hal-02331477, version 1 Article dans une revue

Ernst Haeckel's Radiolarians and Medusa: The influence of his visits to Villefranche on his science and his art

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Abstract : ABTRACT: Early in his long career, Ernst Haeckel (1834-1919) twice visited Villefranche-sur-Mer. First, as a student, in 1856 during a sampling trip to Nice, and again in 1864 when sent to Nice by his parents for a change of scenery following the untimely death of his first wife. The two visits appear to have been key events in the development of Haeckel's science and art as they are the beginnings of his studies, first on radiolarians, and then on medusa. During the 1856 visit he observed for the first time living radiolarians, the group of microscopic planktonic protists, the subject of his first monographic work in 1862 that brought him fame at a young age. During the 1864 visit he resided in Villefranche-sur-Mer. There, for the first time, he made detailed observations on the development and morphology of medusa. He subsequently produced monumental monographs on both radiolaria and medusa, e.g., the Challenger Reports, which remain today his major scientific contributions. Haeckel's artistic fame is largely from his Kunstformen der Natur. The book relies heavily on illustrations of both radiolarians and medusa, more so than other groups of organisms, and contains iconic images of medusa and radiolarians, suggesting a major importance in Haeckel's art for the two groups linked closely with Haeckel's visits to Villefranche-sur-Mer.

Keywords : microscopy 1 | History of science | plankton | scientific and artistic voyages

Type de document : Article dans une revue

Domaine :

Sciences du Vivant [q-bio] / BiodiversitÃ©

Liste complÃ¨te des mÃ©tadonnÃ©es Voir

LittÃ©rature citÃ©e [45 rÃ©fÃ©rences] Voir | TÃ©lÃ©charger

P iefs were influenced by his affinity for the German Roman tic movement coupled with his acceptance of a form of Lamarckism. Rather th eckel believed that racial characteristics were acquir ed through interactions with the environment and that ontogeny directly followed pl sciences to be instances of "applied biology" . Most of these arguments have been shown to be over-generalisations at best and flatly incorrect at worst in modern biology and social studies.[4] In 1905, Hae ckel Haeckel spent his life researching flora and fauna â€œfrom the highest mountaintops to the deepest ocean.â€ He not only discovered, described, and named thousands of new species, but captured their forms with his incredible illustrations. Rendered with graphic precision and delicate shading, Haeckelâ€™s work embraced the Darwin theory of evolution and helped to educate the world about microscopic organisms that were previously unseen. In 1864, Haeckel sent Charles Darwin, two folio volumes on radiolarians.Â In celebration of this series, Taschen recently published a 704-page book, titled The Art and Science of Ernst Haeckel. It features 450 drawings, watercolors, sketches from his research, and a collection of 100 prints of varying organisms originally published between 1899 and 1904. Haeckel also produced artwork, much of it quite beautiful, starting with his atlas of radiolarians, published in 1862. It has been argued that what he saw was influenced by Jugendstil, the Art Nouveau form popular in Germany at the time. Whether or not artistic style influenced Haeckelâ€™s illustrations, his illustrations certainly influenced later art forms, including light fixtures, jewelry, furniture, and even a gateway to the Paris Word Fair in 1900. In 1906 the Monist League was formed at Jena with Haeckel as its president. The League held a strong commitment to social Darwinism in which ma