

Hesse-Honegger's hand-work

Cornelia Hesse-Honegger is fascinated by the beauty of bugs. After the Chernobyl disaster she set out with her paintbox on the trail of mutated insects, convinced that they were the result of radiation poisoning.

Martin Kemp

The hand-drawn image continues to cling obstinately to its roles in the art of scientific illustration. It is less obviously central now than in the eras when it was the only way to originate representations, but it still does jobs that technologically-generated images cannot. The unique, directed interplay that occurs in the acts of seeing, controlled representation in line, tone and colour, and communication retains a human potency that cannot be equalled by any other means.

Yet is this potency 'subjective' — like a work of art is supposed to be — and therefore 'unscientific'? The charge of subjectivity has been levelled at the amazing watercolours of deformed insects made by the Swiss painter, Cornelia Hesse-Honegger. They may be very striking, and even 'accurate' on their own terms, but can they be 'taken and used in evidence'? Are they, in short, works of art or scientific illustrations?

Hesse-Honegger was trained as a zoological illustrator in Zurich, where she drew for publication, among other specimens, induced mutations in the *Drosophilidae*. After the arrival of her children, she worked increasingly on her own visual agenda, concentrating upon the local population of leaf bugs in their adult (imago) stage "because of their beautiful patterns and colours".

The direction and purpose of her work was redefined in 1986, the year of the Chernobyl disaster. Already aware of the sensitivity of insects as bioindicators of the environment, and unconvinced by reassurances about the lack of danger posed by radiation levels below 5 rem, she studied leaf bug and *Drosophila* populations along the cloud trail in Sweden and Switzerland, and subsequently around Chernobyl itself.



Hesse-Honegger's Leaf Bugs (*Miridae*, several species), part of the wing and scutellum (undeformed), 1979, found in Gockhausen, Switzerland.



Hesse-Honegger's Harlequin Bug (*Pentatomidae*), with deformed scutellum and asymmetrical patches, 1991, found near the Three Mile Island nuclear plant, Pennsylvania.

Visually attuned by her scrupulous earlier depictions of the patterned beauty of such features as the leaf bug's scutellum, she exploits her perceptual and representational skills to draw our eyes into the miniature world of deformations she is uncovering — not only in zones affected by such major incidents but also downwind of normally operating nuclear plants such as Sellafield in north-west England. The legacy of her scientific training is apparent in her systematic mapping and counting of the occurrence of

deformed specimens. At Three Mile Island in Pennsylvania she concluded that "the worst deformations were only located in the E and ESE direction of the plant in an area within one mile of the... plant. No other studies were available."

It is not my intention to offer a judgement on her subsequent disputes with the majority scientific view that what she is recording is statistically insignificant and without correlation to low levels of ionizing radiation, but rather to sustain the right of the obsessional enquirer to probe uncomfortably into visual corners where dark questions lurk. Her probing is highly personal in motivation and aesthetic means.

She speculates that her mutated flies "are perhaps closer to today's reality of nature or, maybe, are prototypes for a future aesthetics of nature". Such aesthetics are subjective in the true sense, but every one of her watercolours carries deep implications for issues of objective judgement. □

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