



THE RESTORATION OF THE MUL CHOWK STONE STEPS & LIONS

ANNEX TO THE PROJECT PROPOSAL | NOVEMBER 2011

SUBMITTED TO

THE SUMITOMO FOUNDATION



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Cover image

Mul Chowk principle facade | 2007

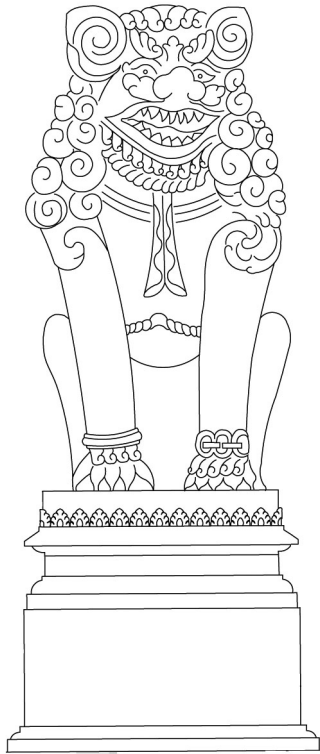
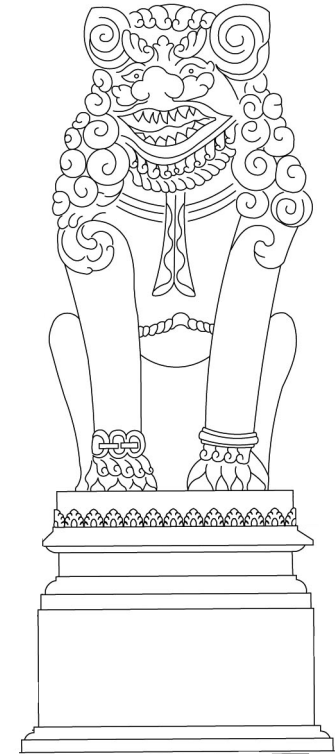
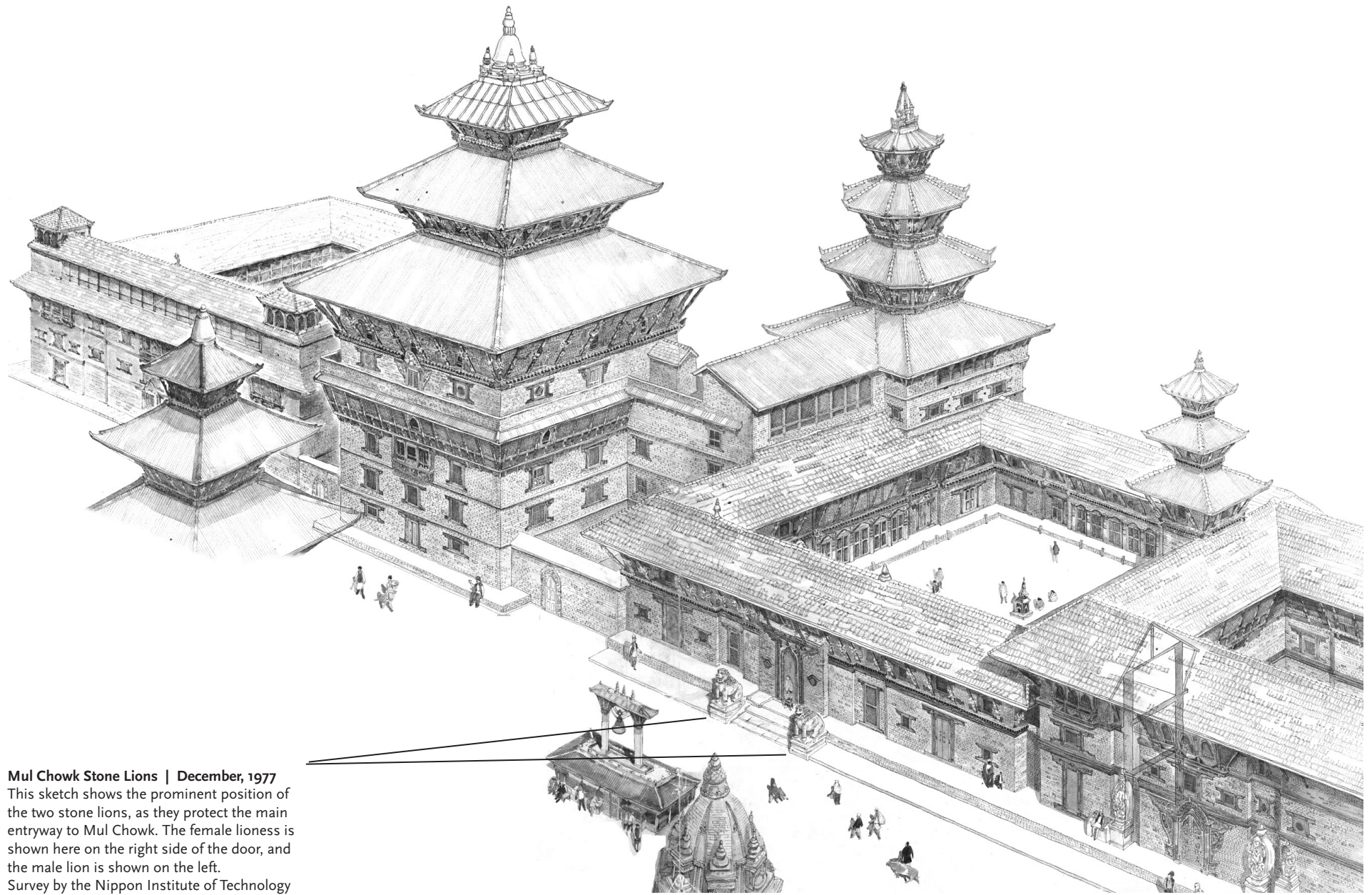


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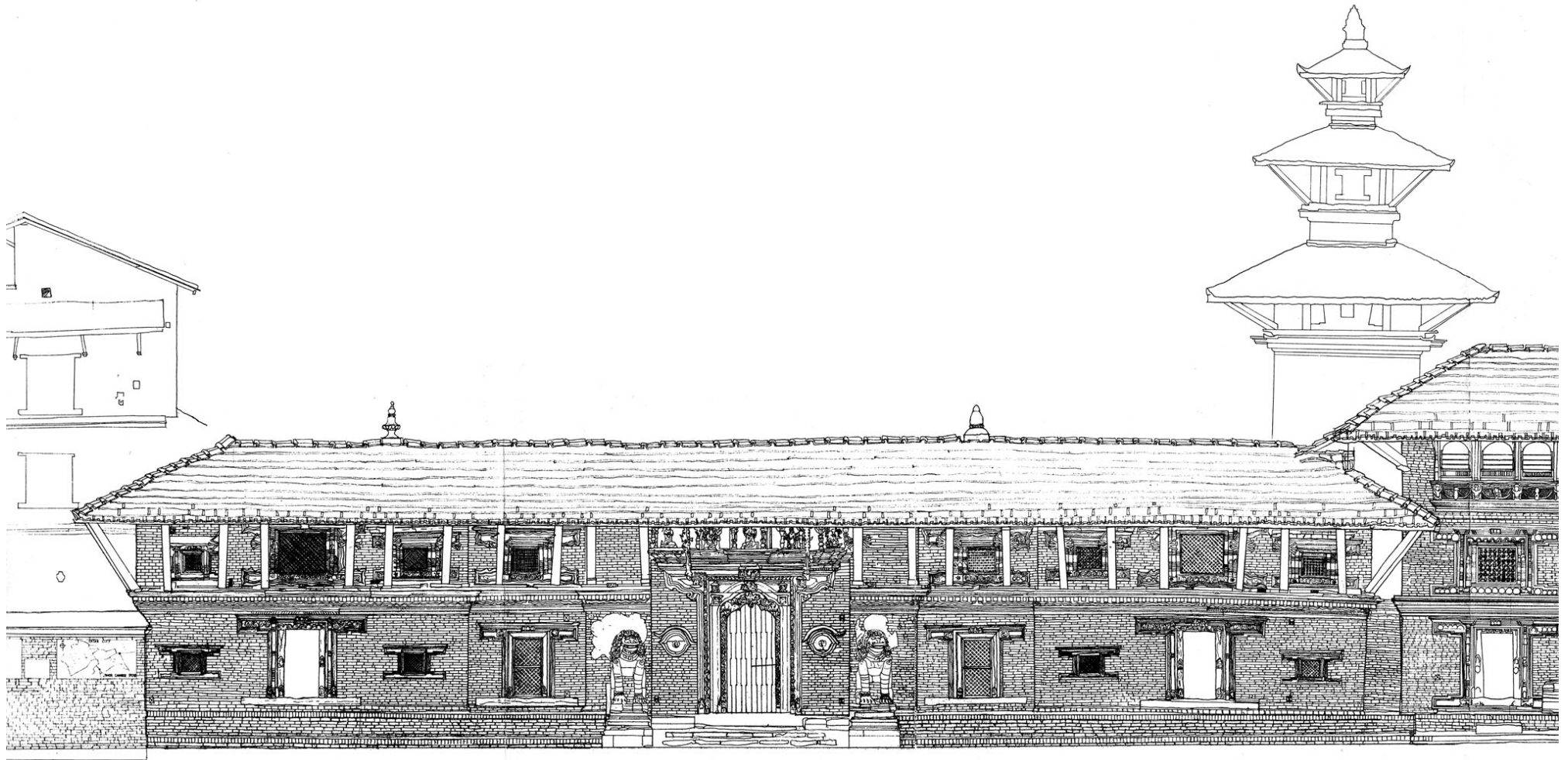
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Mul Chowk Stone Lions | December, 1977
This sketch shows the prominent position of the two stone lions, as they protect the main entryway to Mul Chowk. The female lioness is shown here on the right side of the door, and the male lion is shown on the left.
Survey by the Nippon Institute of Technology





Mul Chowk principle facade | December, 1977

This elevation drawing shows the west-facing principle facade of the Mul Chowk courtyard building, as it is seen from Patan's Darbar Square. The lions flank the main entryway into Mul Chowk, guarding the number of sacred temples and shrines that are located within the courtyard. Survey by the Nippon Institute of Technology

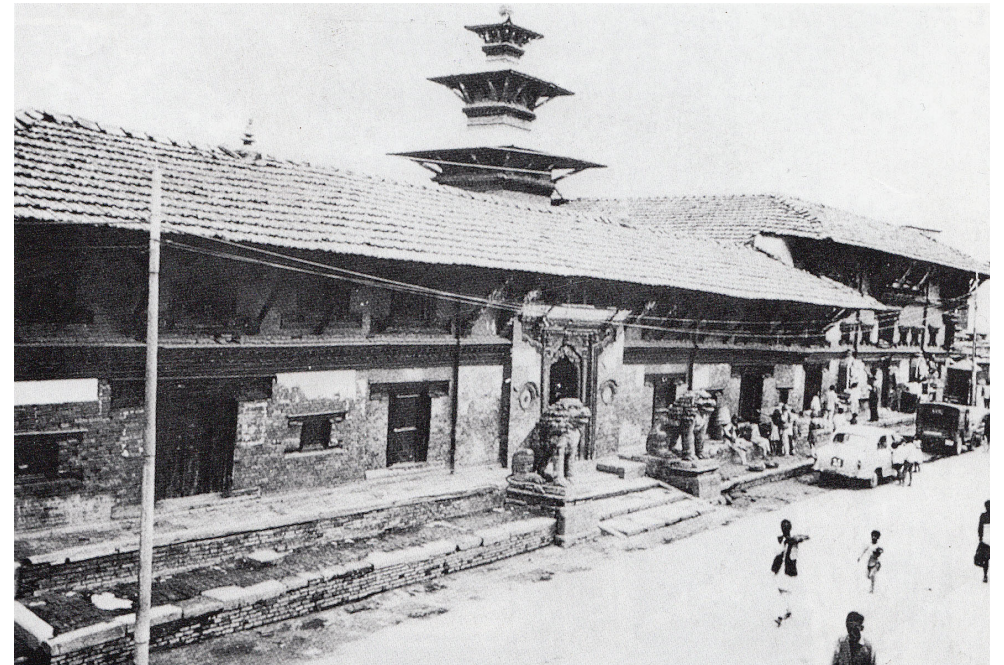




Historical view of Mul Chowk stone lions

The stone lions as they stood in 1924. The stone steps leading to the main doorway are seen here in their original position, extending past the lions into the Darbar Square walkway.

Photograph by Perceval Landon, 1924



Historical view of Mul Chowk principle facade

The stone lions can be seen here in this photograph taken circa 1966, looking much like they do today. Again, in this photo the stone steps to Mul chowk are located in their historical position, beginning beyond the base of the lions.

Photograph by Mary Slusser, 1966





Mul Chowk lions and Yantaju shrine

The small, gilded, open-air shrine to the goddess of Yantaju can be seen here through the open door into the Mul Chowk courtyard. Here, the large bell dedicated to the worship of the Taleju goddess located directly in front of Mul Chowk's entryway, is casting its afternoon shadow onto the building's facade.

Photograph by Mary Slusser circa 1970

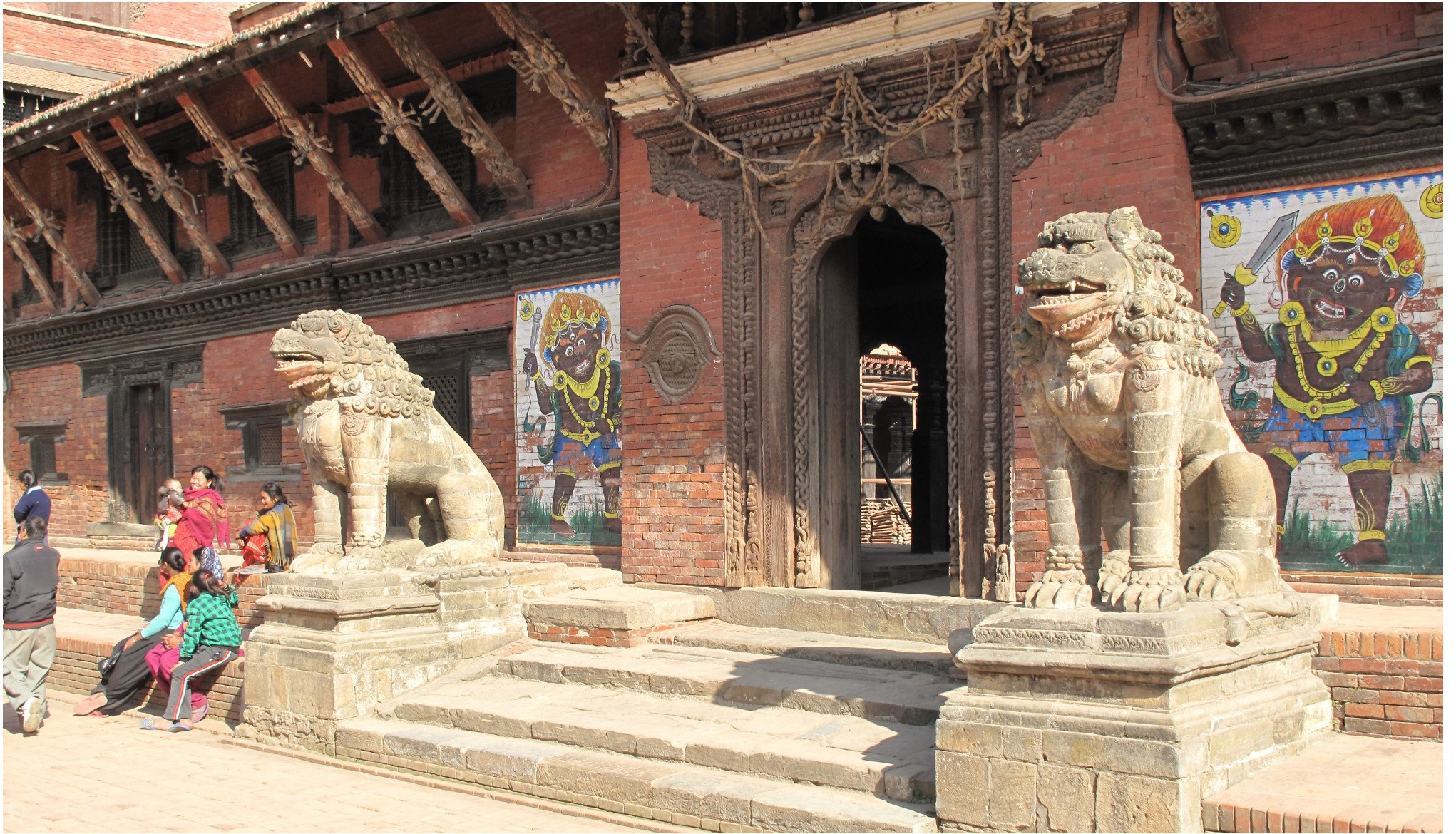


View of the lions from Patan's Darbar Square

Local residents of Patan walk on the main thoroughfare that leads through the Darbar Square just in front of the Mul Chowk stone lions. A highly trafficked route, the stone lions are a familiar sight to residents and an integral part of the architectural landscape.

Photograph by Mary Slusser circa 1970





A resting place | Jan 9, 2007

Local community members rest on the steps adjacent to the stone lions, a popular place to gather and spend time. Here it can be seen that the steps leading into Mul Chowk no longer extend into the walkway, and have been foreshortened.





Cleaning and removal of biological growth | Sep 9, 2011

A KVPT stonemason gently removes algae and other biological growth from the surface of the stone lioness with the use of soft brushes and potable water. This thick growth has formed over the years as a result of the statue's porous and water-retaining brick core.



Removal of cement pointing | Sep 14, 2011

The students from the University of Applied Arts, Vienna, are carefully removing the cement pointing with small chisels in order to disassemble the statue.



The stone lion's brick core | Sep 14, 2011

After removing this piece of the lion's mane, the inner brick core was exposed. It was decided to remove this brick filling, as it was unhistorical, and caused water retention inside the statue, leading to extensive damage.



KVPT stonemason | Sep 14, 2011

This KVPT stonemason is removing the cement from the back of the lion's head after it was removed from the statue. The cement was removed so that a stronger mortar mixture of lime, brick dust, sand, and cement, could be used when reassembling the statue.



Air-tight sealing of stone components | Sep 15, 2011

After treating the stone pieces with a gentle chemical to eliminate biological growth, the pieces were placed in air-tight wrapping.



Re-assembly of the stone lion | Sep 21, 2011

The stone components are being re-assembled here according to the configuration in which they were found. After being thoroughly washed and treated, and after all remnants of cement pointing was removed, the lion was re-assembled with a hollow interior and with the aid of stainless steel clamps.





Female lioness' mane before restoration | Aug. 2011

The growth is at its thickest surrounding the lioness' mane and brick, where the brick fill-in was placed.



Detail of female lioness before restoration | Aug. 2011

The thick growth and resulting dark colors obscured the statue's exquisite details, such as those seen here on the lioness' chest, and made the decorative carvings difficult to appreciate.



Female lioness before complete restoration | Aug. 2011

The female lioness statue prior to restoration was covered in dark green biological growth. The pointing between joints was also improperly and hastily done with cement, allowing water to seep into the statue. This combined with the statue's porous brick core, promoted this abundant and damaging biological growth.



Male lion before cleaning | Aug. 2011

The amount of growth on the surfaces of the stone threatens the lifespans of the two statues. Such growth not only conceals the carvings and craftsmanship of the stone, but in extreme cases can cause stones to fracture. The male lion was thoroughly cleaned, but was not disassembled and completely restored like the female lioness.





Female lioness' mane after restoration | Nov. 2011

The lioness' mane has been thoroughly cleaned, and after re-assembly fits together more seamlessly than it does in the corresponding photo at left.



Detail of lioness after restoration | Oct. 2011

The details on the female lioness' chest are more easily observed after the growth has been removed. Here, the beautiful natural color of the stone is exposed.



Female lioness after complete restoration | Oct. 2011

The stone lioness is restored to her former glory after being thoroughly cleaned and re-assembled. The stone components fit together smoothly, and the pointing is properly done, thoroughly sealing the joints.



Male lion after cleaning | Nov. 2011

Just six weeks after the adjacent male lion was thoroughly cleaned, biological growth has already re-appeared around the statue's mane and chest. The male lion is in urgent need of complete restoration, as the improper pointing and inner brick core are the sources of this persistent and damaging biological growth.





Detail of growth on male lion's mane | Nov 2011
Even after the extensive cleaning it received in late September, the statue has already begun to exhibit a resurgence in surface growth after a mere six weeks. In order to fully restore the lion, its brick fill-in must be removed, its joints properly pointed, and it must be re-assembled with seismic strengthening steel clamps.



Detail of male lion's chest | Nov 2011
Biological growth is beginning to appear here on the lion's chest. The lion must receive the same restoration treatment as the adjacent female lioness in order to ensure its continued longevity.



Damaged knee | Nov 2011
This detail shows the lion's right knee, which has been broken off. A replacement will be made by a KVPT stonemason, and will be properly joined to the statue's leg.



Missing base corner | Nov 2011
The statue suffers from many cracks and missing elements. This front right corner of the lion's base stone has been chipped off.





Truncated side stone | Nov. 2011

The long, slender stone at far right, once ran the length of the steps, extending to the bottom. However, it has since been truncated at the bottom, and only a remnant of it remains.



Position of the steps | Nov. 2011

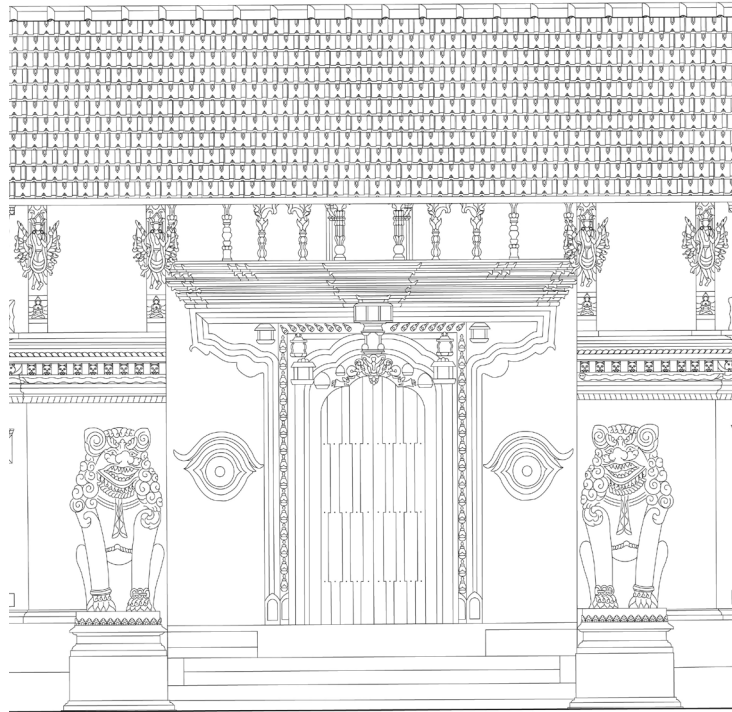
The bottom step once extended well beyond the base stone of the stone lions into the Darbar Square. Here, it can be seen that the step is now flush with the base of the stone lion statues, demonstrating that the steps no longer lie in their original position.



Brick filling and damaged stone | Nov. 2011

Here, improper brick fill-in can be seen in the far left corner of the top step. When re-setting the steps to their current positions, the steps were improperly sized and bricks were used to fill-in the gaps. This photo also documents the poor condition of the steps, they are cracked and in some places are completely broken off.





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