

1. PARTHENON FRIEZE

1.5 SCULPTURE COURT LOWER EAST WALL

PANEL 1



Panel before conservation



Panel after conservation

1.5.1.1 DESCRIPTION OF THE OBJECT

TITLE: Parthenon Frieze, copy of the panel from Parthenon Frieze from Temple of Athena – Parthenon in Acropolis in Athens, Greece, between 443 and 438 B.C.

NUMBER(S): Sculpture Court, Lower Gallery East Wall, Panel 1.

TYPE OF OBJECT: Relief, plaster cast with a metal structure inside, most likely attached to the wall with metal fixings.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: possibly 1837

OWNER/LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh, EH3 9DF. Main Building, Sculpture Court, Lower Gallery East Wall.

DIMENSIONS/WEIGHT (APPROX): H: 1015mm W: 940mm D: 50mm

Weight (approx):

1.5.1.2 BRIEF CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Fair. Open crack running alongside joint on dexter side of the panel and small crack in middle section of sinister joint; small cracks around fixings by lower edge.

SURFACE DUST AND DIRT: Severe, 100% coverage.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of cream-white paint/varnish on surface of the cast; small spots of paint splash on surface of the panel; area of flaking and missing paint on lower part of the panel.

CHIPS AND LOSS: Missing areas associated with the cracks and around the screws at lower edge of the panel.

ABRASIONS: Not significant

Cracks

Chips, abrasions, missing surfaces

Paint splashes

Flaking paint



PREVIOUS REPAIRS:

At the time of re-siting the cast collection from the Royal Scottish Academy building on Princes Street to the Edinburgh College of Art in 1913, the Parthenon Frieze panels were installed with metal fixings set into the wall. The open joints between the panels were filled with a mortar that was smeared over the adjacent edges of the panels.

A mortar analysis was carried out by Mr Bill Revie of CMC on samples of the pointing material found between the Panel 10 and 11 on Ground Floor Galley North Wall. The mortar was found to be a thick layer of lime putty, gypsum plaster and fine sand and hair, followed by a thin layer of gypsum plaster and lime putty; and finally a layer of varnish. This final layer of varnish is found over the entire two floors of the North and South Walls and yet, interestingly, for some unknown reason, it was not applied to the slabs on the East Wall.



Samples of mortar were taken for analysis

1.5.1.3 ORIGINAL MATERIALS AND TECHNIQUES

The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is cream-white. To find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken and sent to the University of Northumbria for analysis. Photograph of a cross-section of the sample taken from **Panel 4** shows a single layer of white paint possibly white lead on top of the plaster.

1.5.1.4 TREATMENT REPORT

- Prior to any conservation treatment, the cast was photographed. This photographic documentation was continued throughout all conservation processes.
- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up the loose dust and dirt.
- Areas of flaking paint were consolidated with application of 5% Primal B60A in de-ionised water.
- Following wet cleaning spot tests on **Panel 9 on Lower Gallery East Wall**, the surface of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places if necessary.



Cast during wet cleaning

- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.
- Exposed metal fixings were treated with 5% Tannic Acid so as to stabilise the corrosion, and covered with a protective layer of 20% Paraloid B72 in acetone.
- Areas of loss, open joints and cracks were filled with white micro-balloons mixed with 12% Paraloid B72 in acetone. Larger areas of loss around the screws were filled with an inert filler to provide extra strength.
- All the fills were then toned out with acrylics, mixed with matting agent, to match the surrounding patina.

1.5.1.5 MAINTENANCE PROGRAMME

Maintenance of the Parthenon Frieze requires to be undertaken from a scaffold. As a result, any cleaning needs to be carried out by operatives that are trained to: a) construct, move and dismantle a portable scaffold tower; and b) clean the Frieze in an appropriate manner.

Graciela Ainsworth Sculpture Conservation could train staff to undertake such cleaning. The training for the use of scaffold would require organising by the Edinburgh College of Art.

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their locations on the Frieze, should be documented and wrapped carefully in acid free tissue prior to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage.

NB At no time should cleaning products or any liquid (including water) be used.

We would recommend that this cleaning programme for the Parthenon Frieze should be undertaken on an annual basis (at minimum). Ease of access would mean that the free standing casts could be cleaned, with the same method, on a more regular basis.

PANEL 2



Panel before conservation



Panel after conservation

1.5.2.1 DESCRIPTION OF THE OBJECT

TITLE: Parthenon Frieze, copy of the panel from Parthenon Frieze from Temple of Athena – Parthenon in Acropolis in Athens, Greece, between 443 and 438 B.C.

NUMBER(S): Sculpture Court, Lower Gallery East Wall, Panel 2.

TYPE OF OBJECT: Relief, plaster cast with a metal structure inside, attached to the wall with 4 metal fixings.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: 1837

OWNER/LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh, EH3 9DF. Main Building, Sculpture Court, Lower Gallery East Wall.

DIMENSIONS/WEIGHT (APPROX): H: 1015mm W: 900mm D: 50mm

Weight (approx):

1.5.2.2 BRIEF CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Fair. Open cracks running alongside joint on sinister sides of the panel; small cracks in top dexter corner of the cast.

SURFACE DUST AND DIRT: Severe, 100% coverage.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of cream-white paint on surface of the cast; small spots of paint splash on dexter section of the panel.

CHIPS AND LOSS: Missing areas associated with the crack on sinister joint.

ABRASIONS: Not significant

Cracks

Ferrous items under plaster

Chips, abrasions and missing surfaces

Paint splashes



PREVIOUS REPAIRS:

At the time of re-siting the cast collection from the Royal Scottish Academy building on Princes Street to the Edinburgh College of Art in 1913, the Parthenon Frieze panels were installed with metal fixings set into the wall. The open joints between the panels were filled with a mortar that was smeared over the adjacent edges of the panels.

A mortar analysis was carried out by Mr Bill Revie of CMC on samples of the pointing material found between the Panel 10 and 11 on Ground Floor Galley North Wall. The mortar was found to be a thick layer of lime putty, gypsum plaster and fine sand and hair, followed by a thin layer of gypsum plaster and lime putty; and finally a layer of varnish. This final layer of varnish is found over the entire two floors of the North and South Walls and yet, interestingly, for some unknown reason, it was not applied to the slabs on the East Wall.



Samples of mortar were taken for analysis

1.5.2.3 ORIGINAL MATERIALS AND TECHNIQUES

The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is cream-white. To find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken and sent to the University of Northumbria for analysis. Photograph of a cross-section of the sample taken from **Panel 4** shows a single layer of white paint possibly white lead on top of the plaster.

1.5.2.4 TREATMENT REPORT

- Prior to any conservation treatment the cast was photographed. This photographic documentation was continued throughout all conservation processes.
- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up loose dust and dirt.
- Following wet cleaning spot tests on **Panel 9 on Lower Gallery East Wall**, the surface of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places if necessary.



Panel during wet cleaning

- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.
- Exposed metal fixings were treated with 5% Tannic Acid so as to stabilise the corrosion, and covered with a protective layer of 20% Paraloid B72 in acetone.
- Areas of loss, open joints and cracks were filled with white micro-balloons mixed with 12% Paraloid B72 in acetone. Larger areas of loss around the screws were filled with an inert filler to provide extra strength.
- All the fills were then toned out with acrylics, mixed with matting agent, to match the surrounding patina.

1.5.2.5 MAINTENANCE PROGRAMME

Maintenance of the Parthenon Frieze requires to be undertaken from a scaffold. As a result, any cleaning needs to be carried out by operatives that are trained to: a) construct, move and dismantle a portable scaffold tower; and b) clean the Frieze in an appropriate manner.

Graciela Ainsworth Sculpture Conservation could train staff to undertake such cleaning. The training for the use of scaffold would require organising by the Edinburgh College of Art.

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their locations on the Frieze, should be documented and wrapped carefully in acid free tissue prior to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage.

NB At no time should cleaning products or any liquid (including water) be used.

We would recommend that this cleaning programme for the Parthenon Frieze should be undertaken on an annual basis (at minimum). Ease of access would mean that the free standing casts could be cleaned, with the same method, on a more regular basis.

PANEL 3



Panel before conservation



Panel after conservation

1.5.3.1 DESCRIPTION OF THE OBJECT

TITLE: Parthenon Frieze, copy of the panel from Parthenon Frieze from Temple of Athena – Parthenon in Acropolis in Athens, Greece, between 443 and 438 B.C.

NUMBER(S): Sculpture Court, Lower Gallery East Wall, Panel 3.

TYPE OF OBJECT: Relief, plaster cast with a metal structure inside, attached to the wall with 5 metal fixings.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: 1837

OWNER/LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh, EH3 9DF. Main Building, Sculpture Court, Lower Gallery East Wall.

DIMENSIONS/WEIGHT (APPROX): H: 1015mm W: 1400mm D: 50mm

Weight (approx):

1.5.3.2 BRIEF CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Fair. Open cracks running alongside joints on both sides of the panel.

SURFACE DUST AND DIRT: Severe, 100% coverage.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of cream-white paint on surface of the cast; small spots of paint splash on surface of the panel; area of flaking and missing paint on lower part of the panel.

CHIPS AND LOSS: Missing areas associated with the cracks.

ABRASIONS: Not significant

Cracks

Ferrous items under plaster

Chips, abrasions and missing surfaces

Paint splashes

Flaking paint



PREVIOUS REPAIRS:

At the time of re-siting the cast collection from the Royal Scottish Academy building on Princes Street to the Edinburgh College of Art in 1913, the Parthenon Frieze panels were installed with metal fixings set into the wall. The open joints between the panels were filled with a mortar that was smeared over the adjacent edges of the panels.

A mortar analysis was carried out by Mr Bill Revie of CMC on samples of the pointing material found between the Panel 10 and 11 on Ground Floor Galley North Wall. The mortar was found to be a thick layer of lime putty, gypsum plaster and fine sand and hair, followed by a thin layer of gypsum plaster and lime putty; and finally a layer of varnish. This final layer of varnish is found over the entire two floors of the North and South Walls and yet, interestingly, for some unknown reason, it was not applied to the slabs on the East Wall.



Samples of mortar were taken for analysis

1.5.3.3 ORIGINAL MATERIALS AND TECHNIQUES

The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is cream-white. To find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken and sent to the University of Northumbria for analysis. A photograph of a cross-section of the sample taken from **Panel 4** shows a single layer of white paint possibly white lead on top of the plaster.

1.5.3.4 TREATMENT REPORT

- Prior to any conservation treatment the cast was photographed. This photographic documentation was continued throughout all conservation processes.
- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up loose dust and dirt.
- Areas of flaking paint were consolidated with application of 5% Primal B60A in de-ionised water
- Following wet cleaning spot tests on **Panel 9 on Lower Gallery East Wall**, the surface of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places if necessary.
- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.
- Exposed metal fixings were treated with 5% Tannic Acid so as to stabilise the corrosion, and covered with a protective layer of 20% Paraloid B72 in acetone.
- Areas of loss, open joints and cracks were filled with white micro-balloons with 12% Paraloid B72 in acetone. Larger areas of loss around the screws were filled with an inert filler to provide extra strength.
- All the fills were then toned out with acrylics, mixed with matting agent, to match the surrounding patina.

1.5.3.5 MAINTENANCE PROGRAMME

Maintenance of the Parthenon Frieze requires to be undertaken from a scaffold. As a result, any cleaning needs to be carried out by operatives that are trained to: a) construct, move and dismantle a portable scaffold tower; and b) clean the Frieze in an appropriate manner.

Graciela Ainsworth Sculpture Conservation could train staff to undertake such cleaning. The training for the use of scaffold would require organising by the Edinburgh College of Art.

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their

locations on the Frieze, should be documented and wrapped carefully in acid free tissue prior to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage.

NB At no time should cleaning products or any liquid (including water) be used.

We would recommend that this cleaning programme for the Parthenon Frieze should be undertaken on an annual basis (at minimum). Ease of access would mean that the free standing casts could be cleaned, with the same method, on a more regular basis.

PANEL 4



Panel before conservation



Panel after conservation

1.5.4.1 DESCRIPTION OF THE OBJECT

TITLE: Parthenon Frieze, copy of the panel from Parthenon Frieze from Temple of Athena – Parthenon in Acropolis in Athens, Greece, between 443 and 438 B.C.

NUMBER(S): Sculpture Court, Upper Gallery East Wall, Panel 4.

TYPE OF OBJECT: Relief, plaster cast with a metal structure inside, attached to the wall with 4 metal fixings.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: 1837

OWNER/LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh, EH3 9DF. Main Building, Sculpture Court, Lower Gallery East Wall.

DIMENSIONS/WEIGHT (APPROX): H: 1015mm W: 1300mm D: 50mm

Weight (approx):

1.5.4.2 BRIEF CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Fair. Open cracks running alongside joints on both sides of the panel and by the top edge of the cast.

SURFACE DUST AND DIRT: Severe, 100% coverage.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of cream-white paint on surface of the cast; small spots of paint splash on surface of the panel; area of flaking and missing paint on lower part of the panel.

CHIPS AND LOSS: Missing areas associated with the cracks.

ABRASIONS: Not significant

Cracks

Ferrous items under plaster

Chips, abrasions and missing surfaces

Paint splashes

Flaking paint



PREVIOUS REPAIRS:

At the time of re-siting the cast collection from the Royal Scottish Academy building on Princes Street to the Edinburgh College of Art in 1913, the Parthenon Frieze panels were installed with metal fixings set into the wall. The open joints between the panels were filled with a mortar that was smeared over the adjacent edges of the panels.

A mortar analysis was carried out by Mr Bill Revie of CMC on samples of the pointing material found between the Panel 10 and 11 on Ground Floor Galley North Wall. The mortar was found to be a thick layer of lime putty, gypsum plaster and fine sand and hair, followed by a thin layer of gypsum plaster and lime putty; and finally a layer of varnish. This final layer of varnish is found over the entire two floors of the North and South Walls and yet, interestingly, for some unknown reason, it was not applied to the slabs on the East Wall.



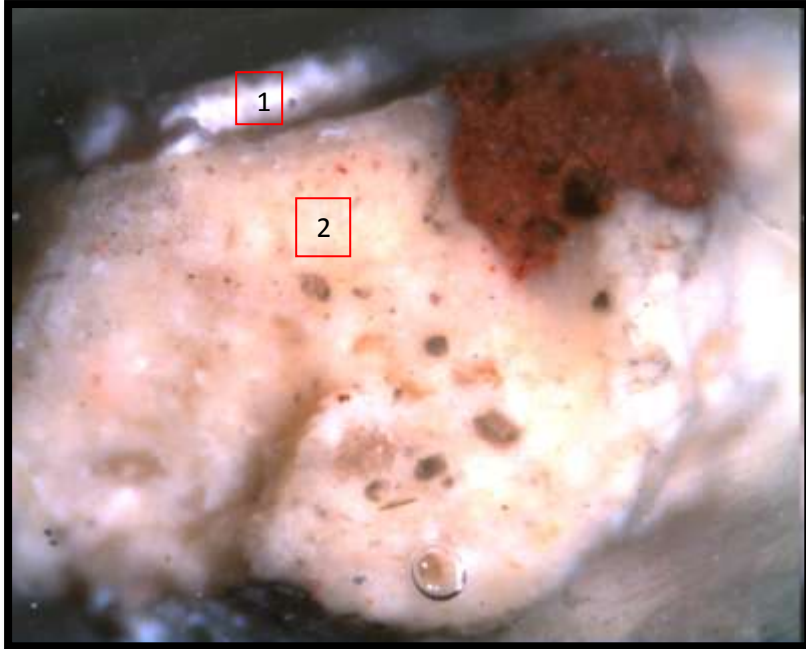
Samples of mortar were taken for analysis

1.5.4.3 ORIGINAL MATERIALS AND TECHNIQUES

The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is cream-yellow. In order to find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken from the cast and sent to the University of Northumbria for analysis.

**Investigation of coating samples from ECA Plaster Cast Collection, Edinburgh.
Consultant: Brian W Singer.**

Parthenon Frieze, Lower Gallery East Wall, Panel 4 – Cross-section



Sample seems to consist largely of one layer containing white and pale orange / brown particles. There is what appears to be a bright white paint layer at the top of the section, as photographed, and also towards the top is a large brown inclusion. The brown inclusion appeared completely black under UV, showing no fluorescence, whereas the bright white paint layer fluoresced white indicating that it may contain lead white.

1.5.4.4 TREATMENT REPORT

- Prior to any conservation treatment the cast was photographed. This photographic documentation was continued throughout all conservation processes.
- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up loose dust and dirt.
- Areas of flaking paint were consolidated with application of 5% Primal B60A in de-ionised water
- Following wet cleaning spot tests on **Panel 9 on Lower Gallery East Wall**, the surface of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places if necessary.



Panel during wet cleaning

- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.
- Exposed metal fixings were treated with 5% Tannic Acid so as to stabilise the corrosion, and covered with a protective layer of 20% Paraloid B72 in acetone.
- Areas of loss, open joints and cracks were filled with white micro-balloons with 12% Paraloid B72 in acetone. Larger areas of loss around the screws were filled with an inert filler to provide extra strength.
- All the fills were then toned out with acrylics, mixed with matting agent, to match the surrounding patina.

1.5.4.5 MAINTENANCE PROGRAMME

Maintenance of the Parthenon Frieze requires to be undertaken from a scaffold. As a result, any cleaning needs to be carried out by operatives that are trained to: a) construct, move and dismantle a portable scaffold tower; and b) clean the Frieze in an appropriate manner.

Graciela Ainsworth Sculpture Conservation could train staff to undertake such cleaning. The training for the use of scaffold would require organising by the Edinburgh College of Art.

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their locations on the Frieze, should be documented and wrapped carefully in acid free tissue prior to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage.

NB At no time should cleaning products or any liquid (including water) be used.

We would recommend that this cleaning programme for the Parthenon Frieze should be undertaken on an annual basis (at minimum). Ease of access would mean that the free standing casts could be cleaned, with the same method, on a more regular basis.

PANEL 5



Panel before conservation



Panel after conservation

1.5.5.1 DESCRIPTION OF THE OBJECT

TITLE: Parthenon Frieze, copy of the panel from Parthenon Frieze from Temple of Athena – Parthenon in Acropolis in Athens, Greece, between 443 and 438 B.C.

NUMBER(S): Sculpture Court, Lower Gallery East Wall, Panel 5.

TYPE OF OBJECT: Relief, plaster cast with a metal structure inside, attached to the wall with 4 metal fixings.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: 1837

OWNER/LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh EH3 9DF. Main Building, Sculpture Court, Lower Gallery East Wall.

DIMENSIONS/WEIGHT (APPROX): H: 1015mm W: 1210mm D: 50mm

Weight (approx):

1.5.5.2 BRIEF CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Fair. Open cracks running alongside joints on both sides of the panel; small cracks at the lower corners of the panel.

SURFACE DUST AND DIRT: Severe, 100% coverage.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of cream-white paint on surface of the cast; small spots of paint splashes on dexter part of the panel; area of flaking and missing paint on lower part of the cast.

CHIPS AND LOSS: Missing areas associated with the cracks and on top section of dexter part of the panel.

ABRASIONS: Not significant

Cracks

Ferrous items under plaster

Chips, abrasions and missing surfaces

Paint splashes

Flaking paint



PREVIOUS REPAIRS:

At the time of re-siting the cast collection from the Royal Scottish Academy building on Princes Street to the Edinburgh College of Art in 1913, the Parthenon Frieze panels were installed with metal fixings set into the wall. The open joints between the panels were filled with a mortar that was smeared over the adjacent edges of the panels.

A mortar analysis was carried out by Mr Bill Revie of CMC on samples of the pointing material found between the Panel 10 and 11 on Ground Floor Galley North Wall. The mortar was found to be a thick layer of lime putty, gypsum plaster and fine sand and hair, followed by a thin layer of gypsum plaster and lime putty; and finally a layer of varnish. This final layer of varnish is found over the entire two floors of the North and South Walls and yet, interestingly, for some unknown reason, it was not applied to the slabs on the East Wall.



Samples of mortar were taken for analysis

1.5.5.3 ORIGINAL MATERIALS AND TECHNIQUES

The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is cream-yellow. To find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken and sent to the University of Northumbria for analysis. Photograph of a cross-section of sample taken from **Panel 4** shows a single layer of white paint possibly white lead on top of the plaster.

1.5.5.4 TREATMENT REPORT

- Prior to any conservation treatment the cast was photographed. This photographic documentation was continued throughout all conservation processes.
- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up loose dust and dirt.
- Areas of flaking paint were consolidated with application of 5% Primal B60A in de-ionised water.
- Following wet cleaning spot tests on **Panel 9 on Lower Gallery East Wall**, the surface of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places if necessary.



Panel during wet cleaning

- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.
- Exposed metal fixings were treated with 5% Tannic Acid so as to stabilise the corrosion, and covered with a protective layer of 20% Paraloid B72 in acetone.
- Areas of loss, open joints and cracks were filled with white micro-balloons with 12% Paraloid B72 in acetone. Larger areas of loss around the screws were filled with an inert filler to provide extra strength.
- All the fills were then toned out with acrylics, mixed with matting agent, to match the surrounding patina.

1.5.5.5 MAINTENANCE PROGRAMME

Maintenance of the Parthenon Frieze requires to be undertaken from a scaffold. As a result, any cleaning needs to be carried out by operatives that are trained to: a) construct, move and dismantle a portable scaffold tower; and b) clean the Frieze in an appropriate manner.

Graciela Ainsworth Sculpture Conservation could train staff to undertake such cleaning. The training for the use of scaffold would require organising by the Edinburgh College of Art.

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their locations on the Frieze, should be documented and wrapped carefully in acid free tissue prior to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage.

NB At no time should cleaning products or any liquid (including water) be used.

We would recommend that this cleaning programme for the Parthenon Frieze should be undertaken on an annual basis (at minimum). Ease of access would mean that the free standing casts could be cleaned, with the same method, on a more regular basis.

PANEL 6



Panel before conservation



Panel after conservation

1.5.6.1 DESCRIPTION OF THE OBJECT

TITLE: Parthenon Frieze, copy of the panel from Parthenon Frieze from Temple of Athena – Parthenon in Acropolis in Athens, Greece, between 443 and 438 B.C.

NUMBER(S): Sculpture Court, Lower Gallery East Wall, Panel 6.

TYPE OF OBJECT: Relief, plaster cast with a metal structure inside, attached to the wall with 4 metal fixings.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: 1837

OWNER/LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh, EH3 9DF. Main Building, Sculpture Court, Lower Gallery East Wall.

DIMENSIONS/WEIGHT (APPROX): H: 1015mm W: 1120mm D: 50mm

Weight (approx):

1.5.6.2 BRIEF CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Fair. Open cracks running alongside joint on dexter side of the panel and in the corners.

SURFACE DUST AND DIRT: Severe, 100% coverage.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of cream-white paint on surface of the cast; small spots of paint splash scattered on the surface of the panel.

CHIPS AND LOSS: Missing areas associated with the cracks.

ABRASIONS: Not significant

Cracks

Ferrous items inside plaster

Chips, abrasions and missing surfaces

Paint splashes



PREVIOUS REPAIRS:

At the time of re-siting the cast collection from the Royal Scottish Academy building on Princes Street to the Edinburgh College of Art in 1913, the Parthenon Frieze panels were installed with metal fixings set into the wall. The open joints between the panels were filled with a mortar that was smeared over the adjacent edges of the panels.

A mortar analysis was carried out by Mr Bill Revie of CMC on samples of the pointing material found between the Panel 10 and 11 on Ground Floor Galley North Wall. The mortar was found to be a thick layer of lime putty, gypsum plaster and fine sand and hair, followed by a thin layer of gypsum plaster and lime putty; and finally a layer of varnish. This final layer of varnish is found over the entire two floors of the North and South Walls and yet, interestingly, for some unknown reason, it was not applied to the slabs on the East Wall.



Samples of mortar were taken for analysis

1.5.6.3 ORIGINAL MATERIALS AND TECHNIQUES

The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is cream-yellow. To find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken and sent to the University of Northumbria for analysis. Photograph of a cross-section of sample taken from **Panel 4** shows a single layer of white paint possibly white lead on top of the plaster.

1.5.6.4 TREATMENT REPORT

- Prior to any conservation treatment the cast was photographed. This photographic documentation was continued throughout all conservation processes.
- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up loose dust and dirt.
- Following wet cleaning spot tests on **Panel 9 on Lower Gallery East Wall**, the surface of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places if necessary.
- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.
- Exposed metal fixings were treated with 5% Tannic Acid so as to stabilise the corrosion, and covered with a protective layer of 20% Paraloid B72 in acetone.
- Areas of loss, open joints and cracks were filled with white micro-balloons with 12% Paraloid B72 in acetone. Larger areas of loss around the screws were filled with an inert filler to provide extra strength.
- All the fills were then toned out with acrylics, mixed with matting agent, to match the surrounding patina.

1.5.6.5 MAINTENANCE PROGRAMME

Maintenance of the Parthenon Frieze requires to be undertaken from a scaffold. As a result, any cleaning needs to be carried out by operatives that are trained to: a) construct, move and dismantle a portable scaffold tower; and b) clean the Frieze in an appropriate manner.

Graciela Ainsworth Sculpture Conservation could train staff to undertake such cleaning. The training for the use of scaffold would require organising by the Edinburgh College of Art.

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their locations on the Frieze, should be documented and wrapped carefully in acid free tissue prior

to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage.

NB At no time should cleaning products or any liquid (including water) be used.

We would recommend that this cleaning programme for the Parthenon Frieze should be undertaken on an annual basis (at minimum). Ease of access would mean that the free standing casts could be cleaned, with the same method, on a more regular basis.

PANEL 7



Panel before conservation



Panel after conservation

1.5.7.1 DESCRIPTION OF THE OBJECT

TITLE: Parthenon Frieze, copy of the panel from Parthenon Frieze from Temple of Athena – Parthenon in Acropolis in Athens, Greece, between 443 and 438 B.C.

NUMBER(S): Sculpture Court, Lower Gallery East Wall, Panel 7.

TYPE OF OBJECT: Relief, plaster cast with a metal structure inside, attached to the wall with 3 metal fixings.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: 1837

OWNER/LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh, EH3 9DF. Main Building, Sculpture Court, Lower Gallery East Wall.

DIMENSIONS/WEIGHT (APPROX): H: 1015mm W: 1230mm D: 50mm

Weight (approx):

1.5.7.2 BRIEF CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Fair. Open crack running alongside joint on dexter side of the panel; small cracks in corners of the panel.

SURFACE DUST AND DIRT: Severe, 100% coverage.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of cream-white paint on the surface of the cast; small spots of paint splash scattered on surface of the pane; area of flaking and missing paint on lower part of the panel.

CHIPS AND LOSS: Missing areas associated with the cracks.

ABRASIONS: Not significant

Cracks

Ferrous items inside plaster

Chips, abrasions and missing surfaces

Paint splashes

Flaking paint



PREVIOUS REPAIRS:

At the time of re-siting the cast collection from the Royal Scottish Academy building on Princes Street to the Edinburgh College of Art in 1913, the Parthenon Frieze panels were installed with metal fixings set into the wall. The open joints between the panels were filled with a mortar that was smeared over the adjacent edges of the panels.

A mortar analysis was carried out by Mr Bill Revie of CMC on samples of the pointing material found between the Panel 10 and 11 on Ground Floor Galley North Wall. The mortar was found to be a thick layer of lime putty, gypsum plaster and fine sand and hair, followed by a thin layer of gypsum plaster and lime putty; and finally a layer of varnish. This final layer of varnish is found over the entire two floors of the North and South Walls and yet, interestingly, for some unknown reason, it was not applied to the slabs on the East Wall.



Samples of mortar were taken for analysis

1.5.7.3 ORIGINAL MATERIALS AND TECHNIQUES

The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is cream-yellow. To find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken and sent to the University of Northumbria for analysis. Photograph of a cross-section of sample taken from **Panel 4** shows a single layer of white paint possibly white lead on top of the plaster.

1.5.7.4 TREATMENT REPORT

- Prior to any conservation treatment the cast was photographed. This photographic documentation was continued throughout all conservation processes.
- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up loose dust and dirt.
- Areas of flaking paint were consolidated with application of 5% Primal B60A in de-ionised water.
- Following wet cleaning spot tests on **Panel 9 on Lower Gallery East Wall**, the surface of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places if necessary.



Panel during wet cleaning

- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.
- Exposed metal fixings were treated with 5% Tannic Acid so as to stabilise the corrosion, and covered with a protective layer of 20% Paraloid B72 in acetone.
- Areas of loss, open joints and cracks were filled with white micro-balloons with 12% Paraloid B72 in acetone. Larger areas of loss around the screws were filled with an inert filler to provide extra strength.
- All the fills were then toned out with acrylics, mixed with matting agent, to match the surrounding patina.

1.5.7.5 MAINTENANCE PROGRAMME

Maintenance of the Parthenon Frieze requires to be undertaken from a scaffold. As a result, any cleaning needs to be carried out by operatives that are trained to: a) construct, move and dismantle a portable scaffold tower; and b) clean the Frieze in an appropriate manner.

Graciela Ainsworth Sculpture Conservation could train staff to undertake such cleaning. The training for the use of scaffold would require organising by the Edinburgh College of Art.

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their locations on the Frieze, should be documented and wrapped carefully in acid free tissue prior to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage.

NB At no time should cleaning products or any liquid (including water) be used.

We would recommend that this cleaning programme for the Parthenon Frieze should be undertaken on an annual basis (at minimum). Ease of access would mean that the free standing casts could be cleaned, with the same method, on a more regular basis.

PANEL 8



Panel before conservation



Panel after conservation

1.5.8.1 DESCRIPTION OF THE OBJECT

TITLE: Parthenon Frieze, copy of the panel from Parthenon Frieze from Temple of Athena – Parthenon in Acropolis in Athens, Greece, between 443 and 438 B.C.

NUMBER(S): Sculpture Court, Lower Gallery East Wall, Panel 8.

TYPE OF OBJECT: Relief, plaster cast with a metal structure inside, attached to the wall with 4 metal fixings.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: 1837

OWNER/LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh, EH3 9DF. Main Building, Sculpture Court, Lower Gallery East Wall.

DIMENSIONS/WEIGHT (APPROX): H: 1015mm W: 1250mm D: 50mm

Weight (approx):

1.5.8.2 BRIEF CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Fair. Open cracks running alongside joints on both sides of the panel and alongside middle section of the top edge; small cracks around fixings by top and bottom edge of the panel.

SURFACE DUST AND DIRT: Severe, 100% coverage.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of cream-white paint on surface of the cast; small spots of paint splash scattered on surface of the panel and alongside the lower edge; area of flaking and missing paint on lower part of the panel.

CHIPS AND LOSS: Missing areas associated with the cracks.

ABRASIONS: Not significant

Cracks

Ferrous items under plaster

Chips, abrasions and missing surfaces

Paint splashes

Flaking paint



PREVIOUS REPAIRS:

At the time of re-siting the cast collection from the Royal Scottish Academy building on Princes Street to the Edinburgh College of Art in 1913, the Parthenon Frieze panels were installed with metal fixings set into the wall. The open joints between the panels were filled with a mortar that was smeared over the adjacent edges of the panels.

A mortar analysis was carried out by Mr Bill Revie of CMC on samples of the pointing material found between the Panel 10 and 11 on Ground Floor Galley North Wall. The mortar was found to be a thick layer of lime putty, gypsum plaster and fine sand and hair, followed by a thin layer of gypsum plaster and lime putty; and finally a layer of varnish. This final layer of varnish is found over the entire two floors of the North and South Walls and yet, interestingly, for some unknown reason, it was not applied to the slabs on the East Wall.



Samples of mortar were taken for analysis

1.5.8.3 ORIGINAL MATERIALS AND TECHNIQUES

The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is cream-yellow. To find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken and sent to the University of Northumbria for analysis. Photograph of a cross-section of sample taken from **Panel 4** shows a single layer of white paint possibly white lead on top of the plaster.

1.5.8.4 TREATMENT REPORT

- Prior to any conservation treatment the cast was photographed. This photographic documentation was continued throughout all conservation processes.
- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up loose dust and dirt.
- Areas of flaking paint were consolidated with application of 5% Primal B60A in de-ionised water.
- Following wet cleaning spot tests on **Panel 9 on Lower Gallery East Wall**, the surface of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places if necessary.



Panel during wet cleaning

- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.
- Exposed metal fixings were treated with 5% Tannic Acid so as to stabilise the corrosion, and covered with a protective layer of 20% Paraloid B72 in acetone.
- Areas of loss, open joints and cracks were filled with white micro-balloons with 12% Paraloid B72 in acetone. Larger areas of loss around the screws were filled with an inert filler to provide an extra strength.



Details of fill repairs

- All the fills were then toned out with acrylics mixed, with matting agent, to match the surrounding patina.

1.5.8.5 MAINTENANCE PROGRAMME

Maintenance of the Parthenon Frieze requires to be undertaken from a scaffold. As a result, any cleaning needs to be carried out by operatives that are trained to: a) construct, move and dismantle a portable scaffold tower; and b) clean the Frieze in an appropriate manner.

Graciela Ainsworth Sculpture Conservation could train staff to undertake such cleaning. The training for the use of scaffold would require organising by the Edinburgh College of Art.

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their locations on the Frieze, should be documented and wrapped carefully in acid free tissue prior to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage.

NB At no time should cleaning products or any liquid (including water) be used.

We would recommend that this cleaning programme for the Parthenon Frieze should be undertaken on an annual basis (at minimum). Ease of access would mean that the free standing casts could be cleaned, with the same method, on a more regular basis.

PANEL 9



Panel before conservation



Panel after conservation

1.5.9.1 DESCRIPTION OF THE OBJECT

TITLE: Parthenon Frieze, copy of the panel from Parthenon Frieze from Temple of Athena – Parthenon in Acropolis in Athens, Greece, between 443 and 438 B.C.

NUMBER(S): Sculpture Court, Lower Gallery East Wall, Panel 9.

TYPE OF OBJECT: Relief, plaster cast with a metal structure inside, attached to the wall with 5 metal fixings.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: 1837

OWNER/LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh, EH3 9DF. Main Building, Sculpture Court, Lower Gallery East Wall.

DIMENSIONS/WEIGHT (APPROX): H: 1015mm W: 1010mm D: 50mm

Weight (approx):

1.5.9.2 BRIEF CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Fair. Open cracks running alongside joint on dexter side of the panel; small cracks around fixing at top and lower edges of the panel.

SURFACE DUST AND DIRT: Severe, 100% coverage.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of cream-white paint on the surface of the cast; area of flaking and missing paint on lower part of the panel.

CHIPS AND LOSS: Missing areas associated with the cracks.

ABRASIONS: Not significant

Cracks

Ferrous items inside plaster

Chips, abrasions and missing surfaces

Paint splashes

Flaking paint



PREVIOUS REPAIRS:

At the time of re-siting the cast collection from the Royal Scottish Academy building on Princes Street to the Edinburgh College of Art in 1913, the Parthenon Frieze panels were installed with metal fixings set into the wall. The open joints between the panels were filled with a mortar that was smeared over the adjacent edges of the panels.

A mortar analysis was carried out by Mr Bill Revie of CMC on samples of the pointing material found between the Panel 10 and 11 on Ground Floor Galley North Wall. The mortar was found to be a thick layer of lime putty, gypsum plaster and fine sand and hair, followed by a thin layer of gypsum plaster and lime putty; and finally a layer of varnish. This final layer of varnish is found over the entire two floors of the North and South Walls and yet, interestingly, for some unknown reason, it was not applied to the slabs on the East Wall.



Samples of mortar were taken for analysis

1.5.9.3 ORIGINAL MATERIALS AND TECHNIQUES

The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is cream-yellow. To find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken and sent to the University of Northumbria for analysis. Photograph of a cross-section of sample taken from **Panel 4** shows a single layer of white paint possibly white lead on top of the plaster.

1.5.9.4 TREATMENT REPORT

- Prior to any conservation treatment the cast was photographed. This photographic documentation was continued throughout all conservation processes.
- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up loose dust and dirt.
- Areas of flaking paint were consolidated with application of 5% Primal B60A in de-ionised water.
- Following wet cleaning spot tests on **Panel 9 on Lower Gallery East Wall**, the surface of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places if necessary.



Panel during wet cleaning

- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.
- Exposed metal fixings were treated with 5% Tannic Acid so as to stabilise the corrosion, and covered with a protective layer of 20% Paraloid B72 in acetone.
- Areas of loss, open joints and cracks were filled with white micro-balloons with 12% Paraloid B72 in acetone. Larger areas of loss around the screws were filled with an inert filler to provide extra strength.



Details of fill repair

- All the fills were then toned out with acrylics, mixed with matting agent, to match the surrounding patina.

1.5.9.5 MAINTENANCE PROGRAMME

Maintenance of the Parthenon Frieze requires to be undertaken from a scaffold. As a result, any cleaning needs to be carried out by operatives that are trained to: a) construct, move and dismantle a portable scaffold tower; and b) clean the Frieze in an appropriate manner.

Graciela Ainsworth Sculpture Conservation could train staff to undertake such cleaning. The training for the use of scaffold would require organising by the Edinburgh College of Art.

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their locations on the Frieze, should be documented and wrapped carefully in acid free tissue prior to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage

NB At no time should cleaning products or any liquid (including water) be used.

We would recommend that this cleaning programme for the Parthenon Frieze should be undertaken on an annual basis (at minimum). Ease of access would mean that the free standing casts could be cleaned, with the same method, on a more regular basis.