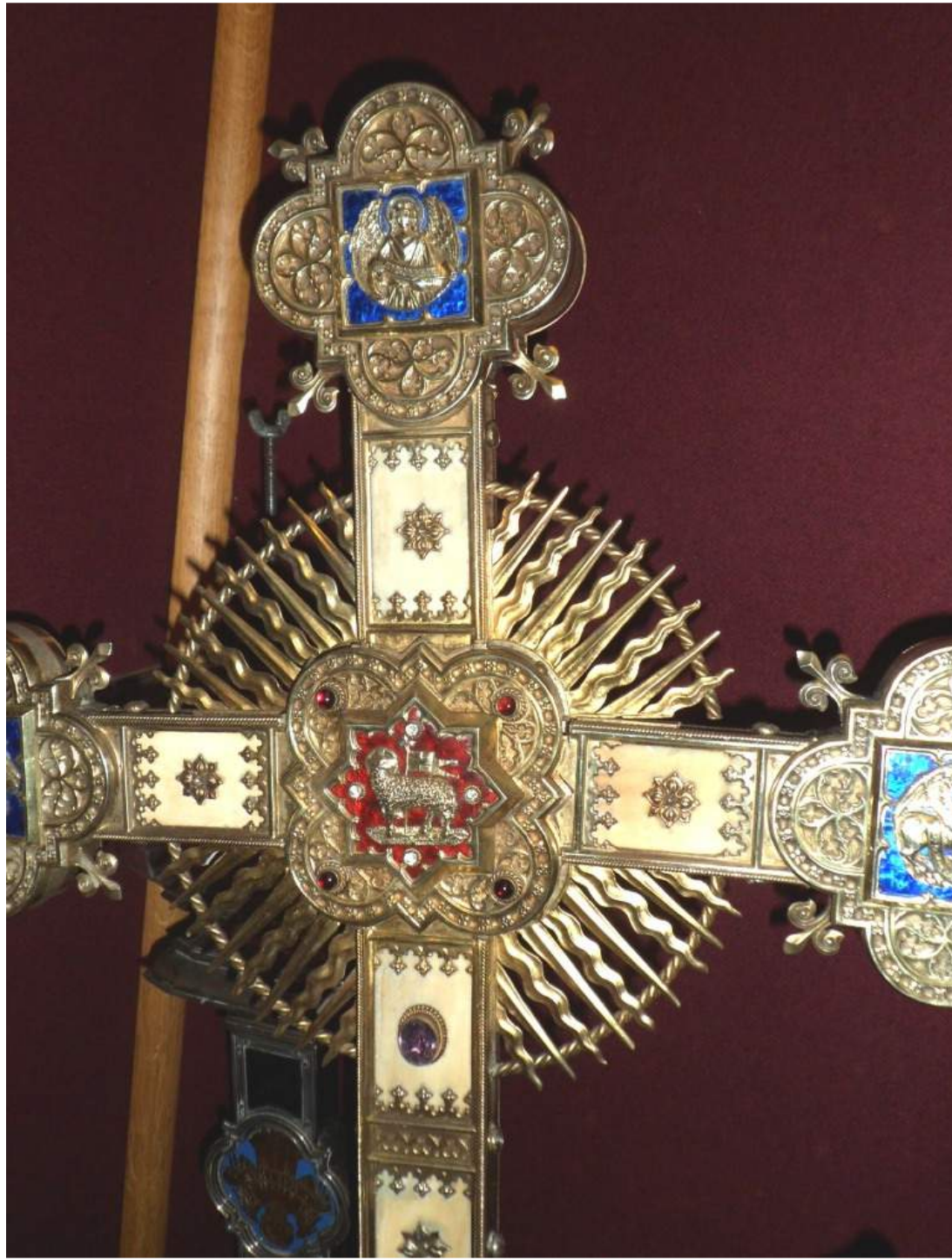


A whirlwind tour of Church metal-work

and

how to care for it

What metals you may have to deal with

















edon: born

James Bower.







NOT A WINDIE NOR A WINDIE TA
NOR LONG GRAY HAIR NOR DIMES IN THE EYE
NOR PEARL LIMBS NOR VNE OF THE BRIBING PAGE
THUS ADG HIS DEATH THUS HERE IN CHASED THE
FOR TIME WAS COME THE LARKE WAS NOT BOUND
TO LET HIM LIVE THE AGE WAS TO BEGONE
HIS DEATH WAS TO BE SEEN THE DEATH WAS
TO BE SEEN THE DEATH WAS TO BE SEEN
AT THE DEATH WAS TO BE SEEN THE DEATH
WAS TO BE SEEN THE DEATH WAS TO BE SEEN
THE DEATH WAS TO BE SEEN THE DEATH WAS TO BE SEEN

In memory of **W^m William**
Wadsworth of **Wadsworth** born
in **October 1731** and died 5
December 1806.

And of **Ann** his wife daughter
of **Thomas Wadsworth** Esquire of
Wadsworth born 20 November
1732 and died 22 Nov^r 1808.



Also of **Elizabeth Wadsworth**
third their daughter born 25 Sep-
tember 1766 and died 24 June 1856
All of whom are buried in the
Vault beneath this Church



Also in memory of **John** and
their son born 14 April 1772 and
died at **Waterford** 18 October
1796.

TO THE GLORY OF GOD & SACRED TO THE BELOVED
MEMORY OF FREDERICK ARSCOTT, OF THIS PARISH,
WHO DIED AT GREENWICH, 24TH FEBRUARY, 1925,
AGED 33 YEARS.

THIS TABLET IS PLACED
HERE BY HIS WIFE & CHILDREN AS A TOKEN OF THEIR
DEEP GRATITUDE & LOVE.

"BECAUSE I LIVE, YE SHALL LIVE ALSO."









mother
long in
Lord thy

lterp.

nell against

bour's house
bour's wife
r his ox, nor
s.



Our Father, which art in heaven.
Hallowed be thy Name. Thy king-
dom come. Thy will be done in
earth, AS it is in heaven. Give us this day
our daily bread. And forgive us our tres-
passes, AS we forgive them that trespass
against us. And lead us not into temp-
tation. But deliver us from evil. For
thine is the kingdom. The power, and
the glory. For ever and ever. Amen.



Three categories of
damage-

Physical

Chemical

Biological

















Chemical damage



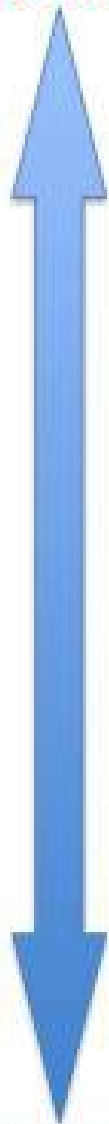


the sabbath-day. 2
the seventh day



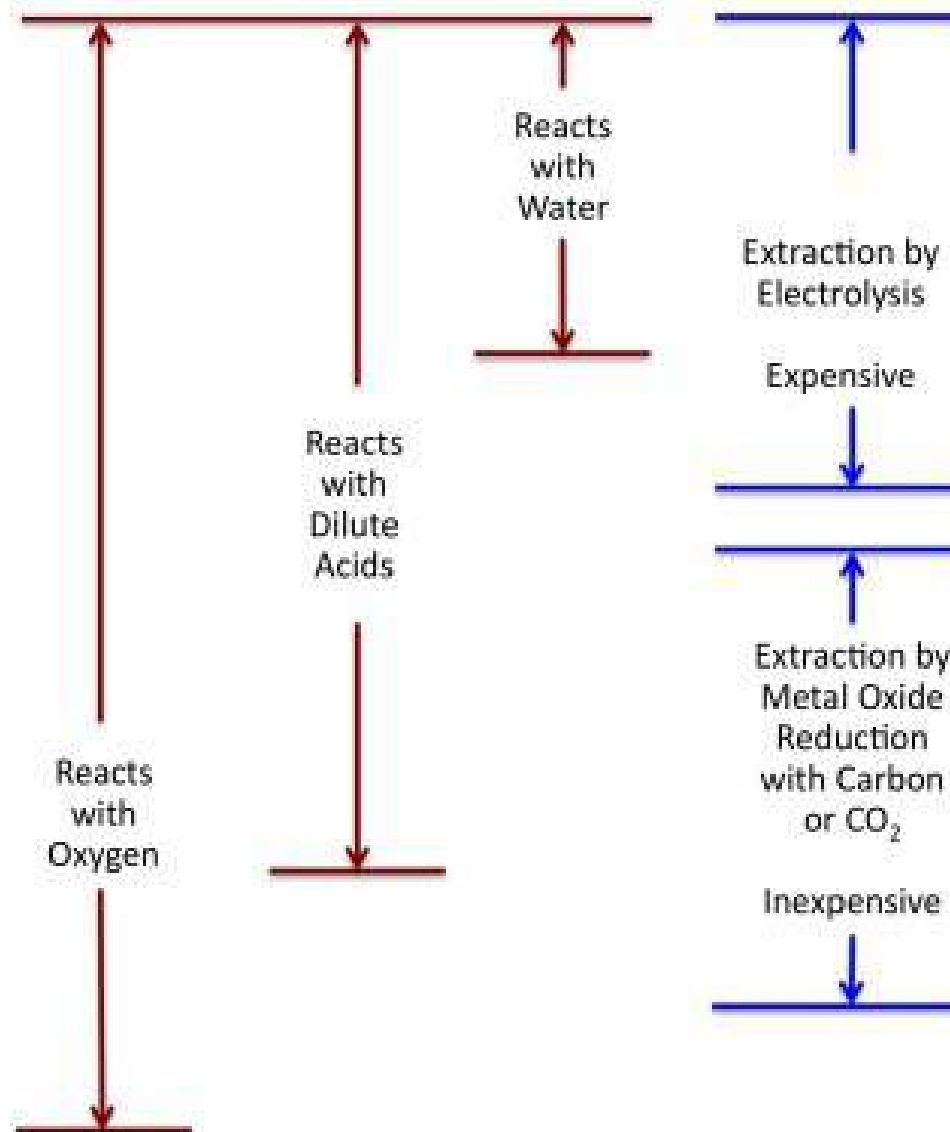
- Do the potato thing....

Very Reactive



Very Unreactive

Li	Lithium
K	Potassium
Ba	Barium
Ca	Calcium
Na	Sodium
Mg	Magnesium
Al	Aluminum
C	Carbon
Zn	Zinc
Fe	Iron
Ni	Nickel
Sn	Tin
Pb	Lead
H	Hydrogen
Cu	Copper
Hg	Mercury
Ag	Silver
Au	Gold
Pt	Platinum

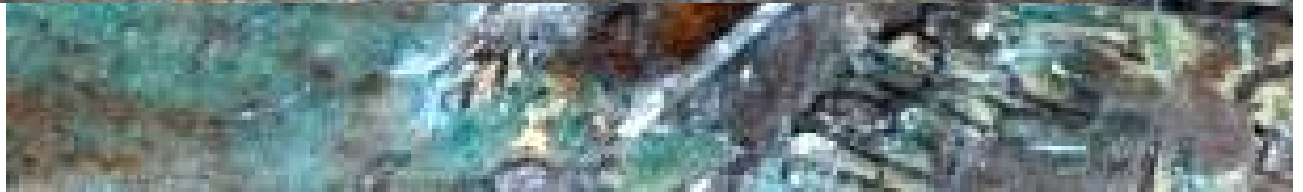


Carbon and Hydrogen are not metals but are included for reference.

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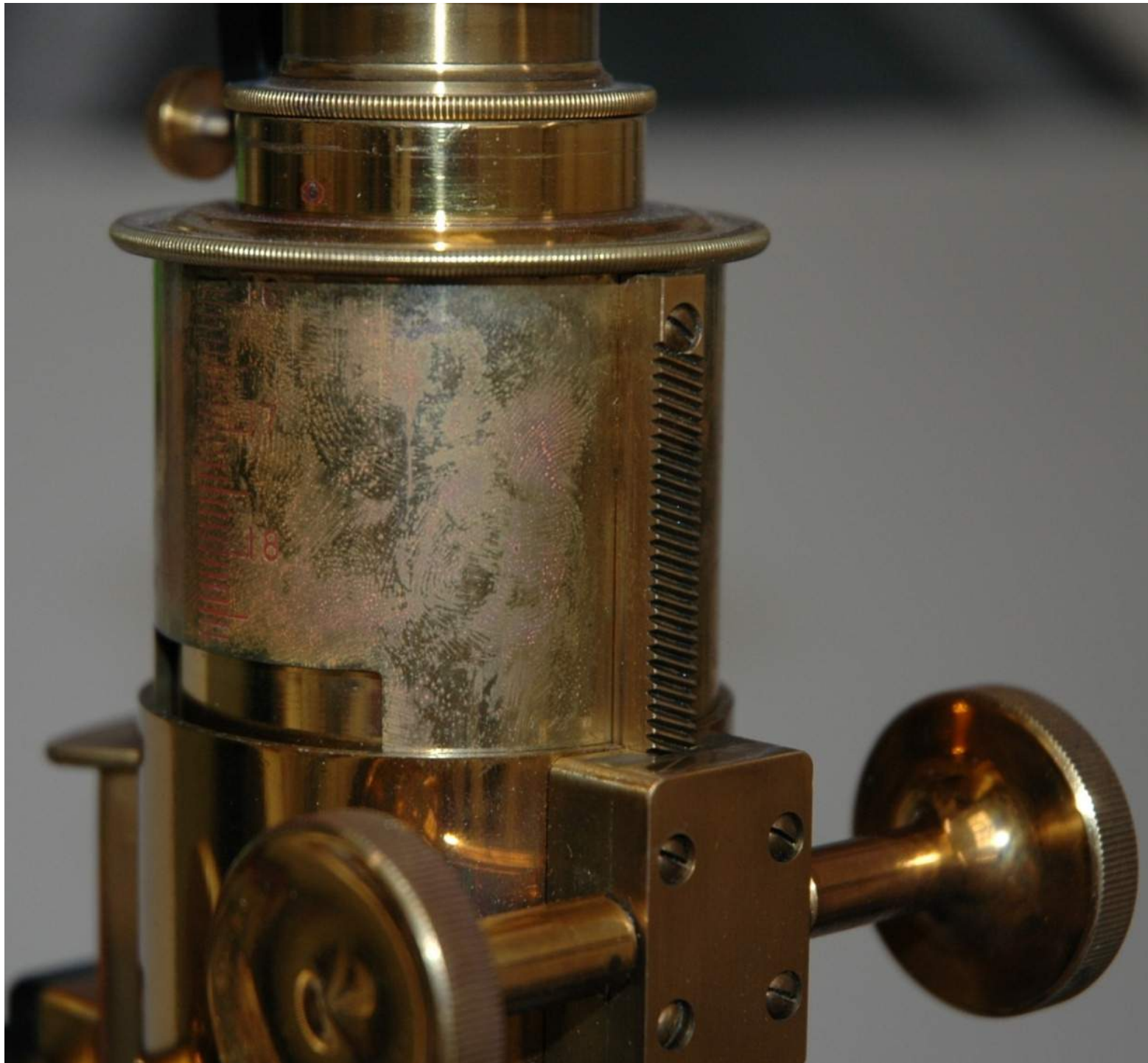












Unsuitable packaging materials;

Acidic cardboard
composite wood products
many timbers
Foam-rubber
wool and silk
Carpeting/coverings on floors



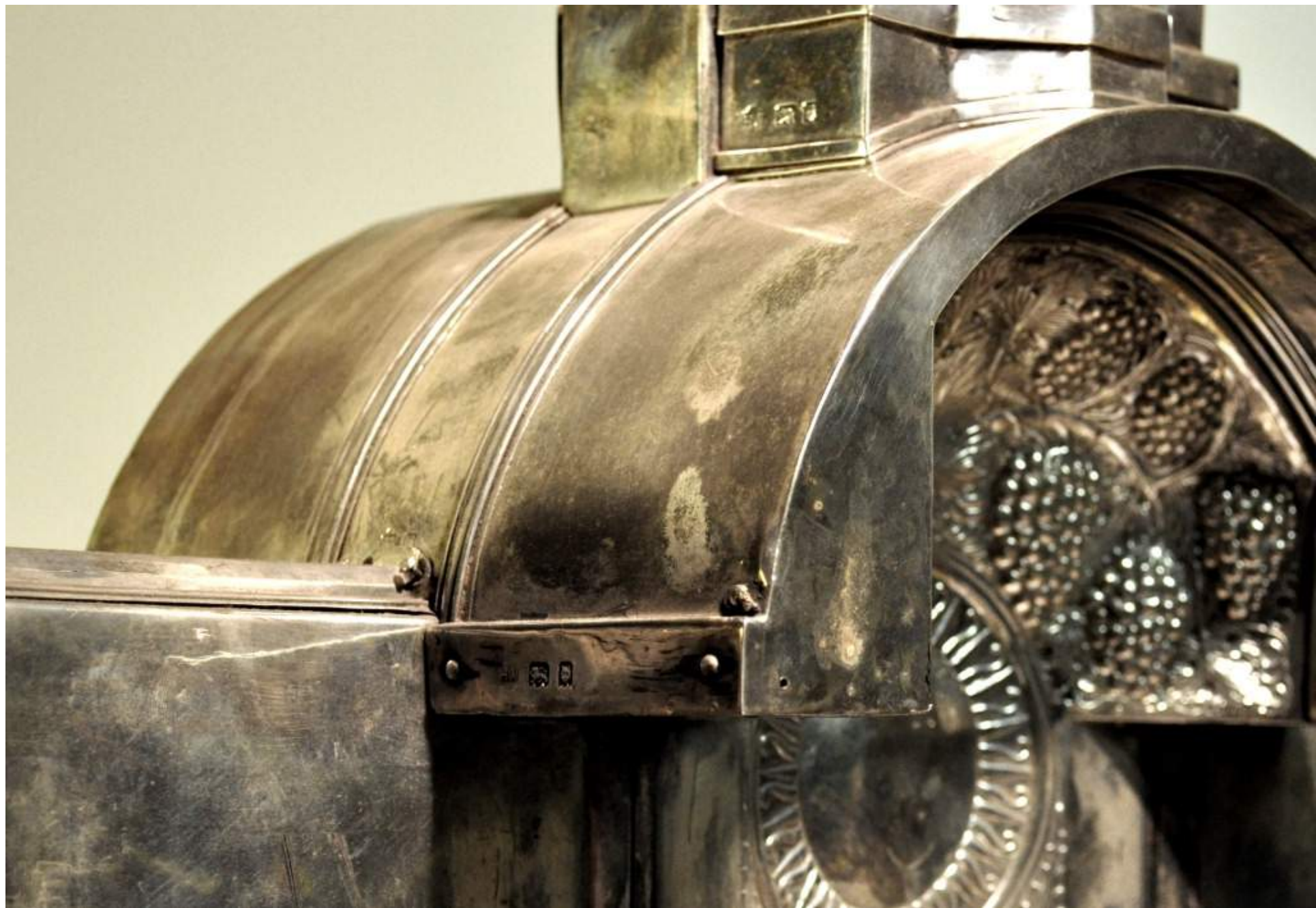
s.s. Great Britain



Biological damage

TO THE GLORY OF GOD & SAC
MEMORY OF FREDERICK ARS
WHO DIED AT GREENWICH, 24
AGED 85 YEARS.







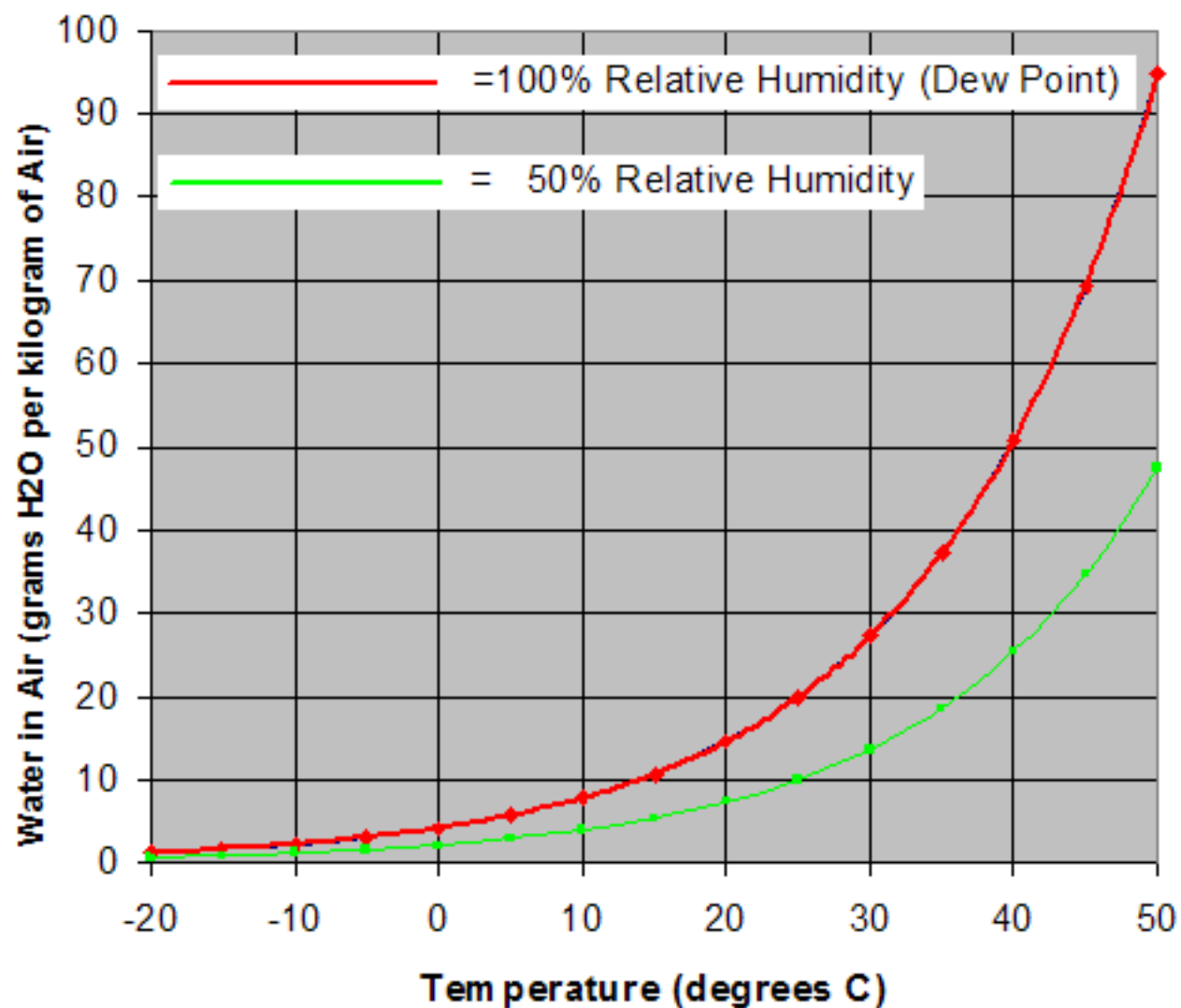






Amount of Water in Air at 100% Relative Humidity Across a Range of Temperatures

Calculated with tool at <http://www.lennotech.com/calculators/relative-humidity.htm>



0	5	10	15	20	25	30	35	40	45	50	55				
				Ceramics and Stone (keep very dry if salty)											
								Glass (not crizzled)							
								Crizzled Glass							
				Items with active salts											
				Archaeological Metal Finds											
				Coins and medals											
				Polished metals will not tarnish								Metal parts of arms and armour, tools			
												Wooden Handles of Tools, Unfinished Wood			
Furniture, Fine woodwork															
	Painted or Varnished Wood														
	Wooden musical instruments														
Archaeological Organic Finds - wood, leather, bone															
												Ivory and Bone			

However a low RH that would suit metal objects, will damage organic materials; wood ivory textiles leather etc.

Therefore we need to reduce or minimise the other factors that tend to cause a reaction at the metal surface.

How to avoid these factors

optimise the environment the item is kept in

probably reduce humidity where possible

remove chemical contamination where possible

use neutral storage/packing materials

Establish a planned cleaning regime

Spend some time inspecting the item

use a good light and *magnification* if necessary

take photographs anyway, but particularly to

keep track of damage/weakness

keep a cleaning register

Establish a planned cleaning regime

Aim to clean thoroughly once and then maintain surface with Goddard's Long Term Silver Cloth

brush/vacuum/swab surface dust, grit and dirt off before using any cleaning products

Cover/ wrap items when not in use/on display but especially **when building work is being done**

particularly protect horizontal surfaces

Preferred materials and equipment

latex/vinyl gloves

good lighting/magnification

acid free tissue

clean cotton/flannelette

soft toothbrushes(with caution)

white spirit, hurr

Preferred materials and equipment

Goddard's

Long Term Silver polish

LT Brass and copper polish

LT Silver Cloth, moistened with v small amount
of white spirit can be used on brass as well **BUT**
keep separate cloths

Preferred materials and equipment

Renaissance wax

Can be used on wide range of materials, good for protecting metals with patination, wall plaques etc. possibly brasses, apply in small areas very sparingly, buff between coats

Storage

Haggerty/Tarnpruff anti-tarnish bags

home made plain undyed flannelette cotton

acid free tissue

Avoid baize, wool, silk or synthetic fabrics

Fitting out safe; use acrylic or polypropylene sheet if possible,

avoid mdf, ply, chipboard, hardboard

Top 10 tips to take away

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- 1 keep clean

Top 10 tips to take away

1 keep clean

2 keep dry ...if you can

Top 10 tips to take away

- 1 keep clean
- 2 keep dry ...if you can
- 3 keep dust free

Top 10 tips to take away

- 1 keep clean
- 2 keep dryif you can
- 3 keep dust free
- 4 keep covered...when you can

Top 10 tips to take away

- 1 keep clean
- 2 keep dryif you can
- 3 keep dust free
- 4 keep covered...when you can
- 5 keep away from pollutants

Top 10 tips to take away

- 1 keep clean
- 2 keep dryif you can
- 3 keep dust free
- 4 keep covered...when you can
- 5 keep away from pollutants if you can
- 6 keep your hands off

Top 10 tips to take away

- 1 keep clean
- 2 keep dryif you can
- 3 keep dust free
- 4 keep covered...when you can
- 5 keep away from pollutants if you can
- 6 keep your hands off
- 7 keep away from the polish

Top 10 tips to take away

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- 2 keep dryif you can
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- 5 keep away from pollutants if you can
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- 7 keep away from the polish
- 8 Keep records

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- 2 keep dryif you can
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- 8 Keep records
- 9 Plan rather than react

Top 10 tips to take away

- 1 keep clean
- 2 keep dryif you can
- 3 keep dust free
- 4 keep covered...when you can
- 5 keep away from pollutants if you can
- 6 keep your hands off
- 7 keep away from the polish
- 8 Keep records
- 9 Plan rather than react
- 10 If in doubt Ask