

THE PHILOSOPHY OF BIRDS' NESTS

IN RELATION TO INSTINCT.

AMONG vertebrate animals which construct some kind of temporary abode in which to rear their young, birds stand alone in nidification being a characteristic of the class. Though we might institute a comparison between some birds' nests and the underground resort of burrowing-animals, or the marvellous edifices of the beaver, the former are used by their occupants as places of refuge and concealment, whilst the well-constructed "lodges" of the latter are inhabited as permanent dwellings, each lodge being occupied by several individuals forming one community, and resulting from their united labours. Among the mammalia, instances where a structure is specially prepared for the lodgment and safety of progeny, are limited to the little harvest-mouse and some of its congeners; their exquisitely-formed nest, with the manner of its suspension upon corn-stalks or stems of grasses, having excited the admiration of every observer, rivalling even the elaborate structures of the feathered tribes, whose perfection and beauty have been the delight of the naturalist, and a constant theme for the speculations of the philosopher.

The oviparous nature of birds, and the necessity for a certain degree of warmth essential to the development of the chick, which warmth being, with few exceptions, derived from contact with the body of the parent bird, compel the fabrication of temporary homes, where the eggs are first deposited, and, in most cases, the helpless young are afterwards reared. These homes are as different in the form of their construction as in the materials out of which they are built, or the situation in which they are placed. The intricately-woven, pendulous nests of our common weaver-birds (*Hyphantornis*)—the neatly-plastered cells of the house-swallow—the dense mass of leaves which the wag-tail diligently heaps against a wall covered by some creeping shrub, or the slender platform of sticks that suffices the turtle-dove, are instances of differences in structure of which we may find variations diversified through infinite gradations. Further, many birds are content to dispense altogether with any construction, and lay their eggs on the bare ground, which shows us not only that the faculty by which birds are instigated to prepare a suitable nest varies in degree among those which possess it, but that it is not present alike in all. The highly artistic manner in which many nests are built, the skill with which the materials are interwoven, the care

exhibited in selecting a suitable position, and the anxious solicitude with which many species seek by various devices to delude the eye of their enemies and avert their attention, have excited admiration, no less for the persevering industry of the little fabricators, than wonder at the results achieved.

Our astonishment increases when we observe that the young birds of each succeeding generation continue to build the characteristic nest of the species, using the same kind of material, and fashioning it upon the same plan as their predecessors; and the faculty by which this is accomplished has been generally accepted as being a natural *instinct* with which these little architects are endowed, an explanation which most writers upon instinct and reason have adopted as the foundation of their speculations.

This idea has so grown with our growth that we never question a belief so widely spread, and entertained alike by poets, philosophers, and naturalists. We assume it must have a solid basis of facts to rest upon, and be capable of proof by them; and we accept it as actually demonstrated that "parent-bird never taught its child the art to shape a nest." Yet, in the restless and active inquiry characteristic of the age, this position does not remain unassailed; and the talented author of travel in the "*Malay Archipelago*," in his *Essays on Natural Selection*,* not only controverts this opinion, but has come to the conclusion that it is absolutely erroneous; that it not only deviates widely from the truth, but in almost every particular is exactly opposed to it. Mr. Wallace maintains, in short, that birds do *not* build their nests through the operation of an innate instinct (interpreting *instinct* to mean "the capacity to perform some complex act without either teaching or experience"); but that by the readiness they exhibit to adapt themselves to new conditions, they manifest a degree of reasoning which implies the exercise of mental powers; and that all the phenomena presented in the several modes of nest-building may be accounted for by the faculties of *observation*, *memory*, and *imitation*, such as the lower animals are generally admitted to possess.

It may be convenient, as well as interesting to the reader, if we briefly sketch the leading facts advanced by Mr. Wallace, with the inferences he derives from them; and we shall afterwards examine some other peculiarities in the nidification of birds, and see how these further facts agree with the former deductions.

* Contributions to the Theory of Natural Selection: A Series of Essays, by A. R. Wallace.

If it be asked "why each bird builds a peculiar kind of nest?" we are answered that each species uses the material it can most readily obtain, and builds in the situation most congenial to its habits. The wren, for example, frequenting low thickets, builds its nest of the moss amongst which it obtains much of its insect food, and this material is always found in the places it haunts. Rooks, digging for grubs in pastures and ploughed fields, encounter roots and fibres. What more natural than that these should be used to line their nest? The king-fisher lays its eggs upon a bed formed from the bones of fish it has eaten. And from these and other examples the conclusion is deduced that the materials of birds' nests are just such as come most readily to hand, and that no special instinct is required to select them any more than actuates the uncivilized natives of the interior when they construct their grass-covered huts on the unvarying pattern of their forefathers.

But how are we to account, except by instinct, for the wonderful adaptation of the form and structure of nests to the wants and habits of each species? And the explanation given is in the general habits of the species and the nature of the tools they have to work with, the delicacy and perfection of a nest bearing some relation to the size of the bird, its anatomical structure, and its special habits. The slender beak, long legs, and great activity of the wren enable it to construct a well-woven nest of the finest materials. The tit-mouse, haunting fruit-trees and walls, and searching about chinks and crannies, is naturally led to build in holes, where it has shelter and security, and by the ready use of bill and feet it forms a beautiful receptacle for its eggs and young. On the other hand, pigeons, with heavy bodies, and less aptitude for nest-making, cannot fashion anything better than a rude flat nest of sticks, sufficient to support their weight and that of their bulky young; whilst the night-jars, having the most imperfect tools of all, since they cannot build a nest of twigs or fibres, therefore generally dispense with one altogether, and deposit their eggs on the bare ground, from which we are led to the conclusion that the choice of a locality for its nest is also determined by the habits of a bird.

The faculty of imitation appears to be developed very early in the life of birds, as the young of song-birds are said to acquire some knowledge of the parent notes after a few days' existence, and which at a later period they will imitate. Upon this Mr. Wallace argues that the capacity to hear and remember being thus shown, it cannot be very extraordinary if, during their occupation of the nest for a longer or shorter

period, they should both observe and recollect the materials and manner of its construction, extending their knowledge of its internal and external details during the time of learning to fly, when often making short excursions and returning again to the nest. Further, the search for food brings them into daily contact with the very materials out of which the nest is fabricated, and leads them among places similar to that in which it is located; so when "the sweet necessity is laid upon them," and they are required to construct a nest for their own purposes, it is not surprising they should build one like that in which they themselves were reared.

To the objection that birds do not *learn* to make their nests, as, for instance, a man does to build, for that all birds will make exactly the same nest as the rest of the species, even if they have never seen one, and that *instinct* alone can enable them to do this, it is pointed out that, although so important to the question at issue, this position is always assumed without proof, and the opposing fact is advanced that birds brought up in cages do not make the characteristic nest of their species, even though proper materials are supplied them, and will often make no nest at all, but rudely heap together whatever is given them.

Inquiry into the effect of altered circumstances shows us that when new conditions are presented, the feathered tribes are capable of taking advantage of them. An example of change of habit, indicated by their name, is given in the house and chimney-swallows; and in America, the attachment to their new haunts has necessarily arisen since the discovery of the continent and the later erection of houses and chimneys. We may point to a yet more notable instance of adaptation, which might have been seen nearer home, shortly after the opening of the Cape Town Docks. When ships were first admitted to the basin, several sparrows and wag-tails (*Motacilla capensis*) attempted to build their nests amidst the intricacies of the rigging and about the sails folded on the yards of vessels lying alongside the quay, evidently considering this novel site as eligible for their purpose, as if mast and ropes were component parts of a tree still growing in its native forest.

To the fact of thread and worsted now being used in many nests instead of wool and horse-hair, we need not attach much importance as evidence of improvement, the result of experience, because whichever material is employed, the end to which it is applied is the same; and the Baltimore oriole will find the waste lengths of thread thrown from the housewife's basket, equally effective for the suspension of its

nest as the vegetable-fibre or horse-hair, which in the less-inhabited districts it must take such pains to procure; though even the employment of thread is in no way more wonderful than the use of the long hair from the mane or tail of a horse, since the latter habit must have been acquired subsequent to the introduction of that quadruped into America.

Our space will not permit us to cite all the instances collated by Mr. Wallace where a change of habit has ensued upon new conditions; but in his summary he thinks a fair consideration of all the facts will fully support his opinion, that in the construction of their nests, birds exhibit evidence of the possession of mental faculties, the same in kind as those manifested by untutored man in the construction of his dwelling. These are essentially imitation, and a slow and partial adaptation to new conditions; and whilst he admits that it may not be impossible to establish in other cases the existence of *true instinct*, he contends that in the particular instance of birds' nests, which is usually considered one of the strong points in favour of special instinct, he "cannot find a particle of evidence to show the existence of anything beyond those lower reasoning and imitative powers which animals are universally admitted to possess."

In the essay, the gist of which we have placed before our readers, Mr. Wallace has conferred a benefit not only on the student of ornithology, but upon the wide circle of readers who, though they may not agree in all the conclusions of the author, delight in perusing the investigations of naturalists which reveal the habits and characteristics of this interesting division of the animal kingdom. Boldly as the author has stated his views, and ably as he argues the several points, there are yet so many opposing facts left untouched, the investigation of which must detract from the value of his deductions, that we are led to regret the omission; and the more so as their discussion by such an experienced naturalist could not have failed to throw new light upon many apparent contradictions.

Without attempting a critical examination of the questions involved, we shall lay before our readers some facts to be advanced on the other side, from which we shall see that, in the habits of many birds, we undoubtedly witness the exercise of a special impulse, which, inasmuch as it cannot be referred either to the faculty of observation or imitation, we explain by the term *instinct*; and we shall find the peculiarities of nest-building present so many exceptions, even between closely-allied species, that the specialities of each

bird's existence give a very incomplete clue to the *reason why* it builds its nest of certain materials, in a definite situation, or in a more or less elaborate manner.

The lark, feeding upon grubs and insects which it finds upon the ground, and frequenting cultivated fields, forms its nest chiefly of grass, and places it upon the ground. The carrion crow, frequenting sheep-walks and warrens, and feeding upon dead rabbits and lambs, uses fur and wool to line its nest; and these are familiar illustrations of the correlation of the habits of birds with the position and material of their nests. But if we take, for example, the common heron (*Ardea cinerea*), we find a striking subversion of these relations. We have a long-legged, wading bird, commonly feeding on fishes, frogs, and small reptiles, which it obtains in pools and along the shallows of rivers, having feet differing so much from those of the true perching birds, yet building its nest of sticks in high trees, and lining it with *wool*. Whether we notice the materials only, or the form and structure of a nest in their adaptation to the wants and habits of the builder, we shall meet equal difficulty in establishing such inter-dependence as will guide us to any rule expressive of their mutual relation. The before-mentioned statement, that the titmouse, haunting fruit-trees and walls, and searching in cracks and crannies for insects, is *naturally led* to build in holes, where it has shelter and security, does not explain why the common European starling, which finds its insect food in the open fields, should also delight to build in the crevices of towers and other high buildings; or why the kestrel (*Tinnunculus alaudarius*) and the little American falcon (*F. Sparverius*), whose usual diet is mice, frogs, lizards, and "such small deer," and whose predatory habits, with their associated structural peculiarities, are the very antipodes of those of the titmouse, will yet construct their nests in the crannies and crevices of ruined buildings, as readily as other of their species do upon the summits of lofty trees. With these instances before us of the choice of a similar locality by birds differing so widely in structure and habit, let us now see whether similarity in bodily conformation tends to uniformity in the position or structure of a nest. A cursory examination of the Caprimulgidæ or night-jars will show their excessively short and weak bill, the gape wide, and almost hidden by bristles, and feet so little adapted to support them that they cannot truly perch, but rest the body along a branch, not across it. If we are disposed to assume, they cannot build a nest of twigs,

fibre, or moss, like other birds, and *therefore* they dispense with one altogether, and lay their eggs on the bare ground, we find our position untenable when we attempt to extend the theory to another group of fissirostral birds—the swallows, and their kindred, the swifts—which, taking their insect food on the wing in the same manner as the night-jars, having their legs and feet alike delicately formed, and having similar short, flattened, and feeble bills; yet by these equally “imperfect tools” are able to construct the most exquisite specimens of architecture, from the familiar nest of the house-swallow to the yet more elaborate construction of a North American species of swift, artfully built up of sticks and twigs, glued together by a tenacious saliva secreted by the bird. The diminutive sand-martin affords another case in point—a bird which at first sight would seem so utterly inadequate to the performance of miner’s work; yet with the same slender appurtenances as the rest of the group, it contrives to dig out a tunnel in the ground, sometimes to the length of five feet, at the end of which it places a mass of dry grass and moss, &c. All this labour, however, must be considered more than unnecessary if the depositing their eggs upon the bare ground by the *Caprimulgidæ* is to be attributed solely to their “imperfect tools.”

In the ducks we have a strongly-marked group of birds, distinguished by their aquatic habits, their long and broad bills so well suited to dabble in mud-banks in search of slugs and other kinds of food, and their webbed feet, typical of the swimming birds, associated with the backward position of the legs, which, though it increases their oar-like action in swimming, yet by their being placed so far behind the equilibrium of the body, renders the movements of the birds on land awkward, if not difficult. We cannot conceive a structure less in harmony with a habit of harbouring in trees; and, indeed, the incongruity has given rise to a simile commonly used in Yorkshire, applied to any association of unlikely conditions, as being as ill-adjusted “as a duck to a perch.” Nevertheless, besides the tree-ducks (*Dendrocygna*) there are many species of natatorial birds (*Anas moschata*, *Chenalopez*, &c.), which habitually form their nests in trees, in spite of the annually-recurring difficulty of carrying down their tender fledglings to the nearest water. Even the common mallard occasionally exhibits this eccentricity, which is the more surprising, as its general resort during the breeding season, as with most of the duck tribe, is to marshy lands, where among the reeds and sedges they find freedom from inimical intrusion, and a position congenial to the early

life of their young brood. Another striking instance of divergence between the structure of a swimming bird and the position of its nest is afforded by the shieldrake (*Anas tadorna*), which has acquired the vulgar appellation of *burrow duck*, from its remarkable choice of a site for its nest, which is constructed of grass, at the far extremity of a rabbit burrow.

The flamingoes, as well as the terns and sand-pipers, chiefly frequent extensive muddy and tide-washed flats, over which they constantly roam in search of food, and they all alike breed in such localities.

The nest of the flamingo is most singular, consisting of sand and mud heaped together into a conical mound, having a cavity on the summit in which the eggs are laid, and where during the process of incubation the parent bird is comfortably seated, with its long legs dependent on either side, like a lanky youth perched on a tall office-stool. Doubtless this arrangement has the effect of keeping dry both bird and nest, beyond ordinary changes in the water-level. Many terns and sand-pipers lay their eggs on the bare sand by the margins of vleys, or on the sea shore; and the author of "Essays on Natural Selection" adopts the surmise of the Duke of Argyll, who in his "Reign of Law" says "the cause of this habit is not that they are unable to form a nest, but that in such a situation any nest would be conspicuous, and lead to the discovery of the eggs," a conclusion entirely at variance with the exalted prominence the flamingo, though choosing the same spots, gives to its nest; which, if it seeks to hide, is after the fashion of a city set on a hill; and this is not compensated by any greater boldness or courage possessed by the bird, since the flamingo, on the contrary, is exceedingly shy and wary in its disposition.

We have before alluded to the selection by the kingfisher of the bones of fish it has eaten to compose a bed upon which to place its eggs; but this is not adopted by all the species alike. The belted kingfisher of America (*Alcedo alcyon*), after digging a hole in a river-bank by means of its beak and claws, constructs within it a nest of twigs and feathers; and a form of nest still more aberrant from others of the species is that of the Himalayan kingfisher (*Ceryle guttata*), whose nest, placed amongst large stones, is rather elaborately constructed of mud lined with grasses, and is attached to the stones in the same manner as that of the swallow under the eaves of a house. Whilst the frequent employment in the nests of kingfishers of the bones of fish derived from the undigested portions of their usual food, as

“castings” rejected by the mouth, is undoubtedly an adaptation “of the simplest means to an end,” the construction of a nest of grass and plastered mud by another of the species—a bird with the long pointed beak, short slender legs, and syndactyle feet, characteristic of the kingfishers—must be admitted to exhibit a striking want of conformity between the general habits of the species, the nature of the tools it has to work with, and the material and structure of its nest. Further, the anatomical peculiarities of this family, their feeding chiefly upon fish, their mode of seeking and securing their prey, and the localities in which they find it, present so many features in common, that if the impulse to build a nest upon a particular plan were the expression of these combined relations, it is self-evident that a considerable uniformity should appear in the structures severally prepared by the kingfishers for the reception of their eggs. But, as we have remarked, the great difference in the nests elaborated by species living under conditions so nearly identical, we perceive the phenomena presented in nature will not admit the general application of the theory that “the main features of the nest built by each group of birds bear a relation to the organic structure of that group and to the conditions of its existence.”

In considering the circumstances under which birds alter their nest, it is worthy of attention that the instances given by Mr. Wallace all arise from changed conditions or new relations consequent upon the presence of man. Sometimes it is by the virtual protection he affords to particular species, as we see in the immunity generally enjoyed by insectivorous birds; or by his destruction of their natural enemies, making the neighbourhood of man a safe asylum. In this way many species have lost their natural fear of man, and, doubtless, among them changes of habit have taken place. Thus, in Holland the common starling readily accepts the invitation of the cottage gardeners, who suspend against their houses an earthenware domicile, like a flower-pot, with its base projecting outwards from the wall, having the hole enlarged for free ingress and egress of the birds; and these may often be seen to be tenanted, and the birds actively feeding their callow young, though placed at such a low elevation as scarcely to be out of reach by the hand.

Sometimes the presence or absence of a particular vegetation will influence the material of which a nest is constructed. In the Eastern Province of this Colony the yellow finch (*Hyphantornis capitalis*) weaves a most artistic nest from the fibre stripped off the outer edge of a species of *Sansivera*

(see a charming account in Layard's "Birds of South Africa," p. 181); whilst in the Bechuana country the nest of this species, as observed by the present writer, is made from the blades of a long flexible grass. It is more difficult to note actual improvements in nest-building, because in nature external conditions vary so slowly that any modification of structure consequent upon these is scarcely appreciable or escapes observation. Our practical knowledge of this subject is limited to the experience of the American ornithologist, Wilson, who believes the Baltimore oriole improves in nest-building by practice, and that the most perfect nests are the work of the oldest birds, which, however, is less remarkable than that the young birds should succeed in producing such marvellous specimens of ingenuity the first time they try.

Even under altered conditions, we often see how persistently birds cling to a particular mode of nidification. The house-swallow continues to build its nest of mud and clay, on the same plan and in the same style as those of its country relatives, though it is far from the pools over which, in search of insect food, they delight to skim, and has changed its haunts to hawk after flies in the streets and lanes of a busy town. *Cotyle fuligula*, nesting under the eaves of houses in Cape Town, forms the exact counterpart to nests of the species found by the writer under over-hanging ledges amid the rocky defiles of the far interior, both breeding in November.

We might adduce numerous examples where animals, by the frequent repetition of some action, have acquired it as a persistent habit. Such habit has a tendency to become hereditary, and, matured through succeeding generations, is finally developed as an *instinct*, or that faculty by which animals *unconsciously perform actions* which man would execute by aid of his knowledge of the past, his reasoning upon the present, and his anticipation of the future. We can thus understand, as Mr. Darwin says ("Origin of Species," 5th edition, p. 297), on the principle of inheritance:—"How it is that the thrush of tropical South America lines its nest with mud in the same peculiar manner as does our British thrush; how it is that the hornbills both of Africa and India have the same extraordinary instinct of plastering up and imprisoning the females in a hole in a tree, with only a small opening left in the plaster, through which the males feed them and the young when hatched; and how it is the male wrens (*Troglodytes*) of North America build 'cock nests' (or a partially formed nest apart from that

occupied by the female) to roost in, like the males of the British kitty-wrens—a habit wholly unlike that of any other known bird?" At the same time, we cannot doubt that occasionally "a little dose of reason or judgment comes into play," as birds, like some other bipeds, and like most animals, grow wiser by experience. Thus, the grebes, and many kinds of water-fowl, gather and heap up weeds and fresh material to elevate their nest when the safety of their eggs is endangered by a rising of the water. To this extent we may readily admit the capacity of birds to perform some complex acts through the teaching of experience.

The theory of Mr. Wallace is, that during their occupancy of the parent nest young birds *observe* the materials of which it is made, and that *memory* afterwards helps them when forming their own; or that in the ensuing spring they *imitate* the example of the old birds, learning from them how the foundations of a nest are laid, and how the materials are put together. The importance of these faculties to the phenomena under consideration appears to have been greatly exaggerated; and it will not be difficult to adduce instances of nidification where neither observation nor memory can play any part; and as the same mode is repeated by the young of succeeding generations, the impulse by which they are actuated comes under the definition of instinct, "the very essence of which is that it is followed independently of reason" (Darwin's "Descent of Man," vol. 1, page 100). That the young of birds possess instincts in accordance with the habits of the species cannot be doubted by any one who has seen a brood of young quail, scarce an hour old, disperse and hide themselves among the grass in answer to the alarm note of the parent bird, which Mr. Darwin says "is evidently done for the instinctive purpose of allowing their mother to fly away."

We have already remarked on the peculiar nesting of the tree-ducks. The first act of the old birds on the exclusion of the young from the egg is to carry off the nestlings from their elevated position, so ill-suited to the wants of swimming birds, down to the nearest water, where they may commence a search for food, and the mode of life conformable to their special structure. These young birds, haunting marshy ground and hiding among reeds and sedges, will for a considerable time be prevented returning to the nest by reason of their unfledged condition; and it is in the highest degree probable that, having once left it, the nest is never again revisited by them. In this case it is evident there can be no opportunity for the young birds observing either the

materials of the nest or the manner of its construction ; yet in turn they will follow the habit of their predecessors, and will again select a suitable site in trees for the continuation of the species. The idea that in the breeding season young birds will observe how old ones put the materials of a nest together, and will follow their example, is controverted by the fact that many kinds of birds will not tolerate the presence of their young, but ruthlessly turn them adrift the moment they are able to shift for themselves. Neither must we overlook the fact that many kinds are still more opposed to another pair of the same species building in their neighbourhood, and will drive off all intruders from what they consider their peculiar domain.

The most singular mound-heaping habit of the Australian jungle-fowl affords an interesting confirmation of the connection of instinct with a peculiarity in nidification. Both the jungle-fowl (*Megapoda*) and *Tallegalla* possess the wonderful instinct of heaping together immense mounds of leaves and vegetable matters, in which their eggs are deposited, and are hatched by the heat arising from fermentation of the mass. In preparing these mounds, the birds commence at some distance from an imaginary centre, and throw the material inwards, which, by a series of concentric circles, is thus brought together in the spot selected for the mound. The motion of birds thus occupied is a peculiar kick, by which each footful of mould is thrown a considerable distance backwards ; and the important feature in connection with our subject is, that young birds of a few days old exhibit the earth-heaping propensity of the species, and, when kept in confinement, exert themselves most industriously in flinging about the sand, &c., placed for them. It is impossible to conceive a habit developed at such an early period to be in any measure due to "parental instruction ;" and if we were to pursue the subject further, we should see in the habits of the cuckoo that the young birds, though hatched in the nest of a foster-parent, and consequently having never known their real parentage, will yet follow the peculiar instinct of their kind. And these examples may be accepted as conclusive "proof of the fact that young birds will make exactly the same nest (or will follow the habit of the species) even if they have never seen one." In the lower forms of animal life we find many actions performed by instinct, which in animals of a higher grade, and capable of greater volition, might be accomplished by the exercise of true reasoning powers ; but in the latter case, the volitional performance of any special action must inevitably lead to

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greater diversity in the results attained than we see in the nests of the same species of birds. The larva of a North-American species of bombyx (*Saturnia promethea*), as well as the oak-feeding larva of a Chinese bombyx, wrap themselves in a folded leaf before spinning their cocoons. In each case the tree on which they feed is deciduous; and, as if endowed with prophetic foresight, they both take the precaution to wind a strong band of silk around both leaf-stalk and branch, so that the chrysalides remain securely suspended after the tree has shed its leaves. We can only ascribe the impulse under which this complicated work is effected to an innate instinct. The same attribute will lead the tailor-bird to sew together the edges of a leaf to form its nest; and, as in the first instance no parental instruction has been given, so in the latter it may be presumed to be unnecessary.

H. EXTON, M.D.

THE BIRD ISLANDS.

AN opportunity offering for a trip to the Bird Islands, per schooner *Little Meeh*—somewhat better than the port launches, *Sailor's Friend*, and cockle-shells of boats that generally make the voyage—I availed myself of the kind invitation of my friend Capt. Skead, the Harbour-master of Port Elizabeth, to accompany him on a visit to the islands. His object was an official inspection of the lighthouse; mine simply the pursuit of pleasure: but, having jotted down a few observations, I send them to you for the *Cape Monthly*, if you think they are worth insertion.

I am not aware of anything more than a very general description of these islands having hitherto been published. They were brought into notice during the last century by the wreck of the *Doddington*, East Indiaman, in 1755,—accounts of which disaster may be found in various publications. A huge old-fashioned iron anchor, and an equally huge and old-fashioned iron gun, relics of the ill-fated vessel, may still be seen on the beach, near the light-house. It will also be remembered that only a few months since the screw-steamer *Westenhope* was wrecked on these islands.

They were examined by Mr. Skead, and are well shown upon the Admiralty charts. There are three of them—called respectively Bird, Stag, and Seal Islands, and an outlying rock, Black Rock. Birds inhabit the former, while the