelphia, PA: Philadelphia Museum of Art, 1989). Brownlee tells the story of the construction of the Benjamin Franklin Parkway and the institutions that line it.

²⁷ Ibid., 32. Drawing by Jacques Gréber, held by the Philadelphia Museum of Art Archives, 90.7
 ²⁸ Ibid., 86.

²⁹ A 'gentleman's agreement' to restrict building height to the level of William Penn's hat had resulted in an awkward flat-topped city and was broken in the mid-1980s.

³⁰ Edmund N. Bacon, Design of Cities (NY: Viking Press, 1967).

³¹ Ibid., 268.

³² James Marston Fitch, "Housing in New York, Washington, Chicago and Philadelphia," Architectural Record 134 (1963): 199.

³³ The block of buildings opposite the Statehouse was demolished for a park that allowed an axial view of the façade as never before.

³⁴ Barthes, "The Eiffel Tower," 164.

³⁵ Recently the Headhouse Conservancy has raised money to regild the weathervane and is seeking more funding for roofwork.

³⁶ Henri Lefebvre, The Production of Space, trans. Donald Nicholson-Smith (Oxford: Blackwell, 1991), 195. Lefebvre describes the body as a double sided machine, one side uses massive supplies of energy to drive the muscles, the other minute pulses to stimulate the sense organs. The body transposed into space carries this distinction with it.

³⁷ Pete Dexter, God's Pocket (NY: Random House, 1983), 72.

³⁸ John Avildsen, "Rocky," (USA: MGM, 1976).