

Body Building: Paul Pfeiffer's *Vitruvian Figure*

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INTRODUCTION

Since antiquity, the body has been material and muse for the making of cities, buildings, and the landscapes between. Whether one delves into the myth, history, theory, or practice of architecture, from the foundational story of the Corinthian maid to the physico-chemical environments of Decosterd & Rahm, bodies precede building.

Theorizing the body is the unspoken, often unacknowledged, and ever-shifting starting point of building. Vacillating between dominating architectural discourse and receding into silence—sometimes fore-grounded by architects, and sometimes not—it is always evident. The anthropomorphic vocabulary of classical architecture is a dark reminder that the first temples originated from altars upon which animal sacrifices were made, the *triglyph* and *guttae* of the entablature derivative of the ancient Greek words for 'thighbone' and 'fat'. The body has provided divine inspiration for building proportions, as recorded in Vitruvius' first century BC *De Architectura* and resurrected by Renaissance scholars. It has been translated into module for the systemization of the building process, as in Le Corbusier's *Modulor* man, 1948. The body has provided conceptual language and form, as in the 1960s Metabolist designs for 'cells' and Archigram's self-regulating structures. It has imbued architecture with gender, politics, sexuality, and identity—it is a specific body that inhabits Charles Moore's *Piazza d'Italia*, or the restroom of Philippe Starck's Royalton Hotel in Manhattan. In contemporary architecture, the self-generative systems of Evan Douglas Studio and the organically referent

geometries of 'blobitecture' mark a more intimate mimesis of the body.

And, in an inevitable turn, architecture forms bodies—both our perception of these bodies, and the physical nature of them. While Jeremy Bentham's panopticon (1785) might serve as an earlier, anomalous example of this phenomenon, a more recent design by architects Decosterd & Rahm does more to enumerate architecture's influence upon the body. In their *Hormonarium*, the skin is an external interface to be penetrated as countless UV bulbs elicit physiological responses by engaging hormones to heighten desire and reduce fatigue—"exerting an influence outside the realm of the senses and the skin,"¹ in other words, eliciting a response from far within the body. Though rendered with sophistication at the Venice Architecture Biennale, such control of the body has long been present in the most ordinary architectural typologies—the airport, the shopping center and, as this paper will investigate through the collaborative work of an artist and an architecture firm, the stadium—in which invisible lineaments bind the body in space, determining where it walks, sits, lingers, purchases and views, or is viewed. What is *new* is that this is no longer limited to the obvious intrusions of the surveillance camera, and is in fact increasingly reliant on architecture's collusion. The evolution of the stadium acknowledges this, from the ancient Greek stadium in which the idealized bodies of athletes performed feats that brought audiences into closer connection with deities, to contemporary stadia that atomize and segregate crowds through highly designed, controlled and regulated paths, and the increased saturation of mediating—and distracting—visual

technologies. Through the tight control of space and dominating technology, events can only be observed passively—the camera close up of the catch and, as predicted by those knowledgeable, the eventual at-seat controls from which spectators purchase team merchandise, participating through consumption. Thus, the relationship between buildings and bodies that has developed over the history of architecture is a dynamic loop, an endless cycle. It is precisely this cycle that we are confronted with in *Vitruvian Figure* (2008), a collaborative work with Paul Pfeiffer and the architecture firm Populous.

Vitruvian Figure takes as its explicit subject the largest Olympic stadium ever constructed. Designed by Populous and built for the 2000 Olympic games in Sydney, Australia, the stadium broke all previous records for audience capacity in an Olympic stadium with its 100,000 seats. Among the buildings designed to house Olympic games, the stadium is chief—marking the beginning and ending events, symbolic of the games themselves, and inevitably of the ideal bodies competing within. *Vitruvian Figure* presents a distortion of this ancient typology as Pfeiffer and Populous imagine—and visualize—that same stadium inflated to an audience capacity of one million spectators. For Pfeiffer, this is a speculation on the future of architecture and for Populous, it is the opportunity for a carefully planned exercise in crowd control. This monstrous revision is presented through a trope that is *Vitruvian Figure's* implicit subject: the architectural model—both in the sense of the object of the scale model itself, and the idea of a model (pattern) which guides the making of new form, to wit, the Vitruvian figure or the ideal human body itself. In *Vitruvian Figure*, Pfeiffer and Populous collaborate to reprise the ancient question of the body's location within architecture, provoking the radical and timely question: just where *do* we stand?

BODY BUILDING

No matter which source one chooses to begin with, history or myth, the origins of architecture are the origins of the ideal body. Begin in the first century BC with Vitruvius' *De Architectura Libri Decem*, "the whole body of architecture" as the author commonly referred to it, at one point proclaiming his work *emendatum*, the *perfect* body of architecture, without a flaw.² Vitruvius prefaces his second book, "The Origin of the Dwelling House," with a descrip-

tion of the body of an architect, Dinocrates. Unsuccessful in his attempts to seek conference with Alexander the Great, the architect reconsiders his approach, presenting instead, as Vitruvius writes, his "towering stature, appealing good looks, and a majestic build. Putting his trust in these gifts of nature, he left his clothes at his lodging, anointed his body with oil, placed a crown of poplar leaves on his head, covered his left shoulder with a lion skin, and, grasping a club in his right hand, came into the tribunal where the king was giving justice."³ Now that Dinocrates is exposed, revealing the spectacular nature of his body, Alexander takes notice of the architect immediately. Vitruvius' Roman readers, too, would know this man—it is Heracles (Latinized *Hercules*), the mythical progenitor of Alexander and all Greek kings. Thus the architect, the ideal body, the empire Alexander is about to build, and Alexander himself are all one—a moment of Vitruvius' most revered rule of architecture, *symmetria*, the calibration of interconnected elements to create a sense of beauty from wholeness and proof, of course, that the body of architecture is the body of the empire.

Who builds this empire, what signifies the empire, and what bodies may occupy it? If we follow the old adage that "cricket follows the empire," it implies interrelated political, economic, and geographic processes related to the development of sports and stadia. Just ask Hercules, who upon completing his twelve labors, and being taken to Mount Olympus and immortality, builds the first Olympic stadium in thanks. He begins building this stadium by walking a straight line for 200 steps, thus inventing the 'stadion,' a unit of measurement that is the length of the track at Olympia.

Based as it was on Hercules' 200 steps, the architecture of the stadium is inextricably bound to—one with—the body that competes within it, and the body that built it. Though Hercules is the model for all three—stadium, athlete and architect—the actual athletes of the earliest Olympic games would have participated in the five-event pentathlon: jumping, throwing discus and javelin, racing and wrestling. The body of the pentathlete was, in the words of Aristototele, "a body capable of enduring all efforts, either of the racecourse or of bodily strength...This is why the athletes in the pentathlon are most beautiful." For visual confirmation of the pentathlete's beauty, we could turn

to the loose fragments of an ancient bronze sculpture that informed the Vitruvian man: Doryphoros, the spear-bearer. This mid-fifth-century BC statue by Polykleitos was believed by the Romans to confirm the sculptor's *Kanon*, which for the first time "gave all the explanations of the symmetries of the body."⁴ From this *Kanon*, Vitruvius based the series of key human proportions that preface Book III, "On Symmetry In Temples and in the Human Body." His description of taking measure from the human body, however, relies on the body's passivity. "... For if a man were placed on his back with his hands and feet outspread and the point of a compass put on his navel, both his fingers and his toes would be touched by the line of the circle going around him."⁵ As noted by Indra Kagis McEwen, "the man is given, passively, *conlocatus*, placed on his back. A compass point, passively again, is *conlocatum* on his navel. His fingers and toes are touched by the line the compass makes as it goes around him. Who, if anyone, is to hold the compass in this hypothetical situation ("if a man were placed on his back..."), Vitruvius does not say. The Vitruvian men of Renaissance images are invariably standing. Vitruvius lays his flat on the ground—a man without thickness who is at once metaphysical proposition, a ritual formula, and a template."⁶

It is difficult, but necessary for this paper's argument, to reconcile the images of these two men side by side: on the one hand, Doryphoros confidently bearing his spear in his left hand, a bit of swagger as he carries his weight forward on his right leg, and on the other the Vitruvian man that, while never drawn by Vitruvius himself, was rendered convincingly by Leonardo da Vinci in the Renaissance—an image that is now indelibly part of Western culture. The former finds his home in the early Olympic stadium, in which he is the ideal inhabitant and the measure upon which his environment is built. The latter is at home only in his encompassing geometry, of which he is both divine source and mortal captive. That the Vitruvian man is, in fact, the pentathlete in the original Olympic stadium is not lost on collaborators Paul Pfeiffer and Populous.

Like the ancient Greek architect Dinocrates/Hercules' approach of King Alexander, for whom he hopes to design an empire, Vitruvius was writing for Rome's first emperor, Augustus Caesar. He was reflecting on the past in order to inform the future of building Rome—Pfeiffer and Populous, this author

argues, are likewise reflecting, yet they also project what is our inevitable future if the technology of the spectacle supersedes the experience of space. One wonders why, of all people, Vitruvius did not anticipate the evolution of the simple Greek stadia into the contemporary stadium, or even the stadium that is in some ways the model and mother of all stadiums, the Colosseum in Rome. At the end of Book V, "The Forum and Basilica," Vitruvius writes only, "Behind the *xystos* [a covered running track] a stadium should be built, designed so that great numbers of people may have plenty of room to view the competing athletes."⁷ In a millennium and a half, the stadium gains enough notoriety as an architectural typology that in his *De Re Aedificatoria*, Alberti prefaces his discussion of them with a warning: "I now come to show buildings. They say that Epimenides (who slept for fifty-seven years—in a tomb) rebuked the citizens when they constructed a sports ground in Athens, saying, "You have no notion what damage this place will cause: when you find out, you will tear it down, even with your teeth."⁸

The omission and the warning may stem from the fact that the stadium is a shape-shifting typology: like all architecture, it takes the form that its culture wishes it to have; but unlike most architecture, the nature of its obviousness—monument to spectator and spectacle—displays those wishes flagrantly. As early as 900 BCE, the term *estadion* had expanded from describing the wooden posts at the end of the racetrack to signify the entire, surrounding architectural structure. Located in rural areas, these structures were places to celebrate religious festivals through games and athletic competitions. They possessed mythical backgrounds and were understood, along with Greek shrines and temples, to reestablish connections with the divine.⁹ The pan-Hellenic games that began at Olympia in the sixth century BCE attracted thousands of spectators—who were essentially religious pilgrims—and hundreds of athletes. The stone and wood stadiums had dressing rooms, approach tunnels, VIP sections, and tiered seating—and were sometimes destroyed by episodic fan violence. By the third century BCE, it was common to erect temporary wooden stadiums as a venue for the slaughter of humans and animals—their builders called themselves "event producers." Following a large number of stadium collapses in the first century BCE, concurrent with Vitruvius' writing of *De Architectura*, the Roman senate banned such hasty construction

of stadia, firmly placing the production and control of the buildings in the hands of the elite. The next significant constructions were the 250,000-capacity Circus Maximus and the 50,000-capacity Colosseum in Rome, in the first century CE. The stadium walks a line between religious sanctimony and the destruction of life—either intended, such as the bloody gladiatorial contests that also originated in the third century BCE or incidental, such as the loss of lives in the collapse of shoddy structures. It is with the awareness of the complicated history of stadia that *Vitruvian Figure* (2008) is best approached.

The contemporary Olympic stadium is, like the athletes, also in competition—with the architecture of its time and with former Olympic stadia. The iconic structures stand as symbolic of the games themselves—from Gunther Behnisch and Frei Otto's *Olympiastadion* for the 1972 games in Berlin, to the Birds' Nest stadium for the 2008 Beijing Olympics. Conversations about an Olympic stadium's design far precede the Olympic games themselves—engineered and designed on spectacle and speculation, a stadium will typically express the most advanced technological performance available. It is therefore portentous that the technology most evident in *Vitruvian Figure* is the technology of unprecedented audience capacity: one million seats, an untold number that is ten times even the record-breaking audience capacity set by *Vitruvian Figure's* progenitor, the Stadium Australia designed by Populous for the millennial Olympic Games held in Sydney, Australia.

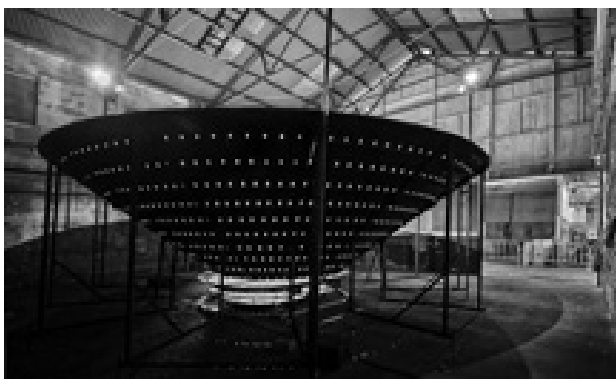


Figure 1: Paul Pfeiffer and Populous, *Vitruvian Figure* (2008)

Entering the warehouse building on Cockatoo Island where *Vitruvian Figure* (Fig. 1) was installed

for the 2008 Sydney Biennale, we are presented with a dark, funnel-shaped shell into which openings have been cut at regular intervals, bright light passing through these openings and onto the floor, emphasizing the centrifugal feeling of circling the funnel, looking for a starting point. At the base of the funnel, slightly removed so that it is visible to the ambulating body, is the model of a common Olympic stadium playing field. Climbing the bleacher stairs positioned at one end of the model, the view into the funnel is immediately striking—it is the unmistakably perfect replica of the stadium for the Olympic games built in this very city. But unlike that other, *real* stadium which was redesigned to accommodate fewer audiences, a more normal and local audience of around 80,000, this model has been monstrously inflated. One million seats rise up tier upon tier in a funnel, a vertiginous inverted dome (Fig. 2), their color the exact same blue as the original stadium seats, the concentric rings overwhelming and overshadowing the playing field, which is miniscule by comparison. It is resolutely an idea—a stadium, in theory.

But upon closer inspection, it becomes clear that this projection of a stadium—the stadium of the future, it seems—is not at all a stadium. Though the details are ours, are certainly those of today's stadium, from the uncomfortably tight knit of the seats to the aisles and curved cross-aisles that order them—it is the *larger* gesture of the model that is at once off the norm, and ultimately familiar. The rows of seats follow perfectly the geometry and the design not for any ancient or known stadium precedent, but rather for an *amphitheatre*—and not merely one, functional amphitheatre but rather one that is doubled and facing itself. This is disturbing only when one considers what governs an amphitheatre's design: allowing sound to reach the upper reaches of even the last row, allowing audiences to properly see the spectacle before them, the reason for first arranging the seats in tiers. In doubling the amphitheatre and inflating the scale of seats to far overwhelm that of the audience, what happens to sound? Is it ultimately cancelled into silence, or does the sound of show and audience swarm into a chaotic, distorted noise? The model we are presented with suggests that sound cannot exist here; only vision.

No, not vision either. Standing above the model, we see the stadium as the detached, global audience does—from above, hovering at a perspec-

tive that is at once impossible and, in its distance, the best possible view, the ideal vision of architecture and the events within it. From the seats within this stadium, no audience could possibly see the events unfolding on the playing field—not without the mediating lens of technology. As *Vitruvian Figure* seems to remind us, since the advent of the 'all-seater' stadium, a departure from earlier stadiums that had allowed standing room viewing balconies for working-class fans, technology has further entered the realm of the spectator. There is closed-circuit monitoring of seats, the constant sweep of the camera across the crowd for projection onto the JumboTron at half-time and, emerging recently, the kinds of technology that Verizon and Cisco are providing to New Jersey's under-construction New Meadowlands stadium, the home for the 2014 Super Bowl—wireless content and digital video.¹⁰ Offering menus for stadium fare, in-game video and statistical information, there are 2,200 high definition video displays planned for the facility. Companies FanVision and Roundarch have also been contracted for their products, handheld devices for spectators that show video of the game from angles not possible from the spectator's seat, and stream real-time data. While the marketing for these devices emphasize their 'fan-friendly' aspects, the darker side is a reminder that such technology is only possible when you know where the spectator will be—right there, in that seat, happily immobile—and where that spectator will walk, drive, shop. (Fig. 3) Thus, movements and experiences of fans within the stadium are no longer collective experiences of elation and loss, but the isolated transactions of countless solitary figures.

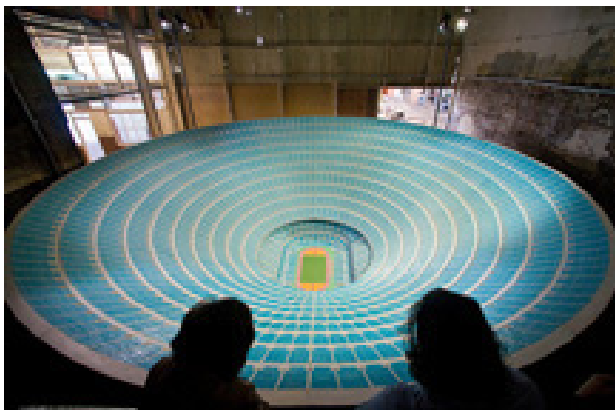


Figure 2: Paul Pfeiffer and Populous, *Vitruvian Figure* (2008)

What was corporal is transforming into corporate, what was spatial into a flat screen and what was a mediation of the divine through the convergence of spectacle and spectator is now mere consumption.



Figure 3:
FanVision's 'Handheld'

Perhaps what is most disturbing about this *Vitruvian Figure* is that it is accurate. With the construction of New Meadowlands Stadium currently underway, touted to be the most expensive stadium ever built, conversation surrounding it does not focus on architecture, on place, on experience, or on innovative design. Rather, it focuses on fan-friendly, spectacle-mediating technologies. What Pfeiffer and architecture firm Populous predicted in 2008 is true, just two years later: that the most provocative stadium design of tomorrow (today!) will not be aesthetic, will not display rigor of design, the triumph of will or of the human spirit. Much more likely, and more lucratively, the stadium of tomorrow will be made of lineaments that guide us and that converge at monitored, closed-circuit purchasing points. That Pfeiffer collaborates with an architecture firm, Populous, to produce the drawings that would yield this architectural model as the product of such speculation and that, further, it would share the name of that first, ideal template of architecture, is a challenge to the profession, the audience of architects.

Are architects, and the disciplines' writers and theorists, aware of the dehumanization and atomization of the crowd, the mediation of public life by technology that is the subject of *Vitruvian Figure*?

Will the reclamation of public space as experience, rather than mediated financial windfall for corporate sponsors, happen at the hands of architects? In *Architecture's Expanded Field*, Anthony Vidler revisits Rosalind Krauss' now-seminal 1979 essay on the "expanded field" of sculpture, electing to resurrect this framework in order to speculate on the future of architecture through the identification of four emergent themes. Vidler notes that "underlying new formal experimentation [in architecture] is a serious attempt to reconstrue the foundations of the discipline, not so much in singular terms but in broader concepts that acknowledge an expanded field, while seeking to overcome the problematic dualisms that have plagued architecture for over a century: form and function, historicism and abstraction, utopia and reality, structure and enclosure."¹¹ Out of this newly expanded field, the four unifying principles Vidler cites as most dominant are "ideas of landscape, biological analogies, new concepts of 'program,' and a renewed interest in exploring the formal resources to be found inside architecture itself." Accurate as this may be, it leaves little room for the hope that the technological mediation of public environments will pass through the hands of architects who will acknowledge and defend human participation over consumption. Else, this model could in fact be the next millennium's Vitruvian figure—template for the design of public space hereafter.

A CONCLUSION

The most prominent images of *Vitruvian Figure* (2008) show the model's audience in silhouette, the photographs taken from behind their darkened figures peering into the empty, vertiginous sculpture. The images evoke Goethe's observations in *Italian Journey* (1786), recollecting the spatial experience of an empty amphitheater in Verona: "When I entered it, but more so when I climbed along the upper edges, it seemed bizarre to see something so grand and at the same time to really see nothing at all..." It is necessary for the discipline and the profession of architecture to reclaim those lineaments between grandiosity and nothingness, lest we continue standing here, hovering at the edge of *Vitruvian Figure* forever.

ENDNOTES

1 <http://www.philipperahm.com/data/projects/hormonorium/index.html>. Accessed September 8, 2010.

2 "Corpus emendatum architecturae": Vitruvius 9.8.15.
 3 Indra Kagis McEwen, *Vitruvius: Writing the Body of Architecture* (Cambridge: MIT Press, 2002), 92.
 4 *Ibid.*, 266.
 5 *Ibid.*, 156.
 6 *Ibid.*, 160.
 7 *Ibid.*, 177.
 8 Leon Battista Alberti, *On the Art of Building in Ten Books*, trans. Joseph Rykwert, Neil Leach, and Robert Tavernor, (Cambridge: The MIT Press, 1988), 268.
 9 Christopher Thomas Gaffney, *Temples of the Earthbound Gods* (Austin: University of Texas Press), 5.
 10 http://www.nj.com/jets/index.ssf/2010/09/new_meadowlands_stadium_featur.html. Accessed September 11, 2010.
 11 Anthony Vidler, "Architecture's Expanded Field," in *Architecture: Between Spectacle and Use*, ed. Anthony Vidler, (New Haven: Yale University Press, 1990), 150.