Surface Proxy
Clement Valla

Published by XPO GALLERY,
Paris, 2015
<table>
<thead>
<tr>
<th>Artist Statement</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Proxy: Reskinned Relics and Architectures of Mediation by Christiane Paul</td>
<td>8</td>
</tr>
<tr>
<td>2D Works</td>
<td>15</td>
</tr>
<tr>
<td>3D Works</td>
<td>53</td>
</tr>
<tr>
<td>Notes</td>
<td>81</td>
</tr>
<tr>
<td>PHOTOGRAMMETRY</td>
<td></td>
</tr>
<tr>
<td>ORIGINS OF PHOTOGRAMMETRY</td>
<td></td>
</tr>
<tr>
<td>PHOTOGRAPHY, MAPPING, MODELING</td>
<td></td>
</tr>
<tr>
<td>TEXTURES</td>
<td>MAPS</td>
</tr>
<tr>
<td>OPERATIVE IMAGES</td>
<td></td>
</tr>
<tr>
<td>MODELING RECONSTRUCTION, CLUNY</td>
<td></td>
</tr>
<tr>
<td>MODELING RECONSTRUCTION, THE CLOISTERS</td>
<td></td>
</tr>
<tr>
<td>A REVERSE ARCHAEOLOGY</td>
<td></td>
</tr>
<tr>
<td>ACHEIROPOETIC IMAGES</td>
<td></td>
</tr>
<tr>
<td>DRAPING</td>
<td></td>
</tr>
<tr>
<td>TRANSPARENCY</td>
<td></td>
</tr>
<tr>
<td>Bibliography</td>
<td>96</td>
</tr>
<tr>
<td>About the Artist</td>
<td>97</td>
</tr>
<tr>
<td>About XPO GALLERY</td>
<td>98</td>
</tr>
</tbody>
</table>
1. There’s an exhibition that attempts a reconstruction of the Great Portal at Cluny, a medieval church in France that rivaled St. Peters in Rome before it was dynamited to bits. The portal looks like a puzzle — small fragments are reassembled in a sparse composition. The whole thing has been composed by capturing 3d models of the dispersed fragments housed in museums across the world. A video narrates the technical challenges and details. It’s produced by the Conservatoire des Arts et Metiers.

2. There’s a .zip file on a hard drive that contains a mesh (mesh.obj) and a texture (tex_0.jpg). The JPG turns out to be a fantastic puzzle of photographic fragments and shards. The mesh is a 3d model — a series of points joined together that define a form in space. The photorealistic model constituted on-screen is composed of these twin puzzle pieces — abstract, mathematically precise interconnected points in space, and a messy, exploded picture of photographic shards.

3. There’s a url that may or may not be a conspiracy theory site. It clamors about evidence that the Shroud of Turin is real — or fake. It’s full of laborious technical details — the depth of the imprint, the chemical nature of the marks, the linen, pollen samples, etc... The site’s author has created a piece of software to extract a 3d model from the image on the shroud. The shroud is a technical apparatus - a picture that encodes data points for an object.

4. There’s a director of the Conservatoire National des Arts et Métiers who invents photogrammetry in 1849, a year or so after the invention of photography itself. It is a process that extracts 3-dimensional data from photographs. The process takes a set of images and constructs a data set of points in space.

5. There’s an architectural surveyor who is afraid of heights as the result of a near-death fall from a cathedral. He turns to photogrammetry. In photogrammetry the photos are a data set and not an ends — not the final thing to look at. The single photograph does not produce any data, only the set of interrelated pictures does.

6. There’s a data-center somewhere out west. It stores user images and more importantly meta-data - data about the images. Data about how the images link to other images. To certain big-data companies and surveillance institutions, single images have no value, aesthetic or otherwise. What matters is only the meta-data extracted from the set.

Clement Valla, 2015
Art relies on an economy of representation. Artworks establish exchanges of meaning by creating dynamic image flows and using the essential to communicate the concept. They set up relations between subjects, objects and their re-presentation, between the visible and invisible. Marie-José Mondzain has explored these aspects in her discussion of Byzantine icons, stating that “the icon is nothing other than the economy of the image.”

Mondzain argues that there is an economic relation between an artificial icon and the natural image representing it (for example God manifest in Christ), a relation that refers to “the organization and function of visibility in its relation to the invisible image, which remains the only true image.” The icon represents an absent, invisible entity or concept through a visible image evoking it. Sacred icons, in particular, are understood as acheiro-poiete, not created by the human hand — they create the illusion of being miraculous representations created through divine intervention. By negotiating visibility and invisibility icons reveal themselves. Jean-Luc Nancy similarly proposes that images disclose an economy of representation, writing “The image disputes the presence of the thing. […] This is not a presence ‘for a subject’ (it is not a ‘representation’ in the ordinary, mimetic sense of the word). It is, on the contrary, if one can put it this way, ‘presence as subject’ […] The thing presents itself.”

The exchanges of meaning in images have always been complex and representations have never been stable. At the same time, new technologies of representation always introduce new complexities and render the image flow problematic in different ways. Digital technologies have introduced new ways of “seeing” the world, of constructing image flows, and of rendering objects visible.

Clement Valla’s exhibition Surface Proxy problematizes the dynamics of digital images and unwraps economies of representation. The works presented in Surface Proxy are objects literally wrapped in their own representation. The starting point for these objects were iconic, intact architectural fragments, all of French origin, from the RISD Museum in Providence, Rhode Island, and the Metropolitan Museum and the Cloisters in New York. Many of these fragments came from the town of Cluny, which grew around a Benedictine Abbey and was a center of Roman Catholic power until the French Revolution, when it became a symbol of the old regime. It was almost completely destroyed in 1810 and then used as a quarry until 1823. Cluny’s status oscillated between symbol of repression and iconic historic monument and some of its relics entered US museums and collections. Clement Valla employed these historical relics as a basis for a complex process of remediation. Using 123d catch, an app that lets users create 3D scans of virtually any object, he produced 3D models of the architectural fragments. These 3D models where then digitally draped with cloth by means of the 3D graphics and animation software Blender and the surface of the original object was virtually imprinted on the cloth. After this process of digital remediation, the virtual objects were translated back into the process of digital remediation, the virtual objects were translated back into the
real world. The cloth depicting the image was printed using an inkjet printer and wrapped around a 3D print of the object’s form. The object is re-skinned by its own image, in a process the artist describes as “a kind of analogue version of texture-mapping.”

Surface Proxy captures a chain of transformations: pieces of buildings were transformed from architectural ornaments in France to sculptural works in museums in New York and Providence; these reliefs are translated from the physical into digital 3D models and back to the physical as image objects fusing the photographic and sculptural. The objects are reliefs in more than one sense. They are surviving traces of both physical architectures and architectures of mediation. Their scars and deformations are visible both in the original architectural object and in the splintered image printed on the textile wrapped around the exhibited form. It is notable that the Cloisters — as one of the museums from which the works in the exhibition have been “remediated” — are themselves an architecture of fragments, incorporating segments from five European abbeys that were shipped to New York and re-constructed into a new building.

The artistic gesture of a literal wrapping of the object in its image is deceptively simple, both concealing and evoking a complex play of representation. Surface Proxy consists of things that present themselves rather than represent, as Nancy would put it. The images on the textile wrappers conceal and dispute the presence of their underlying form. They are not mimetic but as fragmentary as the form that gives them structure. They push the issue of the object’s presence to the surface and make it their subject. They come close to Mondrian’s icons in that they represent an invisible entity, a relic that morphed from a symbol of religious power to a symbol of remission to an iconic museum sculpture to a digital transformation to a veiled 3D print. The only true image is the function of the visible image capturing the invisible qualities of the complex entity it represents.

The cloth wrapping the object evokes the shroud imprinted with the contours of the religious icon. As the sacred icon was not created by human hands, the wrapper of the exhibited objects is the result of software processes. While Surface Proxy does not aspire to investigate the religious per se, it still engages the image economy of the icon.

The works in Surface Proxy have a peculiar relationship to the photographic. There is a photographic process underlying the original transformation of a physical object into an image, yet the image relationship of the image to its reference object becomes distorted. The image has to fragment and splinter itself in order to conform to the object it strives to represent. In only one instance does this fragmentation unwrap itself within the exhibition. While scanning one of the original architectural fragments in the Cloisters, a plant unavoidably was captured, too. Rather than wrapping a 3D print of a plant, Valla decided to exhibit an actual plant next to the relic and to display the unfolded version of the wrap generated from the virtual model of the plant on the wall next to it. Living nature thereby resists presenting itself as iconic.

Surface Proxy is both a continuation of Clement Valla’s previous explorations and takes them to a new level. In his previous series Surface Survey (2014) he used software for transforming photographed objects into 3D models. The software can only “perceive” objects in fragments that ultimately should be pieced together, but Valla leaves these fragments as is, either showing them as 3D images or printing them as 3D objects that are displayed on tables, arranged on a grid structure. The image and object l’aide de 123d catch, une application qui permet aux usagers de créer des scans 3D de tous les objets qu’ils prennent, il a produit des modélisations 3D de ces fragments architecturaux. Ces modèles 3D ont été ensuite numériquement drapés à l’aide de Blender, un logiciel de dessin et d’animation 3D, et la surface de l’objet original a été ensuite posée sur cette surface de drapage. Après ce processus de remédiation numérique, les objets virtuels ont été à nouveau convoqués dans le monde réel. La surface est imprimée à l’aide d’une imprimante jet d’encre, et drapée sur une impression 3D de l’objet. L’objet est revêtu de sa propre image, dans un processus que l’artiste décrit comme « un genre de version analogue du texturing ».

Surface Proxy met en évidence une chaîne de transformation : des morceaux de bâtiments ont subi une transformation, passant d’ornements architecturaux en France, à œuvres sculpturales dans des musées de New York et Providence; ces reliefs ont été traduits du monde physique en modèles 3D, puis sont replacées dans le monde physique comme objets-images, mélangant le photographique et le sculptural. Ces objets sont des reliefs à plus d’un titre. Ils survivent comme traces d’architectures physiques et d’architectures de médiation. Leur cicatrices et leurs déformations sont visibles à la fois dans l’objet architectural original et dans l’image éclairée imprimée sur le textile qui drape la forme exposée. Il est à noter que The Cloisters – étant l’un des musées à partir duquel les oeuvres de l’exposition ont été « remédiées » – est lui-même construit comme une architecture de fragments, qui incorpore des éléments de cinq abbayes européennes, envoyées à New York et re-construites sous la forme d’un nouveau bâtiment. Le geste artistique qui consiste à littéralement envelopper un objet dans son image est simple jusqu’à la déception, masquant et évoquant simultanément un jeu de représentation complexe. Surface Proxy consiste en des représentations mixtes, qui s’approprient les qualités invisibles de l’entité complexe qu’elles représentent. Elles s’approchent du statut d’icône décrit par Mondzain, en ce qu’elles représentent une entité invisible, une relique qui a évolué, d’abord symbole de pouvoir religieux, puis de la répression, puis sculpture iconique de musee, puis version digitale de celle-ci, puis enfin impression 3D drapée d’une imprégnation numérique sur la surface de l’objet. Les oeuvres dans Surface Proxy entretiennent une relation particulière avec le photographique. Il y a un processus photographique sous-jacent dans la transformation d’un objet physique en une image, et cependant, la relation indexique entre l’image et son référent est distordue. L’image doit se fragmenter et se scinder en multiples parties pour se conformer à l’objet qu’elle cherche à représenter. C’est seulement au sein d’une seule instance que la fragmentation se déploie dans l’exposition : pendant
fragments thereby become an archaeological survey of how software sees objects and reveal the computer’s logic of image creation. Surface Proxy shifts the focus to issues of representation: the image surface functions as both a stand-in and questions its own authority to represent the object.

Christiane Paul

le processus de scan de l’un des fragments d’architectures à The Cloisters, une plante, c’était inévitable, s’est trouvée elle aussi scanée. Au lieu d’envelopper l’impression 3D d’une plante, Valla a choisi d’exposer une vraie plante à côté de la relique, et de montrer sur le mur adjacent la version déployée de l’enveloppe générée à partir du modèle virtuel de la plante. Ainsi la nature vivante résiste-t-elle à sa présentation comme un chose iconique.

Surface Proxy est à la fois une poursuite des explorations précédentes de Clement Valla, et une nouvelle recherche. Dans ses séries précédentes Surface Survey (2014), il a utilisé des logiciels pour transformer des photographies en modèles 3D. Le logiciel n’est simplement capable que de “percevoir” des objets sous la forme de fragments, qui doivent ensuite être assemblés ensemble, mais Valla laisse ces fragments en l’état, soit en les exposant comme des images bidimensionnelles, soit en les imprimant en 3D, des objets qui sont montrés sur des tables, disposés sur une structure de grille. L’image et les fragments d’objets deviennent ainsi une étude archéologique, qui porte sur la manière dont les logiciels voient les objets et qui met en évidence les logiques de la création d’image par les ordinateurs. Surface Proxy déplace le regard vers des questions de représentation: la surface de l’image fonctionne comme un substitut, tout en questionnant sa propre légitimité à représenter l’objet.

Christiane Paul

2 Ibid., p. 83
3 Jean-Luc Nancy, “Image and Violence”, leportique.revues.org/451

2 Ibid, p. 110
3 Jean-Luc Nancy, «Image et violences», leportique.revues.org/451
2D WORKS
The Museum owns two limestone sculptures of Apostles (41.045 and 41.046) that were originally part of a horizontal sequence of twelve figures positioned above the main portal of a church in southwestern France. The figures are individually posed but share distinct stylistic characteristics, including stocky torsos, prominent heads, incised drapery folds, drilled pupils, and beaded haloes. Their large, open hands and upward glances would have been perceived by viewers as gestures of dialogue among one another. Their expressions of awe would have been directed toward a central motif of Christ ascending into heaven.

source: riadmuseum.org/art_design/objects/272_apostle
The RISD Museum owns two limestone sculptures of Apostles (41.045 and 41.046) that were originally part of a horizontal sequence of twelve figures positioned above the main portal of a church in southwestern France. The figures are individually posed but share distinct stylistic characteristics, including stocky torsos, prominent heads, incised drapery folds, drilled pupils, and beaded haloes. Their large, open hands and upward glances would have been perceived by viewers as gestures of dialogue among one another. Their expressions of awe would have been directed toward a central motif of Christ ascending into heaven.

Source: risdmuseum.org/art_design/objects/271_apostle
33.21.1
Cistern
13th century
French
Lead, cast
Overall 13 3/8 x 22 1/4 in. (34 x 56.5 cm)
The Metropolitan Museum of Art, New York, Metalwork Lead, Gift of George and Florence Blumenthal, 1933, on view in Gallery 003. Said to have come from Angoulême (Charentes); George and Florence Blumenthal (until 1933).
Similar lead cisterns have been found in churches in the region of Toulouse, where they were placed on stone columns and used as fonts for the water used in baptism. The two bands of decoration are filled with lions, accompanied by fantastic creatures, griffins, centaurs, and dragons.
source: www.metmuseum.org/collection/the-collection-online/search/487593
Angel
ca. 1130
Made in Burgundy, France
Limestone
Overall 23 x 16 1/2 x 11 3/8 in. (58.4 x 41.9 x 28.9 cm)

From the former transept portal of the cathedral of Saint-Lazare at Autun; Roidet-Haudaille (architect), Autun, France; Abbé Victor Terret, Autun, France; [Jean Peslier, Vézelay (sold 1935)]; [Brummer Gallery, Paris and New York (1935–1947)].

Seemingly afloat in midair, with its wind-blown drapery, this angel once graced the voussoir, or wedge-shaped stone, set in an arch of the portal on the north transept of the cathedral dedicated to Saint Lazarus in Autun. The angel’s attention originally was focused on the scene of Jesus raising Lazarus—patron saint of the cathedral—from the dead, depicted in the tympanum centered over the doorway. The angel is one of a handful of physical remains of the twelfth-century portal, which was replaced with a Baroque doorway in 1776. The main entrance of the cathedral is carved with the name Gislebertus, believed to be the principal author of the sculptural program.

Source: www.metmuseum.org/collection/the-collection-online/search/470161
36.8
Saint Firmin Holding His Head
ca. 1225–75
Made in Amiens, France
Limestone and paint
Overall: 43 1/2 x 15 x 13in.
(110.5 x 38.1 x 33cm)
The Metropolitan Museum of Art, New York,
Sculpture-Stone, Gift of Mr. and Mrs.
Frederic B. Pratt, 1936, on view in Gallery
364, Bauer Collection (before 1910?); Mr.
and Mrs. Frederic B. Pratt, Brooklyn and
Saint Firmin was a fourth-century mis-
sionary who became the first bishop of
Amiens and the patron saint of that city.
Here the saint is shown as if living while
holding his decapitated head. This statue
is said to have come from the destroyed
bishop’s palace at Amiens.
source: www.metmuseum.org/collection/
the-collection-online/search/467630
47.101.23
Spandrel
ca. 1120-30
French
Marble
25 1/2 x 23 1/2 in. (64.8 x 59.7 cm)

This carving is one of the numerous surviving fragments from a great carved stone screen that once enclosed the choir in the third church built at Cluny, a sanctuary rivaled in size only by Saint Peter's in Rome. The monastery of Cluny, one of the most powerful in medieval Europe, was richly endowed by the kings of Castile and Leon as well as other European rulers. It was sustained by a network of hundreds of dependencies.

The monastic buildings of Cluny—covering some 25 acres—were acquired by the town in the wake of the French Revolution at the end of the eighteenth century and were almost completely destroyed. Elements from the building were adapted for reuse by the municipality.

source: www.metmuseum.org/collection/the-collection-online/search/4710123
13.152.1
Impost Block with Acanthus Decoration

12th century
Made in Saint-Denis, Île-de-France, France
Limestone
Overall 20 1/4 x 25 x 15 5/8 in.
(51.4 x 63.5 x 39.1 cm)
The Metropolitan Museum of Art, New York,
Sculpture-Architectural, Rogers Fund, 1913, on view in Gallery 003.
source: www.metmuseum.org/collection/
the-collection-online/search/4825013
Architectural Frieze

Second quarter 12th century
Made in Cluny, Burgundy, France
Limestone
11 1/2 x 22 x 7 3/4 in.
(29.2 x 55.9 x 19.7 cm)

The miniature architectural panorama may be a schematic representation of Jerusalem, or perhaps of the monastery of Cluny. This frieze is believed to have come either from a screen in the Benedictine monastic church there or from a contemporary Romanesque house in the adjacent town.

source: www.metmuseum.org/collection/the-collection-online/search/469854
**25.120.1046**  
*Column Shaft*

Late 12th century  
Made in Languedoc, France  
Stone  
Height: 40 3/4 in. (103.5 cm)  
Circumference: 16 3/8 - 20 1/8 in. (43 - 51 cm)

The Metropolitan Museum of Art, New York  
Sculpture-Architectural, The Cloisters Collection, 1935, on view in Gallery 003, from the abbey church of St.-Guilhem-le-Désert, near Montpellier; George Grey Barnard American, Bellefonte, Pennsylvania 1863-1938, New York (until 1925)

Abacus: 25.120.39; capital (1): 25.120.38; capital (r): 25.120.58; shaft (1): 25.120.1080; shaft (r): 25.120.1046; base (r): 25.120.57

[source: www.metmuseum.org/collection/the-collection-online/search/470647]
Angel
ca. 1120
Made in Burgundy, France
Limestone
Overall 13 3/4 in. (34.9 cm)
The Metropolitan Museum of Art, New York

In the nimble hands of the sculptor, a gentle face and rhythmically patterned robe emerge from the rough limestone surface. This half-length angel probably comes from the arch molding of a doorway or from a relief of the third church built at the powerful abbey at Cluny.

source: www.metmuseum.org/collection/the-collection-online/search/471262
This figure of Saint Peter comes from the Third Abbey Church of Saint Peter and Saint Paul, Cluny, the wealthiest monastery in Europe in the Middle Ages. Designed to be seen from below as part of an architectural relief, it may have been located in a spandrel over the great portal of the church’s west façade. Saint Peter was one of the patron saints of this monastic community and his image would have resonated with the monks of Cluny as a symbol of their spiritual identity. Saint Peter is characterized by long fingers extending from small palms, and by the angular, parallel folds of the drapery. He can be identified by the massive key that rests on his shoulder, a symbol of access to the heavenly kingdom and of Peter’s authority within the Roman Catholic Church.

source: risdmuseum.org/art_design/objects/270_saint_peter
Tomb Effigy of a Lady

Mid-13th century
French
Limestone
Overall 87 x 35 1/4 in. (221 x 89.5 cm)

Probably representing Margaret of Gloucester, the wife of Robert II, baron of Neubourg, this effigy is shown in the aristocratic costume of the period. From her belt are suspended a purse, or aumônière, containing coins for the needy, a needle case, and an eating knife in its sheath. The effigy rests on a modern base.

source: www.metmuseum.org/collection/the-collection-online/search/457462
47.101.25
Portion of a Pilaster with an acrobat
ca. 1150–70
Made in Lyonnais, France
Limestone
Overall 12 3/4 x 9 in. (32.4 x 22.9 cm)
The Metropolitan Museum of Art, New York,
Sculpture-Architectural, The Cloisters
Collection, 1947, on view in Gallery 301,
From the abbey of Saint-Martin de Savigny,
near Lyons; Jacques Douille, Aix-en-
Provence (sold 1928); (Brummer Gallery,
Paris and New York (1928-1947))
source: www.metmuseum.org/collection/
the-collection-online/search/471266
25.120.38
Capital (from ensemble of Capital, Shaft, and Base)
Late 12th century
French
Stone
Overall: 10 3/4 x 9 1/2 x 9 1/2 in.
(27.3 x 24.1 x 24.1 cm)
The Metropolitan Museum of Art, New York, Graphic Arts, Department, The Cloisters Collection, 1925, on view in Gallery 003, from the abbey church of St.-Guilhem-le-Désert, near Montpellier; George Grey Barnard American, Bellefonte, Pennsylvania 1863–1928 New York, New York (until 1925); Pierre-Yvon Verniere, Aniane, France
source: www.metmuseum.org/collection/search/473145
Asplenium Scolopendrium
Plant
The Cloisters, on view in Gallery 003
Asplenium scolopendrium, known as hart’s-tongue or hart’s-tongue fern (syn. Phyllitis scolopendrium) is a fern in the genus Asplenium, of the Northern Hemisphere.
Whenever any important business has to be done in the monastery, let the Abbot call together the whole community and state the matter to be acted upon. So Saint Benedict began Chapter 3 of his "Rule for Monasteries." The chapter house was devised to facilitate such meetings. Usually located off the cloister, chapter houses, such as this example, were generally rectangular in shape and furnished with stone-hewn benches encircling the room.

The abbot sat on a separate, often raised seat. The room was illuminated by windows on the rear wall, as well as by the arcades at the entrance. This view of the Pontaut Chapter House from Pontaut in southwest France shows the entrance from the cloister.

Originally the interior walls were plastered and perhaps painted. (Some color can still be seen on the ribs of the vaults.) The decorations of the capitals and abacus blocks are imaginatively varied and include rosettes, palmettes, and basket-weave patterns as well as carvings representing pinecones.

Like many other church buildings, the abbey of Pontaut suffered from changing political fortunes and neglect: it was partially destroyed in 1569 during the Wars of Religion and was abandoned by 1791 in the aftermath of the French Revolution. By the nineteenth century, the chapter house was being used as a stable, and it fell into a dilapidated condition until its purchase in the early 1930s.

source: www.metmuseum.org/collection/the-collection-online/search/471179
50.159
Saint Barbara
Mid-15th century
Made in Burgundy, France, French
Limestone with traces of paint
H. 40 1/2”
The Metropolitan Museum of Art, New
York, Sculpture-Stone, Gift of Edward G.
Sparrow, 1950, on view in Gallery 010,
Edward G. Sparrow (until 1950).
This sculpture was probably meant
to be seen against a pier or in a niche
behind an altar in a French parish church.
The massiveness of the figure and the
heavy, deep folds of drapery derive from
the stylistic innovations of two ear-
lier sculptors working in Burgundy Claus
Sluter (c. 1345-1406/8) and Claus
de Werve (1380-1439).
source: www.metmuseum.org/collection/
the-collection-online/search/468332
25.120.246a, b
Font
Late 11th century
Made in Auvergne or Guyenne, France, French
Stone, iron
Overall 34 x 26 in. (86.4 x 66 cm)
source: www.metmuseum.org/collection/the-collection-online/search/473882
3D WORKS

PHOTOS BY VINCIANE VERGUETHEM / COURTESY XPO GALLERY
above: 13.150.1 Impost Block with Acanthus Decoration
right: 20.254 Saint Peter
left: 38.21.1 Cistern
above: 1980.283.1 Architectural Frieze
above: 47.101.20 Angel
right: 25.120.154 Column Shaft
NOTES
Photogrammetry, the art of making measurements from images, synthesizes the science of mathematics and the technology of photography. The development of photography in the 19th century, which is the embodiment of projective geometry, led to widespread development of photogrammetry for topographic and architectural measurement by the end of the century.

The first topographic map was produced [using photogrammetry] in 1861 depicting the village of Buc and covering approximately 200 hectares. This and other successful mapping demonstrations led to the establishment of a French military mapping unit using Laussedat’s equipment and techniques.

J. Chris McGlone, Encyclopedia of 19th Century Photography

After an accident at the Wetzlar cathedral in 1898, Meydenbauer developed the idea that the direct measurement of sites could be replaced by indirect measurements using photographic images.

J. Chris McGlone, Encyclopedia of 19th Century Photography
In a memorandum, written in the fall of 1859, [Meydenbauer] laid out a project to photograph all Prussian monuments with the greatest detail and accuracy with the intention of gathering and protecting the images in an archive of cultural heritage.[…]

In 1885 Meydenbauer [...] founded the Königlich preußische Meßbildanstalt [Royal Prussian Photogrammetric Institute] in Berlin, the first institution worldwide for the photogrammetric documentation of architectural heritage. Between 1885 and 1920 the institute produced records of about 2,600 objects in nearly 20,000 photogrammetric images.

One characteristic of photogrammetry in particular presented a great challenge to the status of the photographic image: the fact that the photographic referent was no longer located within a single image. […] Here, reference is described as something that is produced through a whole “cascade” of inscriptions (images, maps, graphs, diagrams etc.). This is what Manzi gestured toward when he stated that, in fototopografia, the photographs were “means and not ends.”

Jan von Berem, Fototopografia: The “Futures Past” of Surveying
One of the biggest issues in applying photogrammetry to topographic mapping was the lack of a suitable viewpoint, especially in flat or wooded terrain. Laussedat conducted experiments with Tournachon (Nadar) in 1858 on using photographs from balloons, although the wet collodion process used was difficult to accomplish in a balloon. With the introduction of dry plates balloon photography became more practical and military reconnaissance operations became widespread.

J. Chris McGlone, Encyclopedia of 19th Century Photography

In the case of 123D catch, the diagram is reversed. The human operator of the camera becomes the interlocutor for the communication between two technical subjects: the camera on the one hand, and the modeling software on the other. The technical logic of their subjectivity becomes the lingua franca that the human must learn how to speak.

AE Benenson and Clement Valla, Some Sites and their Artifacts: 123D Catch

Our sense of spatial and temporal orientation has changed dramatically in recent years, prompted by new technologies of surveillance, tracking, and targeting. One of the symptoms of this transformation is the growing importance of aerial views: overviews, Google Map views, satellite views. We are growing increasingly accustomed to what used to be called a God’s-eye view. On the other hand, we also notice the decreasing importance of a paradigm of visuality that long dominated our vision: linear perspective. Its stable and single point of view is being supplemented (and often replaced) by multiple perspectives, overlapping windows, distorted flight lines, and divergent vanishing points.

Hito Steyerl, In Free Fall: A Thought Experiment on Vertical Perspective

One of the biggest issues in applying photogrammetry to topographic mapping was the lack of a suitable viewpoint, especially in flat or wooded terrain. Laussedat conducted experiments with Tournachon (Nadar) in 1858 on using photographs from balloons, although the wet collodion process used was difficult to accomplish in a balloon. With the introduction of dry plates balloon photography became more practical and military reconnaissance operations became widespread.

J. Chris McGlone, Encyclopedia of 19th Century Photography

It is likely that most of these images created by the mapping apparatus will never be seen by a human. Soon, more of these images will be created by all kinds of apparatuses—for mapping, for making video games, for digitizing objects in museums, for producing 3D printable objects—than were ever created by human hands. The vast majority of these images will never be seen by humans. If that is the case, there is a possibility that these are not images anymore. If an image is not read by a human, can it still be called an image?

Clement Valla, 3d-maps-minus-3d.com

Texture mapping is a graphic design process in which a two-dimensional surface, called a texture map, is “wrapped around” a three-dimensional object. Thus, the 3-D object acquires a surface texture similar to that of the 2-D surface.

In some mappings, the correspondence between the 2-D texture map and the 3-D object’s surface becomes “messy.” An example is the application of a pattern of squares to the surface of a sphere. It is impossible to paste checkered wallpaper onto a sphere without cutting the paper in such a way as to create discontinuities in the pattern. This problem occurs with many texture mappings.

Texture mapping definition from WhatIs.com
In his 2004 essay entitled “Phantom Images,” where (Farocki) coined the term of the operative image, he relates that his interest in images, “taken in order to monitor a process that, as a rule, cannot be observed by the human eye,” lies in their non-intentionality, the US military’s tactical war-head pictures approaching what he calls the “unconscious visible.”

Ingrid Hoelzl, The Operative Image - an Approximation

I used the word “evocative” in the first paragraph rather than “meaningful”. My domain of enquiry here is not the way in which particular meanings are transmitted through images and how they are changed in the process, but more generally the nature of image-mediated transactions. What would be the minimum condition under which a set of marks may function as an image? [...] It is equally true, I believe, that image-reading has no meaningful existence outside the transactional context: not because the whole event is always present — it almost never is — but because every act of image-reading is initiated by the unspoken assertion “What I see is the result of a willful human act”. That is a part of what we mean by the word “image”. However much we may amuse ourselves seeing dinosaurs in clouds or dragons in the fireplace, we have no difficulty in differentiating between marks and shapes made by man, and marks and shapes made by nature, and we do not hesitate to assign meaning in the one case where we deny it in the other: unless we belong to a culture with a more animistic attitude to nature than this one has.

Harold Cohen, What is an Image, 1976

A while ago I met an extremely interesting software developer who was working on smartphone camera technology. Photography is traditionally thought to represent what is out there by means of technology, ideally via an indexical link. But is this really true anymore? The developer explained to me that the technology for contemporary phone cameras is quite different from traditional cameras: the lenses are tiny and basically crap, which means that about half of the data being captured by the camera sensor is actually noise. The trick, then, is to write the algorithm to clean the noise, or rather to discern the picture from inside the noise.

Hito Steyerl, Proxy Politics: Signal and Noise

(Farocki) also argues that such images, even if not made by man, are made for man, since “[…]there are no pictures that do not aim at the human eye. A computer can process pictures, but it needs no pictures to verify or falsify what it reads in the images it processes. […] Ten years later, the development of computer vision techniques seems to indicate a turn towards what we could call ‘post-human operativity’: while the imminent task at hand is to perfectly simulate how humans see and make sense of the world, the ultimate goal are fully autonomous systems of image creation, analysis and action, capable of substituting human observers and operators altogether. But then we will need a radically new definition of the image (or have no more need for it).

Ingrid Hoelzl, The Operative Image - an Approximation

Seeing machines is an expansive definition of photography. […] It embraces everything from iPhones to airport security backscatter-imaging devices, from electro-optical reconnaissance satellites in low-earth orbit, to QR code readers at supermarket checkouts, from border checkpoint facial-recognition surveillance cameras to privatized networks of Automated License Plate Recognition systems, and from military wide-area-airborne-surveillance systems, to the roving cameras on board legions of Google’s Street View cars.

Trevor Paglen, Seeing Machines
By the time the buildings came down at Cluny (1798-1824), decisions about the abbey were tangled between its role as the ultimate symbol of repression destroyed and the place on the list of French national historic monuments.

Janet T. Marquardt, *From Martyr to Monument*

Abbot Odilo and his contemporaries had turned to Roman ruins for authentic, premium building elements in preparation for the construction of the 3rd Abbaye de Cluny.

Janet T. Marquardt, *From Martyr to Monument*

L’abbaye disparue, appelée du temps de sa splendeur le « Pape noir » à cause de la robe des bénédictins qui l’habitaient, devient une sorte d’Atlantide pour les passionnés d’histoire médiévale. Parmi eux un homme : Kenneth John Conant, historien de l’architecture à Harvard. À la fin des années vingt, il arrive dans le centre de la France dans l’intention de redécouvrir les grandes églises de pèlerinage détruites après la Révolution. « Il pensait rester quelques mois à Cluny, il y passe le reste de sa vie, raconte Damien Berné. Car en creusant, il découvre des centaines de fragments du grand portail. Pendant un mois demi, on en dégage de pleines caisses. »

Marion Cocquet, *Quand Cluny revit*

Il faut imaginer le choc que fut, pour les habitants de Cluny, la disparition du grand portail, haut de plus de seize mètres, entièrement décoré, souligne Damien Berné, conservateur au musée du Moyen Âge et commissaire de l’exposition « Cluny 1120, au seuil de la Major Ecclesia ». Au lendemain de la Révolution, l’abbaye a été mise aux mains de promoteurs qui la vendent au prix de la pierre. Ce qui avait été la plus grande église de la chrétienté devient alors une gigantesque carrière à ciel ouvert. Le portail, haut de plus de seize mètres de haut, est lui trop sculpté pour que les blocs qui le composent puissent avoir quelque intérêt. On le pulvérise à l’explosif, le 8 mai 1810. Certains fragments sont emmenés par des particuliers (on retrouvera l’aigle de Saint-Jean l’évangéliste dans le mur d’une maison). Les autres serviront de remblai.

Marion Cocquet, *Quand Cluny revit*

The Cloisters museum and gardens is named for the portions of cloisters from present-day France—Saint-Michel-de-Cuxa, Saint-Guilhem-le-Désert, Trie-sur-Baïse, Froville, and elements once thought to have come from Bonnefont-en-Comminges—that were incorporated into a modern museum building. […] The overall effect is not a copy of any specific medieval structure but rather a harmonious and evocative setting for approximately two thousand works of art, a rich selection of objects and architectural elements from the medieval west largely dating from the twelfth through the fifteenth century.

Metropolitan Museum of Art Website
While there has been plenty of discussion about “the digital”, this discussion has focused almost exclusively on what we might call image-flow. Image-flow has to do with the quantity, mutability, and exchangeability of images. Networks, attention, selection, and dispersion have emerged as the prominent themes in recent issues of Artforum, October and many other texts. We need to develop an in-depth conversation around production, and the specific facture of images and objects today. We need to think about the way code is actually deployed, and the ideologies that structure its deployment. [...]

A conversation around production and the tangibility of data would leave behind the notions of simulacrum and “Pictures”, and instead try to understand “the real” and “the virtual” in multiple registers. Instead of a division between objecthood and illusion, perhaps a more relevant discussion would focus on the convergence of model and referent, as well as the layering and compositing of surfaces and skins. Instead of the structuring principles of index and icon in relation to process and abstraction, perhaps we need to focus on how physical data is acquired, translated, and made physical again.

Daniel Lefcourt, email correspondence

As is well known from art historians and theologians, many sacred icons that have been celebrated and worshipped are called acheiropoietic; that is, not made by any human hand. Faces of Christ, portraits of the Virgin, Veronica’s Veil; there are many instances of these icons that have fallen from heaven without any intermediary. To show that a humble human painter has made them would be to weaken their force, to sully their origin, to desecrate them.

The same is true of science. There, too, objectivity is supposed to be acheiropoietic, not made by human hand. If you show the hand at work in the human fabric of science, you are accused of sulllying the sanctity of objectivity, of ruining its transcendence, of forbidding any claim to truth.

But what if hands were actually indispensable to reaching truth, to producing objectivity, to fabricating divinities? What would happen if, when saying that some image is human-made, you were increasing instead of decreasing its claim to truth? That would be the closure of the critical mood, the end of anti-fetishism. We could say, contrary to the critical urge, that the more human-work is shown, the better is their grasp of reality, of sanctity, of worship.

Bruno Latour, What is Iconoclash?

The logic of digital conservation would seem to defend its sites against every material stress; 3d models are not eaten away by time or biology and they are not worn down by use, rather they proliferate because of it. Still, most of these artifacts apparently bear signs of deterioration and decay: they are perforated, imbricated with debris, hollowed out, and broken into shards.

AE Benenson and Clement Valla, Some Sites and their Artifacts: 123D Catch
One cannot call “object” the slightly more resistant part of a chain of practices except at the time it is still under the ground, unknown, thrown away, subjected, covered, ignored, invisible, in itself. In other words, there are no visible objects and there never have been. The only objects are invisible and fossilized ones.

Bruno Latour, How To do Words with Things

Obscène est ce qui met fin à tout regard, à toute image, à toute représentation... Ce n’est plus l’obscénité de ce qui est caché, refoulé, obscur, c’est celle du visible, du trop visible, du plus que visible que le visible, c’est l’obscénité de ce qui n’a plus de secret, de ce qui est tout entier soluble dans l’information et la communication.

Jean Baudrillard, L’Autre par lui-même

Wet-drapery is a term used by art historians to describe cloth that appears to cling to the body in animated folds while it reveals the contours of the form beneath.

Harold Koda, The Metropolitan Museum of Art Website

If we are looking either to understand or extend the metaphor of ‘transparencies’ as used in contemporary political discussion, perhaps we should learn from architecture’s own experience of the limits of transparencies in ideological operation. Here, the idea of transparency becomes more complex. The glass surface, once employed because of its see-through-ness, amplifies other characteristics. Manipulations of curve, angle, lighting, and so on, so that its properties of reflection become the spectacle, promoted over direct transparency. Rather than seeing through, we find ourselves looking at an image of ourselves and our circumstance reflected back, sometimes clearly, sometimes as a distorted or ghostly image [...] The contemporary interpretation of transparency is then very different to its modernist root. Rather than assume an idealized positive effect, it presents transparency as a problem, suggesting that as much as we might see through, we also end up looking in the opposite direction.

Sam Jacob, Revolving Doors: The Architecture of Corporate Media

In proxy politics the question is literally how to act or represent by using stand-ins (or being used by them) — and also how to use intermediaries to detourn the signals or noise of others. And proxy politics itself can also be turned around and redeployed. Proxy politics stacks surfaces, nodes, terrains, and textures — or disconnects them from one another. It disconnects body parts and switches them on and off to create often astonishing and unforeseen combinations. [...] In the space of proxy politics, bodies could be Leviathans, hashtags, juridical persons, nation states, hair transplant devices, moody chat bots, or freelance SWAT teams. Body is added to bodies by proxy and by stand-in. But these combinations also subtract bodies (and their parts) and erase them from the realm of never-ending surface to face enduring invisibility.

Hito Steyerl, Proxy Politics: Signal and Noise

The emphasis of Baudrillard’s analysis falls on transience and dematerialization, on transparency and disappearance, but one could look as well at the opaque material remainder, at the inescapable residuum of recalcitrant physical matter left behind when certain inscriptions do not occur as expected. In the absence of inscription, the substrate can be seen not as a transparent signifier but as an object in its own right, replete with its own material properties, histories, and signifying potential. The point then is not so much the play of presence and absence that has animated studies of inscription, but rather the recursive realization that every signifier is also itself a sign. Erasures obliterate, but they also reveal; omissions within a system permit other elements to appear all the more clearly.

Craig Dworkin, No Medium

In proxy politics, the question is literally how to act or represent by using stand-ins (or being used by them) — and also how to use intermediaries to detourn the signals or noise of others. And proxy politics itself can also be turned around and redeployed. Proxy politics stacks surfaces, nodes, terrains, and textures — or disconnects them from one another. It disconnects body parts and switches them on and off to create often astonishing and unforeseen combinations. [...] In the space of proxy politics, bodies could be Leviathans, hashtags, juridical persons, nation states, hair transplant devices, moody chat bots, or freelance SWAT teams. Body is added to bodies by proxy and by stand-in. But these combinations also subtract bodies (and their parts) and erase them from the realm of never-ending surface to face enduring invisibility.
Based on the text, the content reads as follows:

Founded in 2012, XPO GALLERY gives priority to artists who document and comment on contemporary art after the arrival of the internet and is particularly interested in how digital can drive and affect curatorial processes. The gallery approach is not technologically driven or digital art oriented. We focus instead on impact and implications of the digital.

Is it not time to question the inherited oppositions of man versus nature, man versus the machine, and even the physical versus the virtual? Reality has changed, but has our ability to realize that changed? The gallery is medium-neutral, as it does not support digital art but art after the internet, the objective of the gallery is to build long-term relationships with international artists, working with them as they mature in their artistic reflection and develop their expertise.

XPO GALLERY mixes an international program featuring artists it represents with invitations to curators.