

ROYAL INSTITUTION.—March 22.—G. Moore, Esq. V.P. in the chair.—Professor Phillips made a communication on the phenomena in the Mendip Hills, illustrative of the lapse of geological time.—Professor Phillips stated, that, about fourteen years ago, his attention was directed to the structure of that part of the Mendip Hills which is near the town of Frome, in Somersetshire; that he there observed strata of mountain limestone inclined at an angle of  $45^{\circ}$ , and covered by other horizontal strata of a totally unlike nature, (in fact, magnesian conglomerate, lias, and inferior oolite). He observed that the surface formed on the edges of these disturbed limestone strata was remarkably levelled and polished, as if by mechanical friction, and where covered by the oolite the rock was overspread by adherent oyster-shells, and also perforated by bivalve mollusca; the oolite above, and the limestone below, were replete with organic remains, characteristic of the widely different ages of these rocks. He further asserted, on the authority of a subsequent survey with Sir H. De la Beche, that this flattening of the limestone was common throughout the district; and that the effects of the lithophagous mollusca were observable over wide areas. The Professor then entered on the constitution of the Mendip Hills, as being composed of various stratified rocks, resting on old red sandstone; calling attention to the many laminae of sand and micaceous marking, as successive definite sandy deposits from inundations of rivers do, a distinct period of time, the many beds of limestone full of successive groups of shells, corals, and encrinurites, and the various beds of coal in the vicinity, accompanied by innumerable land plants. Professor Phillips then noticed another phenomenon extending over large tracts both of this country and the Continent. The rocks already described are often bent about in synclinal, convex, and anticlinal axes. From hence he inferred, that a vast disturbance must have extended, with great force, over an immense range of the surface of this planet, after the deposition of the coal strata, but many ages before the historical period: that then came a period of violent water action, continued long enough to degrade the ridges of the rocks already mentioned to the nearly plane surface of the Mendip Hills, fringed by conglomerates, which marked the edge of the ancient sea. Then another period of tranquillity followed, when strata of new red sandstone, lias, and inferior oolite were deposited nearly horizontally over the dislocated and levelled limestone and coal. The Professor illustrated these operations by the known effects of the litoral action of the waves of the sea on rocks. After the production of a part of the inferior oolite, the sea nourished lithophagous shells, (allied to *Modiola* and *Lithodomus*), whose perforations remained in the limestone. The same shells, in similar perforations, have been found at distances of several miles from the Mendips, in the lower beds of the inferior oolite—a proof that even in the production of a rock only fifty feet thick, so much time elapsed that the lower beds were consolidated and penetrated by lithophaga before the upper beds were formed. The same shell has been found abundantly in corals of the oolitic rocks, which it had penetrated. The perforation of the mountain limestone and oolite, the Professor referred, not to the mechanical force of a boring shell, but to the chemical effects of the carbonic acid secreted in respiration by the animal inhabiting it. The holes produced in the rock were larger than the shell (*lithodomus*) which, unlike pholas, is smooth, and apparently incapable of penetrating a hard substance, except by a solvent. Dr. Buckland has shown that it is by the same means that a species of land snail, (*Helix aspersa*) by secreting carbonic acid, contrives to dissolve rocks. Having exhibited specimens of limestone and oolite pierced in the manner he described, and appealing to the perforated columns and vertical movements of the Temple of Pozzoli, the historical analogies to the greater phenomena, and longer periods exemplified in the Mendip Hills, the Professor concluded by referring to some siliceous deposits, probably the effect of hot springs, which had flowed at the epoch of the lias on the north side of the Mendip Hills, and by adverting again to the almost infinite lapse of time required to produce the various mechanical, chemical, and vital effects visible in a portion of the earth's crust, which must have been formed ages after the beginning of geo-

logical, and as many before the commencement of historical time.

#### MEETINGS FOR THE ENSUING WEEK.

- MON. Entomological Society, 8, P.M.  
 TUES. Horticultural Society, 3.  
 — Civil Engineers, 8.—'Account of the Railway from Amsterdam to Rotterdam, and of the principal works upon it,' by Le Chevalier F. W. Conrad, M. Inst. C.E., translated from the French by C. Manby, Secretary.—'Description of the Piling Machine used at Montrose Harbour Works,' by G. T. Page, Assoc. Inst. C.E.—'Account of a Series of Experiments on the comparative strength of solid and hollow axles,' by C. Geach.  
 — Linnean Society, 8.  
 WED. Geological Society, half-past 8.  
 — Society of Arts, 8.—General Meeting.—'On certain Phenomena of Steam,' by Mr. C. Tetley, and 'On a Self-acting Ventilator,' by Mr. Wroughton.  
 THUR. Zoological Society, 3.—General Business.

#### FINE ARTS

##### SOCIETY OF BRITISH ARTISTS.

##### Twenty-first Exhibition.

THIS Society has reached years of discretion, according to the catalogue above quoted:—but is this another name for dulness or a manner discreetly substituted for the exuberances of youth? The reader may, perhaps, extract some reply to these natural inquiries from the notes we lay before him.

Taking matters as they come before us, the first old acquaintance is Mr. Allen, and in the most elaborate work which he this year exhibits, *Oakford Bridge, Devon* (40). We cannot call this his best landscape, though the subject is charming, and thoroughly English. The tints are more conventional than they need be; the foliage, and, above all, the foreground, are feebly and frivolously pencilled, with a tendency to those salad greens and yellows which no time will mature. We are obliged to extend our remark to the other pictures from the same hand. Mr. Pyne, whose name comes next in order, *apropos* of the small landscape in the *Basse Ville, Calais* (40), is in his best vein this year. Always happy in his effects as a truthful observer of Nature, he is less flimsy, less chalky than usual: perhaps he is now in danger of a cobalt fit, to judge from the intensity of some of his skies, the blue of which absolutely weighs down the objects beneath.

Mr. Hurlstone has a group of children (63), in his bad manner; we are glad to leave them for a Scriptural composition, *The Sons of Jacob* (117), which, in many respects, seems the best picture he has exhibited. The two central heads, brought into immediate apposition with that of the bereaved Patriarch, are poor in expression; there is nothing to tell us that the grief of the Sons of Jacob is simulated, and their tale a fiction; but cunning and deceit without grimace are as difficult to represent as to act. With how many farcical *Iagos* are we vexed for one that is subtle in accordance with the portraiture of Shakespeare! But the picture is well composed and well painted; the management of colour rich in contrast, without meretriciousness, and the handling bold, without that slovenliness which offends us in so many aspirants to what they conceive the grand school of Art.

Mr. Zeitter's *Passage-boat on the Danube* (125), which is all over clever mannerism, may be paired with Mr. Montague's *English Landscape* (136), on principles of extreme contrast; since the charm of the second work, if charm it be admitted to have, lies in its naked truth to Nature. A few pollards, a livid clay-bank, and a gloomy sky, could not perhaps be otherwise rendered. But Mr. Montague has more attractive landscapes in the Exhibition. Mr. H. J. Boddington has made progress since we last met him—see the landscape numbered 154—but his foliage is too finical, and closely resembles sea-weed; and it would do him essential good to study the works of the great Flemish or Italian masters of landscape, with an express view to the correction of this defect.

We are now before a picture of one whom it is vain, we fear, to entreat to lay by his affectations. This is Mr. Woolmer's *Castle of Indolence* (167), painted in a manner to the making-up of which Rembrandt, and Turner, and Martin, have each contributed. The force of "yellow, pink and blue," cannot much further go,—neither the sleight of hand to produce effects of texture, depth, reflection, &c., which are good, we suspect, for only the passing hour. Moreover, with all the luxurious poetry of the composition (for it is luxuriously poetical), there is a heedlessness of propriety too striking for gentle-

men of "the stop-watch" to overlook. The foreground is filled with groups of indolent knights and ladies, squires and pages, couched among lutes, and fruit-baskets, and rainbow draperies; but in no haunt less private or shady than the stairs of a terrace, communicating from an alley to a tower, on which the full sun-blaze falls. Now call it absurd or overstrained who will—an idea of publicity and possible disturbance belongs to this arrangement, at variance with the depth and entireness of the repose, so lusciously sung by the poet. We imagine another chosen place for the Court of Idlesse—not wholly shut out from the chance passer-by, yet assuredly not in his highway—not wholly darkened by "the shade of melancholy boughs," but where the sun-beam should stream in fitfully—tempered for the most part by the veil of leaves, or the ramparts of tall abounding flowers, through which it stole. But "this is philosophy," as Sir Thomas Brown says of the foolish opinion of those who hold that "the earth moves," and our idea may, possibly, be no better worth than Mr. Woolmer's. We are not inattentive to his many other clever contributions which embellish the exhibition. The *Broken Lily* (252), in the South-east room, is one of his most agreeable conversation-pieces. There is imagination, too, in the *Scene from 'Manfred'* (318), but the same provoking want of probability as we have already commented upon. The "Witch of the Alps" rises in the far distance of the picture, beyond the power of the wanderer's adjuration to reach, unless he were, like herself, supernaturally endowed.

Mr. Pidding's *Old Tar doing Penance for his devotion to Jolly Bacchus* (182) is full of humour. But the title is incorrect. Despite his garment of disgrace, the penance of the guilty pensioner is *homœopathic*; and there is not one of the blue-jackets who pass him in review with such a sly superiority, but would do as much, time and temptation serving. Some of their faces are capital—almost worthy of Wilkie; but the picture is awkwardly composed, and the colouring chill and ungenial. This the atmosphere of Greenwich Hospital is not. Never was retreat for Old Age and disabled Service more warmly jovial; and the spirit of this would have been caught by a true master of his art, were he a second *Cenerino* in the arrangement of his palette.

Hard by this humorous painted morality, a landscape (183), by Mr. Shayer, is one of the best pictures by the artist, though, by the more prominent places they occupy, his figure pieces would seem more generally popular. Mr. Wilson, jun., in his *English Pastoral* (188), and many other works of similar subject and style, would seem desirous of sharing honours with Mr. Sydney Cooper; and the latter may as well look to it, by way of stimulus to his own ambition. Why should he not widen the circle of his subjects, and try something besides his cattle pieces, which, however excellent, are becoming monotonous by repetition?

Mr. Prentis has indulged largely in his fancy for tale-telling on canvas this year; treating us to a story of *Love's Trials* (210) in six chapters or *tableaux*—to adopt the new-fangled play-bill style. Nor has he ever narrated a history of domestic vicissitudes better. First comes the lover's farewell; next the poor girl's disappointment that the post-bag brings no letter for her; then we have unlovely old age attempting to drive a bargain with youth and beauty—a subject English artists, by the way, are rather unfairly fond of. What would Miss Bremer—who seems to us to have as preternatural a tendency to exhibit the love conquests of ugliness and grey hairs—say to such a repulsive pair of pictures as No. 3 and 4 of the series? the latter showing us the septagenarian, wigged, laced, made up by the tailor and the dentist—a hideous display of servile pretension and vanity. The poor girl denies him a hearing with an indignant wave of the arm, too tragical perchance, but still sincere. All her pride and her spirit fail her, however, in the next scene, which discloses her to us, alone, in her chamber (the favourite decoration of which is a map of India), while the page she is studying is one which literally she has long taken to her heart—a miniature. There is sadness and sweetness in this design; and we are thankful to be relieved by its sequel—the Return: though the lover does come back sorely wounded, and though grief and mourning have made a havoc of the maiden's youth and beauty. Mr.