

donnance of his Imperial Majesty, they will henceforward boil about 100,000 Tun, which they will export as the other. *Martin Zeiler*, in his Description of the Kingdom of *Hungary*, Pag. 119, makes but slight Mention of these rich Salt-works.

In fine, we saw at *Neusol*, at Mr. *De Neffzerns*, Receiver of the Emperor's Rents, a Statue of Rock-Salt as large as Life, which serves as the Barometer of *Neusol*; for when it begins to sweat, or grow moist, it presages Rain, or wet Weather; but when it is dry, you may certainly promise yourself settled fair.

After having employed three Hours to view these Salt-works, we ascended again by the upper Opening, by a common Rope, and returned to *Eper*, where we were civilly entertained by Mr. *Toppierer*, one of the most knowing Men in all *Hungary*, Rector of the *Lutheran* Academy, who understands and speaks ten Languages in Perfection.

III. *The natural History of Cochineal; being an Account of a Book entituled, Histoire naturelle de la Cochinelle justifiée par des Documents authentiques Amsterdam, 1729. By W. Ruty, M. D. R. S. Secr.*

A Dispute arising betwixt the Author (*Melchior de la Ruuscher*) and a Friend, concerning the Substance of Cochineal, the one maintaining it to be a small Animal, the other the Fruit, or Grain of a Plant, the Author took the Pains to procure from
Antiquera

Antiquera in *New Spain*, the Place where there is the greatest Traffick for it, the Attestations upon Oath of eight Persons who have been immediately employed in propagating and managing it for many Years; from whence the whole Natural History of this Drug is collected. These shew, *First*, in Regard to *Cochineal* it self,

That they are small living Animals with a Beak, Eyes, Feet and Claws; that they creep, climb, seek their Food, and bring forth Young, not changing their Species as Silk-Worms, but producing their Like; which are not larger than Nits, or small Mites, or the Point of a Needle; but when come to Maturity, resemble in Size and Figure a Dog's Ticke. Thus far is certain, but their Manner of Generating is doubtful, though it is commonly believed by those who cultivate them, that they are impregnated by a small Butterfly, which is bred upon the *Nopal* (the Plant they live upon) which passes and repasses over them.

Secondly, As to the Manner of raising, nourishing, and managing them, it appears, that at the proper Time, *viz.* after Winter (when these little Animals can bear the open Air) when the *Cochineals* which they have kept in their Houses are grown so large and big as soon to produce young ones, they put 12 or 14 together into a *Pastle*, or little Nest made of fine soft Hay or Straw, or Moss of Trees, or the Down which immediately envelopes the Cocoa Nut. These *Pastles* are then placed upon the Plants of the *Nopal*, or Prickly *Indian Fig* (which they take Care to cultivate well for this Purpose) and in 2, 3, or 4 Days, these Animals bring forth a great Number of young ones; soon after which the Mothers die. In the mean

while the young ones, coming out of the Nests, climb up the *Nopal*, fix themselves to it, and suck its Juice, which is their only Nourishment, but don't eat the Plant; and for this Reason, they always seek those Parts of it that are greenest, and fullest of Juice, taking Care at the same Time to place themselves on the Parts most sheltered from the Wind and Weather. During this Time, whilst they are growing up, and become pregnant, great Care is taken that no Vermin incommode or kill them, as also to keep them clean, and disengage them from certain Threads, like Cobwebs, that grow upon the *Nopal*: As likewise to defend them from too much Heat, or Cold; from the Rain and Winds; because the fine Cochineals are very tender: Nevertheless the wild Cochineals stand all these Inconveniencies; but then they are so gritty, of so ill a Smell, and of such little Value, that they ought not to be mix'd with the fine.

Thirdly, In Regard to the gathering of the Cochineal: The first is of the Mothers, which having brought forth their Young, have died in the Nests. Three or four Months after this, as the Season permits, when the first young ones are become sufficiently large and big, and are in a State to bring forth Young in their Turn, and also have produced some few, the *Indians* carefully gather them off the *Nopals* with a little Stick, to which they have fixed a little Hair in the Nature of a Pencil. These Animals being collected in this Manner, and afterwards killed by hot Water or Fire, this is called the second Gathering, or rather the first of the young ones that have been nourished and raised in the open Air. Three or four Months after this, they gather the second Brood

Brood of those that have been born upon the *Nopals*, which being become big, have brought forth already some young ones. This they do much in the same Manner as before, only now they take off the Plant a great many young ones with their Mothers, which makes this Sort of Cochineal be called *Granilla*, from the Number of small ones found in it. In the mean Time they keep a Number of these young ones alive, upon the *Nopals*, which they pluck up or cut, and lock up in their Houses, to nourish these Animalcules during the rainy Season. *Lastly*, These being grown large, they put them into the Pastles and proceed in the Manner above expressed in the second Article. So that for the most Part they make three Gatherings in a Year.

Fourthly, As to the Manner of killing the Cochineal : This is commonly done two Ways, either in hot Water or in *Tamascales*, which are little Ovens made for that Purpose, though there are some People who kill them by roasting them upon *Comales*, which are flat Stoves with Fire under them, made use of by the *Indian* Women to bake their *Maiæ* Bread. These three different Methods give the Cochineal three different Colours. The first renders them of a brown Red ; the hot Water making them lose the white Colour with which they are covered when alive. The second makes them of an Ash Colour and Marbled, or Jaspered ; both upon Account of the natural White with which they are covered, and the red and transparent Colour of the Cochineal it self. The third Sort becomes black, as if it had been burnt. Of the old ones which died after dropping their young, four Pounds produce but one, when

dried ; or rather, one Pound is reduced to four Ounces: But three Pounds only of the living, which have been carefully taken off the *Nopals*, being killed and dried, produce as much.

This is the Substance of what I can collect from the Attestations, &c. which are printed and annexed at length, which the Collector says he has done, both as they contain many Circumstances unknown hitherto, both in his own Country (*Holland*) and elsewhere; and as the Curious may be now assured of a Thing which has been very uncertain for so many Years, and indeed known but very superficially, even by those who have embraced the Opinion, that the *Cochineals* were really little Animals. And as there may be always a standing Evidence to evince the Truth of these Facts, he has thought fit to deposite the original Attestations, confirmed by the Certificates of three Magistrates, and three publick Notaries, among the other Registers of the *Royal Society*, by the Hands of Mr. *East* Surgeon, a Member of our Body. That this therefore may be publickly known, I have, in Purfuance to Order, inserted an Abstract here.