Gilding 2 : Architecture

For the gilding of copper, / employed in the decoration / of temple **domes** and other large works, / the following is an outline / of the processes employed.// The metal surface is thoroughly scraped, cleaned and polished, / and next heated in a fire **sufficiently** to remove / any traces of grease or other **impurity** / which may remain from the polishing.//

It is then dipped in an acid **solution** / prepared from dried **unripe** apricots,/ and rubbed with **pumice** or brick powder.// Next, the surface is rubbed over with **mercury** / which forms a superficial amalgam with the copper, / after which it is left some hours in clean water, / again washed with the acid solution, and dried.// Gold is laid on in leaf, / and, on **adhering**, assumes a grey appearance / from combining with the mercury, / but on the application of heat the latter metal **volatilizes**, / leaving the gold a dull greyish **hue**.// The colour is brought up / by means of rubbing with agate **burnishers**.// The weight of mercury used in this process / is double that of the gold laid on.//

For the gilding of iron or steel, / the surface is first scratched over with checkered lines, / then washed in a hot solution of green apricots, / dried and heated just short of red-heat.// The gold-leaf is then laid on, / and rubbed in with agate burnishers, / when it adheres / by catching into the prepared scratched surface.//

銅の鍍金において / 装飾に使われる / 寺院のドームやその他の大きな作品の / 以下は、概要である / その導入される過程である//
金属の表面が十分に削られ、汚れを落とされ、磨かれる / そして次に火で十分に加熱して取り除く / 油脂やその他の不純物の痕跡すら / 研磨で残ったかもしれない//

次に、酸性の溶液に浸し / 乾燥した熟していないアンズから調製した / そしてそれを軽石やレンガの粉で磨く。// 次に、その表面をさらに磨く / 水銀で/ それは銅との合金を表面に形成する /
その後、きれいな水に数時間つけておき、/ 再び酸性の溶液で洗い、乾燥させる。// 金が貼り付けられる / 箔（薄い板状）に / そして、粘着する過程で、灰色の外観を呈する / 水銀と結合することで / しかし、熱を加える過程において、後者の金属（＝水銀）は揮発し、/ 金は灰色がかったくすんだ色合いになる。// その色は浮き上がる / メノウ製の磨き棒で擦る手法で// このエ程で使用される水銀の重量は、/ 貼り付けられた金の重量の２倍である。//

鉄や鋼鉄のメッキにおいては、/ まず表面を全体的に傷をつける / 市松模様（チェック柄）の線で / それから熱した青アンズの（酸性）溶液の中で洗い、/ 乾燥させて赤熱寸前まで加熱する。// その後、金箔を貼り付けて、/ メノウの磨き棒で擦り入れる / その時に金は絡みつく / あらかじめ傷つけておいた表面（の模様）に巻き込まれることで//

Vocabulary

dome	円頂、ドーム
sufficient	十分な
impurity	不純物
solution	溶液
unripe	未熟な
pumice	軽石

adhere	付着する
volatilize	揮発する/気化
hue	色合い
burnish	（光沢付けに）磨く

＊TIPS＊ メッキについて２（１の続き）

「トタン（鉄＋亜鉛メッキ）」においては「亜鉛」の方がさびやすい金属です。そのため、傷がついて芯の鉄が露出しても、表面の亜鉛が代わりにさびます。そのため、傷つきやすい壁や屋根にこちらを用います。

一方、「ブリキ（鉄＋錫（すず）メッキ）」は、「鉄」の方がさびやすい金属です。そのため、トタンとは違い、そもそも傷つく可能性の低いおもちゃや缶詰などに用いられています。

ちなみに「純金」は錆びません。そのため、古来より金は不変の象徴として扱われたのです。

＊裏面の問題は音読を毎回 **40** 分以上反復してから挑戦しましょう＊

For the _____, employed in the decoration of temple domes and other large works, the following is an _____ of the processes employed. The metal surface is _____, cleaned and polished, and next heated in a fire sufficiently to remove any traces of grease or other _____ which may remain from the polishing. It is then dipped in an acid solution prepared from _____, and rubbed with pumice or brick powder. Next, the surface is rubbed over with mercury which forms a superficial amalgam with the copper, _____ in clean water, again washed with the acid solution, and dried. Gold is laid on in leaf, and, on adhering, assumes a grey appearance from _____ with the mercury, but on the application of heat the latter metal volatilizes, leaving the gold a dull greyish hue. The colour is brought up by means of _____ with agate burnishers. The weight of mercury used in this process is double that of the gold laid on. For the gilding of _____, the surface is first scratched over with chequered lines, then washed in a hot solution of green apricots, dried and heated just short of red-heat. The _____ is then laid on, and rubbed in with agate burnishers, when it adheres by catching into the prepared scratched surface.

Question 1: What fruit is used to gild a temple?

Question 2: When must a surface be polished during gilding?

Question 3: Why does the gold initially appear grey?

Summarize (50 ~ 80 words) :

＊Background knowledge:

＊Q&A Sample Answer

Q1: Apricot

Q2: Before the application of acid or gold leaf.

Q3: Because of the mercury that was volatized by the heat.

＊Summary Sample Answer

（Very Short）

Copper: Polish, fire, then apricots and brick dust. Wash it, apricot it, put on the gold. Heat it, burnish it, done.

Iron: Scratch it, apricot it, fire it red, then lay on the gold. Burnish and done.

（50 ~80 words）

To gild copper: polish and clean the surface, fire it, then apply apricots and brick dust. Wash it clean, apply apricot again, then press on the gold. Heat it all, burnish it until it is brilliant, and the work is complete.

To gild iron: scratch the surface in a checkered pattern, apply apricot to it, fire it red, then lay on the gold. Burnish to finish the effect.