

-Welcome to our podcast! This is Keriann and I'm Frances! We also have a third member, Mimu, who unfortunately could not join us for this podcast but she aided in our research so shout out to her!

In our podcast, we'll be addressing the question: how did the architecture of the ancient world, such as the Baths of Caracalla, and the interpretation of Beaux Arts, influence the design of Grand Central Terminal and Penn Station?

[Now before we get ahead of ourselves and jump straight into it, we'll explain some of these terms in case you don't know what they are!]

I. Brief introduction of Penn Station and Grand Central Terminal (2 min)

- Grand Central Terminal – A currently active terminal that underwent three transformations —its main entrance is located on 42nd Street and Park Avenue. It started as an unimpressive train shed, to a station, and finally transformed into the breathtaking, stylistically Beaux-Arts terminal it is now. It went on a downward spiral during World War II but survived, with the New York City Landmarks Preservation Commission deeming it a city landmark in 1978.
- Penn Station – a historical station named after the Pennsylvania Railroad once located where Madison Square Garden now stands. The architects for this station, McKim, Mead, & White, were some of the most popular designers in the twentieth century. The old Penn Station, which is the Penn Station we'll be discussing in this podcast, has since been demolished with Madison Square Garden taking its place, but you can find its architectural twin, the James Farley Post Office, still standing!

[Now that you have a idea of what Penn Station and Grand Central Terminal are and have had an overview of their history, let's zone in on this "Beaux-Arts style" we keep mentioning!]

II. Overview of Beaux Arts (i.e. the elements of Beaux Arts) (2 min)

The Beaux-Arts concept involves the styles of Roman and Greek cultures with the inclusions of the Baths of Caracalla and Roman Columns. It doesn't only focus on the exterior structures of the building but it also as well includes the embellishments of the interior that involves the revival of the previous 500 years of various architectural designs enforcing the Beaux Art style.

- The École des Beaux-Arts taught American architects how to incorporate the use of advanced technology into the various revival of previous architectural designs from the time before Beaux-Arts.
- The École des Beaux-Arts' full name is École Nationale Supérieure Des Beaux-Arts and descended from the École Royale created in 1819

The interpretation of the Beaux-Arts style of Grand Central Terminal and Penn Station were most likely the result of the influential teachings of the École des Beaux-Arts learned by the

respective architects responsible in the design of these monumental structures. Whitney Warren attended the school for ten years and as Keriann mentioned before, is one of the architects involved in the scheme of Grand Central Terminal. Stanford White and Charles Follen McKim were also Alumni of the École des Beaux-Arts and were responsible for the design of Penn Station.

[We've discussed Penn Station, Grand Central Terminal, and how they fit in with the Beaux-Arts style. But what are the Baths of Caracalla and why were they so important in the construction of these two great monuments?]

II. Overview of Baths of Caracalla (i.e. the elements of Caracalla) (2 min)

The Baths of Caracalla were the second largest public baths in Ancient Rome and were erected around 216 A.D. in commemoration of the emperor Caracalla. And when we say it was a public bath, we're not just talking about a "tub filled with water" bath. It was a huge complex that covered 27 acres that included sports rooms, libraries, gardens, art galleries, restaurants, and so on. And there was not just one single bath that everyone bathed in. There was a tepid bath, a hot bath, a freezing cold bath, and many more. It was *the* place to be in the ancient Roman days, bringing over 1,000 Romans to its complex daily. Unfortunately, it's in ruins now but its architectural designs such as large, open spaces, vast colonnades, vibrant mosaics, marble-covered walls, and decorative, detailed statues would be paramount in the creation of future buildings.

IV. The interpretation of Baths of Caracalla on Penn Station (3 min)

In the case of Penn Station (and remember, we're talking about the old Penn Station, not the station we have now in 2016), we can see a more literal application of the Baths in its design. As we mentioned earlier, McKim, Mead, and White were responsible for the architectural design of Penn Station. McKim was fascinated by the Baths of Caracalla and had actually traveled to Rome to study the ruins. He even paid some men to walk through the ruins so that he could observe how people used the space at their leisure. That's dedication!

Such important architectural designs such as the semicircular vaults and the beautiful coffers, which are sunken panels inside the walls and ceilings, are apparent throughout both buildings. Although the coffers found at the Baths are square and the old Penn Station ones are hexagonal, the relationship is apparent. And if you look at the photos of the exterior of the Baths of Caracalla you'll see these huge, towering columns with empty space in between so that people could walk through them. It's the same for Penn Station! And if that's not enough, the Travertine marble that Penn Station's room was made of was taken from the same district in Italy that the Romans procured their marble from. We can even tell from the floor plans of both structures that the waiting hall of Penn Station is almost an exact replica of the tepidarium (which is the main warm room) of the Baths of Caracalla.

- And let's not forget how Beaux-Arts was vital to Penn Station's construction! Leaning more to a Greek Design, the design for Penn Station's concourse is "Camera Vitrea" meaning the "glass room". The term implies a vaulting of plated glass--a good example of the uses of metal and glass, a concept of Beaux-Art.

[Now we spoke a lot about how Penn Station's architectural design was most definitely a direct application of the Baths of Caracalla but what about Grand Central Terminal?]

V. The interpretation of Baths of Caracalla on Grand Central Terminal (3 min)

A. Beaux Arts translation

- Well we've concluded that the design of Grand Central Terminal is more of a conceptual, not literal, translation. It's actually more accurate to say that it is a translation of Beaux-Arts!

B. Structures: Piers, Elliptical Vaults, Mural

- Some ways that the architects of Grand Central Terminal *were* influenced by the Baths, however, can be shown in design features like the main concourse of the terminal. Like many Roman baths such as that of Caracalla, Grand Central Terminal hosts grand arched windows with Doric columns hugging each.
- Fenestration is evident when observing the disposition of windows and other interior openings within the building.
- The interior openings in the main concourse consists of piers--the sections of structural walls between openings
- The ceiling of the main concourse in Grand Central Terminal is constructed as a Barrel Vault which is a ceiling consisting of a series of semi-cylindrical arches and is covered with a mural of the zodiacal constellation

[We spoke about how the Baths of Caracalla and Beaux-Arts influenced the architects of Penn Station and Grand Central Terminal but what are some of the major concepts the architects similarly took from the Baths? How did they differ?]

VI. Comparison between Penn Station and GCT (3 min)

A. Major similarities (importance of community, public use)

- A concept that the architects of these two buildings similarly grabbed from ancient Rome is the Roman perspective of public buildings. Janet DeLaine, an experienced scholar of Roman archaeology from the School of Archaeology at the University of Oxford, claims in her research that so much of Roman architecture was replicated to empower the wealthy, such as the robber barons at the time. At the turn of the century, the time when Penn Station and Grand Central Terminal were constructed, New York was learning its place in the world. It was important to build magnificent structures so that New Yorkers could feel like they were significant. The grand architecture ennobled all who entered.
- Penn Station and Grand Central Terminal were also both conscious of the idea of large, public space that would promote community gathering and bringing people

together under one roof. Both buildings were actually made with the goal of being a place that would not only be a waiting room for transportation but also a place for people to mingle with one another and enjoy the beauty of the designs. In Grand Central Terminal's case, it was also a place where people could enjoy restaurants, films, and shopping.

B. Major differences (literal versus conceptual interpretation)

- a. Despite their similarities, the two monuments had major differences. Penn Station was largely neoclassical, a style that inspired Beaux-Arts. It is more inclined towards Greek elements trabeated (meaning post and lintel- is the use of horizontal beams which are held up by columns) it is a form of Greek temples, with their columns, entablatures, and triangular pediments.
- b. Grand Central Terminal, on the other hand, is very Beaux-Arts, leaning towards the combination of both Greek and, most importantly, Roman forms, with a primary example being the rounded Roman Arch.
- c. The architects also each achieved different feelings after building their respective monuments. We mentioned the seemingly endless colonnade Penn Station has and how there's shadows between each column that evoke a sense of mystery. The beauty of the building is no doubt found in the exterior architecture but that open space between the columns is so inviting and draws you into the interior, which is just as beautiful. Grand Central Terminal, on the other hand, has prominent doric columns flanking the centerpiece of Hercules, Mercury, and Minerva, but they are not endless like Penn Station. Instead, we see a solid, simple, blank slate of an exterior that is meant to hold the jewels that are the murals and architecture of the interior.

VII. Topics for further research and consideration (2 min)

- A. Grand Central Terminal and Penn Station were largely created through the inspiration of the Baths of Caracalla and Beaux-Arts but they are not the only buildings that were constructed so. Around the turn of the century, the Metropolitan Museum of Art, the Brooklyn Institute of Arts and Sciences, and the New York Public Library were also constructed with ancient Roman structures in mind.
- B. We can deduce that most American architecture can be traced back to Roman architecture because that style was more accessible. Also, Roman buildings were very communal as shown through their abundance of baths, civil court houses, etc., whereas noteworthy Greek buildings were predominantly temples. Between Roman and Greek buildings, "turn of the century New York" was more interested in building structures for communal use rather than as temples.
- C. So Grand Central Terminal and Penn Station are not the only buildings in New York that were constructed with ancient Rome in mind!

VIII. Conclusion (< 1 min)

We hope that you've discovered something or many things during this podcast. If you have any opinions on this topic or have some interesting facts or theories in mind, please feel free to share it on our blog! Find the link accompanied with this podcast and it will bring you to some accompanying photos, sources for further research, and more. Again this is Keriann and Frances and we thank you for listening to our podcast. We look forward to hearing your ideas on the blog!