

## 2 Emblematic natural history of the Renaissance

Natural history in the Renaissance was an area of study that bore little resemblance to our modern notions of the discipline. Renaissance natural historians had reasons for studying nature and ways of writing about nature that contrast strongly with our own. The Renaissance approach is well worth understanding, since it sheds a great deal of light on Renaissance culture as a whole, but to appreciate it properly we must put aside all preconceptions of what natural history should be and allow ourselves to encounter Renaissance natural history on its own terms. We need to forget everything we know about zoology and comparative anatomy and taxonomy and be willing to entertain approaches that seem to venture far beyond the pale of what we consider science. If we can manage this, however, we will be richly rewarded. The Renaissance view of the natural world was more densely layered and more intricately interwoven than ours, and it can be a great pleasure to reconstruct that view and perhaps dwell within its sight for a brief while.<sup>1</sup>

The best way to begin this reconstruction is to open a volume written in the sixteenth century, by someone who claims to be a natural historian, and that purports to be about the natural world, and read what it has to say. There are a number of such works to choose from, although you could store them all in a modest-sized bookcase. Most of the volumes are large folios, forbidding in their bulk, but that is not surprising since they often survey all of nature between their covers. However, we need not read an entire work, at least not initially. One chapter ought to be enough, provided that we read it all (not just the parts that look familiar) and that we resist the temptation to judge until we are through.

### Gesner and the fox

So that we get the most representative picture possible, let us choose a selection from the most widely read of all Renaissance natural histories, the *Historia animalium* of Conrad Gesner (1516–65). It was published in four volumes in Zurich between 1551 and 1558, with the first volume discussing live-bearing quadrupeds, and the succeeding volumes treating egg-laying quadrupeds, birds,

**Figure 2.1** Fox. Woodcut from Conrad Gesner, *Historia Animalium Lib. I* (Zurich, 1551), p. 1081.



and aquatic animals.<sup>2</sup> Let us look at the chapter on *vulpis*, the fox, which we encounter near the end of volume one.<sup>3</sup> It is a sizeable essay of sixteen folio pages, and if it were reset to fit into this volume, it would occupy at least sixty pages. One notices, immediately, that it begins with a woodcut illustration, and a most handsome one at that (Figure 2.1). In fact, most of the articles in Gesner's *History* contain illustrations, and their naturalism and attractiveness have been often remarked upon. We will return to say more about these woodcuts, but first it is the text that will occupy our attention.<sup>4</sup>

The chapter is divided up into eight sections, lettered A through H (nearly every chapter, it will turn out, is sectioned in an identical manner). In section A, a brief paragraph, we learn about names: that *vulpis* in French is 'regnard', in English, 'fox', in Dutch, 'vos'; further equivalents are given for a large number of ancient and modern languages. In section B we learn about regional differences in foxes: for example, that foxes in Russia tend to be black rather than red, and those in Spain are often white. Foxes everywhere, however, share one attribute in common: their large bushy tails.

In succeeding sections we learn about the fox's daily habits and movements, its different cries and calls, its relationships with other animals, its diet, its suitability as a source of food or medicine, and more. And as we slowly move through these long paragraphs we gradually become aware of Gesner's basic method for learning about nature: quite simply, he read *books*, untold numbers of books, and he gathered from these texts and

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assembled on his pages the facts that he thought appropriate. It is not difficult to discover this, because Gesner pairs virtually every fox fact with a name, his source. So we read: 'foxes are very ravenous in Sardinia, *Aelian*', or 'foxes die if they eat bitter almonds, *Dioscorides*'. There are over eighty different authorities cited in the fox article alone. Most of them are ancient authors; some, such as Aristotle and Albertus Magnus, are familiar names, but many more are minor literary figures that would be unknown to anyone except a dedicated specialist. It would seem, then, that Gesner was a competent classical scholar, that he read an astonishing number of obscure books, and that he preferred ancient authority over modern. It is also apparent that, for Gesner, natural history was a discipline forged in the library with the bibliographic tools of the scholar, rather than an observational science built up by a direct personal encounter with nature. To use a term that is commonly applied to those in the Renaissance who believed that the best answers were usually found in the writings of antiquity, Gesner was a *humanist* and, in his eyes at least, natural history was, first and foremost, a *humanist* pursuit.<sup>5</sup>

As a humanist, Gesner believed that the best answers were usually found in the writings of antiquity.

### Fables and folklore

As we continue our reading, another impression becomes inescapable. There are some very odd facts here, and many of them sit very uneasily in the organizational cubbyholes that Gesner has provided for them. For example, section C is purportedly on the habits and voice of the fox. Gesner informs us that the fox's yelp is so distinctive that the Romans invented a special word for it – 'gannire' – and Gesner goes so far as to provide examples from Terence and Plautus as to how this verb was applied metaphorically to men who tend to yelp at others. The same section informs us that the fox does not make its own den but rather relies on one built by the badger, whom the fox drives away by depositing excrement at the entrance. Still in the same paragraph we are told that in northern countries the fox crosses frozen rivers very deliberately, listening carefully for the sounds of cracking ice, and it is so good at finding a passage that other inhabitants of these regions will only cross where the fox does. And it goes on: the fox is often bothered by flies and gnats, but it relieves its torment by taking a mouthful of hay and immersing itself slowly in water until all the insects have taken refuge in the hay, which the fox then quickly releases. The fox will often cover itself in red clay and lie on its back as if dead; crows and ravens, delighting in the death of their enemy, will land on the carcass in triumph, only to be devoured. Sometimes the fox will bury its nose in the mud and raise its tail

into the shape of a bird's neck, creating a strange avian form that other birds are compelled to investigate, and they too become fodder for the fox. And still it goes on.

What are we to make of this barage of folktales and myths? Why are such stories here, in a work of natural history? One might choose to believe, as many commentators have, that Gesner was simply a lousy natural historian; that for all his humanistic fervor he patently lacked the common sense to discriminate between fact and fiction. But such a conclusion makes a dangerous presupposition about natural history; it assumes that good natural history consists only of true facts, and that a natural history containing mythical or apochryphal information is somehow inferior. But perhaps Gesner did not feel that way. Perhaps he thought that a proper essay on the fox would include not only information on the fox's name, size and appearance, but also every fox folktale, every vulpine myth, every reynardian legend that has come down to us. Perhaps Gesner believed that such tales reveal to us a great deal about the place of animals in human culture, and that one of the goals of natural history, perhaps the supreme goal, is to understand the intricate web of relationships that interconnect humans and animals. I would venture that this latter interpretation makes much more sense of Gesner's natural history. Gesner used every available thread because he was trying to weave the richest tapestry possible. And if we can just accept that as a viable approach to natural history, and step back for a moment and behold his creation, we realize that, by those terms, Gesner was eminently successful. The fabric he wove is indeed quite wondrous to behold.<sup>6</sup>

### Adages and emblems

And if we can hold on to our new tolerance for a moment longer and return to Gesner's fox chapter, we can now attempt to come to grips with a section that we have avoided until now, the mysterious section H that concludes each and every animal chapter. If earlier sections have perplexed some because they seem to be compartments over-filled with facts of doubtful value, this final section can be downright disturbing, because many will not even recognize the compartment. Gesner does not label his sections except for the letters, but if we had to think of a title for section H, the best might be 'Associations' – all those ways in which animals and their attributes have intruded themselves into our language, literature, and art. For most animals in Gesner's work, H is the largest section of all, and so it is for the fox. We find, for example, a complete listing of fox epithets: crafty, sly, cunning, deceitful, each one supported by a plethora of classical quotations. We find a lexicon of all the meanings that 'foxy' can have as an adjective. Gesner

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provides us with instances of the fox as metaphor: Christ, for example, called Herod a fox because of the guile he displayed. We learn about the fox as omen: that it is bad luck to encounter a newborn fox on the path. Gesner lists all the appearances of the fox in Scripture, such as Matthew 8: foxes have holes, and birds have nests, but Christ has no place to lay his head. If the fox had appeared in pagan mythology, or in Egyptian hieroglyphics, that would be recounted here (the fox, it so happens, is absent from both, but many other animals had some status as hieroglyphs or mythological symbols and this is duly discussed in the appropriate section H). We are treated to several *pages* of fox proverbs: 'a fox takes no bribes'; 'he is yoking foxes'; and many more.

Finally, after six full pages of fox associations, we encounter, without a word of explanation, the following four-line paragraph. I will translate it in full: 'Mind is worth more than beauty. A fox, entering the workshop of a stage-manager, came upon a smoothly polished mask of a human head, so elegantly fashioned that although it lacked breath, it appeared to be alive in other respects. When the fox took the mask in its paws, it said: What a fine head this is, but it has no brain. Alciati, in his *Emblemata*.' This would seem a fitting finale, in its strangeness, to what seems to be, initially, a very odd set of passages about the fox and its symbolic meanings.

A modern reader's initial encounter with a Gesnerian section H can be a most unsettling experience. The earlier sections, with their wealth of animal fables and folklore, might be made tolerable even to a critic, for whether you view it as good or bad natural history, it is still natural history. But section H seems to have forsaken natural history altogether. It resembles a vast exercise in philology, linguistics, literary criticism, and biblical exegesis that has little to do with the study of nature. At least in the other sections we can recognize the authorities and admit their relevance: Aristotle, Pliny, Aelian, Dioscorides, and Albert the Great all earned laurels as students of nature. But in section H we encounter Suidas and Planudes, Horapollo and the Greek Anthology, Erasmus and Alciati, most of whom you will not recognize, and none of whom you would expect to encounter in any history of natural history. The easiest way to resolve the paradox of section H is simply to ignore it as inconsequential or idiosyncratic, and that is precisely what most commentators have done. But should we do so? If Gesner saw fit to devote six of his sixteen fox pages to epithets, icons, proverbs, and emblems, should we not allow for the possibility that, in the mid-sixteenth century, knowledge of animal symbolism was considered an essential aspect of natural history?

I would like to suggest that such was the case – that Gesner

lived in an age that delighted in the allegorical and the adagial and that regarded symbolic meanings as anything but inconsequential. Since we now live in an era that is profoundly uninterested in and uninformed about proverbs and emblems, entertaining such a possibility takes a considerable leap of faith. But we really ought to make the effort, if we truly wish to understand Renaissance natural history. And it would help if we were better aware of two literary giants of the Renaissance, Erasmus and Alciati, who respectively made proverbs and emblems an integral part of Renaissance culture.

### Erasmus and Alciati

Most people are familiar with Desiderius Erasmus as a prominent figure of the Reformation, but it can be a surprise to learn that in his own day he was more esteemed as the compiler of a vast annotated encyclopaedia of proverbs, the *Adages*. First issued in 1500 and greatly enlarged over the next thirty years, the *Adages* in its final form contained nearly four thousand proverbs, each with a running commentary by Erasmus, who was easily in Gesner's league as an indefatigable classical scholar.<sup>7</sup> Not surprisingly, many of the Erasmian proverbs feature animals: 'owls to Athens', 'the tired ox treads more firmly', 'let sleeping dogs lie'. If we browse through Erasmus with an eye focused on foxes, we discover many delightful adages: 'the fox is given away by his Brush [tail]' (a variant on the more familiar proverb, 'the lion is known by his claw'); 'an old vixen is never caught in a trap'; 'the fox knows many ways, the hedgehog one really good one'; as well as 'a fox takes no bribes' and the others that we already encountered in Gesner. And we must admit that the Erasmian proverbs collectively and effectively sum up what the fox has always symbolized in human culture: cleverness, craftiness, and the ability to learn from experience. In Gesner's opinion, and in the view of most of his contemporaries, such proverbs tell us as much, if not more, about the fox as details about the shape of its ears or the size of its litter.

Andrea Alciati is less familiar to most of us than Erasmus, although we have already encountered him in passing, for Gesner ended his fox chapter with a quotation from Alciati's *Emblemata*. The *Emblemata* was a book of emblems, the first book of emblems, since Alciati himself invented the genre. As Alciati envisioned it, an emblem is the combination of a short (and preferably obscure) motto, an image (also preferably obscure), and an explanatory epigrammatic poem. The emblem was intended to first mystify, and then delight, as the separate elements of word and icon, assisted by the explanatory poem, combined with illumi-

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nating clarity to convey a clever truth. The *Emblemata* was first published in 1531, and it proved to be immensely popular, unbelievably popular, going through many editions and enlargements, and then spawning in turn a host of imitators. By the end of the century there were literally hundreds of different emblem books, containing tens of thousands of emblems.<sup>8</sup> The idea of the emblem fitted perfectly with a Renaissance spirit that treasured symbolic meanings and hidden truths, and it is no exaggeration to call the last half of the sixteenth century the Age of the Emblem, since emblems infiltrated virtually every aspect of Renaissance culture. Natural history was no exception. Many of Alciati's emblems utilized animals. For example, one emblem shows a lynx standing over a newly killed deer while gazing at a flock of sheep in the background. The motto is 'Forgetfulness is the parent of poverty', and the epigram tells us to be careful not to neglect the present while looking for greater things in the future. Similarly, we can find in Alciati an image of hares cavorting about a dead lion, symbolizing courage in the absence of danger, and an emblem of a chameleon, representing flattery, because it can change its colours to fit the situation. Not surprisingly, we can find a fox in Alciati, sitting up and gazing at a human mask that it holds in its hands (Figure 2.2). The motto tells us that the mind is worth more than beauty, and the epigram, which we have already quoted in full as the concluding paragraph of Gesner's fox chapter, might be boiled down to the query: what good is an empty head?<sup>9</sup>

Depending on your point of view, it is either fortunate or unfortunate that Gesner worked at the very beginning of the Age of Emblems, for his only emblematic source was Alciati; had he published his *History of Animals* fifty years later, section H could have been much more swollen with emblematic material. For it is clear that the idea of the emblem captured the very essence of Gesner's view of nature: that the natural world is a complex matrix of seemingly obscure symbols and hidden meanings, which can suddenly become clear in a burst of illumination, if only you view it from enough different angles. Gesner's text was so thorough and so all-embracing because it was necessary to cover all these angles, if one is to ensure complete understanding.

### The role of the illustration

I hope that our encounter with one tiny portion of Gesner's text has elicited the outlines of a view of nature that, while different from our own, is nevertheless fully self-consistent, and compatible with the other cultural traditions of the Renaissance that we have discussed. But our picture of Gesner's natural history is still

§2

ANDREAE ALCIATI

*Mentem non formam plus pollere.*

*Ingressa vulpes in Choragi pergulam,  
 Fabrè expositum inuenit humanum caput,  
 Sic eleganter fabricatum, ut spiritus  
 Solum deesset, ceteris uiuisceret:  
 Id illa cum sumpsisset in manus, ait,  
 Hoc quale caput est, sed cerebrum non habet.*

**Figure 2.2** Fox emblem.  
 Woodcut from Andrea  
 Alciati, *Emblematum libellus*  
 (Paris, 1534), p. 52.

incomplete, for we have yet to consider some of the truly novel features that Gesner, uniquely, brought to the writing of natural history, and that, ultimately, would have as great an impact as his emblematic view of nature.

The first novelty is the incorporation of a visual image to supplement the text. We tend to take it for granted that books about animals should contain pictures of those animals, but there was very little precedent for this in classical natural history – Aristotle, Pliny, and Aelian were purely textual sources, as was Albertus, and whether in manuscript or printed form their texts were hardly ever accompanied by images of the animals under discussion. Gesner, however, illustrated practically every animal he discussed, using for the most part very fine woodcuts. The printed text had never seen the like of his impish fox or his droll hedgehog (Figure 2.3).

The reasons for Gesner's decision to include not only pictures, but naturalistic pictures, are not immediately obvious. There was

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**Figure 2.3** Hedgehog.  
Woodcut from Conrad  
Gesner, *Historia Animalium*  
*Lib. I* (Zurich, 1551),  
p. 400.

one genre of animal books that had commonly been illustrated, namely the medieval bestiary, and since the bestiary was primarily a book of animal symbolism, and since Gesner was so interested in animal symbols himself, one might wonder whether he found inspiration in one of those beautiful illuminated bestiary manuscripts that were so widely scattered around the libraries of Europe.<sup>10</sup> But the possibility, initially tantalizing, is really untenable. Bestiary illustrations, for all their charm and beauty, were highly stylized, and often unrecognizable as to species; and they usually depicted the animal engaged in the act that gave it importance as a symbol, so that the bear is depicted licking its unformed cubs into shape, and the pelican is shown nourishing its young from its bloody breast. Had Gesner used the bestiary as his model, then surely his fox would have been lying on its back, covered with mud, and enticing the birds from the trees, as it customarily did in the bestiary. Moreover, the bestiary tradition is no help in explaining why Gesner wanted illustrations that were naturalistic.

Another possibility is that Gesner was inspired by the animal images in an early printed book that is better known to botanists, namely the *Gart der Gesundheit* ('Garden of Health') (Mainz, 1485). The *Gart*, as it is usually called, was the first printed book to contain illustrations drawn from life by an artist, and these woodcuts are a notable improvement over the copybook specimens that one usually finds in herbals.<sup>11</sup> The *Gart* is primarily a book of medicinal remedies, and consequently most of the new illustrations are of plants, but there are a few animals of medicinal value that managed to creep in, and these woodcuts, while still relatively crude, belong to a completely different artistic world from their predecessors. The fox of the *Gart* is, I would suggest, a worthy ancestor to Gesner's smirking vixen (Figure 2.4).

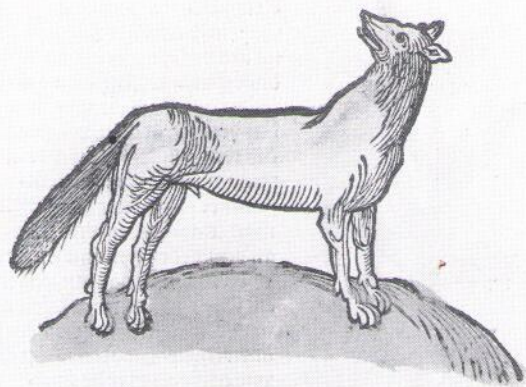


Figure 2.4 Fox. Woodcut from *Gart der Gesundheit* (Mainz, 1485), ch. 426.

**Vulpis** **eyn fusch** **Cap. ccccxxv.**  
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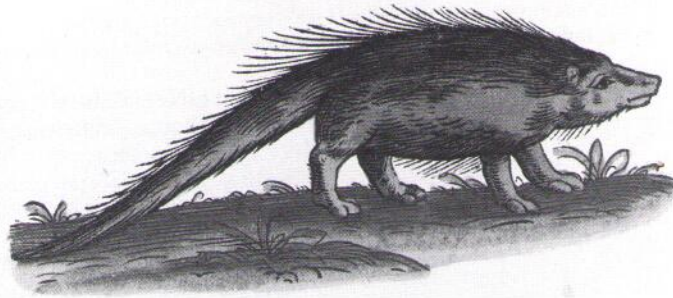
A third possibility is that Gesner was influenced by some of the late classical manuscripts that he consulted while compiling his natural history. Late classical manuscripts are quite different in appearance from medieval manuscripts or early printed texts, because the illustrations, when they are present, are quite naturalistic. As one might imagine, such manuscripts are very scarce, but we know that Gesner studied at least one, a Greek manuscript of Oppian's *Cynegetica* (c. 217 AD) that is now in Venice. This manuscript is beautifully illustrated, and the representations of animals are quite wonderfully rendered. We know Gesner was taken by the images, because he copied two of them for inclusion in his *Historia animalium*: the hyena and the ichneumon (Figure 2.5). One might well imagine that he found the Oppian manuscript so attractive, with its regular use of lifelike illustrations, that he used it as model for his own work.<sup>12</sup>

However, it is probable that the major inspiration for Gesner's decision to give zoology a visual component came from the botanical revolution of the 1530s. The appearance of the *Herbarum vivae eicones* ('Living Images of Plants') (Strasbourg, 1530) by Otto Brunfels (c. 1489–1534) marked a watershed in natural history illustration, since all of the large woodcuts were based on watercolours drawn from life by an artist, Hans Weiditz (before 1500–c. 1536), who came out of the studio of the noted naturalistic painter, Albrecht Dürer (1471–1528), of Nuremberg. The superiority of these images, and the value of their accuracy for the physician



## DE ICHNEVMONE.

*Ichneumonis hanc imaginem, cui parum tribui, ex uetusto manuscripto codice Oppiani Venetijs nactus sum.*



**Figure 2.5** Ichneumon. Woodcut from Conrad Gesner, *Historia Animalium Lib. I* (Zurich, 1551), p. 635. Gesner's caption explains he found this image in a Greek manuscript of Oppian.

trying to identify medicinal plants, was immediately obvious, and before long every printed herbal not only contained pictures drawn from life, but trumpeted this fact as an advertisement from the very title-page.<sup>13</sup> Gesner was a skilled botanist himself, and it may well be that having observed the success of naturalistic images in botany, he simply decided to do the same for books on animals. It is not quite so easy to assemble a portfolio of drawn-from-life images of animals, since many are exotic, and even the local ones cannot easily be persuaded to pose like plants. But Gesner, with the help of friends and correspondents, did manage to collect together the best available images of a large number of animals, and the face of natural history was changed forever as a result.

### The problem of newly discovered animals

The second innovative feature of Gesner's approach to natural history, which in some ways is even more surprising than his insistence on accurate pictures, is that he included, and even sought out, information on new animals that were unknown to the great classical authorities. In an adventurer, novelty is often welcome, but in a classical scholar, especially a humanist scholar, it is not common to see a willingness to embrace evidence that undermines the authority of ancient heroes. It is to Gesner's great credit that he made room in the classical menagerie for the exotic and classically unprecedented animals that were beginning to trickle in from the far north, the New World and the East Indies. Granted, there were not many of these in 1551, but Europe had discovered the opossum, the guinea pig, and the bird of paradise, and Gesner included all of these, with illustrations, in his *Historia animalium*, even though he has to break with his carefully worked out format to

do so. The opossum, after all, has no classical names, no references in Aristotle or Pliny, no network of fables built around it, no emblematic baggage. But Gesner welcomed the strange beast into his stable anyway.

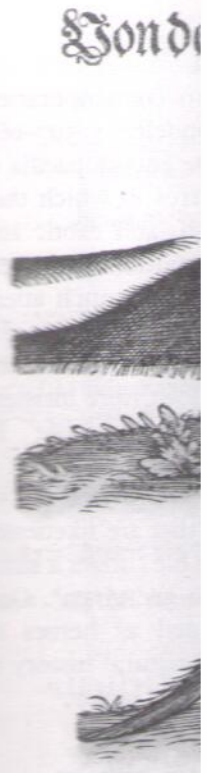
### Contemporary observers

Gesner's welcome of the exotic is the result of a third innovation that is easily lost to view in the glare of his elegant woodcuts and clever proverbs. Gesner was willing to supplement his classical scholarship with observations and stories from contemporary observers. Olaus Magnus was the author of a book on the natural history of Scandinavia; Gesner mined this for the fact that some northern foxes have a black cross-shaped marking on their backs. Sebastian Münster was one of the great geographers of sixteenth-century Germany; Gesner learned from him what the foxes of Germany and Russia look like. Pierre Gilles (1490–1555) was a fellow humanist, who in 1532 published an edition of Aelian's *On Animals*, and who also wrote a book on the names of fish found in the Mediterranean. He was also a traveller who visited Constantinople and wrote a popular account of his visit. Gesner got his tidbit about the fox imitating a bird from Gilles's book on fish (where he had inserted the story as a parenthetical parallel to the fishing frog, who attracts fish with a fleshy worm). The list could go on extensively. This abundance of new information from modern observers is one of the features that distinguishes Gesner's natural history from all of its predecessors.<sup>14</sup>

Now we do have a relatively complete picture of Gesner's natural history. And if we try, perhaps foolishly, to epitomize his achievement, we might say that he established natural history as a humanist discipline, firmly grounded in the writings of antiquity, but that he enriched it with the addition of a whole new world of emblematic and proverbial associations, a new concern for accurate pictures, and the incorporation of contemporary observations and new discoveries. The question we must now address is: what happened to natural history as a result of Gesner's reformulation of the discipline?

The answer, as one might imagine, is complex, primarily because the innovations – emblems and proverbs, naturalistic images, and contemporary observations – lie rather uneasily alongside one another, and each would have the potential to pull subsequent natural history in different directions. Indeed, one can see a conflict arise in the subsequent work of Gesner himself. Gesner continued to gather information on quadrupeds, even after volume one of the *Historia animalium* was published, and this new information appeared as supplements to the later volumes, in separate epitomes that contained just the woodcuts, and finally in a German

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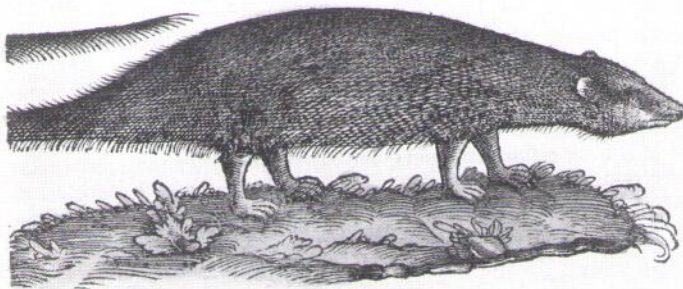




# Sonder Indianischen Maus.

Ichneumon.

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**Figure 2.6** Ichneumons.  
Woodcut from Conrad  
Gesner, *Thierbuch* (Zurich,  
1551), fo. 115r.

abridgement of all four volumes that was published in 1563. If we follow an animal through these twelve years, we discover that most of Gesner's supplements consist of new or better pictures of the animals. His fox woodcut could not really be improved upon, although he does acquire a picture of the northern cross-bearing fox and includes this in the appendices. His 1551 image of the ichneumon, we recall, was taken from the Oppian manuscript; in 1553 a picture from life was published, and Gesner added this to all later editions (Figure 2.6). The civet had been pretty well represented in 1551, but Gesner was sent two more pictures subsequently, and he prints the better of the two in the 1563 German abridgement. Similarly, Gesner was continually on the lookout for *new* animals. When André Thevet (1504–92) published his *Les Singularitez de la France Antarctique* in 1557, Gesner immediately plundered it for images of the sloth and the toucan, and by 1563 he had added a large contingent of new and exotic animals to his original few. There were many new emblem books published in the late 1550s, but Gesner does *not* seem to have mined them to enrich the emblematic associations of his animals. Apparently the desire to have accurate images, and images of new animals, came to take precedence over the desire to place an animal in a more complex emblematic environment.

### Belon and Rondelet

One sees a different trend in the work of two contemporaries, Pierre Belon (1517–64) and Guillaume Rondelet (1507–66). Neither scholar aspired to write a comprehensive encyclopaedia of the natural world, but in the more limited spheres in which they worked – Rondelet on fish, Belon on birds, fish, and exotic animals – each placed great stress on personal observation. Both were trained in humanist natural history, but neither paid much attention in their published works to classical authority, except for Aristotle, and neither had the slightest interest in the emblematic view of nature. But like Gesner, Belon and Rondelet were insistent that narrative be accompanied by pictures ‘drawn from life’. In fact, the importance of lifelike image is now so paramount that it is explicitly stated on the title-pages of all their works; Belon’s 1553 book on fish carries the sub-title: ‘with pictures that are likenesses from life’, while Rondelet’s 1554 study of marine life carries a similar continuation: ‘in which true likeness of fish are given’. One can see why Belon and Rondelet have emerged as heroes to modern zoologists, for their narrow approach to natural history is much more akin to ours than the grand vision of Gesner.<sup>15</sup>

### The flowering of emblematic natural history

It would be a great mistake, however, to think that some kind of transformation occurred here – that Gesner’s grand emblematic natural history somehow withered in the face of a more observational approach, thanks to Rondelet and Belon, and perhaps even the late Gesner. In truth, it was the Belon/Rondelet vision that faded, for almost a full century, and the emblematic view that flourished. We can see this in the simple fact that it was Gesner’s encyclopaedia that was reprinted in 1604 and again in 1617–20 and once again as late as 1669. None of the zoological works of Rondelet or Belon went through subsequent printings. We can see it also in the growing popularity of animal emblems in the last half of the sixteenth century. More and more animals were woven into the emblematic fabric, even some of the newly discovered ones, and the trend was so powerful that by 1595 it was possible to publish a work that would have gladdened Gesner’s heart: *Symbolorum & emblematum ex animalibus quadrupedibus desumtorum centuria altera* . . . (‘Another Century of Symbols and Emblems Derived from Quadruped Animals’) by Joachim Camerarius (1534–98).

Camerarius’s book contains one hundred emblems of animals; it was the second of four volumes which altogether contained four

hundred emblematic animals.<sup>16</sup> Each emblem, in addition to the text of the emblem, is accompanied by a list of scholarly commentary. The century shows us that Gesner as he compiled his emblems for familiar animals, for less familiar animals, and for the instructive that which certainly in the 1590s. The river while listed (Figure 2.7). The by Gesner, who a fine sneering motto is: ‘Secundum Aristotelem, beatus quod Gesner’



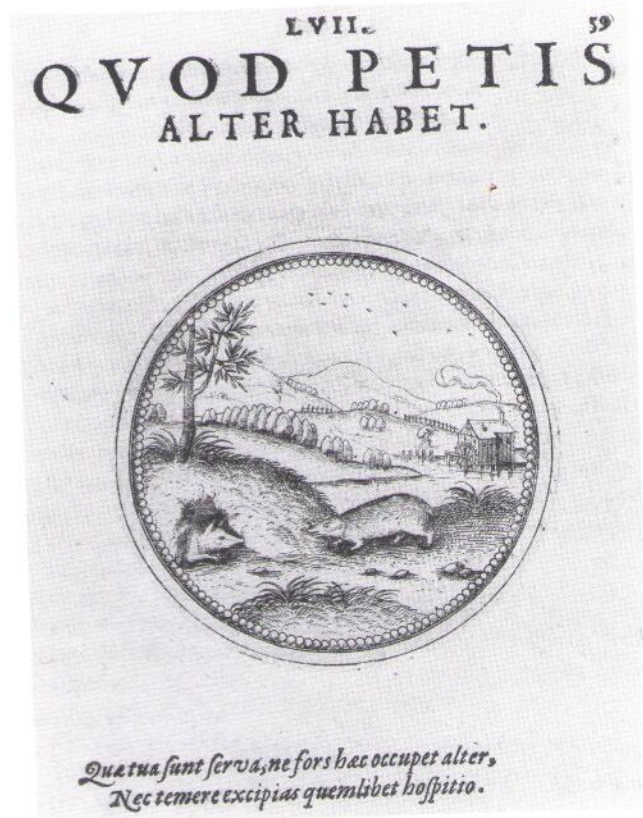
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 F I D E E T D I F -  
 F I D E .



*Omnibus esto salutaris tibi cautio rebus,  
 Ne prius explores, aggrediare cave.*

**Figure 2.7** Emblem of the fox on ice. Engraving from Joachim Camerarius, *Symbolarum et emblematum . . . centuria altera* (Nuremberg, 1595), no. 55, fo. 57r.

hundred emblems of plants, insects, and birds, as well as animals.<sup>16</sup> Each emblem is illustrated with an exquisite engraving, but in addition to the requisite motto and epigram we have a full page of scholarly commentary provided for each emblem. The commentary shows us that Camerarius was as well versed in Aristotle and Gesner as he was in Alciati and Erasmus. Camerarius offered emblems for familiar animals, such as hedgehogs and bears, and for less familiar ones, such as ichneumons, chameleons, and even opossums. The fox has no less than three emblems, and it is instructive that all three are brand new, invented by Camerarius, which certainly shows us the vitality of emblematic natural history in the 1590s. The first (emblem 55) shows a fox crossing a frozen river while listening to the ice, with the motto: 'Trust and mistrust' (Figure 2.7). The story of the vigilant fox, we might recall, is told by Gesner, who in turn found it in Pliny. The second (56) shows a fox sneering at the attempts of two hounds to catch it, and the motto is: 'Security without fear'. The text relates that a pregnant vixen is so clever that it is rarely caught; the story originated in Aristotle, became a proverb in Erasmus, and was of course duly quoted by Gesner. The third emblem (57) shows a badger trying



**Figure 2.8** Emblem of the fox and badger. Engraving from Joachim Camerarius, *Symbolarum et emblematum* . . . centuria altera (Nuremberg, 1595), no. 57, fo. 59r.

to get into its den, which is occupied by a fox (Figure 2.8). The motto is: 'What you want, another has'. This emblem, too, was fashioned from a tale, found in Gesner, that goes all the way back to antiquity.

Camerarius's emblem book has been virtually ignored by historians of natural history, but in fact it is very much a work of natural history in the Gesnerian tradition.<sup>17</sup> It is not irrelevant that Camerarius was an extremely competent botanist and published several botanical works that are highly regarded. Yet he clearly felt that the purpose of studying nature was not just to describe and illustrate, but also to create and illuminate and uncover new meanings in the natural world. If Gesner's natural history planted the seeds of the emblematic approach to nature, then the emblem books of Camerarius mark the true flowering of emblematic natural history.

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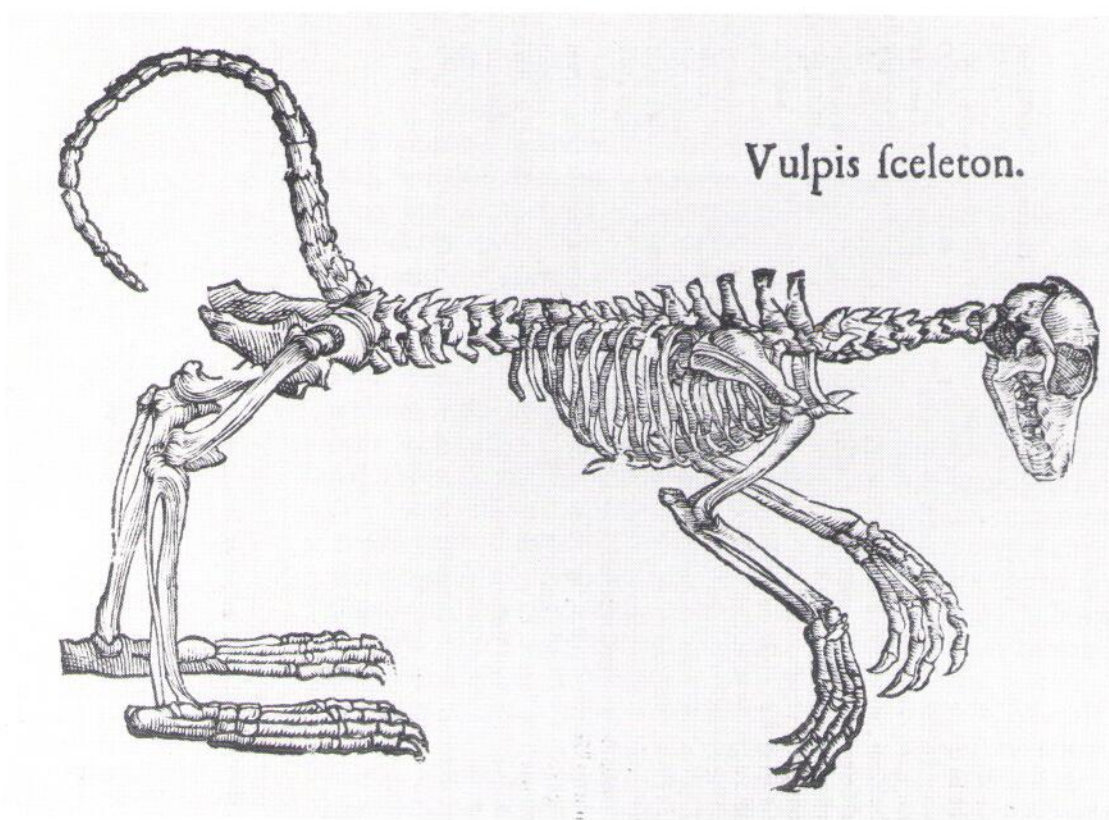
### Aldrovandi and the fruition of emblematic natural history

As a final demonstration of the power of emblematic natural history in the late Renaissance, let us turn to the work of Ulisse Aldrovandi (1522–1605).<sup>18</sup> Aldrovandi taught at Bologna and published the first of what would ultimately be a thirteen-volume encyclopaedia of natural history in 1599; and from the date it is easy to imagine Aldrovandi as several generations removed from Gesner and the other zoologists who published in the mid-sixteenth century. In fact, Aldrovandi was only five years younger than Gesner and Belon, and he came out of precisely the same cultural milieu. He just had the good fortune to live forty years longer than his contemporaries. He was seventy-seven years old when his first volume, on birds, was published, and he lived to see three more volumes printed before his death. Fortunately, his literary executors ensured that his remaining manuscripts were published more or less as Aldrovandi envisioned them. The first quadruped volume appeared in 1616, with another in 1621 and the last in 1637. It is in this later volume, the *De quadrupedibus digitatis viviparis* ('History of Live-bearing Quadrupeds with Claws'), that we encounter, once again, our friend, the fox.<sup>19</sup>

Aldrovandi's article is twenty-eight folio pages long, which makes for an impressive looking package. What is initially most impressive, however, is the illustration: it shows, not the external appearance of the fox, but its skeleton (Figure 2.9). And indeed, the section in which it is embedded is titled 'Anatomica', a term we hardly ever encounter in Gesner. Here at last is a naturalist who is looking beyond surface features for more significant information, such as the details of anatomical structure.

Or so it might seem. Aldrovandi did indeed make many anatomical studies of animals, and he was one of the very first to do so, and woodcuts of skeletons of various specimens are scattered throughout his encyclopaedia. It is quite proper that he be given credit for this. Aldrovandi also introduced a number of new illustrations into his volumes, such as an improved ichneumon (Figure 2.10), and he kept a stable of artists busy furnishing pictures of animals drawn from life. However, it would be a real mistake to conclude that by taking an interest in comparative anatomy, or in improving illustrations, Aldrovandi was somehow turning his back on the emblematic approach as developed by Gesner. One has only to read some of the other section headings of Aldrovandi's fox article to be rapidly disabused of this notion. After shorter sections on Names, Habits, Voice, Food (and Anatomy), we find sections

"ANATOMICAL"



**Figure 2.9** Fox skeleton.  
Woodcut from Ulisse  
Aldrovandi, *De*  
*quadrupedibus digitatis*  
*viviparis* (Bologna, 1637),  
p. 198.

on Antipathies and Sympathies, Physiognomy, Epithets, Emblems and Symbols, Fables, Hieroglyphics, Proverbs, Allegories, Morals, Omens, and Symbolic Images, to name just some of the headings.

What Aldrovandi has done is not to break away from emblematic natural history, but rather to expand the emblematic world of animals by adding in all the new emblems, adages, and images that appeared in the half-century after Gesner. In the paragraph on Emblems, for example, we find not only the one Alcíati emblem that Gesner had already extracted, but two of the three from Camerarius, as well as two further examples from other emblem books that we have not discussed. Gesner had limited knowledge of Egyptian hieroglyphics, since only the short text of Horapollo was available in 1551, but Aldrovandi had access to Piero Valeriano's prodigious *Hieroglyphica*, an exhaustive commentary on Egyptian symbolism that was first published in 1556, and he drew on it frequently. Aldrovandi also had the advantage of being able to consult Cesare Ripa's *Iconologia*, a fascinating work first published in 1593 that described accepted ways of personifying such abstract concepts as Truth or Nature. Many personifications involved animals, so that Arrogance, according to Ripa, was represented by a woman





**Figure 2.10** Ichneumon.  
Woodcut from Ulisse  
Aldrovandi, *De*  
*quadrupedibus digitatis*  
*viviparis* (Bologna, 1637),  
p. 301.

holding a peacock, while Natural Instinct was to be personified by a youth trying to prevent a weasel from entering the mouth of a toad. Aldrovani was very fond of Ripa's constructions, and in the Personification section of the fox article we learn that a pair of foxes is one of the attributes of Christian faith, where they represent the heretics that must be converted. Aldrovandi could also utilize Giovanni Battista della Porta's *De humana physiognomonia*, published in 1586, which compared animal and human faces and argued that similarities in appearance reveal similarities in character. Porta has a great deal to say about the vulpine personalities of people with long noses and close-set eyes, and if you do not wish to consult Porta, you can find it all neatly digested in Aldrovandi.

Aldrovandi's real achievement, then, was in bringing the emblematic view of nature to fruition. In his many volumes he was able to weave a richer fabric than Gesner ever envisioned, because he had more threads and colours to work with, and if you believe that the goal of natural history is to capture the entire web of associations that inextricably links human culture and the animal world, then Aldrovandi's natural history was remarkably successful.

### The collapse of emblematic natural history

Fifty years after Aldrovandi's death, the emblematic view of nature would collapse. Natural history would suddenly take on a more familiar form, as naturalists abandoned the entire associative framework and began to focus on description and anatomical investigation, with the ultimate goal of a natural system of classification.

Conjectures as to the cause of this demise have been offered, but we will not take up the problem here. Perhaps for this occasion we should adopt the position of Michel Foucault, who said that it simply happened; after 1650, people abruptly ceased to think in terms of associations and similitudes as ordering principles of nature and began to look at the world in other ways.<sup>20</sup>

For the student of the Renaissance, the important point is not that emblematic history ultimately disappeared, but rather that for a full hundred years it flourished, and indeed dominated attitudes toward nature. If we wish to study Gesner, or Aldrovandi, or Camerarius, and understand their works in the spirit in which they were written, then we must be prepared to think adagially, allegorically, and analogically. We must see an animal as a symbol, a character, in some greater language of nature. To paraphrase Galileo, if we wish to read the book of nature, we must first comprehend the language and read the letters in which it is composed. In the late Renaissance, that book was written in the language of emblems, and if you do not read that language there is little that will make any sense.

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