

excavation. The fact, that these animals oftentimes dig several holes before selecting one for deposit, shows that they exercise a discrimination with regard to the fitness or unfitness of these several spots for the encouragement and rapid development of their young. When engaged in digging or laying, notwithstanding their habitual shyness at other times, they seem utterly unconscious of any intruder, but proceed in their occupation till it is finished, and then, trampling down and smoothing over the earth, so that when dry the place of the nest may not be noticeable, leave the spot and disappear among their usual haunts.

SECTION II.

DEPOSITION OF THE ALBUMEN AND FORMATION OF THE SHELL.

Before proceeding to describe the successive deposition of the albumen and shell around the yolk, a few words in reference to the functions of the various regions of the organ in which these deposits take place, will not be inappropriate. At the time of breeding, the bloodvessels of the ovary are unusually full, as if gorged with blood; and the black pigment cells so much increased, that the fold of the mesentery, to which the ovary is suspended, appears blackish, and black streaks accompany and overlie each bloodvessel¹ (Pl. 9b, fig. 9, 9a). Though numerous Turtles were opened from day to day, at the time when the eggs were passing from the ovary into the oviduct, (fig. 10,) yet so rapidly does this process go on, that not only was it impossible to catch the egg dropping from the one and entering the other, but even to find a single egg in or near the anterior part of the last-named organ. In one instance, however, the Fallopian tube was found in a state of turgescence, immediately after fecundation, and the trumpet gaping, as if open to receive the eggs dropping from the ovary. In all cases where the eggs had entered the oviduct, (fig. 11,) they were found in its lower part, some with shells, and others without this covering, and again a few with but little albumen around them. This we might almost have conjectured, had the thin, semitransparent nature of the pavilion and the immediate neighboring portion of the oviduct been considered from this point of view.

However, there need be no doubt now that at least one half, if not more, of the oviduct serves for just what its name indicates, merely to conduct the

¹ It will be shown in another connection, that the formation of pigment cells precedes everywhere the

appearance of bloodvessels, and stands in direct relation to their formation.