

Working in the Minefield

The Redecoration of the Great Cupola of the
Church of the Holy Sepulchre in Jerusalem

Gilding at the Smithsonian

September 29, 2006

Church of the Holy Sepulcher, Jerusalem



Crusader Church, circa 1099



Entrance from
Courtyard

■ Brief History

- Original built by Constantine's Mother, Helena in 335 AD
- Razed in 8th Century by Muslim Caliph
- Re-built by Crusaders in 1099
- Several fires and earthquakes
 - Main Cupola has been re-decorated many times over the years
 - Last redecoration was in 1869 prior to the latest effort
- Infighting among owners
 - Scaffold was erected for over 25 years prior to work beginning due to artistic differences

Treacherous Territory

- Joint ownership
 - Armenian Orthodox
 - Greek Orthodox
 - Latin – Franciscans
- Scaffold and Repairs went up inside in 1972
- Fighting over design
- No agreement in 25 years



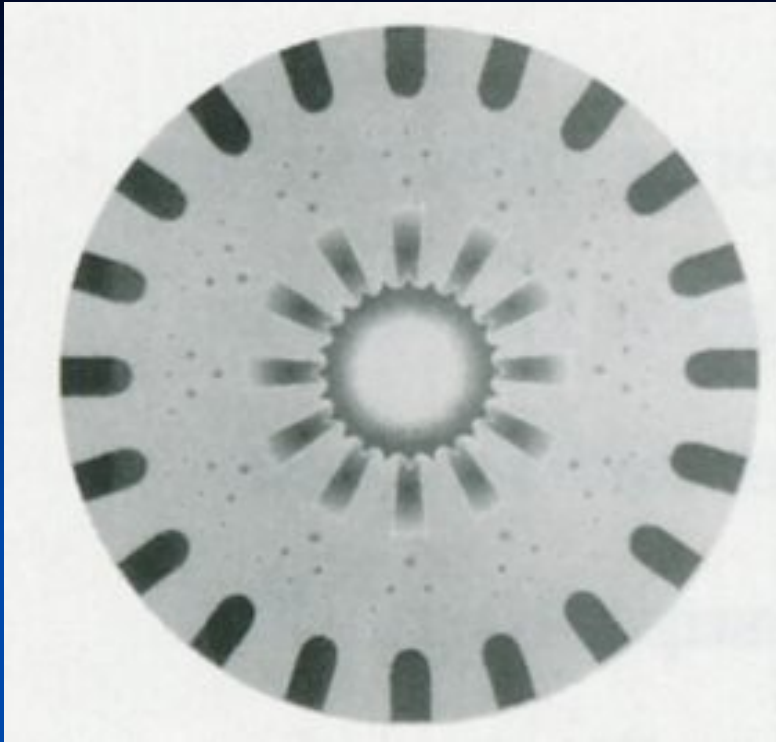
New Beginning

■ 1994

- Ara Normart from California presented preliminary designs to the 3 owners
- Produced scale model of the final design
- Accepted by 3 Patriarchs
- Fundraising began with one donor covering the cost

■ 1995

- Three Owners sign the agreement
- Work began with new plaster
- Finalizing the materials for the Decoration

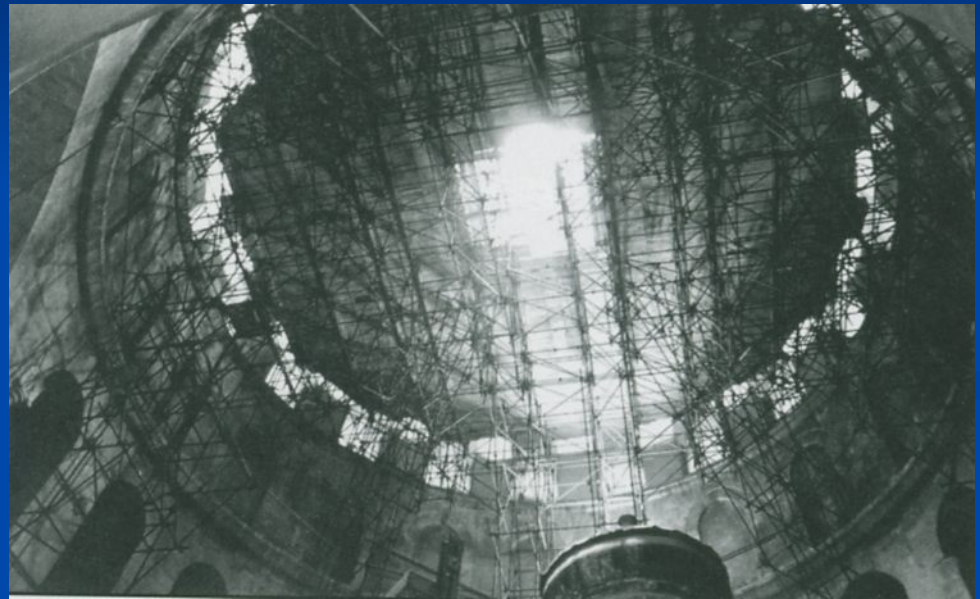


One of 32 preliminary Designs



Signing ceremony

Technical Issues



Scaffolding from below

Scaffolding Above



Lightweight Aluminum

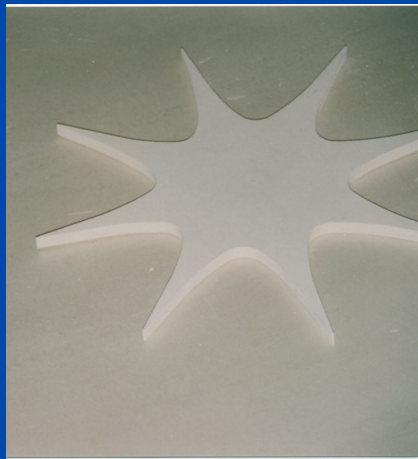


Preparing the Exterior Cross

Materials Issues



Newly plastered
Main Cupola
with new GFRG
Rays installed
25' long by 8'
wide



Foam Core Star

■ Choosing Materials

- Lightweight
- Permanent
- Suitable for extremes of temperature

■ Access Issues

- Once work was completed, owners may not agree on new work for years
- Scaffolding was only access

Personnel Issues

- Palestinian Workers commuting from the West Bank



- Our own commute from Bethlehem



View from our apartment

Political Issues



The Three Custodians

Working with Modern Materials



Layout for
the texture



Applying Texture

■ New Technologies

■ Totally Acrylic System

- Gypsum based texturing medium
- Acrylic primers
- Acrylic paints
- Acrylic size
- Acrylic glaze for toning

■ Automotive Finishes on Stainless Steel Elements

Gilding with 23.5 KT Gold Leaf



Primed Ray



Gilding the Rays

Textures and Toning



Note the texture on the surface



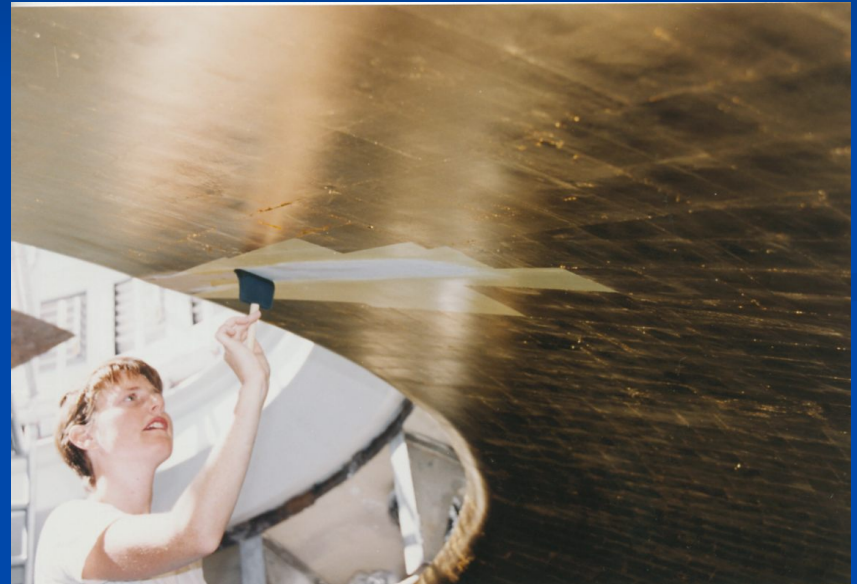
Applying a toning glaze

Finished Rays and Stars





Note the toning around the oculus



Touching up

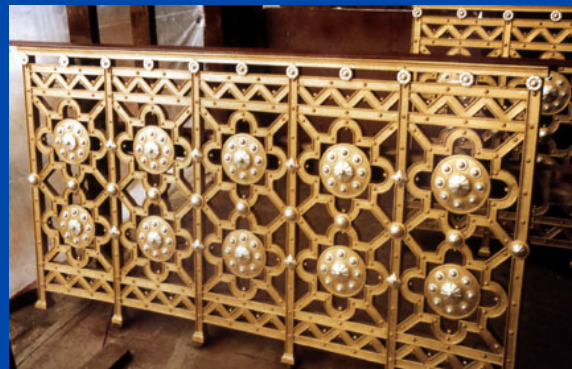
Finished Elements



Other Elements



Before Treatment



After Treatment



Gilding
with 12
KT gold

- Wrought Iron Balustrades with 12 KT White Gold and 23 KT Yellow Gold Leaf
 - Installed by Czar in 1869
 - Used Local Shellac for Isolation coat followed by Acrylic sizing
 - All gilding, sealed with Catalyzed Acrylic Urethane, an automotive finish



From the floor of the Church

Completed Project



The Cupola and Balustrades
from the floor, 120' below

- Modern Materials
 - GFRG Elements
 - Stainless Steel Features
 - Acrylic Primers and gold size
 - Automotive paints and catalyzed clear coats