

Vitruvius' Idea on Character: Some Lessons for Design Students

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INTRODUCTION

Is “character” an obsolete term in architecture? Does it have any effect on design quality?

Today, some students understand “character” as a treatment that can be found in the skin of the building but rarely beyond. They see it as a show of technology on the facades, a metaphoric form that should dazzle the eye. The design from inside the building more responds to standard circulation of spaces and basic functions than to engage users in any pleasing way. There are other students who believe that character is more than just a skin, it is what a building communicates to people in order enhance its program.

Darwin Center II designed by C.F. Møller impresses the visitor by its huge 8 storey curvilinear shape that archives millions of insects and botanical specimens (figure 1).



Figure 1: Møller, Darwin Center II, London, 2010, exterior skin showing egg shaped form (author photo)

It is an extension to the Natural History Museum of London and visitors can only view exhibits in its last 3 levels through closed winding corridors.ⁱ Strolling through these intimate corridors visitors start to wonder what this has to do with the impressive egg-shaped-skin seen from the outside (figure2). Soon the awesome effect fades away, leaving the visitor with uneasy feeling that the design was overdone,ⁱⁱ because there is nothing more to the shape except for some metaphoric cocoon preserving endless species of natural history.



Figure 2: Møller, Darwin Center II, London, 2010, interior showing closed winding corridors displaying exhibit of natural history (author photo)

Quai Branly Museum designed by Jean Nouvel shows character making as a process that is more than just a metaphor. The longitudinal shape of the museum is punctuated by series of rooms projecting out of the main façade as colorful cubes of various sizes (figure 3).



Figure 3: Nouvel, Quai Branly Museum, Paris, 2006, Facade showing projecting colorful cubes (author photo)

Surely this metaphorically recalls the colorful cultures of African and South American descents whose remnants constitute the theme of the museum. But they also add air of mystery and intrigue to the jungle-like interior. Visitors come across these rooms through tiny doorways that greet them every now and then with mysteriously lit interiors that house precious exhibits of tribes. Without these projecting cubes, visitors' interest in those faraway cultures fades quickly, their sense of discovery and excitement to learn are dampened.

Nouvel's design stands in sharp contrast with that of Møller. The former focuses on design quality the latter on image making. The paper will focus on the former's approach and proposes that the first theoretician to present the idea was Vitruvius who understood character making through his observations on Greek Temples. He saw these temples communicating well with its audience. He praised the Greeks for adding rows of columns around their perimeters interpreting it as an instant message of "dignity" since the arrangement of columns in rows "gives the imposing effect" and sets to dominate the viewer with air of respect and reverence.ⁱⁱⁱ

The column was not just a structural element it was the pride of artists who embodied the sublime notion of beauty through precise mathematical proportions in their craft, and were skilled in knowing when the rules of the "kanon" could be sacrificed for the sake of optical illusion resulting in a more pleasing perception of the work.^{iv} It is the product of refined technology that allowed masons to carve out the inner vision of an artist and to bring it into being. It was a physical manifestation of the philosophical debates between Plato and his disciple Aristotle; the former envisioned the notion of beauty as metaphysical substance existing in super-celestial order outside human intellect while the later saw it living in the consciousness of the artist ready to inspire his work.^v

If "dignity" was the message coming out of temples, columns on other buildings should convey a different message for "The columns will not be subject to the same rules ... which I prescribed in the case of sanctuaries; for the dignity which ought to be their quality in temples of the gods is one thing, but their elegance in colonnades and other public works is quite another."^{vi}

Vitruvius went further on the issue of character by assigning specific orders to specific gods. Upon using them in the temple they conveyed instant messages for the public, the Doric was "severe" and the Corinthian was "delicate":

"The temples of ... Hercules, will be Doric, since the virile strength of these gods makes daintiness entirely inappropriate to their houses. In temples to Venus ..., the Corinthian order will be found to have peculiar significance, because these are delicate divinities and so its rather slender outlines, its flowers, leaves, and ornamental volutes will lend propriety where it is due. The construction of temples of the Ionic order to Juno, ... will be in keeping with the middle position which they hold; for the building of such will be an appropriate combination of the severity of the Doric and

the delicacy of the Corinthian..., the effect will be spoilt by the transfer of the particularities of the one order of building to the other. ”^{vii}

Vitruvius' worry about the right "effect" did not only focus on certain vocabulary on the facades that convey specific meanings to the public. The right “effect” also meant spatial experience pertaining to building program. In fact most of Vitruvius' form-meaning analysis focused on space rather than solid mass to convey the right message. For temples it was not just the column that gave dignity but "walking round the cella will be dignified".^{viii} For "men of rank," houses should have "lofty entrance courts..., and most spacious atriums and peristyles, with plantations and walks of some extent in them, appropriate to their dignity".^{ix} Absorbing the mood while walking through the space was perhaps the quintessential idea Vitruvius delivered on character making. It became the dividing line between mundane architecture and another with quality. I propose that such theoretical position is relevant to us today and should become a critical lens by which architecture transcends mediocrity.

BOFFRAND, BURKE, BLONDEL AND THE BEAUX-ARTS TRADITIONS

Character making as advocated by Vitruvius may not be so familiar to Nouvel and his peers who advocate similar approaches to his. Closer to modern practice would be 18th and 19th theoreticians. Germain Boffrand stated in 1745 that architecture should invoke emotions in people. Users should understand the character through a particular mood that is conveyed to them through orders and sequence of spaces. Such mood is universal and can be identified through abstract nouns. Edmund Burke in 1757 created a list of them such as lightness, pleasure, and the sublime. Jacques-François Blondel in 1771 suggested specific abstract nouns

to verify building types: decency for temples, magnificence for palaces, elegance for promenades, and robustness for structures for defense.^x

These nouns denoting the mood by which the building should be perceived were the starting point for any design. They were simple words that held the key to the understanding of a specific building type. Such understanding was no longer just exclusive debate among theoreticians but became the formal education of architecture in the 19th century Beaux-Arts School of Paris. Students of this school would start drawing the "parti" of a building after receiving the building program and the accompanying mood in the form of keywords.

In the Grand Prix de Rome competition of 1824 students were asked to design a supreme tribunal with associated mood: "noble" and "severe". The first mood denoted the presence of the king who sat in the primary courtroom, the second mood was to reflect the power of law in such a highly ranked courthouse. Students who designed the "parti" showing the king's courtroom on the main axis with two perpendicular side courtrooms scored high marks because keyword "noble" was well achieved after giving the king's courtroom a distinguished position. Those who placed the side courts parallel to the king's courtroom or had the entrance atrium more oriented towards the side courts meant that the hierarchy of the king's courtroom was toppled and hence keyword "noble" was no longer realized. Students who presented facades of modest decoration, particularly, using the Doric order with flat roof satisfied keyword "severe" more than those using the Corinthian order with a gabled ornamented portico and statues on top. The first prize went to the project that is well balanced in achieving the two keywords: Greek cross in plan with well proportionate atrium that leads to the king's courtroom and a facade that is least in details and more in solid mass.^{xi} Based on this analysis it is clear that Beaux-Arts graduate had to go through a refined process of design in which he had to weigh

out options in terms of space configuration, detailing of the order and intensity of decoration in order to convey the right mood of the building.

With this understanding of character graduates of Beaux-Arts worked seamlessly in Europe. The majority of them continued to follow Vitruvian ideas that took for granted Greco-Roman architecture as the source material for any character making.^{xii} If an international competition located outside their Western hemisphere demanded their attention, they would not refer to local character. Could this be appropriate for a museum that housed the largest collection of ancient Egyptian artifacts? Such was the challenge for architects participating in the Egyptian Museum competition that was held in 1895.

EGYPTIAN MUSEUM COMPETITION

Over 80 architects mainly from Europe participated in the competition. More than half presented Ancient Egyptian character in their proposals. Nevertheless, the jury, composed of Egyptians, English, French, Germans, Italians, and a Russian, believed that none of them should win the first prize.^{xiii} The curator of the museum at the time, Gaston Maspero, explained that the character on the facades was enormously enhanced in terms of scale and solid mass. This in turn had its toll on galleries that became functionally and environmentally unacceptable as museum spaces.^{xiv} These failing entries must have considered the associated mood to this museum as "grandness" and "power" since the artifacts exhibited originated in a great civilization. By copying the proportions of Egyptian temples their proposals ironically became out of proportions and hence precluded their use as viable museums.

The winning project was proposed by the French architect Marcel Dourgnon, a Beaux-Arts graduate^{xv} who had a different understanding of character. After trimming down the footprint of his proposal and simplifying its facades to fit in the designated budget,^{xvi} the architect fulfilled the keyword "grandness" by creating a nave that cut longitudinally through the

museum and took the full height of its volume. Upon stepping inside and walking down the nave visitors are greeted by flanking colonnades of double height until they reach the colossal statue, 7 meters high, of Amenhotep III and his wife Tiy.^{xvii} The Pharaoh's reign was considered the Golden Age of all Ancient Egypt stretching from Nubia to northern Syria. He was coined "the magnificent" who established prosperous diplomatic ties with most of the Mediterranean and Aegean worlds as well as Babylon, Assyria, Mittani and Hittites.^{xviii} His wife Tiy, known as the "Great Royal Bride", played an important political role beside her Pharaoh to the extent that she was the first Egyptian queen to be consecrated in a temple.^{xix} The distinguished biography of the twin statues inside the museum made them the favorable icon of Ancient Egypt. The royal couple were located towards the end of the central nave and coincided, along the same axis, with the main entrance portico (Figure 4).



Figure 4: Dourgnon, Egyptian Museum, Cairo, 1895, interior showing central nave leading to the twin statues (author photo)

The portico, punctuated by a semi-circular arched portal, was derived from Roman architecture that signified "power" as a legitimate mood for a prosperous empire. To accentuate the walking experience to the royal couple while capturing a stronger essence of the mood the nave was covered by a double skin clear glass roof to lighten up the space more than any other corridor in the museum. The two most distinct components of the museum, the portal and the statue, are sitting along the same axis and are echoing each other's "power" so much so that the building is in continuous positive vibe with the local community.

MUSEUM EVOKES EGYPTIAN TEMPLE

The final "effect" is as strong as that of a processional spine of an Egyptian temple that ends with a sanctuary. In the case of the museum the sanctuary was in the form of a special room located at the farthest end of the central nave. Similar to a temple's sanctuary, the room is very important for it contains the most valuable artifacts of the museum one of which is the Accadian Tablet, 13cm x 8cm. Upon discovery at the end of the 19th century it pointed scholars to the finding of a major archeological site in the Ancient world, namely the city of Akhetaten, locally known as Tell al-Amarna.^{xx} Another valuable artifact is statue of the most controversial pharaoh in the history of Egypt and the most popular among modern Egyptians: Akhenaten, son of Amenhotep III.^{xxi} He earned his position in the room for he was labelled "philosopher-king" who revolutionized the religious beliefs of Egypt to be monotheistic solar religion. This unprecedented move followed the dramatic shut down of temples and the erasure of all names of gods , except for Aten, from all monuments across Egypt.^{xxii} The same room upstairs is equally valuable for it contains the world famous solid gold funerary mask of Tutankhamen along with his solid gold sarcophagus and jewelry belongings.^{xxiii} The room at the ground level is behind Amenhotep III and Tiy, visitors only discover its presence after passing by the twin statues. That way, the arrangement adds an air of "intrigue" beside

"greatness" and "power" to the processional spine of the museum. Outside the museum, the facade further accentuates "power" by the flanking semi-circular arcades that add more solid mass to the facade than void (Figure 5)

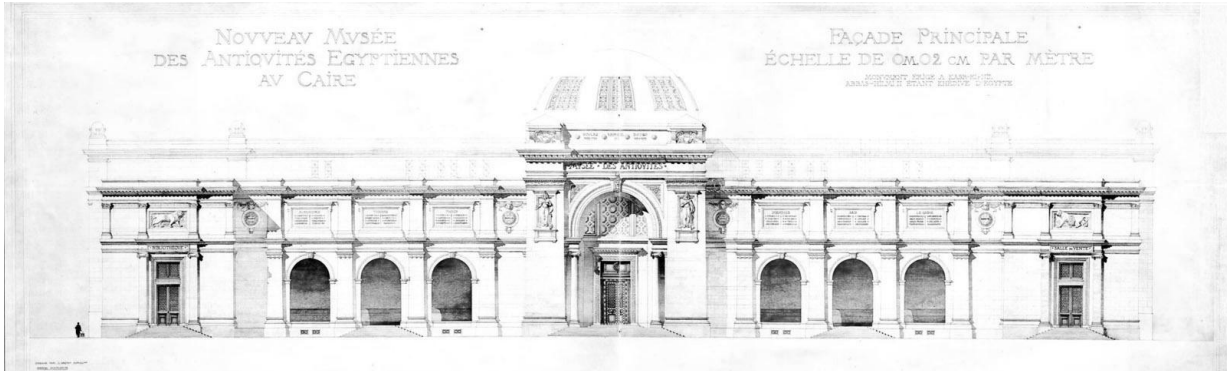


Figure 5: Dourgnon, Egyptian Museum, Cairo, 1895, elevation with semi-circular arched portal and flanking arcades as drawn by the architect. (Provided by EQI)

With this design Dourgnon succeeded, where no other architect could, evoking the right messages that are synchronized with museum exhibits, without necessarily applying the formal language of Ancient Egyptian architecture.

EGYPTIAN MUSEUM TODAY WITH FADING MOODS

Vitruvius would have been enchanted with the final setting of Dourgnon's museum because it came closer to the understanding of character as a product of spatial experience pertaining to building program and not just building skin, however a century later things have changes. The glass roof of the nave no longer admits bright atmosphere inside the central promenade but is currently lit by insufficient artificial lighting, thus reducing the effect of "grandness". The twin statues are barely visible from the entrance portal, as a consequence. The arcades of the facades have been blocked by glass and converted into mainly service rooms thus reducing the solid mass and diminishing the effect of "power" (Figure 6).



Figure 6: Durrant, Egyptian Museum, Cairo, 1895, facade today with blocked arcades by glass panels (author photo)

The museum today is no longer communicating the intended messages to the public, reducing its role to a large warehouse displaying some valuable artifacts. The need for "grandness" and "power" is essential for it could offer historic reference that can inspire and motivate a nation pride towards a better future. Yet in order for the museum to revive its luster in the psyche of Egyptians additional moods must be instilled besides polishing the existing ones.

NORMAN FOSTER DEVELOPS THE BRITISH MUSEUM

Can the idea of Vitruvius on character become the cradle for rejuvenating architecture?

Norman Foster, by the advent of the new millennium, tackled the issue upon suggesting improvements to the British Museum of London. It was no longer sufficient to rely on the aging "grandness" mood that was well represented by the Greek character of the building and the formal display of large collection of artifacts depicting many eras.

Foster awakened the sleeping giant ^{xxiv} by adding "awesome" and "delight" to the list of moods. This was done through the conversion of the museum courtyard into an atrium covered with a dazzling steel mesh and glass panels of stunning geometric forms. The "wow" effect is strengthened by the clearing up the space from additions accumulated over time leaving a white neat cylindrical library standing in the middle.

Walking up a newly added stairs around the cylinder visitors are overwhelmed by a 360 degrees view of the atrium that is packed by layers of activities: people eat and drink, some sit with their belongings spread casually on wide tables, others stroll and shop through a sequence of stores tucked in the library wall. The atrium has become a hub for tourists and locals coming together performing the same amusing ritual of "to see and be seen" and experiencing the same moods of "awesome" and "delight" (Figure 7).



Figure 7: Foster, British Museum, London, 1999, Grand atrium of British museum acting as a public square (author photo)

AWAKENING THE EGYPTIAN MUSEUM

What will awaken the Egyptian giant is a questioned tackled by Emad Farid and Ramez Azmy architects of Environmental Quality International consulting office (EQI).^{xxv} If "awesome" and "delight" are to be added to the list of moods, then nothing will do the job better than connecting the museum to the Nile. At present there is the party's headquarter of the former regime that stands in the way between the museum and the Nile. It was burnt down during the 2011 uprising and is still intact waiting for an action plan to be taken. EQI proposed to replace the building by two large gardens one botanical another Pharaonic, both overlooking the Nile. The Pharaonic garden would be surrounded by one story structure containing restoration labs and exhibit galleries for the public (Figure 8).

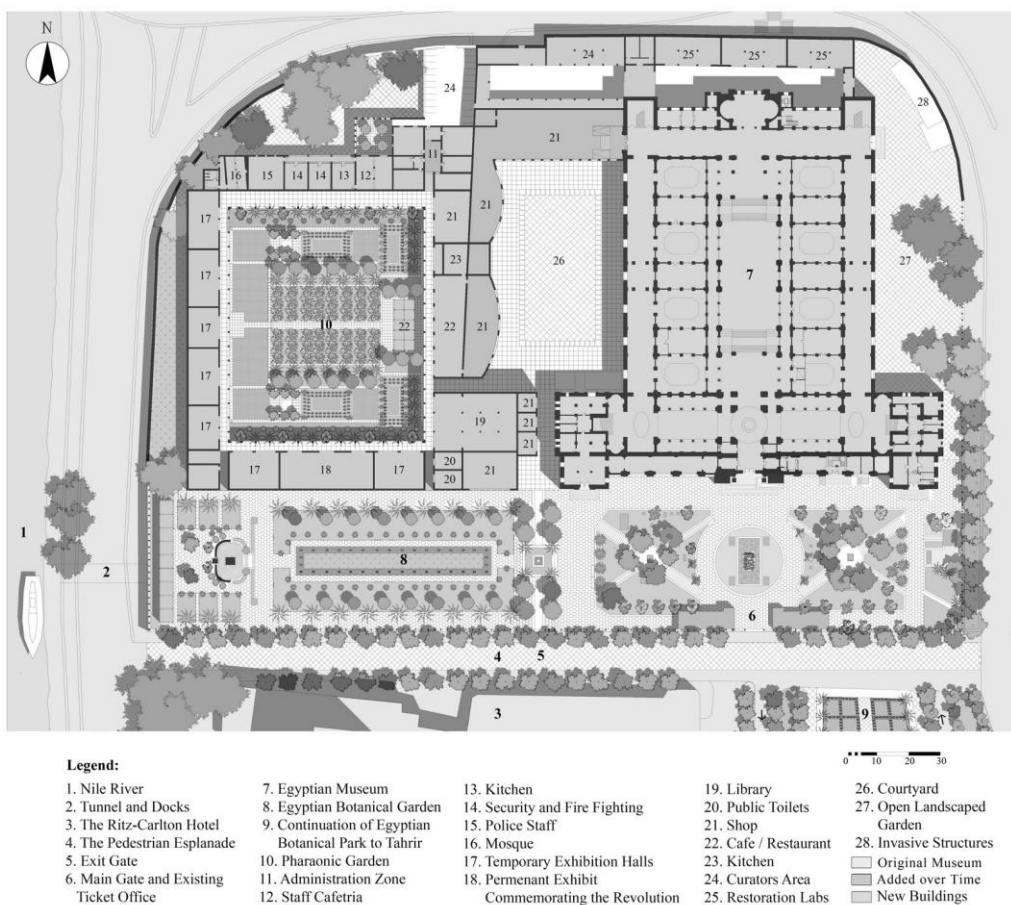


Figure 8: Farid & Azmy, Egyptian Museum, Cairo, 2013, scheme for developing the Egyptian museum and its environ (provided by EQI)

This will ease the pressure on the museum space, and thus restores the front arcades to their original status polishing its “power” effect. The botanical garden is much larger and will include expanding the existing garden of the museum to the banks of the Nile. Docks for ferry boats and pedestrian links are proposed to connect the garden with the riverbank. Egyptians and tourists alike will experience the sense of "delight" upon cruising through the Nile with the museum as their final destination. "Grandness" will gradually sink in their senses upon walking from the ferry dock to the museum and passing through 3.7 acres of specialized gardens; for the museum, in essence, will have its first portal on the Nile while the second will be that of Dourgnon (Figure 9). Having the site play a role in shaping the character of the building is inspired from Vitruvius.^{xxvi} This is because the site becomes a sort of a "wifi" arena for enhancing the messages radiating from the building. As viewers walk through the site, approaching the building, messages get clearer and stronger.



Figure 9: Farid & Azmy, Egyptian Museum, Cairo, 2013, Pharaonic garden beside the museum and overlooking the Nile (provided by EQI)

TIMELESS VITRUVIUS

Vitruvius is still living with us today. Some prominent architects in our modern times value his ideas on character making because it helps them succeed in many cultures different than their own. Vitruvius speaks a universal language. No matter in which culture these architects design projects, and regardless of their own backgrounds, their form making addresses basic human moods while connecting with the building program. That is how the Egyptian museum was vetted by jury members of 6 nationalities, built by a French architect and appreciated by the locals despite its Romanesque façade. That is how Foster addressed visitors from around the world through his grand atrium in the British Museum.

Character is not only inhibited in building mass or skin but also through spatial design.

Promenade experience that invokes the right messages was adopted in the new proposal of the Egyptian museum. The external gardens proposed by Farid and Azmy enhances the grandeur effect of the museum similar to the gardens of "men of rank" analyzed by Vitruvius that gave their patrons the "appropriate dignity." Spatial design that gives out similar perceptions to all its visitors despite differences in cultural background is the kind of architecture that has a universal acclaim, transcends boundaries of mediocrity and adds vitality to its surrounding milieu.

Notes:

ⁱ Catherine Slessor, "Darwin Center II, The Realized Building," in *The Cocoon*, ed. Kim Dirckinck-Holmfeld (Copenhagen: Bogværket, 2010), 16-31

ⁱⁱ Edward Rothstein, "Enjoy the Bugs, but Don't Feed the Scientists," *The New York Times*, April 7, 2010, <http://www.nytimes.com/2010/04/08/arts/design/08darwin>, accessed February 3, 2014.

ⁱⁱⁱ Marcus Vitruvius, *The Ten Books on Architecture*, trans. M. H. Morgan (London: Oxford University Press, [circa 25 BC] 1914), 82.

^{iv} Joseph Rykwert, *The Dancing Column: On Order in Architecture* (Cambridge: The MIT Press, 1999), 97-112.

^v Erwin Panofsky, *Idea: A Concept in Art Theory*, trans. J. Peake (Columbia: University of South Carolina Press, [1924] 1968), 13-17.

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- ^{vi} Marcus Vitruvius, *The Ten Books*, 154.
- ^{vii} Ibid., 15.
- ^{viii} Ibid., 80.
- ^{ix} Ibid., 182.
- ^x Vittoria Di Palma, "Architecture, Environment and Emotion: Quatremère de Quincy and the Concept of Character," *AA Files*, no. 47 (2002), 48-50.
- ^{xi} Neil Levine, "The Competition for the Grand Prix in 1824: a Case Study in Architectural Education at the Ecole des Beaux-Arts," in *The Beaux-Arts and Nineteenth-Century French Architecture*, ed. Robin Middleton (London: Thames & Hudson, 1984), 83-99.
- ^{xii} David Van Zanten, *Designing Paris: The Architecture of Duhan, Labrousse, Duc, and Vaudoyer*. (Cambridge: MIT Press, 1987), 44-69.
- ^{xiii} M. C. Lenconte, M. C, "La participation française" (The French Participation), "Questions de style" (Question of Style), in *Concours pour le musée des Antiquités égyptiennes du Cairo 1895*, eds. E. Godoli & M. Volait (Paris: CNRS, 2010), 66, 242.
- ^{xiv} Ibid., 242-243.
- ^{xv} Ibid., 90.
- ^{xvi} M. C. Lenconte, "Un chantier chaotique" (A Chaotic Construction), in *Concours pour le musée des Antiquités égyptiennes du Cairo 1895*, eds. E. Godoli & M. Volait (Paris: CNRS, 2010), 211.
- ^{xvii} M. Trapani, "Colossal Statuary Group of Amenhotep III," in *The Illustrated Guide to the Egyptian Museum in Cairo*, eds. A. Bongioanni & M. S. Croce (Vercelli: White Star S.p.A., 2001), 187.
- ^{xviii} D. D. Baker, *Encyclopedia of the Pharaohs* (Cairo: The American University in Cairo Press, 2008), 44-49.
- ^{xix} M. Trapani, "Colossal Statuary," 187.
- ^{xx} A. Bongioanni, "Accadian Tablet," in *The illustrated guide to the Egyptian Museum in Cairo*, eds. A. Bongioanni & M. S. Croce (Vercelli: White Star S.p.A., 2001), 171.
- ^{xxi} Ibid., 172.
- ^{xxii} D. D. Baker, *Encyclopedia*, 44-49.
- ^{xxiii} D. Comand, "Funerary mask of Tutankhamen," "Necklace with Pendant Depicting a Falcon," "Tutankhamen's Inner Sarcophagus," in *The Illustrated Guide to the Egyptian Museum in Cairo*, eds. A. Bongioanni & M. S. Croce (Vercelli: White Star S.p.A., 2001), 310, 316, 334.
- ^{xxiv} D. Barker, "Foster and Partners Roof the Great Court," *Architecture Week*, no. 38, February 14, 2001, <http://www.architectureweek.com/2001/2014/index.html>, accessed November 7, 2013.
- ^{xxv} Emad Farid & Ramez Azmy, *Revival of the Egyptian Museum*. Cairo, May, 2013, 49-56. Report produced by Environmental Quality International (EQI) consulting office.
- ^{xxvi} Marcus Vitruvius, *The Ten Books*, 175.