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## JOHN RUSKIN AS ZOOLOGIST<sup>1</sup>

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### ABSTRACT

A study is made of John Ruskin's work in the field of zoology. It is demonstrated that Ruskin's early interest in zoology was connected with his study of ornament, whilst his later studies are connected with his Oxford teaching and his social work. Ruskin's interest in zoology concerned groups frequently represented in art (particularly birds and snakes). Of these groups he studied, in a fragmentary way, the artistic morphology, the life-habits, the particular position to art and literature, and the mythological signification. Besides that, his natural history teaching was focused on the protection of animals and respect for nature.

The life and works of John Ruskin (1819–1900), writer and lecturer, social reformer and Slade Professor of Fine Art at Oxford University, have been the subject of an overwhelming quantity of studies<sup>2</sup>. The majority of Ruskinians have dealt with Ruskin's biography and with his work in the field of art, architecture, and social and political economy. Ruskin's relations to the sciences, on the contrary, have been the subject of very few studies.

Hélène Lemaître (1965) published a detailed study of Ruskin's geology. She demonstrated that the special interest of it is in the confrontation of various ways of apprehending nature, and in the manysidedness which Ruskin himself characterized as the "balanced unison of artistic sensibility with scientific faculty"<sup>3</sup>. Blunt (1971), in *The Art of Botanical Illustration*, devoted a chapter to Ruskin's botany. He wrote that "Ruskin's *Proserpina* [i.e. his botanical studies], in spite of its untidy diffuseness, its irritatingly didactic tone and its ill-digested science, remains the most stimulating book ever written about flowers." Alexander (1969) published a paper on Ruskin's relation to science in general, and demonstrated how Ruskin made efforts to develop a complete and harmonious outlook by integrating the results of modern science into the cultural pattern of his time. There was, however, no specialist study

of Ruskin's zoology, that part of his work for which he is perhaps most severely criticized. In the *Bibliography of British Ornithology* (Mullens & Swann, 1917: 499), which includes biographical accounts of the principal writers, the following notes on Ruskin and his bird-studies (collected in Love's *Meinie*)<sup>4</sup> are given: "The life and writings of this eminent man are too well known to need mention here. The undernoted volume [i.e. Love's *Meinie*] consists of three lectures, on the Robin, the Swallow, and the Dabchicks. As for the ornithological knowledge displayed therein, the less said the better, always supposing his remarks are serious." In the present paper I hope to fill a gap in our knowledge of Ruskin's interest in science, and to demonstrate that we can consider his zoological work from a different angle.

John Ruskin was born with a natural aptitude for observation. This talent was further developed to extraordinary perfection by the circumstances of his childhood, and by his education. In *Praeterita* he has told us how, as a child, he could pass his days contentedly in tracing the squares and comparing the colours of his carpet, in examining what patterns he could find in bed covers, dresses or wall-papers, or in counting the bricks in the opposite houses<sup>5</sup>. Ruskin later counted among his blessings an extreme perfection in palate and all other bodily senses, as the result of an ascetic way of life, combined with a refined and careful contact with the material world<sup>6</sup>. Two parts of his education have been particularly important for the further development of his natural aptitude for observation: his drawing-lessons and his study of language by reading, reciting and writing. In his drawings and his writings he tried to reproduce his observations and the feelings associated with them, by which the accuracy of these was further developed.

Although as a child Ruskin liked to watch the nests of ants, the wasps on the window pane, and the birds in the garden, and although he loved dogs from an early age, his main interests in nature were directed to the sky, and to water, stones and plants. His first and most lasting interest was in geology.

In his autobiography Ruskin has told us that, in about 1831, during his stay in Dover, his pleasure came, before everything, in merely watching the sea. He was perhaps interested in pebbles, if there were any, but he never at that time took to natural history of shells, or shrimps, or weeds, or jelly-fish<sup>7</sup>.

Before 1870, animals are rarely mentioned in Ruskin's works, the most important parts pertaining to zoology being constituted by one chapter in *The Stones of Venice*, vol. 1 (first published in 1851), and one chapter in *Modern Painters*, vol. 5 (first published in 1860)<sup>8</sup>.

Ruskin's first detailed references to zoology are found in chapter 20 of *The Stones of Venice*, vol. 1, in which he deals with the material of ornament (cf.

pl. 1)<sup>9</sup>. “The proper material of ornament”, according to Ruskin, “will be whatever God has created; and its proper treatment, that which seems in accordance with or symbolically of His laws.” Ruskin enumerates, first, the abstract lines which are most frequent in nature; and then, from lower to higher, the whole range of inorganic and organic forms, among which Shells, Fish, Reptiles, Insects, Birds, and Mammalian animals and Man. The shells are placed lowest in the scale (after inorganic forms) as being moulds or coats of organisms. This prevents them from being largely used in ornamentation. “It is better to take the line and leave the shell”, and Ruskin indeed mentions and illustrates one of the innumerable groups of curves at the lip of a paper *Nautilus*, and a spiral traced on the paper round a *Serpula*, under the abstract lines. In view of his later zoological work, it is interesting to quote his characteristics of Reptiles and Birds as elements of ornamentation. “The forms of the serpent and lizard exhibit almost every element of beauty and horror in strange combination.” “The perfect and simple grace of bird form, in general, has rendered it a favourite subject with early sculptors, and with those schools which loved form more than action; . . .” “. . . how much of our general sense of grace or power or motion or serenity, peacefulness, and spirituality, we owe to these creatures, it is impossible to conceive; their wings supplying us with almost the only means of representation of spiritual motion which we possess, and with an ornamental form of which the eye is never weary . . .”

In *Modern Painters*, vol. 5, in the chapter on Rubens and Cuypp<sup>10</sup>, Ruskin dealt with the painting of rural life in The Netherlands, after the Reformation. The passing away of the soul-power is indicated here by every animal becoming savage or foul. Veronese still had a spiritual view of the dog's nature. Velasquez and Titian painted dogs simply as noble brown beasts, but without any special character. The dog is used by the Dutch merely to obtain unclean jest, or savage chase, or butchered agony. The English painters of dogs, in Ruskin's time, looked primarily for sentiment or jest. Ruskin further remarked that there was no real interest in the horse until Vandyck's time. As to the Dutch cattle-pieces, they contain a certain healthy appreciation of simple pleasure, but Ruskin never saw an entirely well-painted cow.

From about 1870 Ruskin's works give evidence of an increased interest in zoology, coinciding with his Oxford professorship and his activities in behalf of The Guild of St. George. Before analysing these works, it is necessary to give a general view of Ruskin's relation to zoology in this period.

In *The Life of John Ruskin*, Collingwood (1900: 356-357) has told us that kindness to animals was one of Ruskin's most striking traits. He was little interested in their organization and anatomy, but cared much about their habits and characters, although he had not the expert's power of observation and

intimate acquaintance with all the details of wild life. He hated the science that murders to dissect, and he resigned his Professorship at Oxford because vivisection was introduced into the University. He supported the Society for the Prevention of Cruelty to Animals, although he objected to the sentimental fiction and exaggerated statements which some of its members circulated. He endeavoured not only to prevent cruelty to animals, but also to promote affection. He founded the Society of Friends of Living Creatures, of which the members were boys and girls from seven to fifteen, who promised not to kill nor hurt any animal for sport, nor tease creatures; but to make friends of their pets and watch their habits, and collect facts about natural history. At one of the rambles at Coniston, Ruskin found a wounded Buzzard. He quietly took the fierce-looking bird up in his arms, felt it over to find the hurt, and carried it, quite unresistingly, out of the way of dogs and passers-by, to a place where it might die in solitude or recover in safety. He often told his Oxford hearers that he would rather they learned to love birds than to shoot them. His wood and moor were harbours of refuge for hunted game or "vermin", and his windows the meetingplace of the little birds.

Although Ruskin liked to watch animals, his zoological knowledge was not comparable with that of a specialist. A few examples will serve to demonstrate the restrictions of his knowledge. In *Love's Meinie*, in the chapter on the Dabchicks, Ruskin tells us that he had never seen a Torrent Ouzel, i.e. a Dipper, alive, although he had passed much time by torrent sides<sup>11</sup>. In several parts of England the Dipper is, in fact, not a rare bird; it can, at least nowadays, even be seen in the steep rocky stream near Brantwood (Ruskin's house in the Lake District). In his lecture on the Chough, Ruskin mentioned eight species of Crows<sup>12</sup>, but not the Alpine Chough, although it is a common and easily recognizable bird in the mountains near Chamonix (one of Ruskin's favourite places). In *The Eagle's Nest*, Ruskin wrote about the Bullfinch, a common English bird, that "we may at least imagine that she, and her mate, and the choir they join with, cannot but be complacent and exultant in their song"<sup>13</sup>, although the Bullfinch hardly has anything that can be ranked as true song.

Although, in his youth, Ruskin was not interested in shells, he later owned a shell cabinet which is still present at Brantwood. It contains, among others, the same species of tropical shells, that are nowadays regularly sold because of their pretty colour patterns and attractive shape. Ruskin indeed once wrote in a letter that he never bought a shell for locality or rarity, but only for beauty<sup>14</sup>.

Many of Ruskin's books on zoology must have been bought at Quaritch's in a later period of his life, starting from about 1870<sup>15</sup>. Most of these books were bought because of their beautiful plates, and Ruskin often detached pla-

tes and inserted them in the collections of the Ruskin Drawing School or The St. George's Museum<sup>16</sup>. In the preface to Love's *Meinie*, Ruskin wrote that the book was intended to contain the cream of forty volumes of scientific ornithology<sup>17</sup>. Most of these must at one time have been in his library. One of his favourite books was the third edition of Cuvier's *Règne Animal*, with numerous plates, of which he apparently owned also an English translation.

Ruskin was a life-member of the Zoological Society<sup>18</sup>, and he was personally acquainted with several of the leading zoologists of his time. Already in 1837, at Oxford, he came into contact with Charles Darwin, whom he had heard read a paper at the Geological Society; he talked with him all the evening<sup>19</sup>. He subsequently met Darwin on several occasions, also at Coniston<sup>20</sup>. Ruskin was, moreover, acquainted with Sir Richard Owen, the great comparative anatomist, who became superintendent of the Natural History Department of the British Museum<sup>21</sup>.

Most of Ruskin's zoological drawings (cf. pls. 2–6) were prepared between 1863 and 1880. Several drawings of shells date from the eighteen-sixties, several drawings of birds from the eighteen-seventies. Many of these drawings were made in the British Museum, in the London Zoo, and at Brantwood<sup>22</sup>.

A preamble of the manner, in which Ruskin was to teach zoology at the University of Oxford, is found in the lectures which he gave at University College, London, and published in 1869 under the title of *The Queen of the Air*. In this series of lectures Ruskin dealt with comparative mythology, a science which afterwards became of singular importance to him, and to which he was introduced by the works of Professor Max Müller<sup>23</sup>. In the second lecture of this series<sup>24</sup> he worked out two groups of animal-myths: those connected with birds, and those connected with serpents. In the serpent the breath or spirit is less than in any other creature, and the earth-power greatest. In the bird the breath, or spirit, is more full than in any other creature, and the earth power least. Ruskin's approach to mythology could be characterized as phenomenological. His method, however, was a particular one: he tried to identify himself with the people of all ages, and to record what they felt when they saw or heard these mythological animals.

In the case of the serpent, Ruskin reproduced these feelings, and his own emotionary response, in the following way. In the serpent "is the strength of the base element that is so dreadful (. . .) it is the very omnipotence of the earth". "Is there, indeed, no tongue except the mute forked flash from its lips, in that running brook of horror on the ground?" "Watch it, when it moves slowly: — A wave, but without wind! a current, but with no fall! all the body moving at the same instant, yet some of it to one side, some to another, or some forward, and the rest of the coil backwards." "Startle it; the winding

stream will become a twisted arrow; — the wave of poisoned life will lash through the grass like a cast lance.”

Ruskin's study is, at the same time, comparative. And he arrives at the conclusion that “there are no myths, by which the moral state and fineness of intelligence of different races, can be so deeply tried or measured, as those of the serpent and the birds.”

In 1870, in his inaugural address, Ruskin explained also what he intended to teach at Oxford in the field of zoology. “While I myself hold this professorship” he said, “I shall direct you in these exercises very definitely to natural history, and to landscape; not only because in these two branches I am probably able to show you truths which might be despised by my successors; but because I think the vital and joyful study of natural history quite the principal element requiring introduction, not only into University, but into national education, from highest to lowest; and I even will risk incurring your ridicule by confessing one of my fondest dreams, that I may succeed in making some of you English youths like better to look at a bird than to shoot it; and even desire to make wild creatures tame, instead of tame creatures wild”<sup>25</sup>.

Later on, in the same year, when he was lecturing on the relation of art to use, he demonstrated how little had been done in art, and how much remained to be done with reference to animals of high organization. “There are few birds or beasts that have not a range of character which ( . . . ) is ( . . . ) interesting.” “ . . . you cannot so much as once look at the rufflings of the plumes of a pelican pluming itself after it has been in the water, or carefully draw the contours of the wing either of a vulture or a common swift, or paint the rose and vermilion on that of a flamingo, without receiving almost a new conception of the meaning of form and colour in creation.”<sup>26</sup>

When Ruskin, as the first Slade Professor of Fine Art at Oxford, started to organize the new study on his own lines, he conceived it to be “the function of this Professorship, ( . . . ) to establish both a practical and critical school of fine art for English gentlemen.”<sup>27</sup> In his inaugural lecture he had already said that “a youth is sent to our Universities, not (hitherto at least) to be apprenticed to a trade, nor even always to be advanced in a profession; but, always, to be made a gentleman and a scholar.”<sup>28</sup> In his lectures he, later on, frequently reminded his audience of this privileged position, and he addressed himself to them as to “the young rising scholars of England, all who care for life as well as literature”<sup>29</sup>. In the collections of the Drawing School, he included many examples from zoology, in the so-called Educational series (intended for students) as well as in the Rudimentary series (intended for people from outside the University). Among these examples are many of his own animal drawings, drawings by other artists, details of paintings (such as the red parrot by Car-

paccio) copied for Ruskin, and many plates from Ruskin's favourite books, such as Gould's *Birds of Great Britain*, Cuvier's *Animal Kingdom*, Le Vaillant's *Birds of Paradise*, and his book on the Dutch birds by Nozeman & Sepp<sup>30</sup>.

In 1872, Ruskin gave a series of lectures, at Oxford, on the relation of natural science to art, published in the same year under the title of *The Eagle's Nest*. In Lecture VIII, he summarized his views on the relation to art of the sciences of organic form in the following four points:

First. — "That the true power of art must be founded on a general knowledge of organic structure . . ."

Secondly. — ". . . Art has nothing to do with structures, causes, or absolute facts; but only with appearances." In representing animals, "man has to think of them essentially with their skins on them, and with their souls in them." "He is to take every sort of view of them, in fact, except one, — the Butcher's view."

Thirdly. — In representing these appearances, art "is more hindered than helped by the knowledge of things which do not externally appear; . . ."

Fourthly. — "That especially in the treatment and conception of the human form, the habit of contemplating its anatomical structure is not only a hindrance, but a degradation; . . ."<sup>31</sup>.

It is interesting to mention here the views of modern morphology with reference to the differences between internal and external forms, between the inside and the outside. In higher animals, the inside is predominantly asymmetrical and the specific and individual differences are not very distinct, whilst the external appearance is predominantly symmetrical and presents many distinct specific and individual differences. In this connection, mention must be made also of the expression of the face in higher animals, as a manifestation of an internal condition (cf. Portmann, 1948).

Ruskin's dislike of anatomy should be viewed from this angle, and many passages in *The Eagle's Nest* further illustrate it. There is a beautiful description of the portrait, by Reynolds, of the niece of George the Third, with her Skye terrier (pl. 7)<sup>32</sup>. Ruskin noted that "the custom of putting either the dog, or some inferior animal, to be either in contrast, or modest companionship, with the nobleness of human form and thought, is a piece of what may be called mental comparative anatomy." Among "these playfulnesses of the higher masters, there is not one more perfect than this study by Reynolds (. . .) He has put his whole strength to show the infinite differences, yet the blessed harmonies, between the human and the lower nature." Zoological illustration, according to Ruskin, generally fails in reproducing the expression of higher animals. "In all recent books on natural history", Ruskin said, "you will find

the ridiculous and ugly creatures done well, the noble and beautiful creatures done, I do not say merely ill, but in no wise. You will find the law hold universally that apes, pigs, rats, weasels, foxes, and the like — but especially apes, — are drawn admirably; but not a stag, not a lamb, not a horse, not a lion". This stupid way of drawing is, according to Ruskin, closely connected with the "total want of sympathy with the noble qualities of any creature".<sup>33</sup>

In lecture IX, Ruskin dealt with the mythology of a single bird, in order "to consider what effect the knowledge of such tradition is likely to have on our mode of regarding the animated creation in general." "Let us take an instance", Ruskin said first, "of the feeling towards birds which is especially characteristic of the English temper at this day, in its entire freedom from superstition." Ruskin had included, in the Rudimentary series of the Drawing School (cf. pl. 8), "Mr. Gould's plate of the lesser Egret, — the most beautiful, I suppose, of all birds that visit, or, at least, once visited, our English shores. Perfectly delicate in form, snow-white in plumage, the feathers like frost-work of dead silver, exquisitely slender, separating in the wind like the streams of a fountain, the creature looks a living cloud rather than a bird. (. . .) The last (or last but one?) known of in England came thirty years ago, and this was its reception, as related by the present happy possessor of its feathers and bones: — 'The little Egret in my possession is a most beautiful specimen: it was killed by a labourer with a stick (. . .) and was brought to me, tied up in a pocket-handkerchief, covered with black wet mud and blood, . . .' Now, you will feel at once, whilst the peasant was beating this bird into a piece of bloody flesh with his stick, he could not, in any true sense, see the bird; that he had no pleasure either in the sight of that, or of anything near it. You will feel that he would become capable of seeing it in exact proportion to his desire not to kill it; but to watch it in its life." Ruskin added that, "in all probability this countryman, rude and cruel though he might be, had some other object in the rest of his day than the killing of birds", but that the English aristocracy at that moment had no other real object in their whole existence than shooting birds<sup>34</sup>.

Ruskin continued his lecture with the division of the natural history of any creature into three branches:

First, the traditions respecting the thing, i.e. the effect of its existence on the minds of men.

Secondly, the actual facts of its existence, i.e. an examination and description of the creature in its actual state, with utmost attainable veracity of observation.

Thirdly, the physical and chemical causes of the actual facts of its existence. Official natural history is generally restricted to the actual facts and the

physical causes, whilst Ruskin himself was interested in the traditions and the actual facts (especially in the creature's habits of life).

After discussing the classification of birds, Ruskin embarked upon the mythology of birds, that of the Halcyon in particular, and demonstrated the real gain of being acquainted with the traditions by reading two stanzas from Milton, which sounded after all these reflections, almost as if they were new<sup>35</sup>.

In Lent Term 1873, Ruskin gave a course of Oxford lectures, later on published under the title of *Love's Meinie*, which was not completed. The course was intended to be on English and Greek birds, and to consist of four lectures: on the Robin (to learn what a feather is), on the Swallow (to learn what a wing is), on the Chough (to learn what a beak is), and on the Falcon (to learn what a claw is). (In the advice of 1873, added to the first separate part of the book, mention is made of six lectures; the Falcon is not mentioned here, but lectures 4–6 would deal with the Lark, the Swan and the Seagull.) The first three lectures were given at Oxford, and repeated at Oxford and, partly, at Eton; the fourth lecture was never given, nor written down.

In 1881, when Ruskin prepared the final shape of the book, he omitted the lecture on the Chough<sup>36</sup>, and added an extensive chapter on the Dabchicks. This chapter was not written for Oxford students, but for younger readers. In this connection, mention is made, on the one hand, of "English children's schools — Dame-schools if possible", on the other hand of St. George's schools. The suppression of the lecture on the Chough, and the addition of a different chapter, is related to a change in the scheme of the book: it was now to be a handbook of English birds for the use in schools. The Dabchicks constituted one of the fourteen groups of birds, distinguished in Ruskin's classification, besides, for instance, the Robins and the Swallows. The chapter on the Chough was probably omitted because it did not deal with one of Ruskin's groups. In spite of the suppression of one lecture, the book as a whole is not a unity, because it is intended for two different groups: scholars and school-children.

Ruskin's three ornithological lectures (apparently a continuation of his lecture on the Halcyon, published in *The Eagle's Nest*) deal with classification, nomenclature, artistic morphology, mythology, etymology, the protection of birds, the relation of birds to literature and art, and bird drawing. There is little coherence between the various paragraphs of each lecture. The lecture on the Robin, for instance, can be subdivided into three parts: an introduction (fourteen pages in the first edition), dealing with many things, but in which the Robin is hardly mentioned; a second part, dealing with the natural history of the Robin (seventeen pages in the first edition); and a final part (six pages in the first edition), dealing with mythology and literature, in which the Robin

is again not mentioned. Consequently, more than half of the lecture on the Robin does not refer to Robins. The main lines of the non-ornithological material of the lectures had already been developed in Ruskin's earlier work.

The ornithological contents of the three lectures constitute interesting material for an artists' course in zoology. We have seen before that Ruskin was especially interested in two things: the external appearance of birds, and the life-habits. In these fields, Love's *Meinie* contains several splendid descriptions. Ruskin gave, for instance, the following characteristic of the Robin's manner of walking. "He is very notable in the exquisite silence and precision of his movements, as opposed to birds who either creak in flying, or waddle in walking. (. . .) you know how much importance I have always given, among the fine arts, to good dancing. If you think of it, you will find one of the robin's very chief ingratiatory faculties is his dainty and delicate movement, — his footing is featly here and there. (. . .) if he is rationally proud of anything about him, I should think a robin must be proud of his legs. (. . .) he is, of all birds, the pre-eminent and characteristic Hopper: none other so light, so pert, or so swift. (. . .) A robin's hop is half a flight; he hops, very essentially, with wings and tail, as well as with his feet, and the exquisitely rapid opening and quivering of the tail-feathers certainly give half the force to his leap."<sup>37</sup>

In his lecture on the Robin, Ruskin then proceeds with remarks on the art of drawing bird legs in general, which apparently constitute some of the essential elements of it. "The use of this lecture", Ruskin said, "is not to describe or to exhibit the varieties of the scales of the legs to you, but to awaken your attention to the real points of character, that, when you have a bird's foot to draw, you may do so with intelligence and pleasure, knowing whether you want to express force, grasp, or firm ground pressure, or dexterity and tact in motion. And as the actions of the foot and the hand in man are made by every great painter perfectly expressive of the character of mind, so the expressions of rapacity, cruelty, or force of seizure, in the harpy, the gryphon and the hooked and clawed evil spirits of early religious art, can only be felt by extreme attention to the original form."<sup>38</sup>

Ruskin subsequently deals with the morphology of the feather. He applies his general methods for the analysis of forms, such as leaves, feathers, shells and limbs, and studies first the plan, then the profile, and then the cross-section. He deals also with the relation between form and function. Ruskin demonstrates that the feathers of the red breast are only tinged with red at the part that overlaps, and that all overlapping feathers together give the colour determined upon, each of them contributing a tinge<sup>39</sup>.

In his discussion of the red breast, Ruskin comes to another essential point of the lecture. He compares the Robin's breast to a house-front of very flat

and very red bricks, in which the too much destroys all. "The breadth of a robin's breast in brick-red is delicious, (. . .) the robin's charm is greatly helped by the pretty space of grey plumage which separates the red from the brown back, and sets it off to its best advantage. There is no great brilliancy in it, even so relieved; only the finish of it is exquisite."<sup>40</sup>

In the lecture on the Swallow, Ruskin deals with the wings of birds, and with bird flight. The Swallow constitutes "a singular example of the unity of what artists call beauty, with the fineness of mechanical structure."<sup>41</sup> "And now", Ruskin said to his students, "if you will yourselves watch a few birds in flight, or opening and closing their wings to prune them, you will soon know as much as is needful for your art purposes; and, which is far more desirable, feel how very little we know, to any purpose, of even the familiar creatures that are our companions."<sup>42</sup> He had said before, in the same lecture, that he could never watch the bird for a moment, without finding himself in some fresh puzzle, out of which there was no clue in the scientific books<sup>43</sup>.

In his lecture on the Swallow, Ruskin gave a detailed analysis of bird wings and bird flight, illustrated by large and carefully painted diagrams.

Ruskin subsequently demonstrated that his favourite Holbein, who painted men gloriously, never looked at birds to see how the feathers lie and consequently represented these entirely disgraceful (cf. pl. 9)<sup>44</sup>.

Ruskin believed that, in his lecture on the Swallow, he had put before his audience some means of guidance to understand the beauty of the bird which lives in their own houses.

In the lecture on the Chough, Ruskin examined what kind of a thing a bird's beak is. For a true study of it, the beak must be drawn in at least three positions: the accurate profile, seen from the side; the accurate plan, seen from above; and the accurately foreshortened view in front. To these three should be added a view of the lower mandible seen from beneath<sup>45</sup>. Although all this, and much more, is sometimes done for a particular bird, it should be a matter of course for every bird. Ruskin subsequently discussed the relation between the form and the function of the beak. Of all three lectures, that on the Chough contains the least ornithological information.

Besides the ornithological contents, the three lectures deal with a great many other things, which even cannot be summarized within the scope of the present paper.

The long chapter on the Dabchicks deals with a group of birds (an artificial, not a natural group) which Ruskin, at least for the greater part, did not know from personal observation. His knowledge was based on the study of ornithological literature. Looking at beautifully coloured plates of birds must have been one of the great consolations of the last years before his final ill-

ness. Although the chapter was written for school-children, it deals mostly with rare birds, not likely to be ever seen by children. An important part of the chapter is devoted to classification: the artificial system developed by Ruskin for the use in St. George's schools. In grouping birds, so that the groups might be understood and remembered by children, Ruskin tried to make them a little more generally descriptive. For complete ornithology, Ruskin wrote, "every bird must be drawn, as every flower for good botany, both in profile, and looking down upon it; but for the perchers, the standing profile is the most essential; and for the falcons and gulls, the flying plan, — the outline of the bird, as it would be seen looking down on it, when its wings were full-spread."<sup>46</sup>

Ruskin arranged a formula of the order of twelve questions which it would be proper to ask, and get answered, concerning any bird. The twelve questions concern the external morphology and the life-habits of the birds, and their uses in the world.

In the final part of the chapter on the Dabchicks, in a discussion of the habits of hunting and the curse they have brought upon the upper classes of England and France, Ruskin goes off into a fit of rage. Many pages are devoted to this subject, but at the close of the chapter, Ruskin proceeds to the prophetic vision of a world in which the boar, the wolf and the tiger are left in the forests and the mountains, but in which the inhabited world constitutes one vast unwallled park in which animals are tended and dealt with as best may multiply the life of all Love's Meinie<sup>47</sup>.

In his Oxford lectures, Ruskin had addressed himself to the young, rising scholars of England. But a similar message, simplified by the omission of its scholarly contents, had to be brought to the labourers of England. Several passages in *Fors Clavigera*, and in the Catalogue of St. George's Museum, are indeed devoted to zoology. Ruskin's ideas on national parks, and on the habit of hunting, recur in his letters in *Fors*. Letter 51<sup>48</sup> is devoted to bees; in letter 62<sup>49</sup> Ruskin proceeds from calligraphy to the spiral of a pretty shell found in the downs near Arundel<sup>50</sup>.

In the catalogue of the St. George's Museum<sup>51</sup>, mention is made of an important collection of natural history drawings, many books on zoology (among which rare and precious works, with coloured plates), and two copies of Bewick's *Birds*, one with annotations by Ruskin (cf. pl. 10).

In the *Laws of Fésole*, a series of drawing lessons arranged for the use of schools (the schools of St. George, in particular), and published in book-form in 1879, Ruskin dealt also with elementary organic structure. In the chapter in question, much attention is paid to birds and their feathers, in order to find out why feathers are thought pretty. There are some beautiful descriptions of

feathers: of the soft white lustre playing variously on the rounded surface of the feather of a gull, as it is turned more or less to the light<sup>52</sup>; of the most lovely play of colour on the breast-plume of a peacock<sup>53</sup>; and of the infinitudes of quiet and harmonized colour in the softer duns and browns of birds and animals, made quaint by figured patterns<sup>54</sup>.

In 1880, Ruskin lectured on serpents at the London Institution. The text was published as part VII of *Deucalion*, Ruskin's geology book, under the title of *Living Waves*<sup>55</sup>. The lecture deals, among others, with the locomotion of snakes, on which subject Ruskin had taken several personal observations. Ruskin repeated that, when dealing with zoology, he had always asked his pupils, to consider: First, the effect, during past ages, on the greatest human minds (which is especially the business of a gentleman and a scholar to know). Secondly, what is truly and accurately known of it. Thirdly, what will be profitable to us to discover<sup>56</sup>.

Ruskin had taken observations on one of the various ways of locomotion in snakes: the serpentine movement. It is characteristic of Ruskin that he gave a description, but did not look for an explanation (which is in the roughness of the substratum). It is interesting that Ruskin, with his dislike of anatomy and other repulsive things, has made a detailed study of reports on snake bites and the chief terror of the dreadful expression of the cobra. Horror and malignity were the chief elements in the snake as a symbolic animal, and these should, evidently, be studied to have a clear understanding of religious art.

With Ruskin's lecture on serpents, we have come to the end of our survey of his activities in the field of zoology. And, in spite of a seeming disorder in the presentation, it is not difficult to distinguish the main lines of thought. Apart from his love of such animals as dogs and cats, Ruskin's interest in zoology concerned groups frequently represented in art, such as ornamental shells (and the abstract lines derived from them), and the symbolic animals (snakes and birds). As to the zoological knowledge, indispensable to the understanding of art, Ruskin could only touch lightly on the main points. These points are the following.

First, a thorough study of the external appearance (the artistic morphology), including a profound analysis of its three-dimensional form and all the subtle beauties of the surface, by personal exercises in painting and drawing.

Secondly, a study of the life-habits. (It is perhaps interesting to remark here that visual observation, and its emotional response, pertaining to movements and the characters of the surface, can often give rise to more poetic descriptions than that referring to three-dimensional forms.)

Thirdly, a study of the particular position and use of animals in the history of art and literature.

Fourthly, an understanding, especially by a phenomenological approach, of the mythological signification.

These four points constituted a program for gentlemen and scholars. But Ruskin knew his social responsibilities. The education of the young rising scholars as well as of the labourers should also be focused on respect for nature, kindness to animals, and the enjoyment of country life. In Ruskin's view, these are the prerequisites for the understanding of art, and consequently occupy a special place in his educational work.

Ruskin's personal contribution to his own zoological program is small, but much has been realized by later authors. Ruskin would, for instance, certainly have enjoyed the many field guides which now introduce the public to the natural history of various animal groups. The Swiss zoologist Portmann (1948; cf. also Portman, 1963) wrote a splendid book on *Animal Forms and Patterns*, which deals with all aspects of the external appearance in which Ruskin was particularly interested (including the expression of the face). The English ornithologist Lack wrote two fascinating books on the Robin, one dealing with its life history, another dealing with the Robin in folklore and literature (Lack, 1943, 1950). He wrote also a book on the life history of the Swift (Lack, 1956), a species mentioned by Ruskin in his lecture on the Swallow). Ruskin would probably also have enjoyed a modern dictionary of symbols. A study of these books is the best introduction to an understanding of Ruskin's ideal of zoology teaching.

## NOTES

<sup>1</sup> The present paper is based on the text of a lecture delivered at the Conference of the Ruskin Association, held in the Ruskin Galleries at Bembridge School, Isle of Wight, on 17–19 July 1981. It is part of a study of Ruskin as observer of nature, prepared simultaneously with a general introduction to observation.

<sup>2</sup> The most recent biography is by Hunt (1982); it contains numerous references to previous studies.

<sup>3</sup> *Fors clavigera*, letter 67 (11); Works 28: 647. (References in the present paper are to separate editions of Ruskin's works, generally by volume (Roman numerals), chapter and paragraph (in parentheses), and to the standard edition of the Works (The Library Edition), by volume and page numbers).

<sup>4</sup> *Love's Meinie*; Works 25: 5–186. The first edition of the book was published in the period 1873–1881.

<sup>5</sup> *Praeterita* I, 1 (14); Works 35: 21.

<sup>6</sup> *Praeterita* I, 2 (49); Works 35: 44.

<sup>7</sup> *Praeterita* I, 4 (86); Works 35: 78.

<sup>8</sup> Some of Ruskin's early ideas with reference to animals in art are mentioned incidentally (but not treated systematically) in *Modern Painters* II (Works 4), first published in 1846.

<sup>9</sup> *The Stones of Venice* I, 20 (1–36); Works 9: 253–282.

<sup>10</sup> *Modern Painters* V, 9 (6); Works 7: 326–342.

<sup>11</sup> *Love's Meinie* 3 (92); Works 25: 84.

<sup>12</sup> Works 25: 165.

<sup>13</sup> *The Eagle's Nest* 3 (56); Works 22: 160.

<sup>14</sup> Works 38: 348. Cf. Works 34: 665.

<sup>15</sup> 12 January 1872: "Got fine bird books at Quaritch's." (*Diaries* II: 718).

<sup>16</sup> Works 21: 3–308 (*Catalogues of the Ruskin Art Collection*, Oxford); Works 30: 157–293 (*The St. George's Museum*).

<sup>17</sup> *Love's Meinie*, Preface; Works 25: 13.

<sup>18</sup> *Morning Post*, February 25th, 1882; Works 34: 560.

<sup>19</sup> Collingwood, 1900: 61.

<sup>20</sup> *Brantwood Diary*: 190, 195, 579.

<sup>21</sup> In the biography of Richard Owen, written by his grandson (Owen, 1894, vol. 2: 244–245), the following letter from Ruskin to Owen is quoted (the letter refers to an invitation for the opening of the new building of the British Museum (Natural History) in South Kensington):  
"November 6 [1881]

Dear Professor Owen. — I am entirely grateful for your most kind letter and memory of me; but I can't come to-day (for cold in teeth and throat). Alas! My dear old musty Museum was as much a hobby to me as your new one to you, and it would be mere misery to me to see your new abode. I wished yesterday Guy were himself again, and would blow up both Houses of Parliament, and all the West End with them; then there might be a chance for the east, and for the Sun and Aurora again.

Ever yours affectionately,

J. Ruskin

I can write steadily still when I am not in a rage — but that's not often."

<sup>22</sup> Cf. Works 38 (*Catalogue of drawings*), Works 21 (*Catalogues of the Ruskin Art Collection*, Oxford) and Walton (1972).

<sup>23</sup> Collingwood, 1900: 256.

<sup>24</sup> *The Queen of the Air*, 2 (64–72); Works 19: 360–367.

<sup>25</sup> *Lectures on Art*, 1 (23); Works 20: 35.

<sup>26</sup> *Lectures on Art*, 4 (113); Works 20: 104–105.

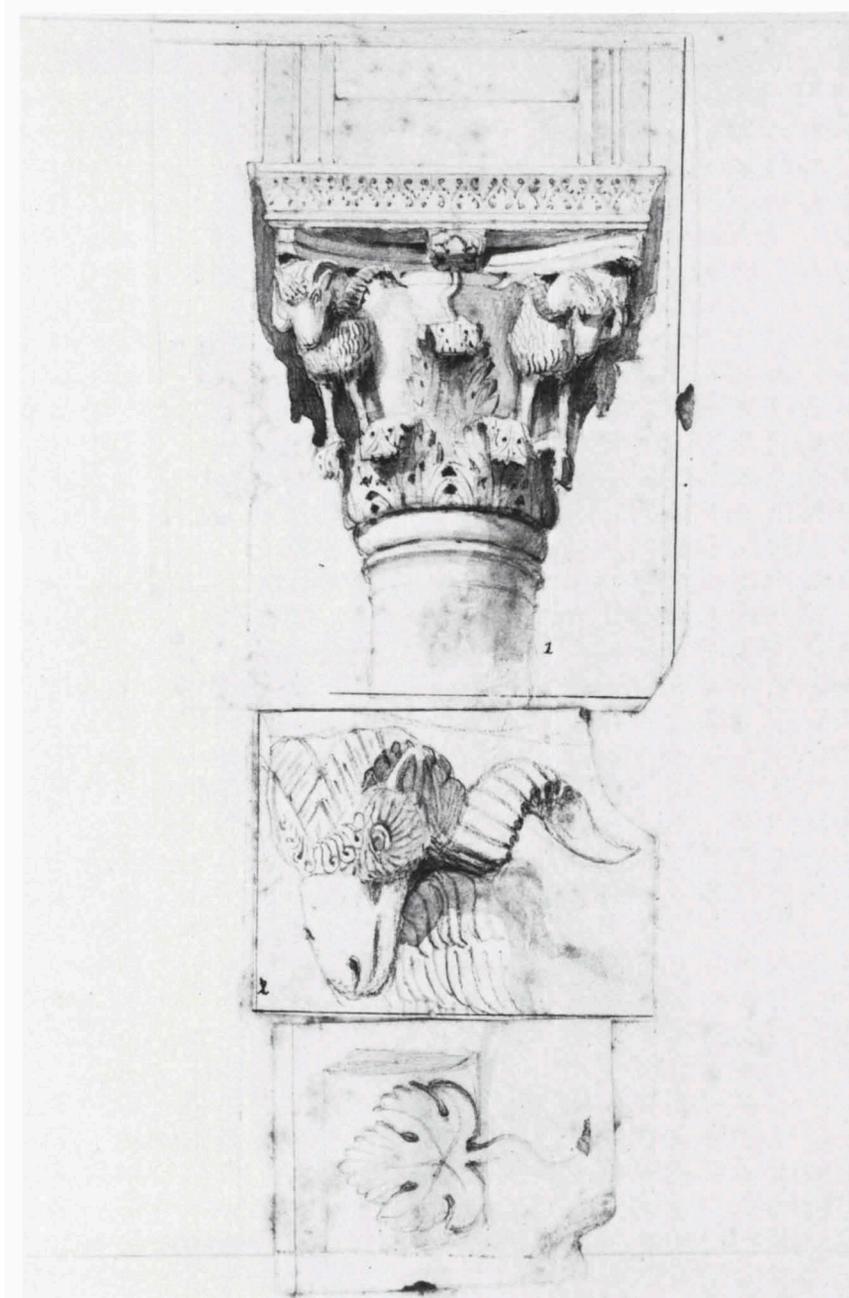
<sup>27</sup> *Lectures on Art*, 1 (11); Works 20: 27.

- <sup>28</sup> Lectures on Art, 1 (2); Works 20: 18.  
<sup>29</sup> Love's Meinie, 1 (8); Works 25: 22.  
<sup>30</sup> Works 21: 88–92, 225–228.  
<sup>31</sup> The Eagle's Nest, 8 (149, 150); Works 22: 222–223.  
<sup>32</sup> The Eagle's Nest, 8 (151, 152); Works 22: 224–226. Ruskin erroneously refers to the daughter of George the Third. She was, in fact, a daughter of the Duke of Gloucester (she remained unmarried).  
<sup>33</sup> The Eagle's Nest, 8 (158); Works 22: 231.  
<sup>34</sup> The Eagle's Nest, 9 (174–178); Works 22: 241–244.  
<sup>35</sup> The Eagle's Nest, 9 (180–198); Works 22: 244–257.  
<sup>36</sup> It was published, as an appendix to Love's Meinie, in Works 25.  
<sup>37</sup> Love's Meinie, 1 (24–25); Works 25: 33–34.  
<sup>38</sup> Love's Meinie, 1 (27); Works 25: 35.  
<sup>39</sup> Love's Meinie, 1 (34); Works 25: 39.  
<sup>40</sup> Love's Meinie, 1 (33); Works 25: 38–39.  
<sup>41</sup> Love's Meinie, 2 (41); Works 25: 45.  
<sup>42</sup> Love's Meinie, 2 (76); Works 25: 68.  
<sup>43</sup> Love's Meinie, 2 (64); Works 25: 58.  
<sup>44</sup> Love's Meinie, 2 (77) Works 25: 69.  
<sup>45</sup> Works 25: 152–172.  
<sup>46</sup> Love's Meinie, 3 (86); Works 25: 77.  
<sup>47</sup> Love's Meinie, 3 (139); Works 25: 132.  
<sup>48</sup> Fors Clavigera, Letter 51; Works 28: 270–295.  
<sup>49</sup> Fors Clavigera, Letter 62; Works 28: 511–537; cf. also: Works 28: 551–555.  
<sup>50</sup> It probably concerns *Helicella (Helicella) itala* (Linnaeus) (syn. *Helix ericetorum*), as mentioned by a correspondent in letter 72, and certainly not *Cerņuella (Cerņuella) virgata* (Da Costa) (syn. *Helix virgata*), as mentioned by a correspondent in letter 73.  
<sup>51</sup> Works 30: 183–293.  
<sup>52</sup> The Laws of Fésolle, 6 (22); Works 15: 405–406.  
<sup>53</sup> The Laws of Fésolle, 6 (35); Works 15: 413.  
<sup>54</sup> The Laws of Fésolle, 7 (10); Works 15: 418–419.  
<sup>55</sup> Deucalion II, 1; Works 26: 295–332.  
<sup>56</sup> Deucalion II, 1 (3); Works 26: 297–298.

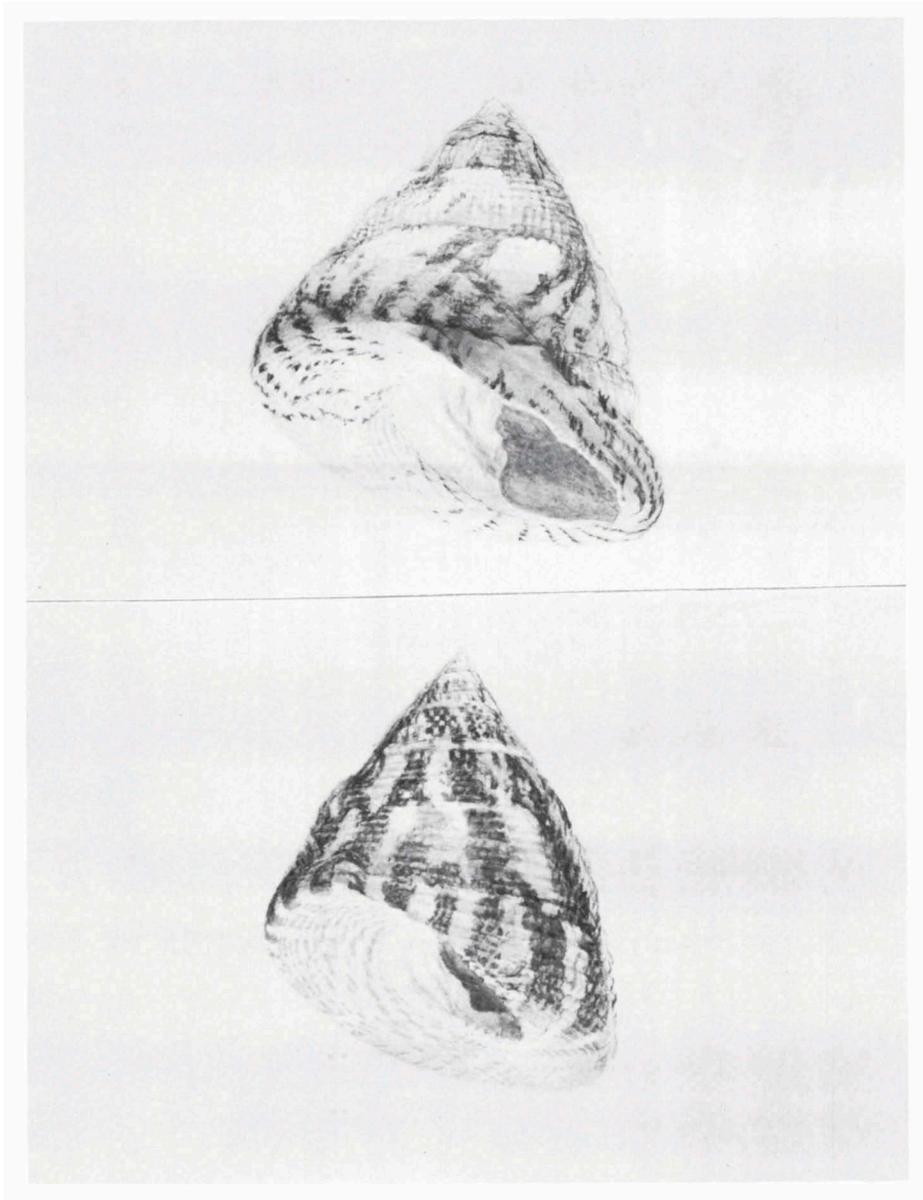
## REFERENCES

- ALEXANDER, E., 1969. Ruskin and science. — *The Modern Language Review*, 64: 508–521.  
 BLUNT, W., 1971. The art of botanical illustration. — London (Collins) (third edition): xxxii + 304 pp., front., text-figs. 1–61, A–N, pls. 1–32. [The first edition was published in 1950].  
 COLLINGWOOD, W. G., 1900. The life of John Ruskin. — London: viii + 427 pp., front.  
 HUNT, J. D., 1982. The wider sea. A life of John Ruskin. — London, Melbourne, Toronto (J. M. Dent & Sons Ltd.): xvi + 512 pp., front., 3 text-figs., pls. 1–31.  
 LACK, D., 1943. The life of the Robin. — London (H. F. & G. Witherby Ltd.). [Fourth edition, 1965; reprinted 1976, 1979: 240 pp., text-figs. 1–7, 21 vign.]  
 —, 1950. Robin Redbreast. — Oxford (Clarendon Press): xii + 224 pp., 17 text-figs., 8 pls.  
 —, 1956. Swifts in a tower. — London (Methuen & Co Ltd.). [Reprinted: London (Chapman and Hall Ltd.), 1973, 1974: 239 pp., text-figs. 1–24, pls. 1–19.]  
 LEMAITRE, H., 1965. Les pierres dans l'œuvre de Ruskin. — *Publ. Fac. Lettr. Sci. Hum. Univ. Caen*, 5: 1–246, front., figs. 1–6, pls. 1–8.

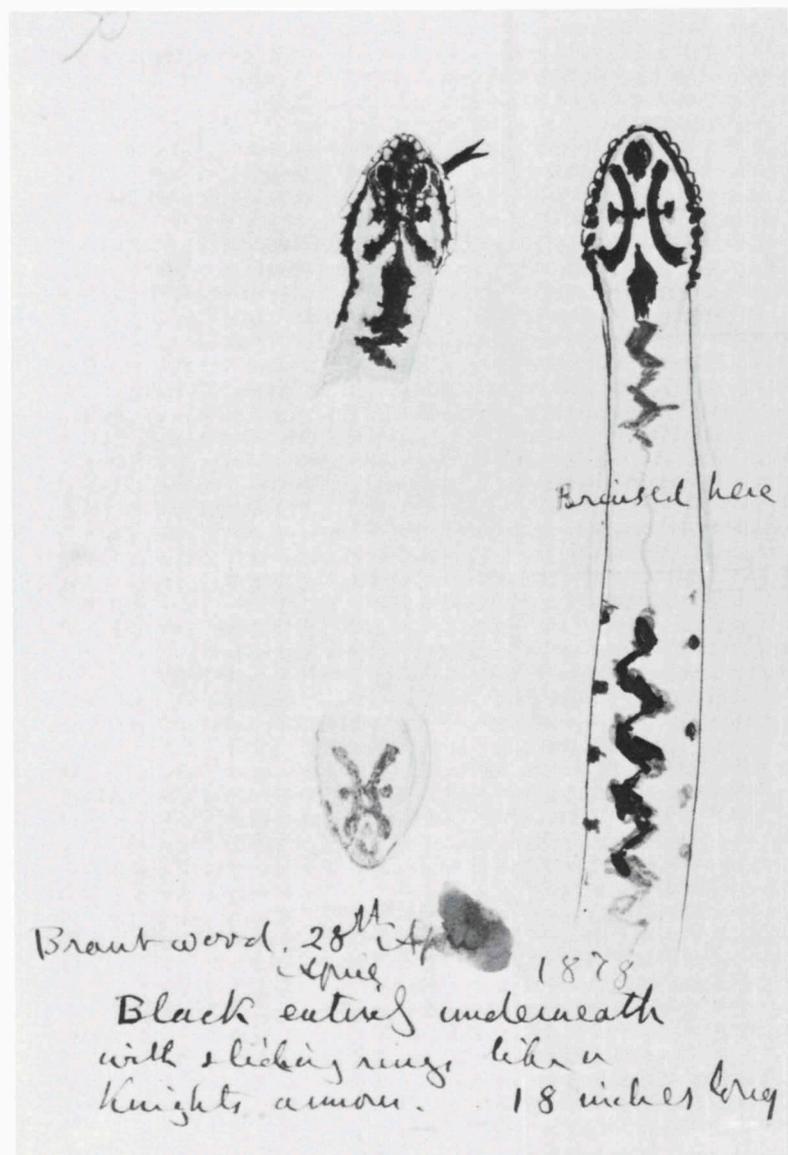
- MULLENS, W. H. & H. K. SWANN, 1917. A bibliography of British ornithology. From the earliest time to the end of 1912. Including biographical accounts of the principal writers and bibliographies of their published works. — London: xx + 691 pp.
- OWEN, R., 1894. The life of Richard Owen by his grandson The Rev. Richard Owen M.A. With the scientific portions revised by C. Davies Sherborn. Also an essay on Owen's position in anatomical science by the Right Hon. T. H. Huxley, F.R.S. — London: vol. 1: xvi + 409 pp.; vol. 2: viii + 393 pp.
- PORTMANN, A., 1948. Die Tiergestalt. Studien über die Bedeutung der tierischen Erscheinung. — Basel. [A second, revised edition was published in 1960. An English translation was first published in 1952 (London, Faber & Faber) and reprinted in 1967 (New York, Schocker Books) under the following title: *Animal forms and patterns. A study of the appearance of animals.*]
- , 1963. Die Vogelfeder als morphologisches Problem. — *Verh. Naturforsch. Ges. Basel*, 74: 106–132, figs. 1–19. [Reprinted in: *Zoologie aus vier Jahrzehnten (München, 1967)*: 172–195, figs. 1–19.]
- RUSKIN, J., Works: The Library Edition of the works of John Ruskin, edited by E. T. Cook and A. Wedderburn. — London, vols. 1–39 (1903–1912).
- , Diaries: The diaries of John Ruskin, edited by J. Evans & J. H. Whitehouse. — Oxford University Press: vol. 1 (1835–1847): xii + 1–364, front., text-figs., pls. 1–31; vol. 2 (1848–1873): x + 365–770, front., text-figs., pls. 32–55; vol. 3 (1874–1889): x + 771–1210, front., text-figs., pls. 56–62.
- , Brantwood Diary: The Brantwood Diary of John Ruskin. Together with selected related letters and sketches of persons mentioned. Edited and annotated by Helen Gill Viljoen. — New Haven & London (Yale University Press), 1971: xviii + 632 p., 6 pls., 2 maps.
- WALTON, P. H., 1972. The drawings of John Ruskin. — Oxford (Clarendon Press): x + 134 pp., front., pls. 1–103.



**PL. I. Animal form as material of ornament. Ram capital (the first capital from the left, of the left nave) in the basilica of San Marco, Venice. Pencil and wash, undated. Unpublished engraver's drawings of capital and details by Ruskin. The Ruskin Galleries, Bembridge School, Isle of Wight (Stones of Venice, Notes 3, no. 27).**



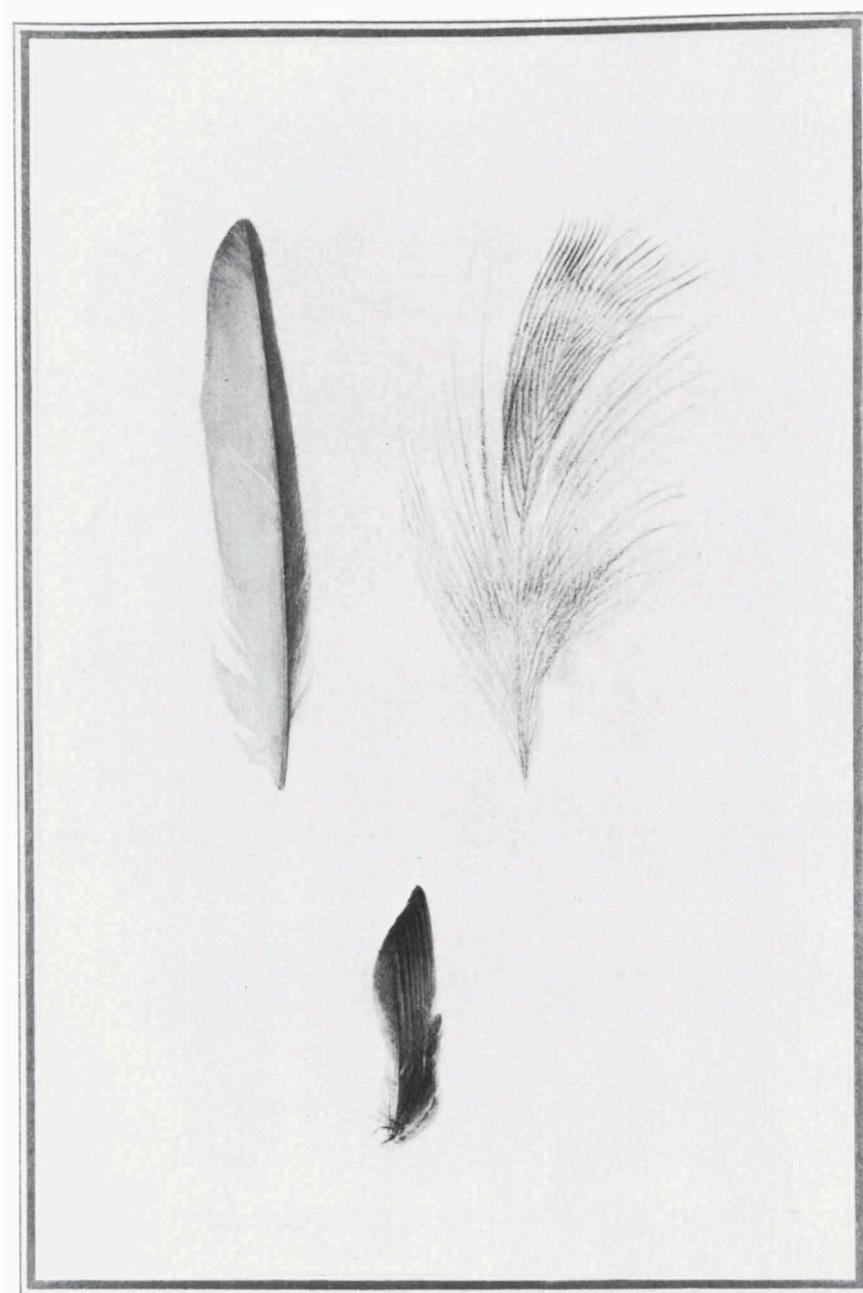
PL. 2. Study of top shells (*Trochus* sp.). Water-colour studies by Ruskin, undated. The Ruskin Art Collection, Rudimentary series 213. Ashmolean Museum, Oxford.



PL. 3. Study of Adder (*Vipera berus* (Linnaeus)). Water-colour study by Ruskin, Brantwood 28th April 1878. "Black entirely underneath, with sliding rings like a Knights armour. 18 inches long." The Ruskin Art Collection, Educational series 169. Ashmolean Museum, Oxford.



**Pl. 4. Study of Kingfisher, with dominant reference to colour. Water-colour by Ruskin, undated (about 1871?). The Ruskin Art Collection, Rudimentary series 201. Ashmolean Museum, Oxford.**



**Pl. 5. Feathers of Kingfisher's wing and head. Study in colour and shade. Water-colour by Ruskin, undated. The Ruskin Art Collection, Rudimentary series 204. Ashmolean Museum, Oxford.**



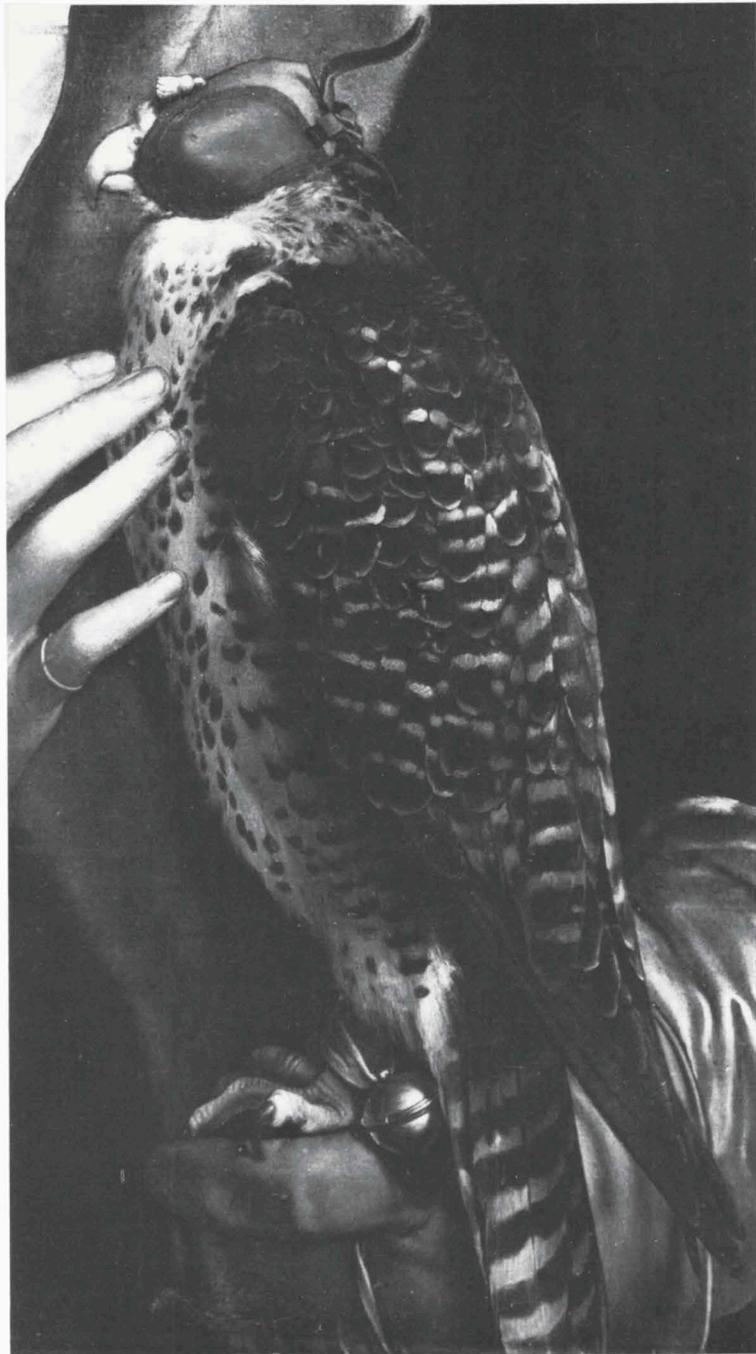
**Pl. 6. Golden Eagle's head. Water-colour study from the life, in the zoological Gardens, by Ruskin, 1878. The Ruskin Art Collection. Educational series 165/2. Ashmolean Museum, Oxford.**



**Pl. 7.** Sir Joshua Reynolds, Princess Sophia Matilda of Gloucester. Oil-painting, about 1758. Windsor Castle. Reproduced by gracious permission of Her Majesty Queen Elizabeth II. (Copyright reserved.)



Pl. 8. The little Egret. Hand-coloured lithograph from: John Gould, *The Birds of Great Britain*, part XVIII (1870).



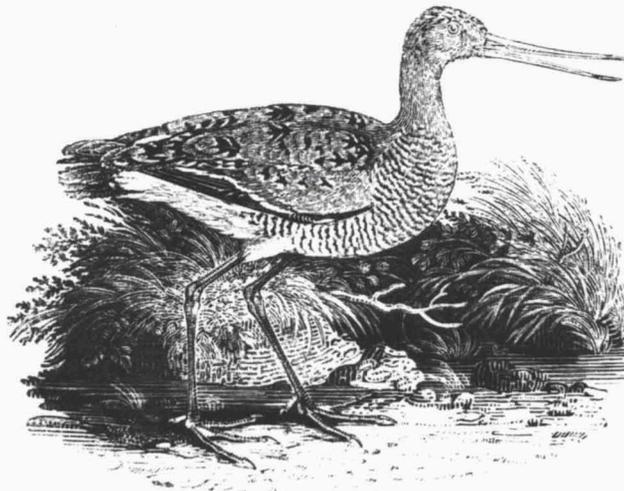
**Pl. 9.** Hans Holbein the younger, Falcon (probably a young Peregrine Falcon). Detail of the portrait of Robert Cheseman, falconer of King Henry VIII. Oil and tempera on wood panel, 1533. The Hague, Mauritshuis.

BRITISH BIRDS.



WHITE GROUSE.

WHITE GAME, OR PTARMIGAN.



THE RED GODWIT.

RED-BREASTED GODWIT.

PL. 10. Two woodcuts from: Thomas Bewick, A History of British Birds. Above: White Grouse (Ruskin: "Bewick's uttermost!!!!!!"). Below: The Red Godwit (Ruskin: "Very fine. See outlines of back feathers; and point of bill."). Reproduced from the sixth edition (Newcastle, 1826).