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## Georgia Department of Forestry and Geological Development

# **DIVISION OF GEOLOGY**

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# THE GEORGIA STATE MUSEUM

By

## G. W. CRICKMAY AND LANE MITCHELL Reprinted from Forestry-Geological Review, Vol. 6, Nos. 5 and 6.

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# HISTORY AND ARRANGEMENT OF THE STATE MUSEUM

#### By

### G. W. Crickmay

The Georgia State Museum was started in 1896 when material collected for the Georgia exhibit at the Cotton States and International Exposition of 1895 was turned over to Professor W. S. Yeates, State Geologist. Lacking any suitable museum in which to display these collections to advantage, they were placed temporarily in the corridors of the fourth floor of the Capitol, where they remain today. The Georgia exhibits at the Universal Exposition at St. Louis in 1904 were later added to the museum. These two collections became the nucleus of what has grown to be a very complete display of the natural resources of the State. The collection includes exhibits of Agriculture, Forestry, Mineralogy, Economic Geology, Paleontology, Ethnology, Entomology, Education, and Game and Fish.

Figure 1 is a plan of the fourth floor of the State Capitol showing the position of exhibition cases and offices. The floor in the diagram is divided arbitrarily into four quadrants, northeast (N.E.), northwest (N.W.), southeast (S.E.), and southwest (S.W.), and the cases are labelled consecutively in each quadrant. The central part is surrounded by four cubicles which are labelled A, B, C, and D. The room numbers are in oblique figures. Offices:

Entomology431-433Forestry434-435Game and Fish411-413Geology425-426House Gallery408-410Industrial Relations, offices418-421hearing room424Ladies' Room427Library Commission400-402Men's Room407Pensions404-406Prison Commission414-417Senate Gallery428-430		
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Soldier Roster Commission403Superior Court offices422-423Temporary offices of Forestry

Division \_\_\_\_\_\_408-410, A.B. Agricultural exhibits consist of displays of cotton, grain, fruits, nuts, and soils in cases S.E. 11-12, and S.W. 18-20. Particularly noteworthy is a cotton stalk from northern Fulton County upon which there are more than 700 open bolls, said to be a world's record (S.W. 18).

Forestry of the State is represented by a complete collection of tree sections showing the bark and character of wood cut and polished (S.E. 1-2, S.W. 2, and exhibit in front of cubicle A). Each tree section is tagged with a map showing the distribution of the species in the State. Exhibits of rustic furniture are to be found in the north corridor near case N.E. 14, and a maple mantle in the east corridor between rooms 427-428.

The mineral collections contain specimens of nearly every mineral known to occur in the State. These are arranged along the northeast corridor in cases N.E. 5-12, according to chemical composition. Special mineral cases include an exhibit of gem stones S.E. 5), the William B. Pitts mineral collection (S.E. 4), school museum collection (S.E. 3), fluorescent minerals (N.W. 2). Rocks and miscellaneous minerals are to be found in cases N.W. 4, 7, and 10 and S.W. 14 and 16. Of special interest is the Social Circle meteorite (N.W. 13).

Economic Geology is one of the main interests of the Division of Geology and thus it is to be expected that commercial minerals of the State should receive a large share of available space. The collections include displays of non-metallic minerals with products manufactured from them; kaolin and products (N.W. 5, 8), clay, brick, and tile (N.W. 9), asbestos and lubricants (north corridor near N.E. 13), building stones cut in eight-inch cubes of which each face is differently finished (in front of cubicle C). Marble columns are in the north corridor. Of particular interest is a large slab of polished marble (N.E. 3) which consists of four pieces sawed from the same block and mounted so

403 that the grain of each matches in a continuous pattern. The ore minerals include bauxite and aluminum products (N.W. 6), iron ores, both soft oxides (N.E. 14, N.W. 3) and hard sulphides (N.E. 13), gold s in (north corridor near N.W. 13) and gold nuggets (S.E. 6), manganese ores (north corridor near N.E. 14).

Paleontology (study of past life of the earth) is represented by a number of fossils ranging from very ancient forms of life to very recent (S.W. 12, 15, and N.W. 7, 10). Space does not permit additions to the fossil exhibits even though these highly interesting records of life in ages past have much popular appeal Three exhibits of particular interest are ancient trees of the type which make up part of some coal beds (N.W. 7), petrified tree trunk (N.E. 1), and teeth of prehistoric horse, mammoth, and mastodon (S.W. 12).

Ethnology (study of prehistoric man) has unfortunately not had the undivided interest of one department, and therefore the exhibits in this field are limited to a few implements, bowls, pipes, and arrow heads (S.W. 13, N.W. 4). The recent excavations at Macon have shown that Georgia has a wealth of ethnological material which is worthy of preservation and display New material is constantly being unearthed but without an adequate museum for its preservation Georgia stands to lose specimens which can never be replaced or duplicated. When a Georgia State Museum is built it should be provided with a hall of ethnology.

Entomology has exhibits showing the destructive work done by insects, parasitic plants, and other pests to the crops and forests of Georgia (S.E. 7-10). The display is intended to show the various types of pests and disease so that proper control methods can be applied but the effectiveness of the exhibit is marred by the fact that the cases themselves are so old that they, too, show the injurious activity of insects. Most of the cases in the museum are more than thirty years old, and it is long past time when they should be replaced by modern steel cases.

Educational cases (in cubic C) con-

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sist of specimens of work done by pupils thence east by the agricultural cases to in public schools.

Game and Fish exhibits include a large collection of native birds (S.W. 1, 5, 7-9, 17), a habitat group (S.W. 4) showing several animals against their native background, and a collection of bird eggs (S.W. 3). There is an instructive case on snakes and snake-bite remedies (S.W. 10). Whales are strictly neither game nor fish but the collections contain two whale jawbones (cubicle D) which attract much attention

A state museum has inestimable value if it displays to advantage the resources and natural history of the state. It advertises and it educates in a way that can not be duplicated by the written report, and it affords a safe depository for historic and prehistoric records. The poorly lighted corridors of the Capitol do not constitute a good museum, and it is high time efforts were made towards the erection of a permanent museum built on proportions commensurate with Georgia's wealth of natural history. A museum is one of those things whose value can not be expressed in dollars and cents. It may be expensive to build but no state which has gone to this expense has ever failed to maintain and add to the museum. Much of our Georgia material finds its way into the large museums of the north because there is no state museum. A case in point is the recent finds of mammoth and mastodon near Savannah. Museum staffs in other states are eager to obtain specimens from this find but the material retained for exhibition in Georgia remains packed in boxes in a stable. For forty years the Georgia exhibits have been resting in a temporary position waiting for appropriate action from the State Legisature. Is it to remain this way? Or is Georgia to demonstrate that she is equally or more progressive than her neighbors?

## A PERSONALLY CONDUCTED TOUR THROUGH THE STATE MUSEUM By Lane Mitchell

Starting with the cases immediately in front of the State Geologist's office (425) our tour shall progress down the east corridor by the Senate balcony to the north side of the building, thence alongside the classified mineral cases to the northernmost corridor, thence west by the marble columns and meteor to the large display cases in the western corridor to the elevator, thence east to the display of economic geology where we reverse directions and go through booth housing the display of Flourescent Minerals. Being again beside the elevator, we shall go south past the House of Representatives' balcony to the south end of the building passing by the bird cases to the archaeology and paleontology cases to the southernmost corridor,

the east corridor where we go north to the State Geologist's office, the original starting point.

With our direction of travel now decided on and with occasional reference to the floor plan of the State Museum, we should not encounter any trouble in seeing everything in the museum. Let us then get back to our starting point and begin the tour.

The gold case (S. E. No. 6) contains a number of gold nuggets purchased by the State some years ago. These nuggets were found in river beds, either ancient or modern, where they had collected through the centuries after being washed out of the rocks containing them. The nuggets are exactly as found in the stream bed, with surfaces polished and rounded by action water. One theory suggests of thegold that dust might accumulate and become compressed into a larger nugget by the pounding of rocks and gravel but no one knows that this is the case. It seems more likely that large lumps of gold were detached from their original hiding places and carried into the rivers to be polished and rounded. Most gold today is recovered from hard rock mining and the usual quartz gold ores show no free gold to the naked eye. The ore in this case showing little threads and masses of gold is very unusual ore. The gold coins were minted in the United States mint which used to be at Dahlonega.

Back of the gold case is the semi-precious stone case (S. E. No. 5). Here we see the examples of Georgia stones which can be cut and polished for jewelry. No very valuable stones have been found in Georgia, unless reported finds of diamond and ruby have some truth in them. The gem case shows forms of quartz as rock crystal, smoky quartz, amethyst, rose quartz, rutilated quartz, chatoyant and opalesent quartz, agate, jasper, and opalized wood. Other gem stones displayed are beryl, garnet, moonstone and staurolite. The case also contains specimens of flexible sandstone, lighting-formed sand tubes called fulgurites, and a tiny meteorite. A glass replica of the famous Jonker diamond is also included.

In case S. E. No. 4 you will see the Pitts' collection of polished stones. Mr. Wm. Pitts, formerly of Georgia, now collects stones from all over the world and cuts and polishes them. His collection in this museum contains petrified wood slabs, beautifully polished slabs of colored stones, and numerous stones cut in gem fashion. Among these are several Georgia stones, the most notable being the red corundum which but for the flaws would be a real ruby.

The next case contains some unusually pretty mineral specimens which have been brought into the State Geologist's office. A complete set-up of one of the small museums furnished by the Division of Geology claimed for it As a matter of fact there

to high schools and colleges of the State is also in this case.

Next we see a complete collection of tree sections showing the bark and wood of each of the trees native to Georgia. A map attached shows the distribution of the species throughout the State.

An old mantle in the east corridor shows use of Georgia maple and verde antique marble.

In cubicle D is a model of the home of Alexander Stephens, Vice-President of the Confederacy. The home at Crawfordville, Georgia, is now the site of a State Park. On the floor beneath this exhibit are large whale bones found in the Georgia Coastal Plain. At the end of this hallway opposite office 431 are some cases containing mounted butterflies and other entomological specimens. To the west in the hallway running over toward the elevator are several blocks of marble and a case of assorted minerals (N. E. 2, 3, 4). Now let us turn about and face the wall behind us. There hanging on the wall is a beautiful slab of creole marble, cut from a slab in four pieces and arranged so that the center pattern is symetrical. Many people imagine seeing the design of a frog or turtle in this piece. At world fairs this slab has won several gold medals.

Now we shall proceed down the east corridor by the mineral cases. The specimens in these cases (N. E. 5 through 12) represent nearly every mineral ever found in the State. The minerals are classified according to chemical composition in the most widely accepted manner called the Dana System which groups minerals as native elements, sulphides, oxides, carbonates, silicates, etc. Our direction of travel makes us view this arrangement in reverse order. To call attention to a few of the mineral specimens: for instance, as we pass by the first case (N. E. 5) we see barite and talc and kindred minerals. The second (N. E. 6) contains the mica, garnet, kyanite, and tourmaline. In the next (N. E. 7) is the asbestos, feldspar and calcite. Then in case N. E. 8 we find the maganese ore, pyrolusite, and the aluminum ore, bauxite, and the iron ores. Case N. E. 9 contains world famous rutile crystals from Graves Mountain and some near gem quality corundum. Amethysts and other quartz types predominate in the next two cases (N. E. 10 and 11). In the last case (N. E. 12) we find pyrite or pyrites, the sulphide of iron which is so commonly mistaken for gold and hence called "fools' gold."

Turning west here along the northernmost corridor we pause at another case (N. E. 13) of sulphide minerals, principally pyrite, and see an instrument included in the case of a type which was fraudulently exploited and sold to the public as a divining rod, an instrument capable of locating precious metals by some magical property



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is no such instrument worthy of faith by the public. Hazel sticks, mineral finding needles, and all other divining rods, "doodle bugs," or water witches are fakes and have no real value to the honest seeker of mineral deposits.

Along the wall of the northernmost corridor are cases containing some of the ore minerals. You will notice that the gold ores are principally iron stained vein quartz and it is doubtful if you can see one particle of gold in all the specimens. Modern refining methods can, however, remove the particles too fine to be seen and concentrate them into larger quantities.

The classical columns standing upright along the center of this hallway are all cut from Georgia marble.

The largest meteor ever found in Georgia comprises exhibit N. W. 13. This meteor is composed of iron and nickel and fell in the vicinity of Social Circle, Georgia. No one saw it fall and it was determined to be a meteor by its nickel content, no earthly alloy containing such a large quantity of nickel as is present in meteors. The weight of this large meteor is 219 lbs.

Case N. W. 11 contains shells, marls and limestones.

The large upright cases in the west corridor contain exhibits of mineral products. Case N. W. 12 contains fire brick and refractories made from Georgia clays. Case N. W. 9 contains Georgia terra cotta, whereas case N. W. 8 shows use of Georgia kaolin in china ware and paper coating. The next case shows modern aluminum ware as made from the metal extracted from Georgia bauxite.

contain clay and odd mineral specimens. The cases in this hallway alongside the wall (N. W. 7 and 10) also contain odd assorted specimens of rocks, minerals and fossils. Case N. W. 4 immediately opposite the elevator also contains several interesting Indian relics and artifacts.

Turning east in the corridor running across the building from the elevators we see a stand containing numerous blocks of stone. These blocks represent most of Georgia's commercial building stones finished in several different ways on the different faces of the cubes.

A petrified tree trunk comprises exhibit N. E. 1. In cubicle C are educational cases, sandstone and granite specimens, and a stuffed alligator.

Here we turn and go through the entrance to the Fluorescent minerals exhibit. Directions for operating this display are painted on the cabinet windows. The ultraviolet rays from the lamp are changed when they strike the minerals in this case into visible light and the rays reaching the eye are of brilliantly colored light. In ordinary light these same minerals have quite a different appearance as can be seen.

Now as we go down the west corridor we see some unusual geologic specimens on top of the storage cabinets. Further along, in case S. W. 1 we see birds of Georgia and (S. W. 4) a possible scene in warm south Georgia.

In the corridor running to the east is a case (S. W. 3) showing eggs of Georgia birds and displaying some of the literature Cases N. W. 5 and 4 beside the elevators of the Game and Fish Department.

Going south now in the western corridor, we pass by cases (S. W. 5, 6, 7, 8, 9, 10, 11) containing stuffed birds and animals and one (S. W. 10) containing an educational exhibit of rattlesnake bite remedies.

Shells, shark teeth, ancient elephant and horse bones and other fossils from the Coastal Plain of Georgia are found in case S. W. 12.

Arrowheads, Indian artifacts, and Civil War relics are in case S. W. 13.

The next three cases (S. W. 14, 15, 16) contain more rock and fossil specimens. The large corals in case S. W. 15 are skeletons of creatures which once lived in the sea that covered the area now northwest Georgia. The fossil plant in the same case is of a type that once flourished in a warm humid climate and later was converted into coal such as we burn today. Both of these fossils came from northwest Georgia where remains or casts of creatures and plants that lived in Paleozoic time are found.

The cotton stalk in case S. W. 18 is claimed to contain a record number of bolls. 715 open bolls on this stalk were counted. The specimen came from north Fulton county and was grown in 1912.

Agricultural exhibits and soil specimens are displayed in the large upright cases in the southernmost corridor (S. W. 19 and 20 and S. E. 11 and 12).

Going north in the eastern corridor we pass by cases containing various pictures and specimens of insects and their destructive work.

Opposite office 425 we reach our original starting point. Questions will be gladly answered in the office of the State Geologist.

