

WORCESTER COLLEGE CHAPEL, OXFORD MOSAIC PAVEMENT DESIGNED BY WILLIAM BURGESS

HISTORY:

THE CHAPEL WAS BUILT BETWEEN 1776 AND 1790 BY JAMES WYATT IN THE NEO-CLASSICAL STYLE. IN THE EARLY 1860S, WILLIAM BURGESS WAS ASKED TO PRODUCE NEW DESIGNS AND WORK STARTED IN 1864 ON THE CEILING, AND IN 1865 THE MOSAIC WAS CREATED AND LAID BY MESSRS. BURKE & CO., TRADING IN LONDON AND PARIS. THE PAVEMENT WAS HAILED AS THE FIRST MAJOR EXAMPLE OF "OPUS VERMICULATUM" IN BRITAIN SINCE THE ROMAN ERA. THE FLOOR IS MADE FROM MARBLE TESSERAE.



COMPOSITION:

THE CENTRAL FIGURE OF CHRIST THE SOWER, CASTS SEEDS FROM WHICH A VINE SPRINGS ENCRICLING, BY TURN, SAINTS GEORGE, CATHERINE, PETER, JOHN THE EVANGELIST, AND MARY MAGDALEN. IN FRONT OF THE CENTRE PANEL IS A LONG MOSAIC OF TWELVE EMBLEMA, DEPICTING PROMINENT EARLY ANGLI-SAXON CHRISTIAN FIGURES: SAINTS FRIDLEWIDE, ETHELRED, EDMUND, EDWARD THE CONFESSOR, OTWALD, WILFRED, ALDHELM, ALBAN, BONIFACE, KING ALFRED, ABBOT ALBINUS AND THE VENERABLE BEDÆ ARE SET IN GEOMETRIC PATTERNS BOND BY GUILLOCHE. BEYOND THE CENTRE, BY THE SANCTUARY IS A COMPLEX PANEL WITH SAINTS AMBROSE, AUGUSTINE, GREGORY AND JEROME, THE DOCTORS OF THE CHURCH.



THE CONDITION OF THE PAVEMENT IN 1981:

THE FIRST SECTION OF THE FLOOR, BY THE ENTRANCE SHOWED THE HEAVIEST WEAR, WITH SECTIONS BREAKING AWAY INTO LACUNAE WHICH HAD BEEN REPAIRED IN THE PAST. THE MOST WORKING PROBLEM WAS THAT THE TWELVE EMBLEMA DESIGNED TO HAVE BEEN MADE INTO PRE-FABRICATED PANELS WHICH HAD SETTLED AT DIFFERENT ANGLES TO THE GEOMETRIC INFILL WHICH APPEARED TO HAVE BEEN INSTALLED USING THE "REVERSE" METHOD. ALSO, DAMP WAS RISING AND WEAKENING THE MORTAR, UNDER THE GUILLOCHE AND GEOMETRIC AREAS. THE OTHER TWO PANELS WERE IN A MUCH BETTER CONDITION AND SEEMED TO SHOW THAT THEY WERE FIXED BY THE "REVERSE" METHOD ONLY.

REMEDY:

AS THE CHAPEL WAS IN CONTINUOUS USE AND BECAUSE OF THE CLEAR DETERIORATION OVER TIME, IT WAS DECIDED TO LIFT THE WESTERN PANEL AND RELAY INTO A LIME-BASED HOMOGENEOUS MORTAR, ONTO A NEW BASE; THE BASE WAS CONSTRUCTED OF 100MM OF STAINLESS STEEL REINFORCED CONCRETE SCREED LAID ONTO A DAMP-PROOF MEMBRANE.

THE OTHER TWO PANELS WERE REPAIRED BY A MARBLE SURROUND, PROBABLY "VERDE FRAYE," AND WOULD BE UNAFFECTED AS THEY WERE NOT CONTIGUOUS WITH THE WESTERN PANEL.

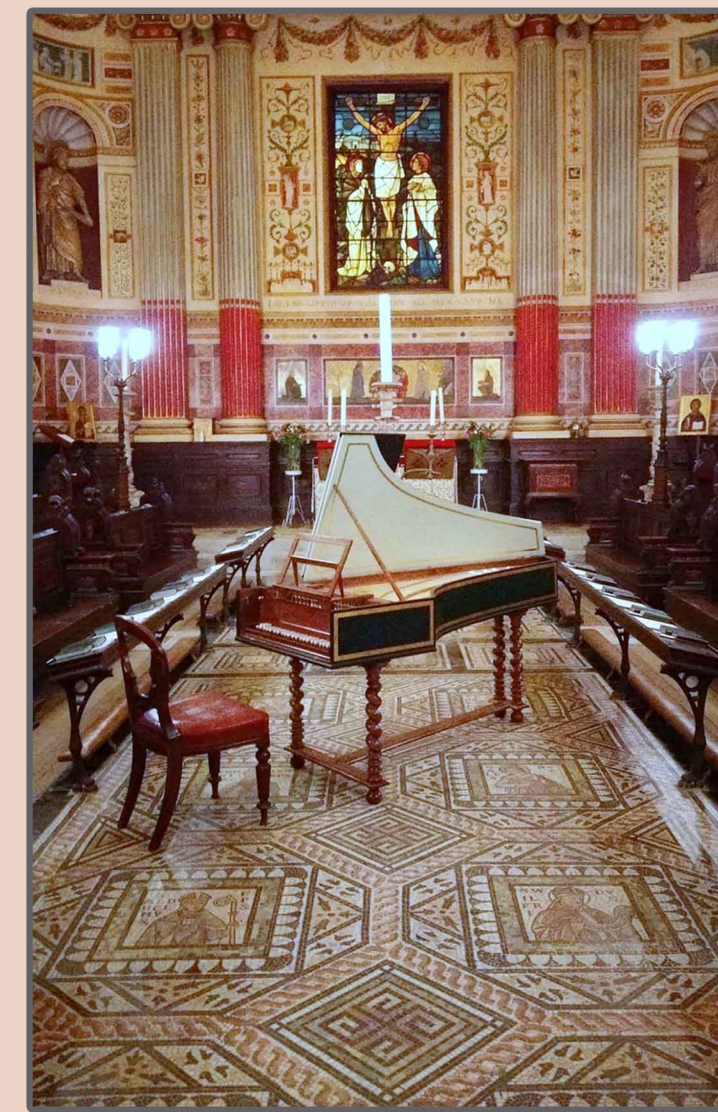
FIRST THE FLOOR WAS CLEANED THOROUGHLY AND THEN A HEXAGONAL WEAVE COTTON MESH WAS GLUED TO THE SURFACE USING A SPECIAL PVA ADHESIVE WHICH WOULD RE-EMULSIFY AND SOFTEN EASILY WHEN WATER IS APPLIED DURING THE RELAYING PROCESS.

A REGISTRATION GRID WAS SET OUT ON SEASONED WOODEN BATTENING, (THE SAME BATTENING TO BE REASSEMBLED FOR THE RELAY TO MINIMISE ERROR), AND TRANSFERRED TO THE DRIED SCRIM BEFORE LIFTING. A DRAWING IS MADE AND RECORD PHOTOGRAPHS ARE TAKEN BEFORE AND AFTER "SCRIMMING."

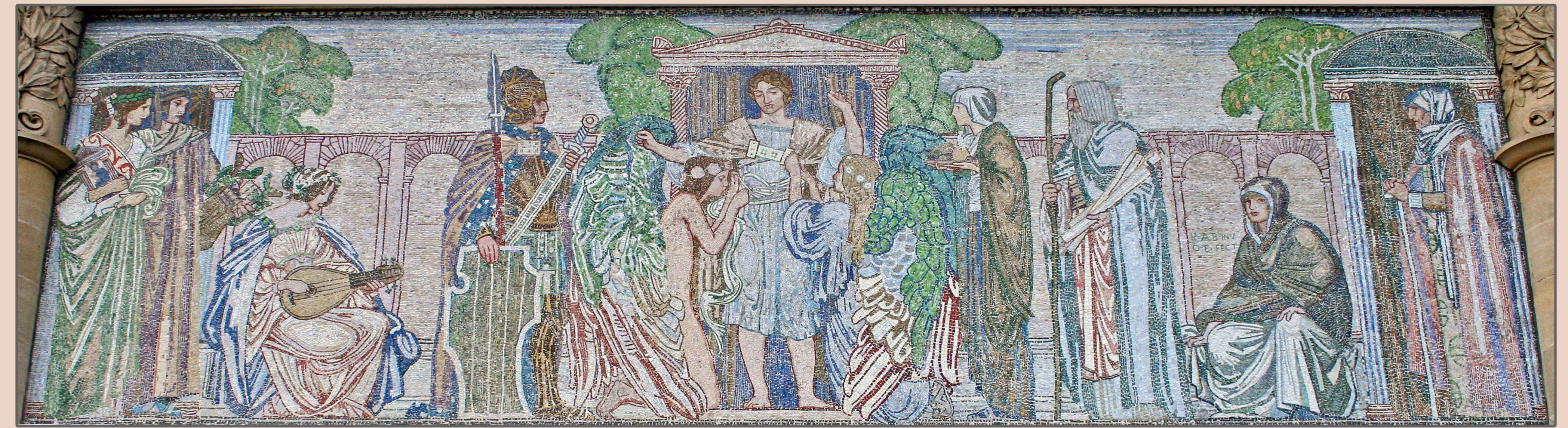
THE MOSAIC WAS THEN LIFTED IN SECTIONS, INDIVIDUALLY MARKED AND PLOTTED ONTO THE MASTER PLAN. IT WAS CONFIRMED THAT THE EMBLEMA WERE MOUNTED ON PANELS OF BOTH SLATE AND LIMESTONE.

CONSOLIDATION WORK AND A SUB-FLOOR WAS INSTALLED READY FOR THE RELAY. THE MIX USED FOR THE RECEIVING BED WAS COMPRISED OF LIME, WHITE CEMENT, PORTLAND CEMENT AND SHARP WASHED SAND IN THE FOLLOWING PROPORTIONS: 4:1:1:1. THE GROUT WAS MIXED IN THE RATIO OF 4:1:1 WITH NO SAND ADDED. THE COST OF THE WORK WAS ABOUT £20,000.

THE MARBLE SURROUND WAS REPAIRED OR REPLACED AS NECESSARY; ALSO, THE ALABASTER, LECTERN AND OTHER ITEMS OF MONUMENTAL MASONRY WERE CONSERVED AND CLEANED.



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HORNIMAN MUSEUM FACADE, LONDON HUMANITY IN THE HOUSE OF CIRCUMSTANCE A MOSAIC MURAL BY ROBERT ANNING BELL

HISTORY:

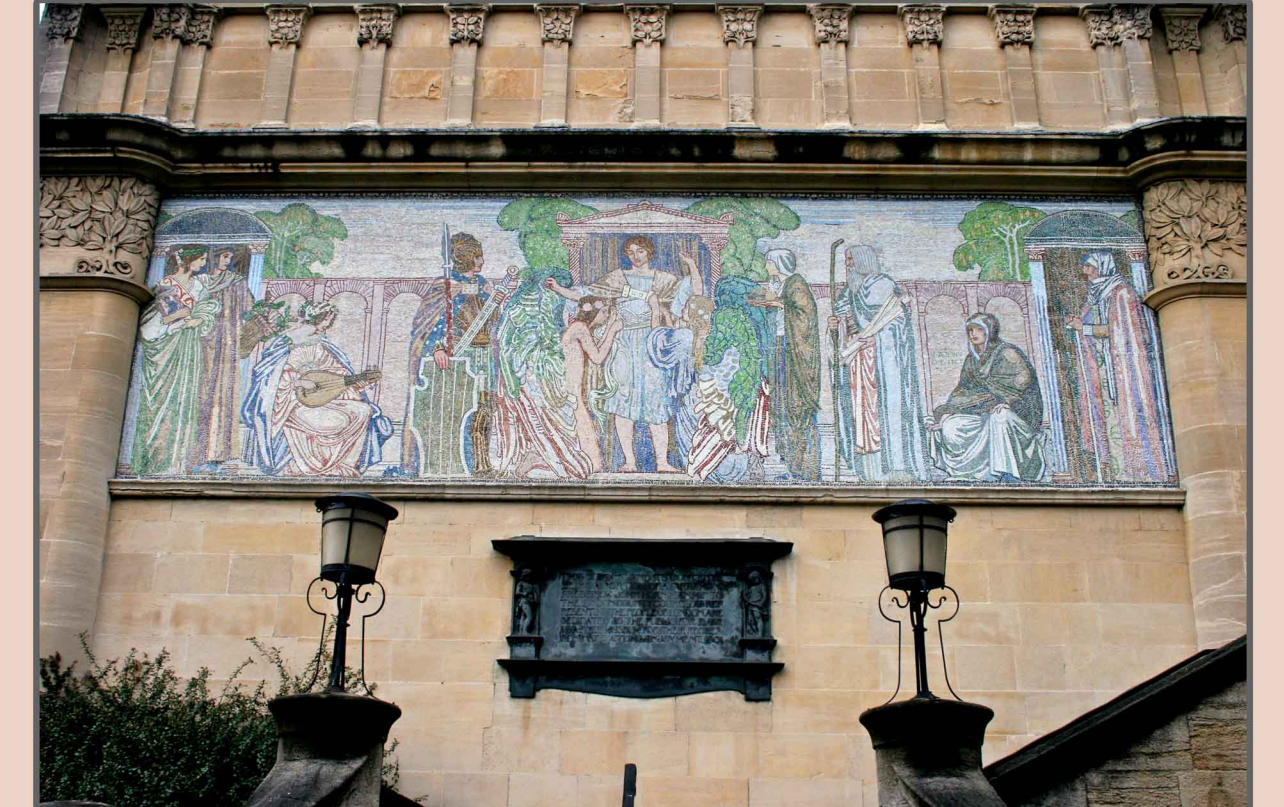
THE HORNIMAN MUSEUM WAS DESIGNED BY CHARLES HARRISON TOWNSEND AND IN 1900-1901 THE MOSAIC WAS INSTALLED BY M.R. GEORGE BRIDGE USING SMALLS OF HIS OWN MANUFACTURE. THE MOSAIC WAS FIXED BY THE "DIRECT" METHOD AND TOOK 210 DAYS TO FIX THE APPROXIMATELY 117,000 TESSERAE. THE MOSAIC MEASURES 32FEET BY 10FEET OR 9.75M X 3.04M.

THE ARTIST WAS AWARE OF THE FAILURE BY EXFOLIATION OF GOLD TESSERAE ON EXTERNAL STRUCTURES SUCH AS THE ALBERT MEMORIAL AND SO WOULD NOT USE THEM HERE.

COMPOSITION:

THE FIGURES REPRESENT, FROM LEFT TO RIGHT: FINE ARTS, POETRY, MUSIC, ENDURANCE, LOVE, HUMANITY, HOPE, CHARITY, WISDOM, MEDITATION AND RESIGNATION.

THE DOORWAYS AT EACH END REPRESENT THE GATES OF LIFE AND DEATH. CIRCUMSTANCE REFERS TO THE PERSONAL CONDITIONS OF BIRTH, EDUCATION AND SURROUNDINGS, AS OPPOSED TO ETERNAL CONDITIONS OR THE LIMITATIONS OF HUMAN NATURE.



THE CONDITION OF THE MURAL IN 1984:

ORIGINALLY THE TESSERAE HAD BEEN FIXED BY PRESSING THEM INTO A MIX CONTAINING LIME AND BOILED LINSEED OIL; THE OIL WAS IN A HIGH PROPORTION, PERHAPS WITH THE INTENTION OF INCREASING WATER RESISTANCE IN DEFENCE OF ITS EXPOSED EXTERIOR SITING.

UNFORTUNATELY, AS THE MUSEUM BUILDING IS MADE OF POROUS STONE, AND MORE PROBABLY OWING TO PERIODS OF ILL-MAINTAINED DRAINAGE, WATER, BUILT UP BEHIND THE PUTTY/OIL MIX AND WAS PREVENTED FROM DISSIPATING BY THE OIL CONTENT. THIS MEANT THAT IN PERIODS OF FREEZING WEATHER, OWING TO ICE CRYSTAL EXPANSION, THE BEDDING BECAME DETACHED FROM THE BUILDING IN PARTS, LOOSENING TESSERAE, AND THREATENING TO FALL IN LARGER SHEETS WITH PUTTY ATTACHED.

PRIOR TO THE 1984 INSPECTION, MANY REPAIRS HAD BEEN CARRIED OUT BY THIRD PARTIES, SOME OF WHICH WERE QUITE LARGE. THESE REPAIRS IN CEMENT BASED MIXES ACTED IN TWO WAYS:

A) THE REPAIRS ANCHORED PARTS OF THE MOSAIC, WHICH HAD PREVIOUSLY MOVED THROUGH EXPANSION AND CONTRACTION EVENLY WHEN OF ONE BEDDING, CAUSING TEARS AND RUPTURES TO THE MOSAIC BORDERING THE REPAIRS BY OWING TO THE ABSORPTION OF OIL FROM THE LIME PUTTY; THE REPAIRS HAD FAILED TO ADHERE TO THE RENDER BEHIND, AND WERE HANGING ONTO ENLARGING BLISTERS OF THE ALREADY FAILING ORIGINAL MOSAIC.

REMEDY:

IT WAS CLEAR THAT THE ORIGINAL BEDDING HAD FAILED AND THAT REPAIRS ONLY EXACERBATED THE CONDITION AFTER TIME. IT WAS DETERMINED THAT THE BEST COURSE WAS TO TAKE DOWN THE MOSAIC AND RE-FIX INTO A LIME-BASED HOMOGENEOUS MORTAR. THE ORIGINAL RENDER SHOULD BE TAKEN DOWN AND REPLACED WITH A STAINLESS STEEL REINFORCED RENDER, FIXED TO THE BUILDING BY MECHANICAL MEANS. AN EXPANSION JOINT RAN AROUND THE PERIMETER, TO CARRY TO THE FACE.

THE PROPORTIONS OF THE MIX FOR THE SECONDARY RENDER TO RECEIVE THE TESSERAE WERE 2:1:9 IN LIME, PORTLAND CEMENT, AND SHARP WASHED SAND. THE PROPORTIONS FOR THE GROUT WERE 2:1:2 IN LIME, WHITE CEMENT AND SILVER SAND. THE SILVER SAND WAS USED TO STIFFEN THE GROUT AS THE JOINTS BETWEEN THE TESSERAE WERE WIDE.

THE MOSAIC WAS THOROUGHLY CLEANED AND A HEXAGONAL WEAVE COTTON SCRIM WAS ADHERED TO THE SURFACE UTILISING A SPECIAL PVA EMULSION; THEN A REGISTRATION GRID WAS PLACED OVER THE SURFACE. RECORD PHOTOGRAPHS WERE TAKEN BEFORE AND AFTER THE "SCRIMMING."

THE MOSAIC WAS THEN TAKEN DOWN IN MANAGEABLE SECTIONS WHICH WERE RECORDED TO A KEY-PLAN. AFTERWARDS THE BACKS OF THE TESSERAE WERE CLEANED AND TREATED TO REMOVE OIL RESIDUE AND THUS PROMOTE GOOD ADHESION FOR THE RE-FIX.

MATCHING REPLACEMENT TESSERAE WERE SOURCED FROM DONA OF MURANO; THESE WERE A REASONABLE MATCH FOR COLOUR, BUT THE TEXTURE ON CLOSER INSPECTION WAS DIFFERENT TO THE ENGLISH SMALLS. THIS DIFFERENCE WAS THOUGHT DESIRABLE SO THAT THE RESTORED AREAS COULD BE CLEARLY IDENTIFIED. THE AREAS OF PREVIOUS RESTORATION WERE ALSO MATCHED SIMILARLY.

WORK WAS COMPLETED IN 1986 AT A COST OF £22,500.



SOME OTHER PROJECTS:-

