

CREDIT SALE.
 By Virtue of a Decree from the Court of Equity, I will offer for sale, at public auction, at the Court-House in Charlotte, on the 4th Monday in January, 1832, one undivided half of a valuable tract of Land, lying on the waters of Paw Creek, joining the lands of Wm. Carson, the heirs of Wm. Sharply, dec'd., the Myrtle mine tract, and others, belonging to the heirs at law of Margaret Patterson, dec'd., and sold for the benefit of partition among said heirs. Said tract of land contains about 254 acres, on which there is a valuable Gold mine, which has been worked for several years. 12 months credit will be given—bond and security required.
 Also—on the same day, at the same place, and by the same authority, I will sell one other tract containing 110 acres, belonging to the heirs and representatives of James Lemons, dec'd., adjoining the lands of Jane Lemons, Wm. Lucky and others; sold for the benefit of said heirs, on a credit of 12 months—bond and security required as above.
 D. R. DUNLAP, C. M. E.
 769—pr. adv. \$2½

VALUABLE
Catawba Land for Sale.
 PURSUANT to a Petition filed in the Court of Equity for Lincoln county, by Israel W. Hayne, Harriet Eloisa and Sarah Hayne, infants, by their Guardian, and in obedience to a decree of said Court, I shall sell, at Public Auction, before the Court-House door in Lincoln, on the 17th day of January next, (being Tuesday of the County Court,) a valuable Tract of Land, lying in said county, near the Buffalo Shoals, on the Catawba river, containing about 220 acres.
 The above land is represented to be first rate as to soil, and well timbered, with a small improvement, and about 25 or 30 acres of fresh cleared ground.
 Persons wishing to purchase a good farm, would do well to view the premises, and attend the sale. Conditions—one and two years credit—bond and approved security required.
 By order of the Court,
 JNO. D. HOKE, Clerk & Master.
 Nov. 15, 1831. 666—pr. adv. \$2½

Tin and Sheet-Iron Ware MANUFACTORY.
 J. SUMNER & CO.
 RESPECTFULLY inform the citizens of Charlotte, and the public generally, that they have commenced the above Business at the old stand formerly occupied by E. M. Bronson, and recently by Capt. Tho. A. Mera as a grocery, on Main street, a short distance north-east from the Court-House, where they intend to keep on hand a good assortment of Ware, and expect to be able to supply at wholesale or retail, on the most reasonable terms, all who may favor them with their custom.
 JOS. SUMNER & Co.
 N. B. All kinds of Job Work in their line done at short notice. W. wanted, an Apprentice to the above business; one who can come well recommended, will receive suitable encouragement.
 6nt7d

Charleston and Cheraw. THE STEAM BOAT MACON,
 Capt. J. C. Graham, having been engaged the last summer in the trade running between Charleston and Cheraw, calling at Georgetown on her way up, and down, will resume her trips in the course of a few days, and is intended to be continued in the trade the ensuing season. The exceeding light draft of water, drawing only four and a half feet when loaded, will enable her to reach Cheraw at all times, except upon an uncommon low river, when her cargo will be lightened at the expense of the Boat.
 Comfortable accommodations for a few passengers, with all due attention.
 J. B. CLOUGH.
 Charleston, Sept. 26, 1831. 564

REMOVAL.
 THE SUBSCRIBER respectfully informs his friends and customers, that he has removed from his old stand to the Store nearly opposite R. C. Hattaway, formerly occupied by J. B. Berns, where he will keep constantly on hand every article suitable for the back country trade.
 FRANCIS WILSON.
 Cheraw, Oct. 18, 1831. 57

MY HOUSE, (the Post-office) on the Cross street, a few yards north-west of the Court-House, in Lexington, N. C. is again opened for the reception of Travellers & Boarders. The stables are extensive, roomy and dry; grain and provender of the best, plentiful, and served by good hostlers. The house has many comfortable rooms, serves a good table and refreshments; and the proprietor and his family will omit nothing in their power to make it most quiet and agreeable.
 B. D. ROUNSAVILLE.
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40 Dollars Reward.
 TWENTY DOLLARS of the above will be paid by the subscriber, for the detection of the thief or thieves, and Twenty Dollars for the recovery of the property, stolen from the Mill at Cozzen's Store, on the night of the 26th or 27th of November last, consisting of a large quantity of Quicksilver, with some Gold in it.
 J. HULME.
 Curritton, Mecklenburg Co. }
 Dec. 8, 1831. } 669

SHERIFFS' DEEDS,
 FOR Lands sold for Taxes; for Lands sold under a Writ of Fieri Facias; and for Lands sold under a Writ of Venditioni Exponas—for sale at this Office.

Pores of the Human Body.
 The skin of the human body, is a very curious object for the microscope. By cutting a thin piece with a very sharp penknife or razor, and applying it to a good microscope, a multitude of small pores will be seen, through which the perspirable matter is supposed to be perpetually transmitted. These are best seen in the under or second skin. There are said to be 1000 pores in the length of an inch, and of course, in a surface an inch square there will be 1,000,000, thro' which, either the sensible or insensible perspiration is continually issuing. If there are 1,000,000 pores in every square inch, the following calculation is made of the number in the whole body:
 The surface of the body of a middle sized person, is reckoned to contain fourteen feet; and as each foot contains 144 inches, the number of pores will be estimated at 1,000,000 × 144 × 14 = 2,016,000,000, or two thousand and sixteen millions.

GEOLOGY.
 From Silliman's Journal of Science and Arts.

PRINCIPLES OF GEOLOGY.
Condensed view of the discoveries respecting the structure of the earth, which have produced the modern practical system of Geology.
 Extracted from Phillips' Geology of Yorkshire.

Having considered the internal structure of our planet, and shewn how the rocks succeed one another in a fixed order, and rise successively to the surface; how variously they are filled with the monumental reliquia of organic beings which existed during the remote ages, when the secondary strata were deposited beneath the ocean; and also examined the effects of convulsions within the solid substance of the earth; it becomes necessary to turn our views to the surface. The external features of the earth afford many interesting subjects of reflection, and are replete with memorials of mighty changes. Though it cannot be supposed that, by investigation of its present appearance, we should be able to determine completely its former condition, enough is known to assure us that after the earth was dried and made habitable, its whole surface was again submerged and overwhelmed by an irresistible flood. Of many important facts which come under the consideration of geologists, the "Deluge" is, perhaps, the most remarkable; and it is established by such clear and positive arguments, that if any one point of natural history may be considered as proved, the deluge must be admitted to have happened, because it has left full evidence in plain and characteristic effects upon the surface of the earth.

Formerly, indeed, when geology was in its infancy, a wrong method was followed, and the fossil shells and other organic remains, which were certainly deposited in the rocks before the deluge, were appealed to as evidence of that event. This mistake was natural enough in that early period of the science, but at present cannot be maintained, without a gross anachronism. Examine where we may the action of moving water, whether in little mountain rills, lakes ruffled by the wind, flowing rivers, or on the margin of the sea, we every where perceive the same effects; stones smoothed and rounded, masses crumbled and disintegrated. We may trace old channels of rivers by the pebbles left in them, and the set of the tide by their accumulation on the shore; in a word, the action of moving water is known by its effects. As the old channel of a rapid stream is filled with pebbles that declare the force of the current, so the whole earth is covered by pebbles, the wreck of a general flood. Filling the vallies, over-spreading the plains, and covering the hills, rounded stones, of all sizes and all kinds, mixed together in as much confusion as pebbles on the sea-shore, (fragments of all the known rocks which compose the interior of the earth,) are profusely scattered on its surface.

It is impossible to account for the vast heaps of this gravel by supposing that it might be laid in its present situation by any streams such as now water the earth. For it occurs abundantly in places where streams do not run, where, indeed, they never did run; neither is it confined to such narrow paths as serve for the passage of rivers, nor is it laid in such forms, but is casually and unequally spread over all the face of the country. The blocks of stone which have been thus rolled from their native sites, are, in some cases, of so vast a magnitude, and have been so strangely carried, even a hundred miles or more, over hill and dale, that in vain do we think to assign any other cause for the phenomena, than a great body of water moving upon the earth. With regard to the force of this water, various facts, which have fallen under my repeated examination, may give some idea. On Shap falls in Westmoreland, a reddish granite is well known, and its blocks are at once recognized by large interspersed crystals of felspar. Now, by the force of the great currents of water, blocks of this granite have been scattered over a large tract of country to the south, where masses, some tons in weight, rest on high ground near Sedbergh; and when the Lancaster canal was made, such were found of great size in deep cutting, near the town of Lancaster. Eastward, this granite has been carried by other currents of the same water, over the deep vale of Eden, and the lofty range of hills which extend along the western border of Yorkshire and Durham, across Stainmoor forest, down the vallies of Durham, and the northern dales of Yorkshire, across the vale of York, and the hills of the eastern point of the county, to Scarborough and Flamborough-head, where it rests on the summit of the cliff one hundred miles from its ancient situation. This is one of many instances. The dispersion of sienitic rocks from Carrock-fell, Cumberland, of granite from Ravenglass, and of whinstone from Teesdale, is not less remarkable. Such facts cannot be seen without astonishment, nor contemplated without full conviction.—As to the height of this flood in our own country, the sides of Ingleborough, on which rest fragments of rocks transported from Keswick; the brow of Stainmoor, which supports large masses of granite; and the top of the Carrock-fell, from which so large a quantity of sienite has been removed, demonstrate that our proudest hills were over-

flowed; and as to the extent, all countries

acknowledge the wide-spread visitation:—the deluge covered the whole earth.

The deluge is a great feature in the natural history of the earth, and it is highly desirable to fix the period of its occurrence; not to estimate how many centuries have passed away since it happened, nor how long it remained upon the earth; (such knowledge must be gathered from other sources;) but its relative place in the succession of phenomena which have visited the earth: for, in my mind, those geologists have been ill-advised, who, in the present state of science, affect to form a chronology of nature for comparison with the records of history. But the order and series of events may be read in the books of nature, and by inspection of them, two propositions are demonstrable.

First: That the deluge happened after the stratification of the earth was completed. The proof is easy: whoever will examine gravel-pits will be soon convinced of its truth. For in some part or other, the diluvial accumulations contain fragments of every known rock; masses of the old rocks carried many miles and dispersed over the more recent; and again, pieces of the more recent, washed upon those which are more ancient. Either of these examples is sufficient, because it proves that all the strata were completed before the period of the deluge.

Secondly: The deluge happened after parts of the earth were dry, and inhabited by land animals. On this point the evidence is so plain, simple, and convincing, that he must be indeed strongly armed in scepticism who does not yield to its force. For we find in gravel accumulated by the deluge, the bones of many land animals, as the elephant, hippopotamus, horse, ox, deer, &c. Therefore, it is perfectly plain, that such animals lived before the flood.
 What a noble field of enquiry does this comprehensive truth open before us! To study the remains of a multitude of creatures which have been extinct for some thousands of years, and whose living analogues dwell only in distant and different countries. Cold as is our climate, and now utterly unfit to maintain the existence of such animals, the time has been, if we rightly understand the history of the earth, when elephants and hippopotami, tigers and hyenas, lived here together, and here together met the common doom of all inhabitants of earth, destruction by overflowing water.—And not inconsiderable was the number thus destroyed; for almost every gravel pit and diluvial cliff, and limestone cavern, abound with their remains; some of which, by their unusual proportions, indicate the gigantic size and formidable strength of antediluvian quadrupeds. By comparing them with existing species, we are enabled to conjecture the antediluvian condition of the world, with what vegetables it was clothed, and with what climate it was blessed. No scope need be given to fancy, the truth of analogy, the known conformity of nature, are sure guides to the geologist.

To discuss the interesting questions arising out of this magnificent subject, would be deviating from the elementary plan of this chapter. We must, therefore, refer to the works of Cuvier and Buckland for full illustrations of the forms and habits of antediluvian animals, and the circumstances under which they are discovered: whether in gravel-pits inland, and in cliffs by the sea; or in caves and fissures of limestone, into which they were dragged to death by their ravenous contemporaries, or fell by accident, whilst browsing among the rocks, whose open chasms the deluge has since concealed.
 But it will be demanded, What changes in the surface of our planet were occasioned by these devastating waters? Was the antediluvian earth diversified by the same hills and vallies, the same precipices and cliffs as we now behold, or was all this beautiful variety of surface occasioned by that flood, or is it the result of subsequent causes? These points have been resolutely debated by different theorists, and the most furious contests happened, as usual, whilst the facts were but half understood. But the controversy has been gradually quieted; and geologists having learned to agree upon facts, have ceased to dispute about opinions, the time is come when the observers of nature have imbibed a spirit of calm and limited induction, which leads to candid agreement or modest dissent.

No one who considers the extensive tracts formed of the diluvial detritus, can doubt that great alterations were occasioned in the features of the earth's surface, at the period of the deluge. All the solid land of Holderness is an accumulation of this kind, from the ruins of other parts of England and Scotland, and perhaps Norway. If hills were known before the flood, their present peculiar shapes must be dated from that event; and if vallies were then in existence, they must have been deepened and widened, or possibly filled up and obliterated. But that the whole antediluvian surface of the world was even and uniform, is altogether improbable. For, to a very considerable extent, the great features of the earth's surface are determined by peculiarities in its internal construction. Its highest ranges of mountains are composed of one set of rocks, but its widely extended plains are based on another. Obviously, therefore, these great distinctions are not only antediluvian, but aboriginal. There are, also, many lesser features of this kind, which must be carefully selected from the phe-

nomena ascribed to the deluge. Many great natural depressions or wide vales are produced, evidently by the convergence of opposite declinations of strata: as the great vale of the Thames is occasioned by meeting dips from Hertfordshire and Surrey; and such are, doubtless, antediluvian. Many geologists believe that, from some unexplained causes operating during their deposition, some strata were originally deposited at higher elevations than others; that, for example, the lower part of the coal series was made to attain elevations not reached by the upper part of the same series; and that the new red sandstone was never in England placed at so great an altitude as some of the strata which lie above it and below it. In these instances, therefore, it has been concluded that the antediluvian features of the earth were not very different from what we now witness: and these instances admitted to their full extent, actually include the most striking variations in the surface of the earth; for it is certainly true, that the great mountain ranges which seem to compose the skeleton of the earth; the wide oceans, plains, and level tracts, and even the remarkable lines of secondary hills and most extensive vallies, are placed in accordance to the interior structure of the earth. Hence, it follows that we must limit our inquiry, as to the changes produced on the surface of the earth by the deluge, to the vallies and hills which seem evidently to have derived their peculiar features from currents of water, since the consolidation of the strata. Even thus limited, the subject is ample, fertile, and instructive. Many vallies in a secondary country are excavated through several strata, as limestone, clay, and sandstone, which appear on the opposite sides in most exact agreement as to thickness, composition and mode of arrangement. That such rocks were originally deposited in continual planes, and, therefore, once connected across the chasm or valley which now divides them, can hardly be doubted. The vallies themselves bear marks of their origin; their bottom is a continued plane; their sides correspond with answering sinuities; and their peculiarity suggests the action of decurrent water. From the time of Pythagoras to the present day, every unprejudiced observer of nature has concluded that such vallies were cut out of the planes of the consolidated strata, through one, two or more rocks, according to the depth of the excavation, and in this or that direction, according to the facility with which the materials were abraded. These were called vallies of denudation, and they are very numerous and extensive. In western Yorkshire, the great mining vallies of Teesdale, Swaledale, Yoredale, and Wharfedale, are magnificent examples, and strongly impress the mind with the power of the currents which occasioned them. In the eastern part of the county, the vallies of the Derwent below Malton, Rievaulx and Bilsdale above Helmsley, Newton Dale above Pickering, and Hackness near Scarborough, are remarkable and beautiful instances.

There is one circumstance of common occurrence, which yields so absolute a proof that vallies were formed at periods subsequent to the deposition of the strata, and is in itself so curious, that though few will seek more satisfactory evidence than in each case each valley furnishes, it deserves to be mentioned. Some vallies cross and cut thro' vertical strata, which must necessarily have been at first deposited nearly horizontal.—Therefore, such vallies were not produced till after the displacement of the rocks.
 No one has carried his speculations on this subject so far as Dr. Hutton, who maintained that vallies were, in all cases, scooped out by the streams which ran in them. This is a characteristic part of his system of decaying and renewing worlds, and whoever views the minute, though imperceptible effects of our rivers, need not cavil at the ample time he allows for their producing such effects as the denudation of vallies. But this opinion clashes so directly with plain facts, as to be wholly inadmissible. How can we apply such an hypothesis to those numerous vallies in the plains of chalk in Yorkshire, Wiltshire, and Dorsetshire, which have never carried water in the memory of ages, down which, indeed, no trace of a channel can be seen? Yet they are branched like the vallies of other districts, have all their sinuosity of course, and regular declination, but the soil and stratum are too absorbent to be moistened by the most hasty rain.

The excavation of vallies can be ascribed to no other cause than a great flood of water which overtopped the hills, from whose summits those vallies descend. Such a flood, put in violent motion, might, we may suppose, by its currents and eddies, scoop hollows which afterwards, on its retreat, would be extended in long connected vallies. From the best and most independent evidence we have shewn, that such a flood has once overflowed the earth since the consolidation of its surface; and as we have no proof of more than one such flood, and as there seems to be no contrary evidence, it is probably to the deluge we must ascribe the excavation of vallies.

But the deluge has long passed away, and other events have materially changed the face of the earth. Did not the voice of history and tradition teach us the great antiquity of that catastrophe, we yet might assure ourselves of it by the contemplation of nature. For when we find the diluvial de-

posits of clay, pebbles, and bones, covered by shell-marl, silt, peat, and large uprooted trees,—accumulations which proceed so slowly in our days, as to be hardly perceived in operation,—there is reason to conclude that a long period separates us from the date of the deluge. And when, in these new accumulations, we find the bones of postdiluvian animals, which have become extinct through accident or persecution, as well as of others, whose successors still exist in the neighborhood, we may, perhaps, think that little is wanting to complete the evidence of this portion of the physical chronology of the earth.

Werner, and most of the moderns, consider the phenomena which have been unfolded by geological research, as the effects of causes no longer in action. But Dr. Hutton believed that all the revolutions which have visited the earth, were but the result of the ordinary operations of nature, continued thro' very long periods of time. He was of opinion that what is now sea, was formerly dry land; and that by the action of rains and rivers, materials are accumulated on the bed of the sea, to produce the strata of new continents, which by some convulsion, like many that have happened before, will be uplifted and laid bare, whilst that part of the earth which we inhabit, will be sunk under the new ocean. To this hypothesis it may be objected, that it ascribes to the ordinary agents of nature, effects which appear much beyond their power. General changes in the relative situation of sea and land have been often supposed, but never established by evidence; for Cuvier's conclusions drawn from the alterations of marine and fresh water formations, apply only to limited districts; and since well-conducted inquiries into the natural history of antediluvian quadrupeds, have shewn satisfactorily that they lived before the flood over a very large portion of the present continents, we have proof that at the period of the deluge, the sea and land did not change their relative situations.

The natural agents now employed in altering the face of the globe, are fire and water. The former forces fluid matter from the interior, and spreads it around the volcanic mountains; the latter is incessantly occupied in lowering heights, wasting and smoothing precipices, filling up vallies, and equalizing the surface.
 (To be continued.)

When the wide ocean maddening whirlwinds sweep,
 And heave the billows of the boiling deep,
 Pleas'd see from land the reeling bark survey,
 And rolling mountains of the watery way.
 Not that we joy another's woes to see,
 Nor to reflect that we ourselves are free.
 See, the dread battle rang'd in distant fields,
 Ourselves secure, a secret pleasure yields.
 But what more charming than to gain the height
 Of true philosophy? What pure delight
 From Wisdom's citadel to view below,
 Deluded mortals, as they wandering go
 In quest of happiness! ah, blindly weak!
 For fame, for vain nobility they seek;
 Labour for empty treasures, night and day,
 And pant for power and magisterial sway.
 Oh, wretched mortals! souls devoid of light,
 Lost in the shades of intellectual night!
 Dr. Busby's Lucretius.

EDUCATION
 Creates a just standard of moral character in a Village.

In such a village no haughty and proud aristocracy will ever lord it over a virtuous, but poor democracy. Each inhabitant will stand or fall, accordingly as his moral and intellectual, but not as his natural and bodily endowments shall be appreciated.

In heathen lands, where ignorance envelopes the mind in worse than Egyptian darkness, and nothing but the body is attended to, men are estimated by the strength of the muscular powers, and the height of their worldly goods. In a christian and civilized place, the distinctions of nature and art are lost in the loveliness of moral worth. It will not do for a man there, to plead as a reason for his advancement, merely that he has the strength of a Hercules, or the riches of Cræsus. He must display a higher passport to the esteem of his fellow-citizens. He must shew that he has the mind of a scholar and a christian;—that his influence is the result of moral and intellectual worth, not of bodily strength and external splendor. In such a village, Lazarus the beggar, with an honest heart, will fare much better, eventually, than the wicked rich man clothed in purple and fine linen, and faring sumptuously every day. For the inhabitants will know enough to look at mind and not at matter, in their estimation of men. The first question they will desire to settle concerning any candidate for their confidence, or their esteem, or their assistance, will not be,—is he rich?—or is he mighty?—But is he good?

It was this simple but mighty power, of a moral and religious education which in our own country, gathered together, in the year 1774, a body of men concerning whom one of the most eminent English statesmen,—I allude to the Earl of Chatham—said— "For myself, I must declare and avow, that in all my reading and observation, and it has been my favorite study;—I have read Thucydides and have studied and admired the master spirits of the world,—that for solidity of reasoning, force of sagacity, and wisdom of conclusion, under such a complication of difficult circumstances, no nation, or body of men can stand in preference to the General Congress of Philadelphia."