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AGASSIZ AT PENIKESE.¹

BURT G. WILDER.

Elsewhere are set forth the characteristics and the achievements of Louis Agassiz as investigator and director of research, as accumulator of specimens and builder of museums, as writer and public lecturer. Whatever has been said of him also as inspirer of lofty effort and personal sacrifice, as teacher, and educational pioneer, surely the precious qualities implied in these terms were never more conspicuous or more effective than during the last year of his life in the establishment of the Anderson Summer School of Natural History at Penikese Island.

On the 14th of December, twelve months to a day before his death, was issued a circular embodying a "Programme of a Course of Instruction in Natural History, to be delivered by the Seaside, in Nantucket, during the Summer Months, chiefly designed for Teachers who propose to introduce the Study into their Schools and for Students preparing to become Teachers."

The following extract from a later circular clearly indicates the founder's views as to the nature of the enterprise:

¹ This article is based upon the writer's diary and recollections, and upon his article, "The Anderson School of Natural History," in the Nation for Sept. 11, 1873, pp. 174, 175. The doings of the first two days were described by a staff correspondent in the New York Tribune for July 9 and 10, 1873. In the Popular Science Monthly, vol. xi, pp. 721–729, April, 1892, under the title "Agassiz at Penikese," are recorded the impressions of the entire session upon a pupil, David S. Jordan. The Organization and Progress of the Anderson School of Natural History at Penikese Island (30 pp. and 5 ppl., Cambridge, 1874) is the "Report of the Trustees," of whom one was Alexander Agassiz, the professor's son; as a clear and accurate record of the essential facts it could not be surpassed. In Louis Agassiz, His Life and Letters (2 vols., Boston, 1885) Mrs. Agassiz has devoted the larger portion of the last chapter to what another biographer has characterized as "the most extraordinary episode in Agassiz's life." Upon the present occasion, under the necessary limitations of space, rather than a mere outline of the whole, the writer has endeavored to describe a few incidents that seem to him most characteristic of the occasion and of the man.
I must make hard work a condition of a continued connection with the school, and desire particularly to impress it upon the applicants for admission that Penikese Island is not to be regarded as a place of summer resort for relaxation. I do not propose to give much instruction in matters which may be learned from books. I want, on the contrary, to prepare those who shall attend to observe for themselves. I would therefore advise all those who wish only to be taught natural history in the way in which it is generally taught, by recitations, to give up their intention of joining the school.¹

In the following spring the munificent offer by an utter stranger, Mr. John Anderson, of New York, of the island of Penikese in Buzzard's Bay, together with a dwelling-house and barn and an endowment of fifty thousand dollars, not only led to the change of location, but enabled Agassiz to carry out certain parts of his plan more fully.

The island was not formally in possession until April 22. Between that date and the 8th of July, when the school was announced to open, a site for buildings had to be chosen, plans drawn, contracts let, and provision made for the housing and subsistence of nearly fifty pupils and several instructors, some of them with families.

Notwithstanding the utmost efforts of all concerned, on the 5th of July, when Professor Agassiz and the writer reached the island, only one of the two projected buildings had been even roofed; it was neither floored nor shingled. The next day was Sunday. A few words from Agassiz satisfied the carpenters as

¹ The passages quoted above, and many that might be added from the circulars of Professor Agassiz, from his opening addresses, and from private letters and conversations, demonstrate conclusively that, while anticipating as an indirect result the increase of knowledge by research upon the part of the instructors and advanced pupils, the primary object was instruction in fundamental facts, ideas, and methods; he repeatedly declared his hope that the Anderson School might become the "educational branch of the Museum of Comparative Zoology." Whatever may have been his dreams for the future, and however extravagant may have been the declarations and prognostications in uninformed lay journals, at that time nothing was farther from his mind than any comparison with, e.g., the Zoological Station at Naples. The fact of his clear recognition of the distinction is insisted upon here in the interests of simple justice towards Professor Agassiz, his associates, and pupils. Those who may regard this insistence as needless are referred to the article "An American Seaside Laboratory" in Nature for March 25, 1880, pp. 497–499, and to the commentary thereon, "The Penikese School," in the Nation for July 8, 1880, p. 29.
to the application of the proverb, Laborare est orare, and they worked from daylight till dark. On Monday (for the steward and servants were to come with the pupils) the floor was swept, and Tuesday morning the beds were made by Mrs. Agassiz and the writer's wife. That morning, also, the cows were removed from Mr. Anderson's barn; the last nails of a new floor were hardly driven when the steamer arrived, and in that room, still hung with spider webs and frequented by the swallows, were delivered the inaugural address and eaten the first dinner at Penikese.

The invitation of Professor Agassiz to coöperate in the work of the school had been accepted by about twenty, and it is pleasant to note that, with hardly an exception, their services were freely offered, although liberal arrangements were afterwards made with those who, in addition to Professors Agassiz and Guyot and Count Pourtalès, actually gave instruction. These were Edwin Bicknell, T. I. F. Brewer, B. Waterhouse Hawkins, A. S. Packard, Paulus Roetter, and the writer.

The roll of pupils is printed on pages 19–20 of the Report of the Trustees for 1874; it is here reproduced, alphabetically arranged, and with the addition, in parentheses, of the present official positions so far as known to the writer. Those known to have died are indicated by an asterisk.

Adams, Ch. F., Teacher in High School, Fitchburg, Mass.
Apgar, A. C., Teacher in State Normal School, Trenton, N. J.
Beam, Mary E., Teacher in High School, Binghamton, N. Y.
Bowen, Susan, Teacher in Mount Holyoke Seminary, South Hadley, Mass.
Brooks, W. K., Teacher, Cleveland, Ohio (Professor of Zoology in Johns Hopkins University).
Burns, Mrs. V., Teacher in Public School, Pittsburg, Pa.
Claypole, E. W., Professor at Antioch College, Yellow Springs, Ohio (Professor of Natural History, Buchtel College).
Coffin, Helen B., Teacher in Eastern State Normal School, Castine, Me.
Cook, S. R., Teacher in Packer College Institute, Brooklyn, N. Y.
Crosby, Eugene C., Teacher, Kansas City, Mo.
Crosby, W. O., Student in Boston School of Technology (Assistant Professor of Geology, Massachusetts Institute of Technology).
Davis, Mary E., Teacher in High School, East Somerville, Mass.

Fernald, Ch. H., Professor, Maine State College, Orono, Me. (Professor of Zoology, Massachusetts Agricultural College, Amherst).


Garman, S. W., Museum of Comparative Zoology, Cambridge, Mass. (Assistant in Herpetology and Ichthyology in the same).

Gastman, E. A., Superintendent of Public Schools, Decatur, Ill.

Hale, Silas W., Principal of High School, Milford, Mass.

Hall, Charles E., State Museum of Natural History, Albany, N. Y.

Hanson, M. Isabel, Newton Training School, Newtonville, Mass.

Holman, Lavinia, Teacher in Normal School, New York City, N. Y.

Hooper, F. W., Student at Harvard College, Walpole, N.H. (Director of Brooklyn Institute).


Ireland, Catherine, Teacher of Private School, Boston, Mass.

Johnson, Amy, Teacher in Brooks Seminary, Poughkeepsie, N. Y.

*Johonnot, James, Teacher in State Normal School, Warrensburg, Mo.

*Johonnot, Marion, Teacher in State Normal School, Warrensburg, Mo.

Jordan, David S., Instructor in Botany, Appleton, Wis. (President of the Leland Stanford Junior University).

Miller, A. B., Teacher in Maplewood Institute.

Minot, Charles S., Zoological Student, Jamaica Plains, Mass. (Professor of Histology and Human Embryology, Harvard Medical School).

Moses, Thomas F., Teacher of Natural Science, Urbana, Ohio (Professor of Natural History, Urbana University).

Reid, Zella, Antioch College, Salem, Ind.


Shattuck, Lydia, Teacher in Mount Holyoke Seminary, South Hadley, Mass.

Smith, Sarah R., Teacher in Chauncy Hall School, Boston, Mass.

Stowell, T. B., Professor in State Normal School, Cortland, N. Y. (Principal of the State Normal School, Potsdam, N. Y.).

*Straight, H. H., Teacher in State Normal School, Warrensburg, Mo. (Professor of Natural History, State Normal School, Oswego, N. Y.).

*Straight, Mrs. Emma, Teacher in State Normal School, Warrensburg, Mo.

Tingley, J., Teacher in Alleghany College, Meadville, Pa.

Whipple, Elliot, Principal of Academy, Bunker Hill, Ill.


Although not registered as a student, Mrs. T. B. Stowell accompanied her husband and cooperated efficiently in his work.
Whitman, C. O., Teacher in English High School, Boston, Mass. (Head Professor of Biology, University of Chicago, Ill.).

It is significant that at least six of those who attended the first summer school of natural history in America have been more or less directly concerned in the development of its improved successors in various parts of the country.

Of the forty-four persons on the above list, sixteen — more than one-third — were women. Coeducation — then hotly debated and regarded in some quarters as a bugbear — had not, apparently, with Agassiz even the dignity of existence as a problem. In his opening address the matter was disposed of in the following words:

As soon as the number of students was limited, we determined a question of no small moment, — whether ladies should be admitted. In my mind I had no hesitation from the start. There were those about us whose opinion I had to care for but did not know, so I thought the best way was not to ask it, but to decide for myself.

His decision was certainly consistent. The title of his thesis at graduation in 1830 was "Femina humana mari superior."1 For several years he had lectured almost daily in a school for girls conducted by his wife; and upon her intellectual companionship and cooperation he had become so dependent that he once declared to the writer with signs of profound emotion, "Without her I could not exist." Nor was his confidence in the desire and capacity of those women misplaced. With hardly an exception, their assiduity was notable, and they, rather than the men, required warning against overwork during what should have been their time of rest or recreation.

The age and position of most of the students and the circumstances under which they were placed precluded any expectation of disorder. The single untoward incident is mentioned as illustrating two of Agassiz's characteristics, viz., his hopeful willingness to afford individuals the benefit of any

doubt in their favor and his clear perception of the injustice of permitting an institution to suffer from the presence of such as prove unworthy of confidence. Among the men first admitted were three whose ancestry led Agassiz to overlook their youth and lack of experience as teachers. Early in the session they committed a breach of decorum which some might regard as amusing or as exemplifying the infallibility of the comfortable doctrine, "Boys will be boys." The next morning Agassiz simply announced that three young men had shown themselves undeserving and would leave the island before noon. What an object lesson in disciplinary methods for timid faculties!

The pupils, of whom, it will be remembered, nearly all were themselves teachers of more or less experience, proposed to form an "Agassiz Natural History Club" for mutual benefit. The instructors were invited to attend as honorary members. At one of the earlier meetings an afternoon was spent in elaborating a constitution, electing officers, etc. Agassiz sat silent and apparently motionless, but those nearest him could detect signs of increasing impatience, and when invited to address the club he spoke substantially as follows:

Gentlemen, — I had heard that Americans are famous for the perfection of their organizations, and of course order must be maintained in every association. But at best officers and by-laws are necessary evils. We shall not be many days together; surely part of this afternoon might have been better spent in the reading and discussion of papers. At any rate, that is what we should have done in Switzerland.

At the close of another meeting of the society Agassiz remained seated for some time as if reflecting, and when at length he rose and moved away it was with unwonted deliberation. On being questioned he replied, "I sat so long because I was not sure that I could walk. At times I realize that I am growing old and that I have not always used my strength wisely." Upon another occasion (recorded in my diary as August 8), referring to the recent death of a museum assistant (Dr. Maack), he said, "My time will come soon, and I am ready." Yet before his associates and pupils he main-
tained always a cheerful demeanor, and none suspected his condition to be such that his wife watched him with increasing anxiety, and during her occasional absences arranged a simple signal between his room and mine (directly below) which should notify me of his sudden illness or need of aid.

Saturday, the 26th of July, was a red-letter day for all. Minor events were the collection of a Gunellus, an Echineis, two rays, and one shark; the brains of all were exposed, compared by the class, and then preserved. The finding of eggs in the oviducts on both sides of a ray caused Agassiz great joy, while to most of us, hailing, as we did, from “fresh-water” institutions, it was a kind of revelation. But the crowning event was the arrival of Arnold Guyot, Agassiz’s fellow-student, collaborator, and life-long friend. Strongly contrasted in certain respects, but both eminently handsome, as they strolled about the island with arms thrown over each other’s shoulders, they made a picture at once charming and majestic and never to be effaced. They were united even in their discourses. Naturally, the advent of Guyot made glaciers a leading topic, and at a pause in the lecture of either the other would interpolate, “No, Louis,” or “Yes, Arnold; don’t you remember so and so?” etc. Indeed, the presence of Guyot constituted a natural climax to the scientific idyl at Penikese.

Yet the delightful spirit of the time and place did not preclude hard work. From morning to night and during the evening all were occupied. Whether guiding or following, imparting or receiving, demonstrating or observing, instructors and pupils alike were striving to increase both their own knowledge and that of others; nor does there rise in my memory a single instance of self-seeking upon the part of any connected with the school.

How else could it be with the example of the master ever before us? No longer young, exhausted not so much by work (although that had often been excessive) as by responsibilities and uncongenial administrative duties, commanding from one hundred to five hundred dollars for a single public lecture, yet often with “no time” to that end, at Penikese he lectured almost daily, sometimes twice a day, and was an attentive lis-
tener to the instruction of his associates. In the laboratory or in the field encouragement and inspiration emanated from him. In our minds he appeared encompassed by a halo of self-sacrifice that would have been only larger and more radiant could we have foreseen the impending result of his labors.

The situation has been feelingly described by one who could most keenly appreciate it:

It was to me supremely touching to see the great naturalist at Penikese a few months before his death devoting his last strength to a crowd of eager learners, directing them to the exclusive study of the book of nature, and showing them, by word and deed, how to observe it and how to be taught by these living realities.¹

Even had the future been revealed to Agassiz, it may well be doubted whether his efforts would have relaxed. A surprising benefaction had enabled him to materialize a long-cherished educational ideal, and he might have chosen deliberately to consecrate thereto the last summer of his life. In establishing, within three months, upon an uninhabited island not readily accessible, an institution where teachers—men and women alike—were led from the consultation of books to the personal interrogation of Nature, Agassiz not merely overcame the inertia of matter and the apparent limitations of time and space; like another Swiss, upon a different field, he gathered to his devoted breast the spears of ignorance and indifference, of covert ridicule and open opposition, and made way for the advance of knowledge along paths till then unbroken. “Peace hath her victories no less than War.”

Yet had there been no such material outcome as the many summer schools since established, all connected with the Anderson School in 1873 will regard those weeks as an epoch in their lives; to their pupils and to their pupils’ pupils forever will be transmitted the story of what was said and done, seen and heard while they had the honor and the happiness of being with Agassiz at Penikese.

¹ Guyot, Memoir of Louis Agassiz, p. 46.