

‘ Dr. *Stukeley* likewise gave in a Scheme of the same Appearance, as it was seen at *Canterbury* 10 h. 12 m. ‘ *Dec.* 19. 1741. in which the Light at *c.* was not ‘ taken Notice of. He copied it from a Drawing ‘ made by Mrs. *Tennison*, who sent it in a Letter to his ‘ Grace the Archbishop of *Canterbury.*’ C. M.

XIV. EXPERIMENTS, *by way of Analysis, upon the Water of the Dead Sea; upon the Hot Spring near Tiberiades; and upon the Hammam Pharoan Water; by Charles Perry, M.D. made on his Journey through the Holy Land, &c.*

EXPERIMENTS (*by way of Analysis*) *upon the Water of Asphaltis, commonly called the Dead Sea.*

EXPERIMENT I.

Read Feb. 25.
1741-2.

UPON steeping or infusing some Scrapings of Gall in it, (after standing a long time) it turn'd of a bright purple Colour.

EXPERIMENT II.

Upon the Infillation of *Ol. Tartari per Deliq.* it immediately became troubled or muddy, and seem'd as if Goblets of Fat were fluctuating in it. This unctuous Matter, upon long standing in Repose, came

came gradually into closer Contact, and at last subsided.

EXPERIMENT III.

Upon the Infillation of *Spirit of Vitriol*, it deposited a Milk-white greasy Sediment; which, after 12 Hours Repose, occupied one-fifth Part of the Vehicle or Liquor.

EXPERIMENT IV.

Being mix'd with a Solution of *Saccharum Saturni*, it let fall a small Quantity of a greyish Powder.

EXPERIMENT V.

Being severally and separately mix'd with Solution of Sublimate, with *Sp. Sal. Armoniac.* and with Sugar of Violets; it neither fermented, deposited any Sediment, grew turbid, nor changed Colour; except only from the Sugar of Violets, which turn'd it of a dark Green.

OBSERVATIONS.

This Water is highly saturated with Salt, insomuch that any Measure of it preponderates fresh Water under equal Surfaces, in the *Ratio* of Five to Four.

It has also a wonderful Acrity, insomuch that being held in the Mouth for a short time, it constringes it in like manner as Alum does.

I cannot (from the above *Experiments*, and the Appearances which resulted from them) conclude, that this Water is impregnated with any thing more than mere Salt, which is of a very acrid, alkaline Nature; and something else, which may be of a compound Nature, partly sulphureous, and partly bitumi-

nous. But, to speak negatively, it may be presum'd, I think, that it neither partakes of Steel, Alum, nor Vitriol, nor yet of a pure, genuine Sulphur: And, consequently, as I take it, can afford no other, nor better Effects, to such as may bathe in it, than other Sea-water; except only, that its greater Degree of Salt, and superior Weight, may somewhat heighten the same Effects.

EXPERIMENTS (*by way of Analysis*) upon the *hot Spring Water near Tiberiades.*

EXPERIMENT I.

Oil of Tartar. per Deliq. 3℥s. being mix'd with 3℥s of the Water, it became troubled and muddy; and after standing 12 Hours in Repose, Three-quarters of the Whole, from the Bottom upwards, appear'd like white Wooll: But this woolly Water, being separated by Filtration, and left to dry, seem'd no other than a yellowish Oker.

EXPERIMENT II.

I mix'd 3℥s *Sp. Vitriol* with 3℥s of the Water, and, after 12 Hours standing still, I found a large Sediment of a white unctuous Matter.

EXPERIMENT III.

Solution of *Sublimate* 3℥s being mix'd with 3℥s of the Water, it became turbid and yellowish, and yielded an earthy Sediment in small Quantity; whence I conclude it contains a *Sal murale*.

EXPERIMENT IV.

One Ounce and half of the Water, mix'd with 3fs of a Solution of *Sacch. Saturni*, deposited a greyish Sediment of a lateritious Matter, in small Quantity.

EXPERIMENT V.

One Ounce and half of the Water, mix'd with 3fs *Sp. Sal. Armoniac*, turn'd turbid, of a Colour betwixt Green and Blue; and after 12 Hours Repose, yielded a woolly Sediment of four Digits deep.

EXPERIMENT VI.

One Ounce and half of the Water, mix'd with 3fs *Sacch. Violar.* became troubled, and of a dark-yellowish Colour.

EXPERIMENT VII.

One Ounce and half mix'd with 3fs of Scrapings of Gall, became of a fine violet Colour; but when shook, was as deep as Ink.

OBSERVATIONS.

This Water (as appears to my Judgment) contains a good deal of a gross fix'd Vitriol, some Alum, and a mural Salt of a limy Quality.

'Tis too salt and nauseous for internal Use; but by bathing in it, must be good for all cutaneous Distempers, and especially for the Scurvy and Leprosy: For it will powerfully deterge, scour, and clean the excretory Pores; and it may, by its Weight and *Stimulus*, restore them to their natural State, Strength, and Elasticity. It may, by the same

Means, restore the lost or impair'd Tone of the Solids in general: In Consequence of which, it may thin the Blood, help its Circulation, and promote the natural Digestions and Secretions; and thus, finally, it may be useful in Rheumatisms, Dropsies, Jaundices, and nephritic Diseases.

Analysis of the Hammam Pharoan Water, near Corromondel, on the way to Mount Sinai.

EXPERIMENT I.

This Water being mix'd with the Scrapings of Gall, manifested no sensible Change at first; but after long standing it grew somewhat greenish.

EXPERIMENT II.

Upon the Infillation of *Sp. Sal. Armoniac.* it became turbid; and on standing some time in Repose, deposited a dark-greyish Powder, in small Quantity.

EXPERIMENT III.

Four Ounces of the Water, being mix'd with 3iss *Sacc. Violar.* manifested no Change, except what would necessarily result from the Tincture of Violets.

EXPERIMENT IV.

Being mix'd with a Solution of *Sacch. Saturni*, it became immediately very turbid; but on standing some time in Repose, it deposited a large dark-brown Sediment, leaving the Vehicle troubled and whitish.

EXPERIMENT V.

I mix'd a Solution of *Sublimate* with it, upon which it became immediately yellow; but, after standing at Rest, it deposited a woolly unctuous Matter, in small Quantity.

EXPERIMENT VI.

Being mix'd with *Ol. Tartari per Deliq.* it became of a chyly Colour and Substance, or of a turbid pearly Colour.

EXPERIMENT VII.

Being mix'd with *Spirit of Vitriol*, it manifested no Change, either of Colour or Transparency.

OBSERVATION.

I conclude from the *Phænomena* which appear'd upon Analyfation, that this Water is impregnated with a good deal of a gross earthy Sulphur; a neutral Salt, a small Quantity of Alum, but no Proportion of Vitriol.

This cannot be used inwardly, it being nauseous beyond Expression: It smells somewhat like rotten Eggs, but much worse. But, used by way of Bath, it may cleanse the Skin of all Foulnesses, purge and deterge the cutaneous Glands from all foul noxious Humours: It may reinforce the natural Heat and Vigour, (where they are decayed) and may restore the impair'd Digestions: And hence, finally, it may promote Virility in Men, and Fecundity in Women. It may likewise be useful in the Gout; as also in Epilepsies, and other Diseases of the nervous Class.